

Qu'est-ce qui fait courir  
l'action publique en matière  
de mobilité urbaine?

# LA FABRIQUE DU MOUVEMENT

UNIVERSITÉ — **THE  
MAKING  
OF  
MOVEMENT**  
— PARIS-EST

LA FABRIQUE  
DE LA  
CITÉ



what is it that drives  
public action on urban mobility  
issues?

# THE MAKING OF MOVEMENT

UNIVERSITÉ — **LA  
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— PARIS-EST

LA FABRIQUE  
DE LA  
CITÉ



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# Sommaire

**Introduction:**  
**La Fabrique du mouvement,**  
**recherche internationale**

**I. Le programme de**  
**la conférence**

**II. 10 villes, 30 études de cas:**  
**abstracts**

**III. Les premiers rapports**  
**d'étonnement**

**IV. De quelle(s) ville(s) rêvent**  
**les étudiants du monde?**  
**premiers résultats**

**V. Prix Jeune chercheur: Actes**

## Contents:

**Introduction: The Making**  
**of Movement, international**  
**research programme**

**I. Conference programme**

**II. 10 cities, 30 case studies:**  
**abstracts**

**III. The first startle reports**

**IV. What city or cities do the**  
**world's students dream of?**  
**first results**

**V. Young Researcher Prize:**  
**Proceedings**

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# Introduction

Qu'est-ce qui  
fait courir  
l'action publique  
en matière de  
mobilité urbaine ?

■ Recherche collaborative internationale  
structurée dans une dizaine de pays

■ Enquête auprès des étudiants du monde  
sur les rêves pour la ville de demain

■ Analyses spécifiques de controverses  
et projets par des jeunes chercheurs

■ Témoignages d'élus et d'experts

■ Une plateforme collaborative :  
[www.movemaking.com](http://www.movemaking.com)

■ Un réseau de partenaires

What is it that  
drives public  
action on urban  
mobility?

■ A structured international research  
programme across some 10 countries

■ A survey of the world's students on  
their dreams for the city of tomorrow

■ Specific analyses on controversies  
and projects by young researchers

■ Personal views from politicians and  
experts

■ A collaborative online platform:  
[www.movemaking.com](http://www.movemaking.com)

■ A network of partners



Une recherche internationale et un colloque pilotés par l’IVM, avec ses chaires Chine et Amérique latine, et par La Fabrique de la Cité, en partenariat avec l’Université Paris-Est, avec le soutien de l’Institut d’aménagement et d’urbanisme d’Ile-de-France et l’Institut Caisse des dépôts et consignations pour la Recherche, avec la participation de la Fnau (Fédération nationale des agences d’urbanisme). Action financée par la Région Ile-de-France (0810 18 18 18).

Dans des métropoles de plus en plus étendues, aux fonctionnements de plus en plus complexes, les mobilités urbaines posent des problèmes majeurs. Les politiques et les projets visant à y faire face se construisent dans des interactions d’acteurs sur des scènes de débat diverses qui portent des valeurs, des intérêts, des logiques institutionnelles différentes : les pouvoirs publics nationaux et métropolitains, les habitants, les lobbys, les experts, les médias... Alors, qu’est-ce qui fait courir l’action publique en matière de mobilité urbaine : la tyrannie de l’urgence ? des cauchemars à éviter ? la protection de l’environnement et la lutte contre le changement climatique ? la compétition des métropoles dans un monde global ? la qualité de vie des habitants ? l’utopie d’une ville rêvée ? le besoin constant de modernisation ? la puissance des acteurs établis de longue date ? l’atmosphère particulière de chaque ville, son rapport à l’avenir, au progrès ? le savoir des experts ?... Mais aussi, qu’est-ce qui ne fait pas courir l’action publique ? Pourquoi des problèmes, parfois graves, n’arrivent-ils jamais à être sur le haut de l’agenda ? Pourquoi des innovations restent-elles longtemps ignorées ? Pourquoi certaines catégories de population n’arrivent pas à faire entendre leur voix ?

An international research programme and conference headed by IVM with its China and Latin America chairs, and by La Fabrique de la Cité, in partnership with Paris East University and with the support of the Ile-de-France Institute of Planning and Urbanism and the Caisse des Dépôts et Consignations Research Institute, with the participation of FNAU (National Federation of Planning Agencies). Initiative funded by the Ile-de-France Region (0810 18 18 18).

As cities grow ever larger and their operations ever more complex, urban mobilities have become a source of major problems. The policies and plans designed to tackle these problems arise out of interactions between parties in different arenas, characterised by different values, interests and institutional dynamics: national and municipal authorities, citizens, lobbyists, experts, the media... So what is it that drives public action on urban mobility issues? The tyranny of crisis? The need to avoid catastrophe? Environmental concerns and the resistance to global warming? The competition between cities in a global world? The quality of life of citydwellers? The utopia of a dream city? The unending need for modernisation? The entrenched power of the protagonists? Each city’s particular atmosphere, its relation to the future, to progress? The knowledge of experts?... But also, what is it that impedes public action? Why is it that some problems, albeit serious problems, never reach the top of the agenda? Why do innovations continue to be neglected? Why do certain categories of the population never get their voices heard?

# Décoder les ressorts des politiques de mobilité

Le pari de ce travail de recherche internationale est de mieux comprendre comment, *in situ*, les politiques ou les projets de mobilité évoluent, se transforment, changent ou se (re)produisent. On a donc observé, dans différentes villes, l’histoire et le scénario de prises de décisions concernant une solution de mobilité. Quelles sont les dynamiques à l’œuvre pour mettre un problème sur l’agenda politique et pour le résoudre ? Dans un monde incertain et fragmenté, les processus qui façonnent les projets et les politiques de mobilité ne sont ni logiques, ni linéaires, ni rationnels, ni la conséquence d’une décision politique individuelle. Ils sont complexes, contradictoires, multi-acteurs, spécifiques d’un contexte particulier, fabriqués par des controverses, des routines, des acteurs, des problèmes et des solutions.

# Une question commune à plus de 20 villes

Cette question commune a rassemblé, pendant une année, des équipes interdisciplinaires basées dans des métropoles de plusieurs continents : à Pékin, Shanghai, Buenos Aires, Bogotá, Lima, Mexico, Santiago du Chili, São Paulo, Rio de Janeiro, Paris-Ile-de-France. À Barcelone, Eindhoven, Rotterdam, Manchester, Cali, Jakarta, Ahmedabad, Lyon, au Cap, à Bruxelles, Athènes, Dakar, Canton, Daegu, des étudiants ont témoigné de leurs rêves pour demain, des jeunes chercheurs ont analysé des projets précis et les controverses qu’ils ont suscitées.

# Un processus de travail inédit, international et collaboratif

Les équipes universitaires ont analysé des cas de politiques de mobilité et de projets de transport, emblématiques d’une ville, et qui traduisent des écarts entre les intentions politiques d’un projet (ou d’une politique), les besoins sociaux et les effets obtenus. Ces décalages se traduisent par des crises, des controverses, des échecs ou des succès inattendus dans la mise en œuvre. Cette méthode de travail originale s’appuie sur une démarche propre aux sciences sociales – l’analyse de terrain –, et sur des approches interdisciplinaires (urbanisme, architecture, sociologie, sciences politiques) pour compléter l’analyse classique du monde des transports. Environ 700 étudiants du monde entier ont également contribué au projet : ils ont exprimé, par des textes, des photos, des images, des vidéos, la ville du futur dans laquelle ils souhaiteraient vivre. Dix doctorants et post-doctorants

# Decoding the complexities of mobility policies

The aim of this international research effort is to improve our understanding of how, on the ground, mobility policies or projects actually evolve, change, are transformed or (re)produced. For this purpose, the history and conditions of decision making on a mobility solution were observed in different cities. What are the dynamics involved in bringing a problem onto the political agenda and resolving it? In an uncertain and fragmented world, the processes that mould mobility policies and projects are neither logical, linear or rational, nor the outcome of an individual political decision. They are complex, contradictory and multifaceted, specific to a particular context, fashioned by controversies, habits, people, problems and solutions.

# A shared issue for more than 20 cities

For more than a year, this joint question has brought together interdisciplinary teams based in cities on several continents: in Beijing, Shanghai, Buenos Aires, Bogotá, Lima, Mexico, Santiago de Chile, São Paulo, Rio de Janeiro, Paris-Ile-de-France. In Barcelona, Eindhoven, Rotterdam, Manchester, Cali, Jakarta, Ahmedabad, Lyon, Cape Town, Brussels, Athens, Dakar, Guangzhou, Daegu, students described their dreams for the future, young researchers analysed specific projects and the controversies they aroused.

# A new, international, and collaborative working process

The research teams conducted case analyses of mobility policies and transport projects characteristic of specific cities, which reflect the gaps between the political aims of a project (or a policy) and the social needs and actual outcomes. These disparities give rise to crises, controversies, failures or unexpected successes in the process of implementation. This original method of working is based on an approach specific to the social sciences – terrain analysis – and on



du monde entier ont retracé l’histoire de controverses autour de projets de mobilité. Des décideurs ont été invités à raconter leur expérience d’un processus de décision particulièrement contesté, des experts à présenter une conviction. Tous les participants ont échangé leurs idées et leurs vues, au fur et à mesure du travail, sur une plateforme collaborative ouverte, [www.movemaking.com](http://www.movemaking.com), afin de favoriser les dialogues transversaux entre chercheurs de pays différents et entre chercheurs et étudiants/citoyens/visiteurs autour d’un projet-processus.

## 30 cas, 10 villes, 3 continents

Cette approche multiple et internationale aide, par exemple, à expliquer simultanément le grand succès du lancement de BRT (bus rapid transit) à Bogotá, où jusqu’à ce jour le projet de métro a été écarté, ses difficultés à Santiago où, par ailleurs les autoroutes urbaines réussissent ; et elle aide à comprendre au nom de quelles valeurs, de quels arguments le vélo en libre-service, type Vélib’, s’est diffusé à Shanghai et à Buenos Aires, qui sont pourtant des métropoles aux contextes très différents de Paris ; ou bien encore pourquoi la population pékinoise accepte, en plein boom économique, le principe du tirage au sort pour déterminer de façon draconienne qui peut utiliser une voiture. Elle permet aussi de cerner des angles morts, des questions qui n’occupent pas le haut des agendas politiques et médiatiques. Pourquoi la mortalité dramatique des piétons à Lima reste-t-elle une question marginale ? Pourquoi les problèmes quotidiens de qualité de service vécus par les Franciliens dans leurs déplacements peinent-ils à être reconnus, tandis que des projets pharaoniques voient le jour rapidement ? Pourquoi l’explosion des deux-roues un peu partout dans les grandes villes du monde tarde-t-elle à être reconnues et à faire l’objet de politiques explicites ? Pourquoi les couches les plus modestes de la population ont-elles tant de difficultés à faire entendre leur voix ?

interdisciplinary approaches (urbanism, architecture, sociology, political science), in counterpoint to a standard transportation analysis. Some 700 students from all over the world also contributed to the project: through writings, photos, images, videos, they expressed their hopes for the future city in which they would like to live. Ten doctoral and postdoctoral students from all around the world retraced the history of controversies surrounding mobility projects. Decision-makers were invited to recount their experience of a particularly contested decision making process, and experts were asked to express a strongly held opinion. In the course of the project, all the participants exchanged ideas and views through an open collaborative platform – [www.movemaking.com](http://www.movemaking.com) – in order to promote a crosscutting dialogue on projects and processes between researchers from different countries and between researchers and students/citizens/guests.

## 30 cases, 10 cities, 3 continents

This multifaceted, international approach helps us to understand, for example, why the launch of the BRT (bus rapid transit) has been highly successful in Bogotá, where plans for a subway system have so far been ruled out, but has been problematic in Santiago, where urban expressways are successful. It helps us to understand the values and arguments underpinning the successful spread of the self-service bicycle network in Shanghai and Buenos Aires, cities with very different conditions from Paris, where the Vélib’ bicycle network began; or why, in the midst of an economic boom, the people of Beijing accept the principle of a lottery as a draconian means of controlling private car use. It also helps to identify blindspots, issues that fail to emerge onto the political or media agenda. Why does the appalling rate of pedestrian fatalities in Lima remain a marginal issue? Why are the day-to-day quality of service problems experienced by commuters in Ile-de-France scarcely recognised, whereas grandiose projects are implemented rapidly? Why does the eruption of two wheeled vehicles onto the streets of virtually all the world’s big cities seem to have gone virtually unnoticed in terms of explicit policy initiatives? Why do the poorest sections of the population have so much difficulty in making their voices heard?

## Utopies des futurs décideurs de la ville: 700 étudiants, 14 villes

Des étudiants en architecture, urbanisme et ingénierie des transports – futurs techniciens et décideurs –, ont exprimé leurs utopies, rêves et cauchemars de villes par des images, des vidéos et des textes : rêves de ville végétale connectée, de mobilité-plaisir, de ville-village dans la grande métropole, de nouvelles formes de citoyenneté, de solidarité, de nouvelles pratiques et de multiplicité des modes de transport...

## Prix Jeune chercheur: 15 contributions sélectionnées sur des controverses urbaines

Un appel à communication auprès de jeunes chercheurs (doctorants et post-doctorants) en Europe, en Amérique Latine et en Asie a permis de sélectionner une quinzaine de propositions sur la trentaine reçue. Elles retracent l’histoire d’une controverse qui a opposé des acteurs sociaux autour d’un projet. Comment le problème a-t-il émergé dans l’espace public ? Quels acteurs sociaux le portent ? Comment a-t-il été mis à l’agenda médiatique et/ou politique ? Quels intérêts d’acteurs, quelles représentations de la ville, du développement durable, de l’action publique, quelles valeurs cristallisent les conflits ? Alors que Jakarta, capitale économique et politique de l’Indonésie, sera bientôt dans une situation de congestion totale, le Président du pays a proposé trois solutions vivement débattues, dont celle, emblématique, du déménagement du gouvernement et de la capitale vers une autre ville. Aux Pays-Bas, la prise de décision gouvernementale actant la construction d’un nouveau réseau routier pour lutter contre la congestion oppose des acteurs très divers aux motivations diverses : environnementalisme, loyautés à un lieu géographique, à un parti politique... À Ahmedabad, en Inde, un conflit latent oppose le gouvernement et la municipalité d’une part et des activistes et des architectes-urbanistes d’autre part. Il se concentre sur un projet de requalification des berges: les coûts environnementaux et sociaux feront-ils le poids face à un projet d’autoroutes urbaines ? Le prix de la meilleure contribution est soutenu par la Région Ile-de-France (0810 18 18 18). Il sera décerné lors de la conférence internationale des 26 et 27 mars à Paris.

## Utopian visions of the city’s future decision-makers: 700 students, 14 cities

Students of architecture, urbanism and transport engineering – future technicians and decision-makers – described their utopian visions, dreams and nightmares about the city of the future through images, videos and in written form: dreams of a networked city of greenery, of travel as a pleasure, of a village city in the megacity, of new forms of citizenship, of community, of new practices and multiple modes of transport...

## Young Researcher Prize: 15 selected contributions on controversial urban issues

Following a call for contributions from young researchers (doctoral and postdoctoral students) in Europe, Latin America and Asia, fifteen of the thirty or so submissions received were shortlisted. They retrace the history of a controversy that has aroused conflict over a project. How did the problem emerge into the public arena? Who are the social protagonists? How did it emerge onto the media and/or political agenda? What group interests, what representations of the city, of sustainable development, of public action, what values, become the focus of conflict? With Jakarta, the economic and political capital of Indonesia, approaching traffic gridlock, the President has proposed three hotly debated solutions, including the drastic proposal of moving the government and the capital to another city. In the Netherlands, the government’s decision to build a new road network to combat congestion has generated polemics between a disparate range of opponents with a variety of motives: environmentalism, geographical loyalty, political partisanship... In Ahmedabad in India, a latent disagreement about a riverbank refurbishment project has brought the government and the municipality into conflict with activists and architects-planners: will the environmental and social costs provide a counterweight to an urban expressway project? The prize for the best contribution is supported by the Ile-de-France Region (0810 18 18 18). It will be awarded at the international conference on March 26-27 in Paris.

**Pendant la  
conférence,  
pour nourrir  
les débats:**

# Des créations multimédias

Avec le film de la Fabrique du mouvement, le panorama des rêves étudiants, la plateforme collaborative [movemaking.com](http://movemaking.com), les contributions du public.

## 3 minutes pour convaincre

Des experts ayant une conviction forte sur une mesure qui pourrait contribuer à améliorer la mobilité urbaine enregistrent leur prise de position par le biais d'une webcam : ces vidéos seront consultables sur place. Par exemple, la solution, pour certains, c'est le péri-urbain, pour d'autres, c'est la ville compacte ; pour d'autres encore, c'est une politique drastique de tarification du stationnement ; c'est le deux-roues motorisé à la place de la voiture individuelle ; c'est le transport de masse à la place du deux-roues motorisé ; c'est la ville numérique et la mobilité limitée ; c'est une voie réservée aux transports collectifs sur les autoroutes.

# Une série d'interviews de décideurs

Des décideurs de grandes villes, comme Eduardo Paes, maire de Rio de Janeiro, Jean-Paul Huchon, président de la Région Île-de-France, ont donné des exemples concrets d'un projet de mobilité qu'ils ont dû soutenir et qui a fait controverse à partir de la question : « Qu'est-ce qui vous fait courir ? » (Production La Fabrique de la Cité).

**During the conference, to stimulate debate:**

# Multimedia productions

With the Making of Movement film, the student dream panorama, the collaborative platform [movemaking.com](http://movemaking.com) and contributions from the public.

# 3 minutes to convince

Experts with a strong view on a measure that could help to improve urban mobility record their position using a webcam: these videos will be screened at the conference. For example, for some the solution is periurban development, while for others it is the compact city; or a drastic parking fee policy; or replacing private cars with motorbikes; or replacing motorbikes with mass transit vehicles; or the digital city and restricted mobility; or dedicated public transport lanes on motorways.

## A series of interviews with decision-makers

Big-city decision-makers, such as Eduardo Paes, Mayor of Rio de Janeiro, Jean-Paul Huchon, Chairman of the Ile-de-France Region, have given concrete examples of a mobility project that they have supported, despite controversy, based around the question: "What drove you?" (La Fabrique de la Cité production).



# Comité scientifique du colloque

**Directeur scientifique:**  
**Jean-Pierre Orfeuil**, professeur à l’Institut d’urbanisme de Paris (Université Paris-Est Créteil), président du Conseil scientifique et d’orientation de l’Institut pour la ville en mouvement (IVM), membre du Comité scientifique de La Fabrique de la Cité

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**Frédéric De Coninck**, sociologue à l’École nationale des ponts et chaussées et directeur du Laboratoire d’excellence Futurs urbains de l’Université Paris-Est

**Mathieu Flonneau**, historien, maître de conférences à l’Université Paris I, président du groupe de recherche P2M, « Passé-Présent-Mobilité »

**Rosanna Forray**, architecte et urbaniste, professeur à la Faculté d’architecture, de design et d’études urbaines de l’Université catholique du Chili et à la Faculté d’architecture, d’ingénierie architecturale, d’urbanisme (LOCI) de l’Université catholique de Louvain.

**Pierre Lannoy**, sociologue, professeur au laboratoire METICES/centre de recherche urbaine, de l’Université libre de Bruxelles

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**Gaëlle Rony**, chargée de projet, docteur en Sciences sociales de l’Université catholique de Louvain

# Scientific committee of the conference

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**WANG Shifu**, architect and urban planner, Professor at South China University of Science and Technology, Director of the Urban Planning Department

**NING Ho**, engineer, Director of the Nanjing Institute of Urban Transportation Planning

**LU Huapu**, engineer, Professor of Transportation Studies at Tsinghua University, Director of the Transportation Research Laboratory

**GUO Licheng**, Professor, University of the South East

**XU Jiangang**, geographer, Professor, Nanjing University, Geography Department

**MAO Qizhi**, architect and urban planner, Professor, Tsinghua University, Director of the School of Architecture

**SHI Nan**, Secretary of the Chinese Association of Urban Planners, editor-in-chief of “China City Planning Review” and “Chengshi guihua” journals.

**WANG Shijun**, sociologist, Professor at Tongji University

**LIU Hui**, landscape architect, Professor at Xi’an University of Architecture, Director of the Institute of Landscape Architecture

**LIU Jian**, architect and urban designer, Professor at the Tsinghua University School of Architecture in Beijing

**CHENG Yingfang**, Lecturer in sociology, Huadong College, Shanghai

**ZHUO Jian**, architect and urban planner, Associate Professor at Tongji University

# La chaire IVM- Amérique latine

**Roberto Agosta**, Argentine, ingénieur civil, diplômé du Master of Engineering de la UC Berkeley

**Isabel Arteaga Arredondo**, Colombie, architecte-urbaniste, professeur à l’Université de Los Andes de Bogotá

**Michael Cohen**, États-Unis, directeur du programme de relations internationales de la New School de New York et responsable de l’Observatoire de l’Amérique latine

**Juan Carlos Dextre**, Pérou, ingénieur, président du Comité de mobilité de l’Université catholique du Pérou

**Oscar Figueroa**, Chili, spécialiste des transports, Institut d’études urbaines et territoriales, Université catholique du Chili

**Rosanna Forray**, Chili, architecte et urbaniste, professeur à la Faculté d’architecture et d’études urbaines de l’Université catholique du Chili et à l’Université de Louvain

**Alfredo Garay**, Argentine, architecte-urbaniste, professeur à la Faculté d’architecture et d’urbanisme de l’Université de Buenos Aires

**Andrea Gutierrez**, Argentine, professeur à la Faculté de géographie de l’Université de Buenos Aires et à l’Université de La Plata

**Paola Jirón**, Chili, Institut du logement de la Faculté d’architecture et d’études urbaines de l’Université catholique du Chili

**Bernardo Navarro Benítez**, Mexique, professeur et chercheur en Planification territoriale à l’Université autonome métropolitaine Xochimilco

**Margaret Pereira da Silva**, Brésil, docteur de l’EHESS, architecte-urbaniste, professeur à l’Université fédérale de Rio de Janeiro

**Marcos Rodrigues**, Brésil, ingénieur, docteur de l’Université de Cambridge, professeur du département de transports de l’Université de São Paulo

**Alicia Ziccardi**, Mexique, sociologue, professeur et chercheur à l’Institut de recherches sociales à l’Université nationale autonome du Mexique

## The IVM-Latin America Chair

**Roberto Agosta**, Argentina, civil engineer, Master’s Degree in engineering from UC Berkeley

**Isabel Arteaga Arredondo**, Colombia, architect and urban planner, Professor at University de Los Andes de Bogotá

**Michael Cohen**, USA, Director of the International Relations Program at New York New School and Director of the Latin America Observatory

**Juan Carlos Dextre**, Peru, engineer, Chairman of the Mobility Committee at Catholic University of Peru

**Oscar Figueroa**, Chile, transport specialist, Institute of Urban and Territorial Studies, Catholic University of Chile

**Rosanna Forray**, Chile, architect and urban planner, Professor at the Faculty of Architecture and Urban Studies at the Catholic University of Chile and at Louvain University

**Alfredo Garay**, Argentina, architect and urban planner, Professor at the Faculty of Architecture and Urbanism at Buenos Aires University

**Andrea Gutierrez**, Argentina, Professor at the Faculty of Geography at Buenos Aires University and at La Plata University

**Paola Jirón**, Chile, Housing Institute at the Faculty of Architecture and Urban Studies at the Catholic University of Chile

**Bernardo Navarro Benítez**, Mexico, Research Professor in Territorial Planning at Xochimilco Autonomous Metropolitan University

**Margaret Pereira da Silva**, Brazil, PhD from EHESS, architect and urban planner, Professor at the Federal University of Rio de Janeiro

**Marcos Rodrigues**, Brazil, engineer, PhD Cambridge University, Professor in the Department of Transport Studies at São Paulo University

**Alicia Ziccardi**, Mexico, sociologist, Research Professor in the Social Research Institute at the Autonomous National University of Mexico

# Prix Jeune chercheur

Un appel à communication a été lancé auprès de jeunes chercheurs en Chine, Amérique latine et Europe. Voici la liste des auteurs retenus :

**Zoi Christoforou**, docteur en Transports de l’École nationale des Ponts et chaussées, adjointe au responsable académique du Département « Ville, environnement, transports »

**Ludivine Damay**, chercheure post-doctorante aux Facultés universitaires de Saint-Louis-Bruxelles

**Matias Garreton**, doctorant de l’Université Paris-Est

**Mélanie Jaj Gheiman**, doctorante en urbanisme à Strasbourg

**Cécile Fere**, docteure en géographie, urbanisme et aménagement à Lyon 2 et dans une agence d’urbanisme à Lyon

**Cristian Figueroa**, doctorant en architecture à l’Université catholique pontificale du Chili

**Laurent Fouillé**, post-doctorant à l’École des mines de Nantes

**Sophie Leblanc-Van Neste**, doctorante à l’Université INRS-UCS de Montréal

**Clémence Montagne**, doctorante en géographie urbaine à l’Université de La Sorbonne

**Hananto Prakoso**, spécialiste au ministère des Transports en Indonésie et doctorant de Paris-Est

**Martin Tironi**, doctorant au Centre de sociologie de l’innovation, École des mines de Paris

## Young Researcher Prize

A call for contributions was issued to young researchers in China, Latin America and Europe. Here is the list of the selected contributors:

**Zoi Christoforou**, PhD in transport studies at the National School of Civil Engineering in Paris, Deputy Academic Director of the “City, Environment, Transportation” Department

**Ludivine Damay**, postdoctoral researcher at the University Faculties of Saint-Louis-Bruxelles

**Matias Garreton**, doctoral researcher at Paris-East University

**Mélanie Jaj Gheiman**, doctoral researcher in Urban Planning in Strasbourg

**Cécile Fere**, PhD in Geography, Urban Planning and Development at University Lyon 2 and in a planning office in Lyon

**Cristian Figueroa**, doctoral researcher in architecture at the Pontifical University of Santiago de Chile

**Laurent Fouillé**, postdoctoral researcher at the Nantes School of Mines

**Sophie Leblanc-Van Neste**, doctoral researcher at INRS-UCS University in Montréal

**Clémence Montagne**, doctoral researcher in Urban geography at Sorbonne University

**Hananto Prakoso**, specialist at the Ministry of Transport in Indonesia and doctoral research at Paris-East University

**Martin Tironi**, doctoral researcher at the Centre for the Sociology of Innovation, Paris School of Mines



# Partenaires

La recherche internationale et le colloque sont pilotés par l’IVM avec ses chaires Chine et Amérique latine, et par La Fabrique de la Cité, en partenariat avec l’Université Paris-Est, avec le soutien de l’Institut d’aménagement et d’urbanisme d’Ile-de-France et l’Institut CDC pour la recherche, avec la participation de la FNAU (Fédération nationale des agences d’urbanisme). Action financée par la Région Ile-de-France (0810 18 18 18 ).

## L’Institut pour la ville en mouvement/PSA Peugeot Citroën

Lancé par PSA Peugeot Citroën en juin 2000, l’Institut pour la ville en mouvement souhaite contribuer à l’émergence de solutions innovantes pour les mobilités urbaines. Il associe des représentants du monde de l’entreprise à des chercheurs et des universitaires mais aussi à des acteurs de la vie culturelle et associative et à des villes, autour de recherches-actions, de projets réalisés en commun. Il s’est donné pour mission de tester des solutions concrètes, de permettre les comparaisons internationales, de recenser les approches urbanistiques et architecturales les plus originales, de mobiliser des experts et des compétences pluridisciplinaires en Asie, en Amérique et en Europe, de diffuser les connaissances et de sensibiliser l’opinion à l’enjeu que représentent les mobilités pour les sociétés contemporaines.

[www.ville-en-mouvement.com](http://www.ville-en-mouvement.com)

## La Fabrique de la Cité

La Fabrique de la Cité a pour objectif de valoriser les initiatives pionnières en suscitant l’échange entre ceux qui réfléchissent à l’avenir de la ville.

La Fabrique de la Cité organise ses travaux autour de trois axes de recherche :

- l’aménagement urbain,
- la ville comme lieu de vie et espace social,
- la mobilité durable.

Ces trois thèmes donnent lieu à des séminaires et à des déjeuners-débats en France et à l’étranger. Le fruit de ces rencontres est ensuite publié sous la forme d’actes et de synthèses.

La Fabrique de la Cité promeut également la publication d’études et de travaux de recherche en s’appuyant sur des partenariats avec de grandes écoles et des universités.

## Le Labex Futurs urbains de l’Université Paris-Est

Le PRES Université Paris-Est regroupe des universités, des grandes écoles, des écoles d’architecture et des organismes de recherche de l’est de l’Ile-de-France. Un de ses domaines d’excellence est la recherche sur la ville, l’environnement et leurs ingénieries. C’est la raison pour laquelle il a conclu une chaire avec l’Institut pour la ville en mouvement.

# Partners

The international research programme and conference are headed by IVM with its China and Latin America chairs, and by La Fabrique de la Cité, in partnership with Paris-East University and with the support of the Ile-de- France Institute of Planning and Urbanism and the Caisse des dépôts et Consignations Research Institute, with the participation of FNAU (National Federation of Planning Agencies). Initiative funded by the Ile-de-France Region (0810 18 18 18).

## City on the Move Institute/PSA Peugeot Citroën

Launched by PSA Peugeot Citroën in June 2000, the Institut pour la ville en mouvement [City on the Move] seeks to contribute to the emergence of innovative urban mobility solutions. It brings together representatives from the corporate and academic world, researchers and practitioners from the social, cultural and voluntary sectors, alongside municipal authorities, to work on joint action-research projects. IVM’s remit is to test concrete solutions, to facilitate international comparisons, to identify the most original approaches to urban planning and architectural design, to mobilise experts and expertise from multiple disciplines in Asia, America and Europe, to disseminate knowledge and raise public awareness of the challenge that mobilities present for the societies of today. [www.ville-en-mouvement.com](http://www.ville-en-mouvement.com)

## La Fabrique de la Cité

The objective of La Fabrique de la Cité is to encourage pioneering initiatives by prompting interchange between people whose role it is to think about the future of the city. La Fabrique de la Cité structures its work around three research areas: ■ urban development, ■ the city as a living and social space, ■ sustainable mobility. These three topics form the basis of seminars and lunch-debates run in France and abroad. The outcome of these sessions is then published in the form of proceedings and summaries. La Fabrique de la Cité also promotes the publication of research studies, based on partnerships with academic institutions and universities.

## Paris-East University’s Urban Futures Lab

Paris-East University’s research centre encompasses universities, academic institutions, architecture schools and research structures in eastern Ile-de-France. One of its fields of excellence is research on the city, the environment and related engineering. That is why it agreed to establish an academic chair with IVM.

Au sein du PRES, le Labex *Futurs Urbains*, qui regroupe une quinzaine de laboratoires en aménagement, architecture, environnement et transport a vu le jour. Ce Labex, labellisé par le Programme d’investissements d’avenir au printemps 2011, fédère des recherches interdisciplinaires sur les enjeux de la ville de demain. Il regroupe plus de 300 chercheurs permanents et 300 doctorants.

Un de ses domaines d’intérêt est la transformation de l’accessibilité aux services urbains, dans un contexte où le coût des transports, leur usage et les moyens techniques d’accès à distance, sont en pleine mutation.

## L’IAU Ile-de-France, bureau d’études et de prospective

Force d’analyses, de propositions et de projets, l’Institut d’aménagement et d’urbanisme de la Région Ile-de-France regroupe 200 experts travaillant sur les grands thèmes de l’aménagement et du développement métropolitain : aménagement et urbanisme, mobilité et transports, environnement urbain et rural, emploi et immobilier d’entreprise, démographie et logement, équipements... L’IAU Ile-de-France est une structure en évolution constante. Ses analyses transversales et systémiques, ses diagnostics sans cesse renouvelés et ses propositions visent à appuyer la décision publique. Il est le principal observatoire des évolutions métropolitaines de la région-capitale, s’attachant aussi à aborder des thématiques plus ciblées (santé, sécurité, tourisme, patrimoine...).

Depuis près de 50 ans, l’IAU Ile-de-France est maître d’œuvre ou contributeur actif à l’élaboration de tous les schémas directeurs régionaux successifs. Placé au cœur des réseaux institutionnels, professionnels et universitaires, il développe une capacité d’expertise pluridisciplinaire dont la portée rayonne bien au-delà du territoire régional, notamment à l’international.

## L’Institut Caisse des dépôts et consignations pour la recherche

L’Institut soutient des projets de recherche sur des thèmes en relation avec les activités du groupe CDC, qui couvrent des problématiques très variées allant de la finance au développement local, en passant par le financement de l’innovation, les retraites, l’économie sociale et solidaire, la politique de la ville et le logement social, le développement durable, et met en place des partenariats internationaux.

The PRES research centre gave rise to the *Urban Futures* Labex (excellence laboratory), which encompasses so me fifteen research labs working on planning, architecture, environment and transport. This Labex, approved by the Future Investments Programme in spring 2011, acts as a clearing house for interdisciplinary research on the city of tomorrow. It incorporates more than 300 permanent researchers and 300 doctoral researchers.

One of its areas of interest is transforming access to urban services, at a time when the cost and use of transport, and the technical resources for remote access, are changing fast.

## The Ile-de-France IAU, planning and forecasting institution

As a seedbed of analyses, proposals and projects, the Ile-de-France Region’s Development and Planning Institute (IAU) comprises 200 experts working on the big themes of planning and metropolitan development: urban planning and design, mobility and transport, urban and rural environment, employment and corporate real estate, demography and housing, amenities... The Ile-de-France IAU is a constantly changing structure. Its crosscutting and systemic analyses, its constantly updated assessments and proposals provide the underpinning for public decision-making. It is the primary observatory of metropolitan developments in the capital region, and also focuses on more circumscribed topics (health, security, tourism, heritage...). For almost 50 years, IAU Ile-de-France has been a driving force or active contributor in the establishment of all the successive regional master plans. Standing at the intersection of institutional, professional and academic networks, it has developed a capacity for multidisciplinary expertise which extends well beyond its regional purview and has achieved international scope.

## The Caisse des Dépôts et Consignations Research Institute

The Institute supports research projects on topics linked with the CDC Group’s activities, covering a wide variety of issues – finance, local development, innovation funding, pensions, social and community economics, urban policy and social housing, sustainable development – and conducting international partnerships.





# **Programme de la conférence internationale**

26-27/03/2012

Traduction simultanée  
anglais/français

## **International Conference Programme**

26-27/03/2012

Simultaneous English/French  
translation

Lundi 26 mars

9h-13h15, en séance plénière, Loft  
**8h30:** Accueil des participants

**9h-9h30:** Ouverture de la conférence par les institutions partenaires

**9h30-10h:** Conférence introductive

**10h-10h30:** Conférence

**10h30-11h:** Conférence

**11h-11h15:** Pause

**11h15-11h50:** Les politiques publiques en Chine et en Amérique latine : discours, enjeux, points d’ombre.

**11h50-13h15:** Villes et mobilités. De quelle(s) ville(s) rêvent les étudiants du monde?

**13h15-14h45:** Déjeuner

**14h45-17h,** Tables rondes simultanées, Loft et Forum

Table A1, Loft: L’urgence ?

Table A2, Forum: La visibilité dans le monde global, la qualité de vie des habitants?

Mardi 27 mars

**9h-11h30,** Tables rondes simultanées, Loft et Forum

Table B1, Loft: La modernisation?

Table B2, Forum: Les dépendances? Qu’est-ce qui accélère l’action publique ou la ralentit?

**11h30-11h45:** Pause

**11h45-13h15,** en séance plénière, Loft  
De quelle(s) ville(s) rêvent les étudiants en Asie, en Amérique latine et en Europe?

**13h15-14h30:** Déjeuner

**14h30-18h,** en séance plénière, Loft

**14h30-17h:** Qu’est-ce qui ne fait pas courir l’action publique?

**17h-17h15:** Pause

**17h15-18h:** La Fabrique en mouvement.

**Postes multimédias dans le Loft**  
**Librairie dans le Forum**

Monday 26 March

9am-1:15pm, Plenary Session, Loft  
**8.30 am:** Participants arrive

**9-9:30 am:** Conference opening by the partner institutions

**9:30-10 am:** Introductory lecture

**10-10:30 am:** Lecture

**10:30-11 am:** Lecture

**11-11.15 am:** Break

**11:15-11:50 am:** Public policies in China and Latin America: discourses, priorities, blindspots.

**11:50 am-1:15 p.m.:** Cities and mobilities. What kind of city do the world’s students dream of?

**1:15-2:45 p.m.:** Lunch

**2:45-5 p.m.,** Parallel roundtable sessions, Loft and Forum

Table A1, Loft: Emergency?

Table A2, Forum: Visibility in the global world, urban quality of life?

Tuesday 27 March

**9-11:30 am,** Parallel roundtables, Loft and Forum

Table B1, Loft: Modernisation?

Table B2, Forum: Dependencies? What is it that makes public action move faster or slower?

**11:30-11:45 am:** Break

**11:45 am-1:15 pm,** plenary session, Loft

What kind of city do students dream of in Asia, Latin America and Europe?

**1:15-2:30 pm:** Lunch

**2:30-6 pm,** Plenary Session, Loft

**2:30-5 pm:** What is it that impedes public action?

**5-5.15 pm:** Break

**5.15-6 pm:** The Making on the move.  
**Multimedia terminals in the Loft**  
**Bookshop in the Forum**

Lundi 26 mars

9h-13h15

en séance plénière, Loft

8h30

Accueil des participants

9h-9h30

Ouverture de la conférence

par les institutions partenaires :

l’Institut pour la ville en mouvement, La Fabrique de la Cité,

l’Institut d’aménagement et d’urbanisme-IDF,

la Région Ile-de-France, l’Institut Caisse des dépôts et consignations pour la recherche.

**Pascal Feillard**, secrétaire général de l’IVM

**Rémi Dorval**, président de La Fabrique de la Cité

Projection des films de la Fabrique du mouvement

9h30-10h

Conférence introductive

de **Jean-Pierre Orfeuil**,

président du Conseil scientifique et d’orientation de l’IVM, membre du Comité scientifique de La Fabrique de la Cité

*Les valeurs, représentations et référentiels dans les politiques publiques : les questions posées par la Fabrique du mouvement.*

10h-10h30

Conférence

de **Wolfgang Schuster**,

maire de Stuttgart

*Politiques de mobilité à Stuttgart, l’intérêt général, les oppositions et les controverses.*

10h30-11h

Conférence

de **Jean-Marc Offner**,

directeur général de l’Agence d’urbanisme Bordeaux Métropole Aquitaine (A’urba)

*Entre visions, participation et action, qu’est-ce qui fait courir l’action publique à Bordeaux ?*

11h-11h15

Pause

Monday 26

March

9am-1:15pm

plenary session, Loft

8:30 am

Participants arrive

9-9:30 am

Conference opening

by the partner institutions:

City on the Move Institute, La Fabrique de la Cité,

l’Institut d’aménagement et d’urbanisme-IDF,

the Ile-de-France Region, Caisse des Dépôts et

Consignations Research Institute.

**Pascal Feillard**, Secretary-General of IVM

**Rémi Dorval**, Chairman of La Fabrique

de la Cité

Screening of the Making of Movement films

**9:30-10 am**  
**Introductory lecture**  
**by Jean-Pierre Orfeuil**,  
Chairman of IVM’s Science and Strategy Council, member of the Scientific Committee of La Fabrique de la Cité  
*Values, representations and reference criteria in public policies: the questions raised by the Making of Movement.*

10-10:30 am

**Lecture**  
**by Wolfgang Schuster**,  
Mayor of Stuttgart  
*Mobility policies in Stuttgart, the public interest, oppositions and controversies.*

10:30-11 am

**Lecture**  
**by Jean-Marc Offner**,  
Chief Executive of the Bordeaux Métropole Aquitaine Planning Agency (A’urba)  
*Part vision, part involvement, part action, what is it that drives public action in Bordeaux?*

11-11:15 am

Break



11h15–11h50

Les politiques publiques en Chine et en Amérique latine : discours, enjeux, points d’ombre

Les motivations et les enjeux principaux des politiques de mobilité dans les discours officiels et les programmes d’action, leurs « angles morts ».

PAN Haixiao, spécialiste de la planification des transports et ingénieur, professeur à l’Université de Tongji, et directeur IVM-Chine

Andres Borthagaray, directeur IVM-Amérique latine

11h50–13h15

Villes et mobilités - De quelle(s) ville(s) rêvent les étudiants du monde ?

La Fabrique du mouvement a sollicité 700 étudiants en architecture, urbanisme, transports de 14 villes du monde, pour qu’ils expriment leurs rêves, leurs attentes et leurs craintes pour l’avenir des villes et des mobilités.

À Barcelone, Pékin, Buenos Aires, Bogotá, Daegu, Eindhoven, Canton, Lima, Mexico, Paris, Rio de Janeiro, Santiago du Chili, São Paulo, Shanghai, quels sont les grandes tendances et les imaginaires émergents ?

Projection du film de synthèse de l’enquête étudiante. Animateur :

Denis Pingaud, CEO Balises, membre du comité scientifique de La Fabrique de la Cité

Avec : Mathieu Flonneau, historien, maître de conférences à l’Université Paris I

Pierre Lannoy et Marie Balteau, sociologues, respectivement professeur et stagiaire au laboratoire METICES/Centre de recherche urbaine de l’Université libre de Bruxelles

Carles Llop, architecte, professeur et directeur du département d’urbanisme de l’Université polytechnique de Catalogne à Barcelone

Gaëlle Rony, coordonnatrice de l’enquête, docteur en Sciences sociales de l’Université catholique de Louvain

13h15–14h45

Déjeuner

11:15–11:50 am

Public policies in China and Latin America: words, issues, blindspots

The motives and main priorities of mobility policies in official discourses and action programmes, their “blindspots”.

PAN Haixiao, engineer and specialist in transportation planning, Professor at Tongji University and Director of IVM-China

Andres Borthagaray, head of IVM-Latin America

11:50 am–1:15 pm

Cities and mobilities - What kind of city do the world’s students dream of?

La Fabrique du mouvement approached 700 students of architecture, urban planning and transportation, from 14 of the world’s cities, to express their dreams, expectations and fears for the future of cities and mobility. In Barcelona, Beijing, Buenos Aires, Bogotá, Daegu, Eindhoven, Guangzhou, Lima, Mexico, Paris, Rio de Janeiro, Santiago de Chile, São Paulo, Shanghai, what are the main trends and emerging perceptions?

Screening of the film summarising the student survey.

Moderator:

Denis Pingaud, CEO of Balises, member of the Scientific Committee of La Fabrique de la Cité

With:

Mathieu Flonneau, historian, Lecturer at Paris University I

Pierre Lannoy and Marie Balteau, sociologists, respectively Professor and intern at the METICES Urban Research Centre at the Free University of Brussels

Carles Llop, architect, Professor and Head of the Department of Urban Design at Universitat Politècnica de Catalunya, Barcelona

Gaëlle Rony, Project Manager, PhD in Social Sciences from the Catholic University of Louvain

1:15–2:45 pm

Lunch

**14h45-17h**  
Tables rondes  
simultanées

### Table A1 L'urgence ?

**Table A2** La visibilité dans le monde global, la qualité de vie?

**Table A1 - 14h45-17h, Loft**  
L'urgence ?

L'urgence s'impose aux autorités quand des milliers, des millions de personnes frappent à la porte des villes chaque année et ne trouvent un toit que loin de tout, quand les citadins s'équipent d'automobiles, les utilisent en ville et ralentissent ou bloquent les réseaux, quand des citoyens se mobilisent contre une politique. Elle se décrète quand la santé paraît menacée par la pollution, quand la conscience de la menace climatique invite à une action résolue, quand un grand événement se prépare. Dans ces situations, on fait de nouvelles routes, de nouveaux métros, on limite les droits de circuler ou de stationner, on manie des péages... Selon quelles logiques ? Sous quelles pressions ? Au service ou au détriment de quelles catégories de la population ? Avec quelles visions et valeurs ?

Animateur:

**Pierre Haski**, cofondateur et collaborateur  
du site Rue89

Avec :

**Zoi Christoforou**, docteur en Transports  
de l'École nationale des Ponts et chaussées,  
adjointe au responsable académique du département "Ville,  
environnement, transports"

**Laurent Fouillé**, post-doctorant à l'École  
des mines de Nantes

**LIU Jian**, architecte-urbaniste, professeur associée et vice-doyenne de l'école d'architecture de l'Université de Tsinghua à Pékin, membre de la Chaire IVM-Chine

**Hananto Prakoso**, Centre de formation aux transports, ministère des Transports, Indonésie, docteur de l'Institut d'urbanisme de Paris, Université Paris-Est Créteil

**Eduardo A. Vasconcellos**, ingénieur et sociologue, directeur de l'*Instituto Movimento* et chargé de mission à l'Association nationale des transports publics (ANTP), Brésil

■ Athènes en crise économique et morale : ne plus payer les transports.

■ Manchester : payer pour mieux circuler, non merci.

■ Pékin: les J.O. inscrivent dans les mœurs des limites à l'usage de la voiture.

## ■ Jakarta : déménager la capitale pour mieux circuler ?

## ■ La congestion à São Paulo : l'urgence... d'attendre ?

**2:45-5 pm**

## Parallel roundtable sessions

### Table A1 Emergency?

**Table A2** Visibility in the global world, quality of life?

**Table A1 - 2:45-5 pm, Loft**  
Emergency?

Action by the authorities becomes essential when thousands, millions of people knock on the doors of the city every year and can only find a roof a long way from everything, when citydwellers acquire cars, use them in the city and bring traffic networks to gridlock. It is demanded when health seems to be threatened by pollution, when the awareness of the climate threat calls for resolute action, when a big event is in the offing. In these situations, new roads and subways are built, the right to drive or park is restricted, road charging is introduced... What is the rationale? What are the pressures? Who benefits and who suffers? What are the underlying visions and values?

Moderator:

**Pierre Haski**, co-founder and member of the Rue89 site.

With:

**Zoi Christoforou**, PhD in transport studies at the National School of Civil Engineering in Paris, Deputy Academic Director of the “City, Environment, Transportation” Department.

**Laurent Fouillé**, postdoctoral researcher at the Nantes School of Mines.

**LIU Jian**, architect and urban planner, Professor at the Tsinghua University School of Architecture in Beijing, member of the IVM-China Chair.

**Hananto Prakoso**, Transportation Training Centre, Ministry of Transportation, Indonesia, PhD at the Paris Institute of Urban Planning, Paris-East University Créteil.

**Eduardo A. Vasconcellos**, engineer and sociologist, Director of the *Instituto Movimento* and head of section at the ANTP (National Public Transport Association), Brazil.

■ Athens in economic and moral crisis: stop paying for transport.

■ Manchester: Pay for smoother traffic conditions – no thanks.

■ Beijing: the Olympic Games make restrictions on car use an accepted part of life.

- Jakarta: Move the capital for better traffic flow?
- Congestion in São Paulo: the urgency... of waiting?



**Table A2 - 14h45-17h, Forum**  
**La visibilité dans le monde**  
**global, la qualité de vie**  
**des habitants?**

Les grandes villes du monde s’observent, cherchent à séduire et à attirer (des activités, des touristes...). Elles sont candidates, volontaires ou non, à un concours de beauté planétaire, et leurs politiques de transport et de mobilité constituent un élément de leurs atours. Les systèmes en libre-service, les bus à haut niveau de service, les mégaprojets pharaoniques comme la requalification des espaces publics au profit de la flânerie semblent être des atouts dans ce concours global. Que mettent en avant les politiques ? Partagent-elles les mêmes icônes ? Pourquoi ? À quel prix ? Tous les territoires de la ville sont-ils concernés ? « Villes amicales », « villes vivables », « villes cyclables, villes marchables », « villes aimables », les slogans et les politiques mises en œuvre reflètent-ils de manière convergente un imaginaire, des aspirations, de réels besoins des citoyens du monde ? De leurs seules élites ?

Animateur :  
**Jérôme Monnet**, Professeur, responsable du master Urbanisme-Aménagement, Institut Francais d’Urbanisme (Université Paris-Est Marne-la-Vallée) et Lab’Urba.

Avec :  
**Juan Carlos Dextre**, ingénieur, président du Comité de mobilité de l’Université catholique du Pérou.

**Mathieu Flonneau**  
**Rosanna Forray**, architecte et urbaniste, professeur à la Faculté d’architecture, design et d’études urbaines de l’Université catholique du Chili et à la Faculté d’architecture, d’ingénierie architecturale, d’urbanisme (LOCI) de l’Université catholique de Louvain.

**Margareth da Silva Pereira**, architecte, urbaniste, professeur à l’Université Fédérale de Rio de Janeiro.  
**ZHUO Jian**, architecte-urbaniste, professeur associé à l’Université de Tongji.

- Miraflores, Lima : des rues pour les personnes à mobilité réduite dans le quartier chic, des piétons en danger ailleurs ?
- Les voies sur Berges à Paris : un passé fantasmé pour un avenir radieux ?
- Santiago du Chili : les aspirations des usagers d’aujourd’hui préparent-elles la ville de demain ?
- Rio de Janeiro, ville olympique se prépare aux regards du monde.
- Des rues en reconquête à Shanghai : un îlot de séduction dans un océan de tours ?

**Table A2 - 2:45-5 pm, Forum**  
**Visibility in the global**  
**world, urban quality**  
**of life?**

The world’s big cities are vying with each other, trying to appeal and attract (businesses, tourists...). Like it or not, they are competitors in a planetary beauty contest, and their transport and mobility policies form part of their outfits. Self-service bicycle systems, high-efficiency bus services, grand megaprojects like remodelling public space to encourage strollers, would all seem to be features in this global contest. What are the key policies? Do they share the same icons? Why? At what cost? Are all areas of the city involved? “Friendly cities”, “liveable cities”, “bicycle-friendly cities, pedestrian-friendly cities”, “pleasant cities”, do the slogans and policies deployed reflect a similar vision, the aspirations, the real needs of the world’s citizens? Or just their elites?

Moderator:  
**Jérôme Monnet**, Professeur, Director of the Masters Degree in Urban planning, French Institute of Urban Planning (Paris-East University Marne-la-Vallée) and Lab’Urba.

With:  
**Juan Carlos Dextre**, engineer, Chairman of the Mobility Committee at the Catholic University of Peru.

**Mathieu Flonneau**  
**Rosanna Forray**, architect and urban planner, Professor at the Faculty of Architecture, Design and Urban Studies at the Catholic University of Chile and at the Faculty of Architecture, Architectural Engineering and Urban Planning (LOCI) at the Catholic University of Louvain.

**Margareth da Silva Pereira**, architect and urban planner, professor at the Federal University of Rio de Janeiro.  
**Zhuo Jian**, architect and urban planner, Associate Professor at Tongji University.

- Miraflores, Lima: streets for people with reduced mobility in a chic neighbourhood, pedestrians in danger elsewhere?
- The riverside roads of Paris: a fantasy past for a radiant future?
- Santiago de Chile: are the aspirations of today’s users a foretaste of tomorrow’s city?
- Rio de Janeiro, the Olympic city, prepares for the world’s attention.
- Reclaiming the streets in Shanghai: an island of calm in an ocean of tower blocks?

# Mardi 27 mars

9h-11h30

## Tables rondes simultanées

Table B1 La modernisation?

Table B2 Les dépendances?

Table B1 - 9h-11h30 - Loft  
La modernisation?

Le désir de modernisation vient lutter contre le « désordre », cet héritage du passé qui n’est plus en phase avec les valeurs d’aujourd’hui et notre représentation de l’avenir. Ici, c’est le transport informel qu’il faut réguler, faire évoluer et revêtir des habits de la modernité et de l’ordre en tentant d’en conserver les vertus. Ailleurs, c’est là le transport trop formel, ses règles paralysantes et inadaptées aux exigences de flexibilité contemporaine, qu’il faut faire évoluer, ou contourner par des services alternatifs. C’est, un peu partout, la volonté de faire une ville à vivre, dans un espace approprié par les flux mécanisés au nom de la croissance. Comment s’impose ce besoin de modernisation? Comment négocie-t-on le changement? Pourquoi réussit-on ici, échoue-t-on là?

Animateur :

Alain Meyere, directeur du département Mobilité & transport de l’Institut d’aménagement et d’urbanisme – Ile-de-France.

Avec :

Bernardo Navarro Benítez, professeur et chercheur en planification territoriale à l’Université autonome métropolitaine Xochimilco.

Ludivine Damay, chercheure post-doctorante aux Facultés universitaires de Saint-Louis-Bruxelles.

Juan Carlos Dextre

Oscar Figueroa, spécialiste des transports, Institut d’études urbaines et territoriales, Université catholique du Chili.

LIU Jian

Jean-Pierre Orfeuïl

■ Mettre de l’ordre dans les taxis à Mexico : un succès du dialogue?

■ Le projet de RER à Bruxelles : rivalités et négociations.

■ Réformer les transports à Lima : un espoir, des problèmes à surmonter.

■ Mettre de l’ordre dans les bus à Santiago, un beau projet, un échec lié à la précipitation?

■ Poursuivre autrement la croissance du métro à Pékin.

■ Faire du neuf avec le Grand Paris, ou faire marcher le réseau existant?

# Thursday, March 27

9-11:30 am

## Parallel roundtable sessions

Table B1 Modernisation?

Table B2 Dependencies?

Table B1 - 9-11:30 am - Loft  
Modernisation?

The desire for modernisation is part of the struggle against “disorder”, a legacy of the past which is no longer in tune with today’s values and our vision of the future. In one place, the need is to regulate and modernise informal transport systems, to bring them into the modern, ordered world whilst trying to preserve their virtues. In another, it is excessively formal transport, with its paralysing rules ill-adjusted to the contemporary demand for flexibility, which needs to change or be bypassed through alternative services. Virtually everywhere, the goal is to make a city for living in a space that has been taken over by mechanised flows in the name of growth. How does this need for modernisation make itself felt? How can change be negotiated? Why does it succeed in one place and fail in another?

Moderator:

Alain Meyere, Director of the Mobility & Transport Department at the Institute of Development and Urban Planning – Ile-de-France  
With:

Bernardo Navarro Benítez, Research Professor in Regional Planning at Xochimilco Autonomous Metropolitan University.

Ludivine Damay, postdoctoral researcher at the University Faculties of Saint-Louis-Bruxelles.

Juan Carlos Dextre

Oscar Figueroa, transport specialist, Institute of Urban and Territorial Studies, Catholic University of Chile.

LIU Jian

Jean-Pierre Orfeuïl

■ Establishing order in Mexico’s taxi services: a success of dialogue?

■ The plan for an RER in Brussels: rivalries and negotiations.

■ Reforming transport in Lima: high promise, outstanding problems.

■ Establishing order in Santiago’s bus system, a fine project, a failure caused by excessive haste?

■ Another way of growing the Beijing Metro system.

■ Doing something new with Grand Paris, or getting the current system working?



**Table B2 - 9h-11h30, Forum**  
**Les dépendances? Qu'est-ce qui accélère l'action publique ou la ralentit?**

Cette table ronde explore l’hypothèse d’une dépendance des politiques aux intérêts d’acteurs influents, incontournables, ou considérés comme tels, et d’une dépendance de l’efficacité des politiques aux logiques d’action, comme faire soi-même ou déléguer. Au-delà des icônes, un même « problème de mobilité » recevra des solutions différentes (régulation de la demande versus investissement, bus versus rail, etc.). Pourquoi ? Parce qu’une solution s’impose techniquement, économiquement ? par tradition ? par intérêt national ? parce que des acteurs sont plus puissants, plus influents que d’autres ? l’investissement dans les transports publics est le plus souvent conduit en régie par les pouvoirs publics, les autoroutes sont souvent déléguées à des compagnies privées ou semi-publiques. Pourquoi ? Ces logiques d’action influent-elles sur la solidité des engagements, les rythmes de réalisation, les chances de succès ?

- Animateur :  
**Rémy Prud’homme**, économiste, professeur émérite à l’Université de Paris XII.
- Avec :  
**Roberto Agosta**, ingénieur civil, professeur et directeur du département de Transport de la Faculté d’ingénierie de l’Université de Buenos Aires.  
**Juan Pablo Bocarejo**, ingénieur, professeur à l’Université Los Andes de Bogotá, membre de la Chaire IVM-Amérique latine.  
**Sophie Leblanc-Van Neste**, doctorante à l’Université INRS-UCS de Montréal.  
**Matias Garreton**, doctorant de l’Université Paris-Est.  
**Martin Tironi**, doctorant au Centre de sociologie de l’innovation, École des mines de Paris.  
**Eduardo A. Vasconcellos**
- Buenos Aires : changer au rythme des syndicats.
  - Bogotá, 10 millions d’habitants, pas de métro, mais un BRT de légende, pourquoi ?
  - Pays-Bas : de nouvelles autoroutes chez les « AAA » écologiques ?
  - Santiago: une pluie d’autoroutes urbaines, pourquoi ? comment ?
  - Paris : le Vélib’ confié au privé, c’est écolo ?
  - São Paulo, 20 millions d’habitants, toujours plus de bus et toujours si peu de métro. Pourquoi ?

**11h30-11h45**  
**Pause**

**Table B2 - 9-11:30 am, Forum**  
**Dependencies? What is it that makes public action move faster or slower?**

This roundtable explores the idea that policies depend on the interests of parties that are or are considered to be influential and all-pervasive, and that the effectiveness of policy depends on systems of action, such as whether to act personally or to delegate. Apart from the iconic approaches, the same “mobility problem” will receive different solutions (demand regulation versus investment, bus versus rail, etc.). Why? Because a solution is right for technical or economic reasons? Because of tradition? Because of national interest? Because certain players are more powerful, more influential than others? Investment in public transport is usually provided directly by public authorities, whereas motorways are often outsourced to private or semipublic companies. Why? Do these approaches affect the firmness of commitments, the speed of construction, the chances of success?

- Moderator:  
**Rémy Prud’homme**, economist, Emeritus Professor at Paris XII University.  
With:  
**Roberto Agosta**, civil engineer, Professor and Director of the Department of Transportation, Faculty of Engineering of the University of Buenos Aires.  
**Juan Pablo Bocarejo**, engineer, Professor at University Los Andes in Bogotá, member of the IVM Chair-Latin America.  
**Sophie Leblanc-Van Neste**, doctoral researcher at INRS-UCS University in Montréal.  
**Matias Garreton**, doctoral researcher at Paris-East University.  
**Martin Tironi**, postgraduate researcher at the Centre for the Sociology of Innovation, Paris School of Mines.  
**Eduardo A. Vasconcellos**
- Buenos Aires: changing at trade union pace.
  - Bogotá, 10 million inhabitants, no subway, but an iconic BRT. Why?
  - Netherlands: new motorways for the superstars of environmentalism?
  - Santiago: a flood of urban expressways. Why? How?
  - Paris: handing over Vélib’ to the private sector, is that green?
  - São Paulo, 20 million inhabitants, still more buses and still so little subway. Why?

**11:30-11:45 am**  
**Break**

en séance plénière

en séance plénière

De quelle(s) ville(s) rêvent  
les étudiants en Asie, en  
Amérique latine et en Europe?

Les utopies étudiantes des trois continents : Quelles aspirations communes ? Quelles spécificités ? La nouvelle génération nous étonne-t-elle ?

Animatrice:

**Sophie Rousseau**, architecte et urbaniste,  
professeur à l'Université technique d'Eindhoven.

Avec :

**Isabel Arteaga**, architecte, professeur de l'Université Los Andes de Bogotá, membre de la Chaire IVM-Amérique latine.

**Marc Brossa**, professeur invité à l'école  
d'architecture de l'Université Konkuk, Daegu, Corée.

## Rosanna Forray

**LIU Jian**

## Jean-Pierre Orfeuil

## 13h15-14h30

## Déjeuner

## 14h30-17h, Loft

en séance plénière

## Qu'est-ce qui ne fait pas courir l'action publique?

Ne pas aborder un problème en soi, ou l'ignorer dans la mise en œuvre d'un projet, est un choix, parfois délibéré, parfois par ignorance ou par cloisonnement des acteurs, des politiques, des expertises... Qu'est-ce que l'action publique ignore, alors que la société civile, la recherche, d'autres encore, l'ont identifié comme problème ? La capacité de mouvement des plus pauvres ? l'insécurité ? l'espace public hors des zones valorisées ? plus simplement encore, les modes de vie, la connaissance des besoins ? quelles nouvelles pratiques, comme l'usage des cyclomoteurs, les usages plus collectifs des véhicules, les citoyens développent-ils pour répondre plus efficacement à leurs besoins ? Les décideurs ignorent-ils ces nouvelles pratiques ? Pourquoi ? Sont-elles le signe d'une prise en main durable de leurs problèmes par les citoyens ou de simples réponses provisoires en termes de « débrouille » à des questions locales et temporaires ?

Animateurs :

**Julien Damon,**  
professeur associé à Sciences-Po Paris (Master en  
Urbanisme).

**Isabelle Laudier,**  
responsable de l'Institut Caisse des dépôts et consignations  
pour la recherche.

**11:45 am  
-1:15 pm, Loft**

## Plenary session

What kind of city do students dream of in Asia, Latin America and Europe?

Student utopias from three continents: Shared aspirations? Differences? Does the new generation surprise us?

Moderator:

**Sophie Rousseau**, architect, Professor at the Technical University of Eindhoven.

With:

**Isabel Arteaga**, architect, Professor at University Los Andes in Bogotá.

**Marc Brossa**, Guest Professor at the Konkuk University School of Architecture, Daegu, Korea.

**Rosanna Forray**

**LIU Jian**

## Jean-Pierre Orfeuill

**1:15-2:30 pm**

Lunch

## 2:30-5 pm, Loft

## Plenary

What is it that impedes public action?

Failing to tackle a problem, or ignoring it when implementing a project, may be a deliberate choice, or it may happen out of ignorance or because people, policies or perceptions are blinkered... What issues have been excluded from public action, when civil society, researchers or others have identified it as a problem? Access to mobility for the poor? Insecurity? Public space outside favoured areas? Or more simply, ways of living, awareness of needs? What new practices, such as motorcycle use, more vehicle sharing, are citizens developing to fulfil their needs more effectively? Are political decision-makers unaware of these new practices? Why? Are they a sign that citizens are permanently taking charge of their own problems, or are they simply temporary “streetwise” responses to local, short-term problems?

Moderators:

**Julien Damon**, Assistant Professor at Sciences-Po Paris (MA in Urbanism) and **Isabelle Laudier**, Director of the Caisse des Dépôts et Consignations Research Institute.





**II**

**10 villes,  
30 études  
de cas:  
abstracts**

**10 cities,  
30 case  
studies:  
abstracts  
In  
English**

Mettre à l’agenda de nouvelles hypothèses sur les politiques de mobilité, telle est l’ambition de la recherche La Fabrique du Mouvement. Un guide de recherche, commun à toutes les équipes a permis de constituer une base de travail homogène et a facilité le dialogue entre les chercheurs. La démarche empirique, par études de cas concrets, du terrain vers une réflexion plus globale, a été choisie pour mieux expliciter les systèmes complexes de la décision publique (intérêts, idées, acteurs en jeu).

La plateforme d’échanges [movemaking.com](http://movemaking.com) a ouvert un espace de co-réflexion, de recherche participative “La Fabrique du Mouvement 2.0”. Au fur et à mesure du processus, les premiers résultats ont été partagés et commentés. Les textes qui suivent font la synthèse ville par ville des travaux réalisés. Ils constituent une étape d’un travail en cours : La Fabrique en Mouvement.

Les études complètes dans leur langue originale sont disponibles sur [www.movemaking.com](http://www.movemaking.com).

“L’interdisciplinarité est un point essentiel de la démarche.” / “Interdisciplinarity is an essential aspect of the approach.” **Andres Borthagaray**

“C’est la tension qui est le vrai objet d’étude.” / “It is tension that is the real object of study.” **Oscar Figueroa**

“S’intéresser à des cas où les problèmes ne sont pas encore tout à fait visibles” / “Looking at cases or problems that are not yet entirely visible.”

**Juan Pablo Bocarejo**

“Il y a aussi une note de subjectivité, puisque chaque chercheur donnera son point de vue.” / “There is also an element of subjectivity, since each researcher will give their point of view.” **Liu Jian**

The objective of The Making of Movement research programme is to bring new ideas about mobility policies onto the agenda. All the teams worked with a common research guide, which provided a standard framework for the research and facilitated interchanges between researchers. The empirical approach, based on actual case studies, from field work to more global analysis, was chosen as the best way to explain the complex processes of public decision-making (interests, ideas, actors).

The online interchange platform – [movemaking.com](http://movemaking.com) – provided a joint space for reflection and participatory research – “La Fabrique du Mouvement 2.0”. As the process developed, the first results were shared and discussed. The texts that follow provide a city-by-city synthesis of completed research. They constitute a stage in an ongoing programme: The Making of Movement.

The full studies, in their original language, are available on [www.movemaking.com](http://www.movemaking.com).

# General Introduction on Beijing

**Dr. LIU Jian**

Associate Professor of Urban Planning & Design  
School of Architecture, Tsinghua University  
With the Sponsorship of IVM, 2011

Beijing, the capital city of the People’s Republic of China, is located in the east of China, less than 200 km from Bohai Bay to the southeast, neighboring Hebei Province and Tianjing Municipality. As one of the four prefectural municipalities that are directly under Central Government jurisdiction, it is composed of 16 administrative districts, including 2 urban, 4 inner-suburban, and 10 outer-suburban districts, covering an area of 16,4100 km<sup>2</sup>.

Fig. 1: Administrative composition of Beijing



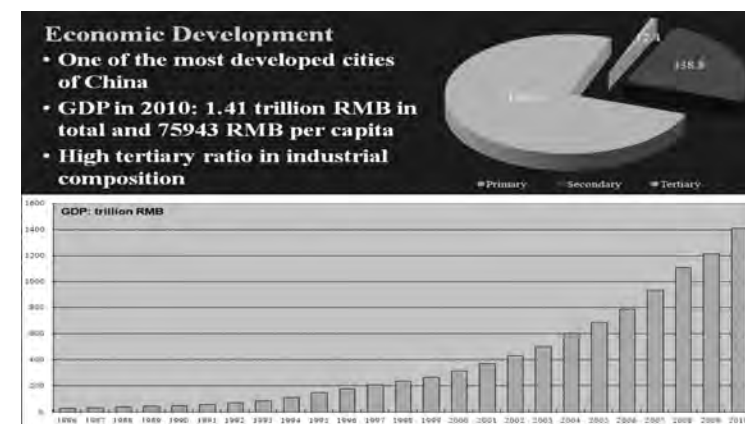
A city with a history going back more than 3000 years, Beijing has seen sustained and rapid development in every aspect of its society and economy since the reform and opening-up of China in the 1980s. Today, it is one of China’s most developed regions, with a GDP of 1.41 trillion RMB in 2010, a percentage of total activity exceeding 75% and per capita GDP of 75,943 RMB. It is the cultural centre of China, with 265 national research institutes and

650 colleges and universities, accounting respectively for 6.5% and 17.6% the country’s total, as well as a full complement of high-quality schools, hospitals, libraries, cinemas, museums, etc. Its population at the end of 2010 was 19.6 million, making it the third biggest municipality in China, with some 60% of inhabitants concentrated in the 2 urban districts and the 4 inner-suburban districts, covering an

area of about 1,440 km<sup>2</sup>, at an average density of 8,132 people per km<sup>2</sup>.

Fig. 2: Sustained economic growth of Beijing in the past decades

Source: Beijing Municipality Statistic Bureau. *Statistic Yearbook of Beijing* for the relevant years.





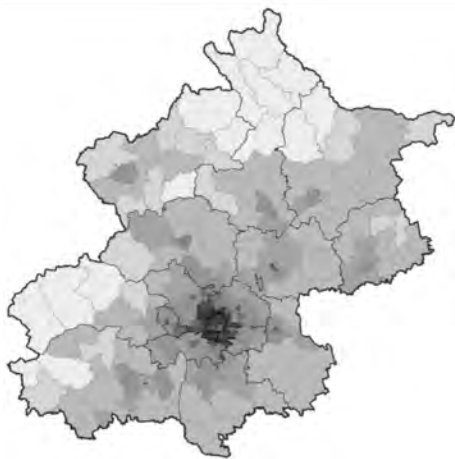


Fig. 3: High population concentration in the urban and inner-suburban districts of Beijing  
Source: Beijing Municipal Government. *City Master Plan of Beijing 2004-2020*.

In terms of urban development, Beijing had an urban population of 16.86 million at the end of 2010, an urbanization rate of 86%, distributed within an urban system composed of the city proper, defined as Central City by the *City Master Plan of Beijing*, eleven New Cities which are mostly the purview of the outer-suburban district governments, and a number of small towns which act as service centres in the rural areas. Of these, the Central City is the main urban agglomeration in Beijing, covering an area of 1,100 km<sup>2</sup>, including two urban districts and part of four inner-suburban districts, and accommodating a population of about 11 million. This is where the large-scale high-density urban construction is taking place and where the main urban diseases, especially traffic congestion, are concentrated, reflecting the sustained urban expansion in recent decades.

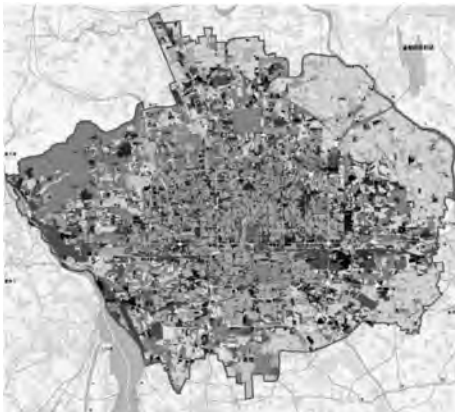


Fig. 4: Beijing's planned urban system  
Source: Beijing Municipal Government. *City Master Plan of Beijing 2004-2020*.

In terms of urban mobility, at the end of 2010, the length of Beijing's total road network, was around 28,000 km, in an area of 9,400 ha. Of this, 903 km were expressways and 6,355 km were spread across the urban areas. Motor vehicle ownership stood at 4.53 million, of which 4.26 million vehicles were passenger transport vehicles and 2.76 million private cars. It had a mass transit system composed of bus and rail services, which together carried 69 billion passengers in 2010, with 21,548 buses on 713 lines and 2,463 metro trains on 14 lines, covering 18,743 km and 336 km respectively.

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# Analysis of Beijing's Policy of Restricting Motor Vehicle Use

Research conducted by  
**Dr. LIU Jian**  
**ZUO Xiaoxuan**

With the Sponsorship of IVM, 2011

**Abstract**  
In Beijing, the policy of restricting motor vehicle usage, as a means of managing transport demand, was firstly trialled in 2006, and then again in 2008 during the Olympic Games to ensure better transport performance during the event. As a result of the success of these trials, the policy has been maintained since the Games, notably to deal with a problem of traffic congestion that has become increasingly serious since the 1990s with the rise in car ownership. Starting with an analysis of the reasons for this policy, the paper describes the practices employed to restrict motor vehicle usage in Beijing since 2006 and analyzes its effects on transport performance in the city over time. After a comparative analysis it concludes that, in spite of its positive impact on relieving traffic congestion in Beijing, the policy of restricting motor vehicle usage, designed to reduce the total number of motor vehicles on the roads, can only constitute a temporary measure for managing traffic demand, since its overall impact will decrease in the long run as car ownership continues to rise.

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# Planning, Investment, Construction and Operation of Rail Transit in Beijing

Research conducted by  
**Dr. LIU Jian**  
**ZUO Xiaoxuan**

With the Sponsorship of IVM, 2011

**Abstract**  
The rail transit system in Beijing first came into existence in the mid-1960s and was officially put into civil use in the early 1980s. It entered a period of rapid development from 2001, in response to the arrival of the Olympic Games in 2008,

and since then has played an increasingly important role in passenger transport in Beijing, as a key element in the public transportation system. Based on a summary of the evolution of rail transit development in Beijing, this paper analyzes the mechanisms of policy-making, the mode of investment and financing, the procedures for the construction and operational management of rail transit, designed to ensure its rapid development and effective performance in Beijing.

# General Background

**Juan Pablo Bocarejo**  
**Isabel Arteaga**  
**Mario Mayorga**  
**Ingrid Portilla**  
**María Angélica Pérez**

In 2010, the Bogotá conurbation was a metropolis of 8.6 inhabitants, 7.4 million in Bogotá itself and 1.2 in the municipalities around. The total area of the conurbation was 2,700 km², with Bogotá accounting for 1,625 km², 25% of it urban. Over the past 10 years, the population settled in the central city has grown by 1.1 million. Excluding the municipalities, the disposable income of the wealthiest 10% in Bogotá is approximately four times higher than the poorest 10%.

The majority of Bogotá’s population is confident about the city’s future. Formal employment represents 54% of total employment in Bogotá. For the conurbation as a whole, this percentage fell to 51% during this period. Formal jobs are mainly concentrated in a few zones in the central and western parts of the city.

Socio-spatial segregation is high. The wealthiest population tends to concentrate in the northern side of the city and neighbouring municipalities, middle incomes in the central and western areas, whilst the poor are mainly located in the south.

On average, the inhabitants of Bogotá’s metropolitan area over the age of 5 travel 4.4 km per day, with work and education related journeys accounting for 40% of this total. Most people use Public Transport, which accounts for 57%, with the rest divided into walking 15%, car use 10% and the Transmilenio 5%.

Inhabitants over the age of 18 think that the 4 main problems the city faces are:

- 1. Personal safety
- 2. Job opportunities
- 3. Road network conditions
- 4. Access to and quality of public health services.

Since the beginning of the century, the public bodies responsible for transport have developed a sustainable and equitable vision of mobility. The goals are to improve the city’s competitiveness, equity, environmental conditions and finances.

They have had to tackle the following problems:

- 1. Low level of service along main transport corridors
- 2. Limited coverage and oversupply of transport services in specific areas
- 3. High traffic accident rates and pollution
- 4. Low expansion and maintenance and poor conditions on the road network
- 5. Growing traffic congestion

The main policies pursued are:

- 1. Sustainable mobility: Mobility as a tool to improve quality of life in the city.
- 2. Competitive mobility: Mobility governed by principles of efficiency and effectiveness.
- 3. Environmentally sustainable mobility: Criteria for environmentally sustainable mobility to be adopted as a means to preserve population’s health and well-being.
- 4. Pedestrian priority: The primacy of the pedestrian as a focus of policy.
- 5. Public transport, the backbone of the mobility system: Public transport is the core of the mobility system. Appropriate use of cars should be encouraged by increasing occupation rates and managing car demand.
- 6. Multimodal integration: In order to improve access, coverage and coordination between urban, rural and regional mobility systems and transportations modes needs be well articulated.
- 7. Smart mobility: A full information system to be developed to manage the interaction between the actors and components of mobility.
- 8. Socially responsible mobility: Negative externalities to be absorbed by those who produce them.
- 9. Results-oriented mobility: A management model to be gradually introduced in order to achieve the objectives of the Mobility Master Plan.

# Why doesn’t Bogotá have a Metro?

**Juan Pablo Bocarejo**  
**Ingrid Portilla**  
**María Angélica Pérez**

Over the last 3 decades, many Metro projects have been proposed for Bogotá. This system is perceived as a definitive solution to the city’s growing road congestion and mobility problems. In addition, it is for many a symbol of modernity. This desire for modernity has been exploited by presidential and mayoral candidates.

Important variations in the alignments of different Metro projects show a lack of rigour at the development stage and, moreover, profound weaknesses in the city planning process. For many years, there was no official and clear future vision for Bogotá. The absence of a long-term transport policy, which would define principles, objectives and strategies, largely resulted in the implementation of the different road network expansion plans prioritised by each mayor. Although over the last 30 years, some isolated public transport projects have been successful, prior to the Transportation Master Plan the continuity of transportartion projects was subject to political agreements. Moreover, some urban planners and transportation experts have been reticent about these Metro projects because of the high costs, low demand levels and the long lead times for implementation and expansion.

The pursuit of different transit alternatives to the Metro led to the implementation of cheaper, more efficient initiatives with shorter lead times. Notable among these are the dedicated bus lane schemes, foremost among them the Transmilenio, the world’s highest capacity BRT. With regard to mass transit systems, therefore, Bogotá has followed a different path to that of American and European cities.

The development of those Metro projects that have been proposed has systematically failed because of a lack of institutional managment, a shortage of monetary resources and the financial failure of Medellín’s subway system. In addition, the lack of political will relating to transport objectives and of good planning processes have been decisive factors preventing the realisation of Bogotá’s Metro system.

# Mobility and Access Inequities in Bogotá

Juan Pablo Bocarejo  
Ingrid Portilla

When it comes to mobility conditions, Bogotá is a very inequitable city. The main factors behind this are the coverage of transport services, the spatial distribution of activities inside and outside the city and household revenues. A low-income household spends 15% of its revenues on transportation, approximately twice the percentage spent by a high-income household, and since they settle in peripheral areas a long way from centres of employment and activity, they have longer distances to travel. Individual mobility rates show that individuals on low incomes make on average half the journeys of their high-income counterparts. This means that the unfavorable mobility conditions faced by people on low incomes constrain their access to opportunities.

On the other hand, because of the limited coverage or low service levels of public transport services, a number of illegal solutions have developed to meet people’s

needs. The “bicitaxi” operators, in particular, have established their own operating rules and regulations for their services. Although national and municipal authorities are aware of these unofficial schemes, none of them to date has dealt with the issue.

As in many other cities around the world, Bogotá’s Mobility Master Plan aims to improve access to transport services and therefore to opportunities. In particular, it seeks to promote urban productivity and social equity by means of good connections between peripheral areas and employment hubs. However, there is no clear strategy for achieving this goal. At present, local authorities have no methodology for assessing their success in this domain.

# BRT in Bogotá: Town planning failed opportunities.

Isabel Cristina Arteaga Arredondo  
Fernando Roa Montañez  
Lauramaria Pedraza Sánchez  
María Fernanda Villalba Muñoz

Since 2000, Bogotá has experienced one of the major urban changes of the twentieth century. One of the notable projects during this change was the integration of a BRT system (locally called Transmilenio). It aimed at improving the long standing mobility problems due to the unchecked proliferation of cars and inadequate public transport services which had, till then, been dominated by the private sector. Transmilenio, therefore, appeared as “The” mass transport solution which seemed to offer the same advantages as an underground network but at a lower cost since it used the existing urban thoroughfare infrastructure with only minor changes.

The BRT had a positive impact on commuting time within the city, but at the same time it had a negative impact on the quality of its own urban space regeneration. This presentation deals with the second part of the debate regarding the BRT in Bogotá. It looks at the almost total lack of debate around the impact of the construction of high speed and Exclusive Right of Way lanes for it (called Troncales) in the consolidated city, and the failed opportunities for urban coordination, for spaces shared by multiple transport modes, or for revitalizing dilapidated parts of the city.

That is how two opposing mobility approaches coexist simultaneously in the Troncales: for one of them the speed and efficacy of public transport becomes a city premise and for the other a less efficient yet more dynamic mobility standard persists. This has a direct impact on the vitality and appropriation of public space.



It therefore seems necessary to identify coordination points between the BRT and public spaces within the total city project. The size and scope of a project such as Transmilenio offers an opportunity which, beyond mobility, has a fundamental impact on the effective urban recovery and urban revival processes.

# Bicitaxis: New informal transport mode in Bogotá

Isabel Cristina Arteaga Arredondo  
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Great concern for the environment and remaining urban mobility issues have led to a debate, over the past few years, about the implementation of alternative modes of transport such as cycling. Over the last decade, the city has invested heavily in setting up a diverse and efficient transport system largely based on the BRT, but also on a wide network of bike lanes. Along those lines, recent mobility policies have granted alternative transport modes such as cycling a high priority: the approval of the public bicycle system BICI-BOG and recreational and sports programs such as the cycle lanes, show that bicycles are seen as an individual mode of transport which is very important for the city’s integrated transport system.

On the other hand, the changes in public transport and urban mobility logic in Bogotá implemented through the Transmilenio system, led to gradually eliminating many transport routes which used to terminate in the different quarters of the city. As a response, complementary transport modes emerged in these sectors. These have unofficially filled the gaps by using personal vehicles offering collective public transport services in these areas.

In this presentation we will try to understand local mobility complementing the Transmilenio system in urban areas where its scope is not efficient. We will do this through an alternative mode which emerged these past few years: the bicitaxi. Bicitaxi is a service providing short distance mobility at low cost, bridging the service gaps left by the BRT. It also generates informal employment. Despite the fact that it is appreciated by its users, this service has not been authorized by public authorities for safety, sustainability, financial and operational reasons. We will therefore identify the bicitaxi dynamics regarding its operation and social stakeholders: despite being an informal practice, it displays internal order and logic which vary depending on the area where it is located; its advantages and disadvantages; effects and consequences as far as mobility and economy are concerned; and finally the different stakeholder’s position from the administrative and technical levels to users and operators.

Urban dreams and utopias (Survey)

In order to discover the utopian city and mobility visions of Bogotá’s young city dwellers, 95 surveys were put online for young students, between the ages of 18 and 22 enrolled in architecture and civil engineering at the Universidad Nacional and the Universidad de los Andes. The survey comprised four questions:

The ideal city: safe, ordered and fair  
■ Imagine what the ideal city would be like for you, without being restricted by any “notion of reality”? Describe it using 5 adjectives

Modes of transport and their qualities  
■ What modes of transport do you dream of in order to move around your neighborhood or your city? What type of “qualities” do you expect from transports?

Perception of cities and features to be changed:  
■ Mythical cities  
■ Mention three cities which you would qualify as “mythical” and which you consider either as an ideal, or for which you feel repulsion and explain why.

Urban improvements  
■ If you had the power to improve your city, what would you do? Why?

Usually, students consider that the ideal city is ordered, safe, sustainable, efficient and socially equitable. As far as town planning is concerned, students think that the city must be planned and adopt a densification strategy, set up several activity centers with enough public spaces and parks for its inhabitants. Regarding transport, they tend to think that the guarantee to safe, cheap and fast mobility lies in a good public transport system which is integrated and intermodal: an underground combined with integrated bus lines, local trains, trams, bicycle lanes, Exclusive Right of Way Lanes for individual vehicles and quality sidewalks. All of this should be interconnected and cover the whole city.

The students mentioned various cities, but they all agreed that the model cities were those which were sustainable, concerned with the environment and the well-being of their inhabitants, offering efficient mobility using high technology and that public space should be one of the main concerns of public policies. In order to change the city, they would implement measures aiming at decreasing socio economic segregation; they would strengthen and subsidize access for the most vulnerable part of the population to essential public services. Creating new green areas, public spaces and supporting new collective architectural proposals, would also be another strategy used to improve the inhabitant’s quality of life.

Finally, the students feel it is necessary to educate the population in order to generate a feeling of ownership of the city, they are hoping it would bring about a caring for and adequate use of resources and services the city has to offer it’s inhabitant.

# The trade union approach to urban mobility policy

**Roberto Agosta**  
**Andres Borthagaray**  
**Andrea Gutierrez**

In Buenos Aires, unions have always been a strong actor in public policy; however, in recent years, transportation unions have become particularly significant. The Confederación General del Trabajo (CGT) is the only federation with legal status that grants itself jurisdiction over the management of social security due to the Argentine law that legally acknowledges only one union per branch. Regardless of changes in policy, it has remained powerful during the last half century. Furthermore, unions related to transportation have a strong influence in the CGT. They have succeeded in electing the head of both the truck drivers’ union and the Confederación Argentina de Trabajadores del Transporte (CATT) as the leader of the CGT, which was historically run by industrial unions.

One interesting case concerns bus transportation policy. For sixty years, the bus network was quite organized, relatively affordable and operating without public subsidies. The loss of industrial jobs on one hand and increased access to private cars on the other led to both a decline in passenger numbers and increased traffic congestion.

In addition, during the 1990s, railway services improved briefly and attracted a higher modal share of passengers. This competition was reinforced by informal services. Therefore, even though bus fare reached a historical peak of US\$ 0.75, the situation led bus operators to complain of strained finances. With the crisis of 2001/2002, user incomes remained stagnant, while bus-operating costs increased due to the variation of exchange rates; thus, the subsequent devaluation of the peso was addressed with a system of subsidies, meant to ease the blow of the crisis both for the passengers and the bus operators and employees. This system has continued up until today, even as average incomes in most households have increased and the relationship between service providers, governments and trade unions has changed. Therefore, while at first 100% of the revenues were covered by passenger fares, today it is only 25% and 75% is supported by a federal subsidy (according to various studies and expert interviews).

After the economic crisis subsided, there were a series of collective bargaining agreements between UTA (Union Tranviarios Automotor) and the privately owned transportation service providers. The outcome of those bargains induced improvements in working conditions, training, social welfare coverage and wage increases.

However, decision-making in the mobility sector remained quite controversial. Specific and short-term issues were more important than long-term mobility challenges. There have also been initiatives from the union leaders such as the proposed creation of a Ministry of Transportation that would determine the terms of the sector’s policy and enhance state intervention in the planning and regulation of the sector. Public authorities strengthened their interventions, but within the existing institutional framework. Additionally, there is a controversy over the highly dominant modal share of freight transported by truck (over 90%) rather than by train. But the question is how do these issues relate to the logic behind decision-making?

This question is developed in the case of transportation subsidies in Buenos Aires. More specifically, while subsidizing public transportation is not contested in principle, the amounts that have accumulated due to these policies are increasingly difficult to sustain economically and politically. In fact, the metropolitan area of Buenos Aires has a higher subsidy level per ticket than other regions in the country. Some new adopted measures provide improvements for users while responding to these financial tensions: exclusive, dedicated lanes make the service more attractive, electronic payment systems (SUBE) eliminate the need for coins and improve information about the service and their users, and the transfer of federal authority over public transport services to the city. What had been a closed conversation between experts and stakeholders, has finally incited public debate. Today, it has become a significant issue in Argentine society.

# The sound of broken chains: the missing North-South connection in Buenos Aires

In the social imagination, transport is at the heart of urban transformation and the factor that embodies the speed and change of new eras. These aspects of the semiology of transport are not generally analysed, despite their importance in the public decision-making process. The idea and the means of connecting the North and South of Buenos Aires is a good example of the dimensions.

The port and the connection between the continental roads and the Atlantic roads have, since its foundation, given Buenos Aires its economic raison d’être. In the late 19th and early 20th centuries, the importance of production from the fertile plains of the Pampa, immigration routes, international trade and investment, in particular from Britain, prompted the renewal of the harbour and railway logistics complex, linked to a network of 800 km of metropolitan railways, the first metro systems in Latin America and to the highly developed tramway.

This convergence produced a highly dense spider’s web structure around the port: buildings and infrastructures of all kinds were located in a very small area of land. This essentially railway infrastructure was gradually joined by another network, this time of roads. However, initially, this second network had a very significant landscape and promenade element. This was true of roads like Costanera Sur, Alvear Libertador, Leandro Alem, Avenue 9 de Julio. And, despite some foretastes, it was only in the later part of the 20th century that the promenade concept was replaced by the functionalist idea of urban expressways. For example, the Cacciatore Plan (1978) began the development of the motorway network, partly built, partly planned, and often referred to in public policy intentions. It may seem paradoxical that this prospect remains a possibility, despite the speeches of the municipality and the State in favour of public transport. So what is the rationale behind the particular attraction of urban road solutions in the agenda of governments?

In trying to answer this question, we should first note that there has always been a set of alternatives to consider, with one option predominant in each issue. Thus, the road along the river and the harbour, between the North and South stations, has been the target of several projects over recent decades. These stations and the motorways in the Southern part (9 de Julio Sur and Buenos Aires - La Plata) are not connected with those of the Northern part (Illia, Lugones). Whilst the idea for an orbital regional express railway (RER) has long existed, the idea of an orbital motorway is more recent, whereas plans for a partial subway link already exist (line C and lines E and H under construction and lines I and G planned) along with an extension project. But between the power of executive projects – including public calls for tenders and contracts signed for the motorway – and the weakness of the RER project, there is a big gap. The controversies have resulted in these tenders ending up in court, but the question remains why one is so dynamic and the other so timid. There are undoubtedly several factors, whose relative impact needs to be assessed.

First, fresh money is available to invest in road concessions and not railway concessions. Indeed, under a public works concession granted first by a municipal executive order for 5 years in 2004 and then for 20 years by a 2009 law, the toll revenues of the city’s urban motorway company are reinvested in new motorway projects and are not debated at the annual budget vote. By contrast, the money-losing railway and subway concessions obtain funds solely through the central budget programmes of the State or municipal administration. Next, the administrative procedures for motorways are conducted within the framework of public limited company status, whereas those relating to government investment must go through public expenditure controls.

In addition, recent experience shows that there are many more road projects than railway projects, because of the way the public works industry operates. As a result, we see a combination of the attraction and availability of public funds with lighter institutional monitoring procedures and the fetishistic illusion of visible construction work, whatever it is. In short, the experience of public works companies, the apparent modernity of the car, the expectation of being able to

cross the whole city in 15 minutes, are all additional reasons to justify the closing of the orbital streets around the port.

As for the institutional structure, it provides no global perspective over the different means: the arguments for one or other of the solutions are not explored in the same space; budget resources do not reflect the same reasoning; and the systems of public consultation on all the alternatives for the north-south connection are not yet part of the decision-making process. However, it is on the grounds of the rights enshrined in the city’s constitution that the courts have become involved.

The question of the reasoning behind decision-making on mobility for one of the most critical points on the metropolitan, not to say national, infrastructure network, therefore remains open for the future. Above all, and without going into the fundamental argument, it still seems possible to hope that, in the light of public debate, the comparative advantages of alternative projects will win out over the restrictions and shortcuts of governance systems. However, it hasn’t happened yet.

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# Bicycle Integration: measures taken in the Buenos Aires Metropolitan Area

The integration of the bicycle into the transportation system could contribute to solving many of the transportation problems in the region of Buenos Aires. Most studies on bicycle integration in urban settings focus on the benefits of its use, especially in consolidated downtown areas. Little attention has been given to the heterogeneity of urban conditions under which the bicycle must coexist with other modes, especially in large, developing-country cities with considerable internal variations in urban conditions and diverse and often conflicting target users.

This report identifies measures adopted by the different municipalities in the region to integrate the bicycle into the urban transport system. It briefly describes the historic evolution of the region to explain how the heterogeneity of current urban conditions came about. Next, it proposes criteria for categorizing the types of urban setting that exist in the region in order to analyze the measures in each setting type. Last, it identifies and analyzes the measures, or lack thereof, to promote the use of the bicycle, the criteria with which they were implemented, their level of success and the conflicts they generated.

There are enormous differences in urban settings in the Buenos Aires Metropolitan Area, with their corresponding differences in demographic



indicators and transport conflicts. Efforts to integrate bicycles have had little success in the region partly due to the lack of priority, continuity, and funding the issue has received at the municipal level, the atomization of decision-making authority and the lack of coordination amongst municipalities. Since 2007 the city of Buenos Aires has embarked on an aggressive and successful campaign to promote the bicycle use. The fate of the program and its capacity to influence the surrounding municipalities will determine the future of bicycling as a transport mode in the region.

# Metrobus: a pilot test with no major controversies

Buenos Aires was a pioneer in public transport, notably with the first subway line opened in 1913. However, it was only recently, in 2011, that it introduced the BRT, and on a small scale – 12.5 km compared, for example, with the somewhat ambitious announcements by the city’s mayor of growth of 10 km per year in the subway network – and on a route that aroused little conflict.

This decision is based on various principles. The first is the power of the presence of the BRT in other cities, in particular Latin American cities. The BRT seems to have become THE local solution to mobility problems on the continent. There are four major benefits underpinning the promotion of the “Metrobús”: shorter travel time, less congestion, greater road safety, less pollution, and better access for people with reduced mobility. The second is the political visibility relative to the construction costs and timescales and the relatively uncontroversial nature of the system, which seems to favour a cautious strategy rather than a total transformation of the system. According to the official documents, compared with the subway, this bus route will cost a 50th of the price and can be built in 7 months instead of 4 years. The third, whether it is a real BRT or not (ITDP claims to have inspired it but does not rated amongst the winning projects), are the objective benefits for the users, for example in terms of time saved (40% according to the municipality), which mean that the impact of the project can make it a success for the public authorities. It is one of the municipal government’s most visible initiatives, and also the one that has aroused the least controversy. CNRT surveys conducted at the Liniers and Pacífico stations reveal a few oddities, for example that of the 53% who say they prefer the Metrobus to the Subte (subway), 34% base their reasoning on speed, claiming that it is faster than the subway. Finally, we would point out that despite its relative simplicity, the project required fairly complex coordination between the municipality and the State, the operators and the motorists affected. On the basis of this experiment, which has increased passenger numbers on the buses running on the route by 40%, the municipal government wants to extend it to other points on the network.

# Citizenship and mobility: How Lima’s inhabitants perceive public transport

Pablo Vega Centeno

Both the Metropolitan Municipality of Lima and the Government of Peru have launched new public transport projects, after giving up the direct transport service management in place for almost twenty years. One of them is the exclusive right of way lane dedicated to the bus called “Metropolitano”, and the other a surface metro originally called the “Tren Electrico” (Electric Train).

Both projects have been positively accepted by the population since it the current Public Transport operation is perceived as chaotic and inefficient. It is nevertheless necessary to analyze the population’s perception in more detail as it will enable us to better understand where the highest levels of dissatisfaction lie, enabling us to identify the strengths and weaknesses expressed by the users when referring to everyday use of the traditional Public Transport.

This document aims at investigating the citizen’s perception of public transport and is organized in four parts. Firstly, city and mobility organization are presented. Then, based on opinion surveys conducted these last three years, Lima’s population’s perception of the infrastructure, vehicles and behaviors of public transport stakeholders (buses, microbuses, combis and coasters), which we will call the “traditional” public transport. Thirdly, the opinions voiced regarding the pedestrian’s behavior are analyzed; finally, a case study will present the first effects generated by the main exclusive right of way lane of the “Metropolitano” buses when they started operating.

One of the findings of the study shows that the population’s opinion regarding the problems linked to the transport service providers’ behavior is unrelated with the perception of infrastructural issues. This can be considered as an opportunity since it requires a transport system reorganization enabling the service providers to get better profits based on the type of service provided. This type of perception nevertheless has weaknesses since the users are not very demanding regarding the quality of the transport units. The situation worsens when one studies users mainly when they are accessing the vehicle, and not while they are walking in the city before or after having used it. It seems that sensitivity regarding their rights as pedestrians only emerges when their home’s environment is involved, as the Tomas Valle and Barranco cases have shown.

As long as Lima’s residents using public transport do not see themselves as a

pedestrian as well, their demands for urban infrastructure will continue to go unnoticed both from themselves and from the politics in charge of its implementation. In other words, their consolidation as citizens will remain unfinished since the perception of their rights is only emerging or is limited to their rights as neighbors.

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# How to walk in Miraflores? Pedestrian networks and accessibility for people with reduced mobility in Miraflores’ central area: impact of actions carried out and pending needs

Mariana Alegre

The Miraflores district is one of the most prosperous in Lima and is considered as one of the tourist attraction poles of the city. Heavy investment was made in its roads and pedestrian infrastructures, and it can be considered as a model since a few years ago, during the former mayor Fernando Andrade’s direction, specific streets in the central area were made semi-pedestrian. But, how much attention did such a district pay to everyday mobility of citizens with reduced mobility (disabled, senior citizens, mothers with infants) and other pedestrians in general? Are its streets safe and do they combine several transport modes properly?

In order to find out, 144 paths in the central area of the district were analyzed, and accessibility, pedestrian area integration, signposting location, urban furniture and fixture location criteria were assessed, taking into account obstacles, both of public or private origin, and registering traffic offenses committed by citizens. The objective of this investigation was to determine whether, despite the investments made in the area, the pedestrian streets met the needs of people with reduced mobility, and if so do they also meet those of the other citizens.

The investigation also aims at assessing the impact the pro-mobility projects have had in the district, and what is Left pending as far as accessibility and safety in the pedestrian mesh. A number of questions are linked to the usefulness the businesses operating in the pedestrian streets have had before and after the works. Were the new businesses attracted there by these policies?

In the analysis, Miraflores’ streets had problems linked to the obstacles detected in pedestrian ways, as well as in facilities these offered to reduced mobility users, especially to the disabled. It is striking to note that in Miraflores, Policies promoting mobility are beginning to appear, but this is not necessarily entirely understood. This is what we are interested in evaluating. The focus on mobility must be fully understood so that it serves everyone, every pedestrian, no matter who they are.

Finally, it is worth mentioning that Miraflores is a district with the economic and technical capacity to take the lead in the evolution towards mobility and to become one of the model districts for pedestrians in Lima and for the whole country. That is why it must invest in pedestrian area improvement and adopt mobility as a solution for the future. By doing so, it will establish the basis so that other districts in the country can copy its good practices and the cities can take better care of their citizens by offering them better urban walking conditions.

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# From Public Transport Companies to the Metropolitan: A transport improvement in Lima?

Claudia Bielich

The Metropolitano is the result of a chaotic system and an attempt to come up with an efficient system. For many years, Lima’s public transport companies have discovered that it was more profitable to own the authorization than the fleets, and to be in contact with the owners (actual people), who register their vehicles with the company. Most owners hire a driver who in turn finds a conductor. Officially, the company only has contacts with the owner. In other words, the operators (drivers and conductors) are not their employees. The operator’s income is per day and depends on the quantity of passengers boarding the vehicle. The consequence of this is the so called “Cent war”. All of this has institutional causes since authorities allowed it.

The Metropolitano was created to respond to this system. Its first phase, which has now been implemented, was the High Capacity Dedicated Corridor (COSAC 1), with feeders around the first and last stations. The collection system is based on electronic cards. And COSAC 2 with four additional corridors has been promised for 2014. The Electric Train would also be added. The aim is to develop an integrated transport system.

Core aspects of the service offer and understanding are changing. There are three main transformations: infrastructure; fleet and routes, and management.

Infrastructure	Fleet and Routes	Management
Segregated corridors with dedicated lanes and stations	Main service plus feeders. Gas fueled articulated buses	Institutional and Business Management with three main players: MML PROTRANSPORTE Transport companies Company in charge of collection

Metropolitano management has nevertheless had problems: delayed implementation, lack of credibility, conflicts with operacional companies, amongst others. This generated citizen protests, and a number of initiatives. To conclude, the Metropolitano offers and implies a new form of public transport, but the process was not harmonious and a series of problems still need to be corrected. That is why it is important to meet the core and long term objectives: not to remain at the COSAC 1 stage, but rather to involve several processes (The second COSAC, the corridors, and integrate the Electric Train).

There will be high social, political and economic costs. Therefore, will these ideas, which are theoretically beneficial, be put in practice? Will they have the expected positive effects?

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# Is it the pedestrian’s fault if they get run over?

## Pedestrian mortality in an urban area of the Carretera Central (Main Road) and lack of action from authorities

Juan Carlos Dextre

The World Bank and World Health Organization’s global report (WHO, 2004) relative to prevention of traffic related traumas, points out that road insecurity has a disproportioned impact on the poorest and most vulnerable sectors of society. Amongst the most vulnerable are the lowest income pedestrians who travel on foot

or walk to the public transport services. It is also important to note that road insecurity also impacts a group of people who, despite not having suffered a traffic related accident, has a restricted autonomy to walk around the city, which is a main problem for children. In other case, groups have a limited capacity to shop or visit friends near their place of residence, which is what happens to senior citizens.

This subject has become a highly relevant social issue in Peru, since according to the WHO (WHO 2004) out of 178 countries involved in the study, Peru comes first as far as the percentage of pedestrians killed (78%). Despite the severity of the problems and popular demands, this problem still hasn’t been tackled by the relevant authorities and does not appear to be one the priorities on the public agenda.

Taking into account that the authorities and the media seem to consider that the pedestrians themselves are responsible for their own death or injuries when they are run over, the report tries to answer the following question: Is it the pedestrian’s fault if they get run over? In order to find an answer to this question, part of the Carretera Central (CC)-between the Ate Vitarte and Santa Anita districts- was analyzed, since it concentrates a large part of the city’s accidents.

The main problem detected is that the part of the CC analyzed is now in the middle of the urban expansion. It has stopped being a road dedicated mainly to uninterrupted traffic, to turn into a crossing, with urban activity on its edges, and where it is necessary to enable pedestrians to cross easily and safely.

Out of a total number of 57 accidents registered at Santa Anita’s police station happening in CC between august and December 2008, 20 of them happened at an intersection known as the Ovalo Santa Anita. There are very important pedestrian fluxes in this area, but the pedestrian don’t have any specifically dedicated time to cross the intersection, they do so with the cars driving by, which explains the high risk for them, and, therefore the high frequency of run over accidents.

An Ethnographic study conducted in Los Portales explored how everyday mobility of the people living on the edges of the CC affects road insecurity. Several strategies and precautionary measures taken by people in order to circulate over short distances were identified, and their perception about not being able to cross the CC alone as pedestrians. An illustration of how road insecurity restricts everyday mobility for the elderly is given by señora Quetita’s perception (78 years old):

In order to pay my electricity bill, for instantce, I need to run across on my way out and back. At my age how am I going to cross? How can I run? I won’t risk it. That’s why I say: I’m not afraid of dying, I’m old enough to die... but in my bed, not in the street!

Based on the cases analyzed, we were able to observe that the CC is an inefficient roadway for the drivers and a great hazard for the pedestrians circulating in its vicinity.



We tried to interview authorities at the highest level but after finding out about our subject, they deflected our request to lower level civil servants who in turn did the same (“you need to talk to *so and so* about this topic”). This proves that the authorities’ lack of action –despite the fact that this is a clearly identified long standing problem for which mortality data indicating a high accident prone area exist- is due largely to the fact that nobody knows exactly who is responsible for solving the problem. They all believe it is someone else’s responsibility and not theirs; in the mean time, pedestrians continue being marginal users getting run over or forced to stay in the immediate vicinity of their home which greatly reduces their quality of life.

# Emerging Social Agents in Mexico City’s BRT system

**Roberto Rojas Noguez**  
**Bernardo Navarro Benítez**

The city of Mexico, at the core of the Metropolitan area of the Mexico Valley, offers complex urban processes. The metropolis counts 20,116,842 million inhabitants. Over the last decade, this population has increased by about 1.74 million. This population is spread over 7.815 square kilometers of which 65.5% are urban. Its active economical activity is based mainly in urban services, which nonetheless presents high income concentrations, but thanks to the development of economic activity and to an moderate job market, the average income per inhabitant has increased by 7.5% over the past few years. Legal employment in the D.F. (Federal District) represents 80% of total employment. The D.F. is the entity which has created the largest number of jobs in the country since it has cumulated 78 285 additional official jobs in a year. The DF is the only federal entity showing a positive growth in job creation although the job market has decreased at the national level. Socio-spatial segregation can be considered moderate due to the dispersion of income levels; nevertheless, the areas with predominantly lesser incomes are clearly identifiable at the eastern and northern outskirts of the FD, while the higher income areas are located in the west and the center-south area. These characteristics regarding job locations have historically led to the fact that the workforce has had to commute over long distances from their area of residence to the areas concentrating the job market and best wages. This represents one of the local government’s main concerns, as it considers it as a hurdle for achieving higher competitiveness and well-being for its citizens. Therefore, the DF Govrnment has promoted and implemented a wide range of public policies dealing with these issues.

22 million trips are made everyday in the ZMVM. 41.3% of these are within the state of Mexico and 58.4% within the Federal District. Part of these, 14.8 million use public transports while 6.8 million trips are made using private means of transportation. Out of all trips initiated in the State of Mexico, 75.7% remain within the State, and 24.3% have the Federal District as final destination. The trips initiated in the D.F. remain within this entity up to 83% while 17% have a destination within the state of Mexico. The main Public Transport modes in the ZMVM are collective (microbuses) up to 65% of all trips; taxi up to 17%, the Metro with 8% and 7% suburban buses. Public Transport was lagging behind regarding funding and service administration and operation, due mainly to its handcrafted (truck-man) and technological (obsolete and unsafe units) features. Therefore, aiming at reversing the situation right from the start, the new current administration (2007-2012), strongly promoted a change of scheme for the Public Transport System. The city of Mexico’s BRT System is an example of the above. In less than 5 years it has multiplied slightly over 3 times its network coverage. It now represents a 67km network, replacing the minibus system with bi-articulated buses with much more capacity, on ERW (Exclusive Right of Way) Lanes and fixed stops, the system’s infrastructure enabling reorganization of the public space. Generally speaking, this Transport solution has been widely accepted by users; but, in the most recent line of the system (line three), a new administration and operational scheme was adopted for the BRT System. A new social agent was added –private transport companies- so as to ensure financial security for the concessionaries integrated in the company running the corridor, this way benefits such as the experience the private company can bring to logistic and administrative processes can be gained, as well as bringing in fresh capital; while the Local Government shifts the fleet acquisition costs to the private company. The main problem encountered with the integration process of agents involved in the above mentioned corridor (L3MB), was the rejection of the integration of the private sector by concessionaries, claiming their individual interests would be impacted. Through the ministry of transport and after about a hundred negotiation meetings, the local government succeeded in integrating those players after proving the benefits and advantages offered by the new scheme to participants (social security, legal security, job and wage security for the concessionaries turned shareholders). For the user, the integration of this corridor means reducing commuting time by 30%, also reducing the number of interconnections and optimizing connection options with other modes of transport. Another aspect which is currently of crucial importance is the feeling of safety offered by the BRT system as expressed by its users. Finally, comfort is also highly valued by users although a frequent comment made was the wish for additional lines serving the suburbs and outskirts.

# Mexico City: A Modernization and Regularization Program for 103,000 Taxis

Recently, a taxi regulation program has been developed in Mexico City. They have regularized 130 thousand taxis, as well as owner and driver identification documents  
In 48 months they have substituted a total of 75 thousand units with new vehicles.

This study describes the policy’s development (from conception to results) using some official documents and the perception of key informants who are representative of the principle social agents involved.

The problem facing urban policy:  
Mexico City has one of the largest taxi fleets in the world. There is one taxi per 68.5 inhabitants. Out of the roughly 22 million trips made daily in the metropolitan area, 1.5 million are made by taxi. The taxis are important not only as a public service, but also due to their economic weight. They are a self-employment alternative and have an impact on the environment.

The service’s expansion occurred over the last decades under a corporate plan that promoted a continuous cycle of illegality-recognition. Along with the taxis, some organizations, cooperatives, associations, unions and companies have also been developed and strengthened. In 2007, the Mexico City government had 106 thousand units recorded in an unreliable register. It is estimated that between 25,000 and 35,000 were illegal taxis. Together, they constitute a heterogeneous service, both in relation to the vehicles as well as to the business structure. “Without exaggeration, we could say that almost 90% of current drivers provide regular service with a diverse range of social and labor problems, but all are in trouble.” (4<sup>th</sup> informant)

The government’s discourse:  
At least four of the major City Government Plans have references that pertain to the subject of taxis; three focus the issue on matters of the environment and security. Although these the origin of these issues can be traced to the absence of both reliable records and the regularization of concession documentation for vehicles, owners and drivers, these issues were only addressed in the Mexico City Transportation Sector Plan. Thus, the government begins the taxi regularization program that does the following:  
1 – Safety: There was a connection between illegal taxis and some crimes committed in taxis.  
2 – Environment: According to the plans consulted, the goal was to reform the fleet in order to reduce emissions.

The Social Agents  
Social, government and private agents are directly involved in the reform and substitution taxi policy. In the government, those involved are the Mexico City Municipality, the city’s minister of transportation and the staff assigned to the service’s regulatory agency.  
Similarly, private social agents dominate permit holders and drivers, not to mention the intervention and interest of the leaders of organizations, cooperatives, associations, unions and companies mentioned above. The automotive industry represents an important social agent “indirectly” involved in policy. However, it should be noted that taxi users are absent from the role of participating social agents, even when they are the main object of the government’s action (as reflected in the claims of the official documents)

There is general agreement among those consulted that disorder prevailed prior to the development of the public policy specifically focused on the need to reorganize the service. Furthermore, they all agreed in qualifying the policy as successful.  
The regularization of illegal taxis is characterized as controversial. On the one hand, stressing the need to continue with the aim of preserving the results of the program. On the other hand, its scope could be «dissolved» quickly and easily. The core of the program was probably its conception: the use of clever tools, policy design and supervision by the head of the agency in charge of regulating the sector was essential, as well as the fact that it became an institutional action within the sector.  
Finally, the government ran a significant risk with this policy. An important element that has enabled it to achieve positive results has been maintaining permanent control over the political aspect.

# Seine embankment roads in Paris

Mathieu Flonneau

The City of Paris and its population have not always contemplated the Seine with a gentle or well-intentioned eye, nor indeed from today’s perspective of heritage and tourism. Far from it, in fact, and the aim of this article is to restore perspective to contemporary debates on what is at stake in the conflicts of usage relating to the functions of the Seine embankments, as an inevitable evolution or a natural “reclamation”.  
Seeking to avoid the trap of anachronism or retrospective justification, the historical approach tries rather to restore consistency to successive periods and to the different developments associated with them. Both useful and utilitarian, the Seine has always served Paris and, paradoxically, at least in appearance, it is the

era of the car that triggered the qualitative evolution we see today. This text therefore attempts to cast a medium and long-term perspective on the always multiple, dialectical and overlapping issues in each era crystallised by the banks of the river that runs through the capital, formerly France’s biggest industrial centre. Today, as the Grand Paris programme looms, questions of governance are tackled from century to century, explaining the construction of the local, regional, and also national political symbolism attached to these few kilometres in the capital along the banks of the Seine. The text culminates with the contemporary political controversy (including the twists and turns of early 2012, with the arrival on the scene of the current prime minister and future candidate in the Paris legislative elections), and might continue by considering the impact on big companies and the public authorities of the potential commodification of public space. The development of the Seine embankments is undoubtedly tied up with the worldwide image of Paris. However, while the postcard is touched up to match the image associated with the 1991 award of UNESCO World Heritage Site status, we should not forget a history that is complex and quite certainly not unequivocally dedicated to the now undisputed predominance of the aesthetic, not to say the recreational.

# General context of the Ile-de-France Region

Jean-Pierre Orfeuil

Historically, France is made up of a mosaic of diverse peoples politically unified very early on by a powerful authority (Louis XIV) with little tolerance for local particularism. The revolution was made in the same mould, with the progress in transport in the 19th century and compulsory public education contributing to its sociological unity. Central authority took advantage of the prosperous period of the 30 “glorious” postwar years (and in particular the “Gaullist” period from 1958 to 1968) to build a welfare state that provided a high degree of protection for life risks (illness, unemployment, old age, disability) and redistribution mechanisms that distanced the prospect of “class war”. In parallel, it intervened directly and during this period successfully, in the economy, by establishing large and effective industrial corporations. In France, the dominant representation of the state is that of a protector, by contrast with Great Britain and the USA, where the dominant perception is of a predatory state. It also intervenes in territorial matters (large construction programmes, motorway schemes, new towns, etc.). It restricted its own local interventions through the decentralisation law of 1982, while retaining a few specific rights over the capital region.

The end of Fordism, the rise of individualism and globalisation signalled the demise of this model, without any new narrative or project coming to replace them. The benefits of the retention of this model helps to explain the former optimism of the French about their personal lives (reflected in a birth rate unique in Europe), and its disappearance explains their exceptional pessimism, unequalled in the world, regarding the future of their country, and their worry about the environmental deterioration, which constitutes a major factor in transport policies, now orientated towards a reduction in car use. Ile-de-France is a metropolitan region, on average younger and more cosmopolitan than the country as a whole, made up of 11.8 million people, and growing at a rate of 0.7% a year (800,000 in 10 years) since the beginning of the century, a similar pace to the rest of the country. It has a surface area of 12,000 km², but a large majority of the population (10.3 million) lives within the Paris conurbation (2845 km²), in which the high level of density (3621 people per square kilometre) falls rapidly between the centre (slightly over 20,000 people per square kilometre in Paris) and the outskirts. A new fact, the population has been growing slightly since the beginning of the century, after two decades of decline. It has more than 5 million working-age people who, with one hour of public transport, have potential access to around 1.9 million jobs. However, employment has grown slightly less in the last 10 years than in the provinces (7.6% compared with 10.1%). Its GDP is around 100,000 per job and 47,000 per person. The gap in living standards between the richest 10% and the poorest 10% is 1:4, greater on average than in the other regions, and rising. The richest populations are concentrated in the centre, to the west and partly to the south, whereas the North and East are more “working class”. This is a region of paradoxes. It is the richest region in France, but the one where the middle classes have the most difficulties with housing (smaller dwellings, less homeownership, fewer detached houses) and with travel (markedly longer journey times than in the provinces, more frequent need to use public transport). It is the richest region, but the one with negative net migration... Its fast road network consists of 8 radial motorways and 3 orbital motorways. The city of Paris has an exceptionally dense transport system, with 14 Metro lines covering 100 km². The regional rail network (RER) structures metropolitan urbanisation, notably with 5 high frequency lines. Very efficient for radial links, it offers poor provision for travel between the fast expanding suburbs. Each inhabitant of the city (over the age of six) makes an average of 3.5 journeys a day, covers around 23 km and spends 84 minutes travelling. This level of mobility is currently stable. “Compulsory” journeys (work, education) account for 50% of travel. They are made by car (43%), walking (34%) and public transport (20%). In the last 15 years, car use has declined slightly, use of public transport slightly increased, and travel on two wheels (bicycle, scooter, etc.) has risen substantially. The main mobility problems encountered are of two types. Working people commuting into the city centre are experiencing growing irregularity in public transport and congestion at peak times, and increasingly congested road networks, despite the low growth in traffic. The other problem primarily affects the poorer residents of low-density areas in the outer suburbs, who are highly dependent on car use, which is perceived as increasingly costly. From the perspective of the authorities, the main concerns for the future of the



region are as follows:  
The State, which had completed its withdrawal from direct intervention in the Ile-de-France region in the middle of the decade with its disengagement from the Ile-de-France transport union, returned in full force with its rejection of the Master Plan drawn up by the region (Case 3) and with its “Grand Paris” project (Case 4). The main reason given is economic development and the driving role of Ile-de-France in the economy of the country as a whole.  
The primary focus of the Region, headed by a coalition of social democrats and ecologists, is quality of life for the inhabitants, the fight against spatial segregation, and environmental protection, which explains a direction of territorial development that is both more compact and multi-centred.  
For these two institutions, the issue of housing is paramount, with prices that have increased by around 140% in 10 years and very inadequate production of new dwellings. As for the city of Paris, one of the world’s densest cities and also one of its most popular tourist destinations, its focus is quality of life for residents and visitors, and the fight against pollution. It has made cutting motor traffic in its territory a fundamental objective (Case 2). This objective, initially applied to the sharing of the road system between pedestrians, cyclists, buses and cars, has now been extended to the Seine embankment roads (Case 5), which are currently restricted to motor traffic. In general terms, the goals pursued by the towns in the centre of the region relate to identity (“manufacturing” an attractive centre on their scale) and quality of life, reflected in the objective of reducing car pressure within their territory (Case 1).

# Routine municipal policies

Jean-Pierre Orfeuil

Routine policies are policies conducted by institutions within the normal framework of their functions. They do not require a public decision-making process beyond normal discussions within the decision-making bodies and “standard” public information procedures. The procedures that interest us here are those of the municipalities. These are very numerous in France (more than 36,000) and in Ile-de-France (more than 1200), which means that officials are close to their electorate. This scale is therefore an ideal one on which to grasp the “spirit of the time”, the aspirations of citizens, the professional cultures of technicians and the priorities of elected representatives.  
With regard to transport, municipalities are directly responsible for managing the roads and private parking standards applicable to new residential or corporate construction. In France in general, they are involved in the district structures that organise the provision of public transport at conurbation level, but in Ile-de-France this role is devolved to the Departments. However, they can organise a local transport service in their own territory.  
Municipal policies went through a significant change in the 1980s, which continues to this day. In the past, everything had been sacrificed to accommodate

the maximum number of motorists. Today, they operate in a framework in which their role is controlled.  
*Speed limits* on municipal roads were reduced to 50 km/h nationally in the early 1990s, but municipalities often go further and there are more and more measures designed to reduce real speeds further (road humps, single lane traffic islands, mini-roundabouts, etc.) and traffic calming systems of various kinds.  
The *reclamation of public space* to encourage walkers has eliminated the implicit pavement parking rights which previously existed. Bollaards have become a significant feature of public policy. Roadside parking is usually controlled (extension of pay parking zones), hourly tariffs have on average doubled in real terms in the last 20 years, and the principle of highly preferential residential parking tariffs has been substantially developed. Reserved parking spaces for different groups (the disabled, deliveries, fire services, etc.) have multiplied. Since the beginning of the century, self-service bicycle and car parks have swallowed even more available space, and motorbike parking zones are developing. The bus lanes which, following the Paris example, are becoming more numerous in the suburbs, also contribute to reducing available parking space.  
Municipal investment in off-road public car parks has slowed substantially, and this is increasingly combined with reductions in roadside parking. The municipalities have markedly revised downwards their requirements for private parking spaces in the construction of new buildings, especially business premises, and in some cases reversed them (“no more than” instead of “at least”). They are also increasingly adjusting these quotas to the quality of local public transport provision.

These orientations, initially implemented in central areas like Paris, have gradually spread to “suburban” municipalities. They coincide with the desires of politicians and local people to create proper municipal centres and to construct a specific identity. Overall, these local initiatives (all similar in direction) were the first cause of the stabilisation in car journeys in the city centre and in the renaissance of walking and cycling.

# The City of Paris’s traffic reduction policy

Jean-Pierre Orfeuil

The City of Paris is a very dense locality (20,000 inhabitants and 15,000 jobs per square kilometre) which is increasingly gentrified. It has only elected its own mayor since 1977.  
The right-wing majority in control until 2002 initially conducted a “pro-car” policy, which it subsequently significantly qualified between 1995 and 2002. The election of a socialist majority in alliance with the Greens gave rise to an overt anti-car policy, a well-publicised vector of change. The most powerful symbol was

the closing of the Seine embankment roads to motorised traffic between mid-July and mid-August. This was quickly followed by a strict policy of reserved lanes only accessible to buses, taxis and bicycles, the extension of pay parking to the whole municipal area, and the widescale issue of “resident” parking permits, enabling these populations to park in their neighbourhoods at a very preferential rate of €0.5 a day (previously 3 euros, where they existed), and therefore to occupy spaces that would otherwise have been used by visitors.

This policy was firmly implemented within a few years by the Green deputy mayor responsible for traffic, despite significant objections, partly from the academic community (fearing a decline in employment in Paris, the area with the best public transport provision, which in fact happened), partly from suburban municipalities, which experienced an increase in traffic in their areas and greater problems for their residents in accessing Paris by car. It resulted in a 20 to 25% drop in car traffic in the capital according to estimates. The biggest modal shifts were to the Metro network (with greater footfall and higher peak congestion) and to motorbikes, a rapidly growing presence in the capital, whereas buses experienced little change. Moreover, their total provision (in bus-km) and commercial speed changed little. There is less information about shifts in destination, but traffic between suburbs has continued to rise, whereas the level of radial journeys has diminished. The continuation and intensification (-40% in 2020) of this policy over the subsequent electoral terms were envisaged in an official document, the Paris Transport Plan, drawn up in widespread consultation with residents. Although completed, it will not be formally adopted. This is because in 2008, the ecologists formed a separate electoral list from the socialists. The majority is still a coalition, but the Greens have a smaller role, and traffic has been assigned to another deputy mayor, with similar but less hasty priorities. In parallel, the introduction of the public bicycle scheme has been a great success and has been extended to municipalities in the inner suburbs. A public electric car scheme was set up at the end of 2011, this time over an area that included from the outset 45 municipalities in Ile-de-France. The need for cooperation between the city of Paris and the other municipalities is a lesson well learned, and has been consolidated by the establishment of a cooperative body, the syndicat Paris métropole, which is working well. However, the city’s unilateral decision to pursue a plan for the permanent closing of part of the embankment roads shows that there is still room for improvement in interterritorial coordination.

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# The ups and downs of the new Ile-de-France regional masterplan

Jean-Pierre Orfeuil

The drafting of master plans, which have the dual function of providing a 20-30 year perspective on the future of the region (in particular for transport systems) and to lay down land use provisions, was traditionally a central government role (1965, 1976, 1994 master plans). The regional sustainable planning and development law of 1995 transferred this function to the region, but unlike anywhere in else in France, the State retained a right of veto over the plan. It is also able to intervene by means of OIN (national interest operations). The Government is headed by a majority of the right, the region by a coalition of socialists and ecologists.

The 1994 plan had to be revised, because it was no longer compatible with laws that had been passed in the meantime (in particular the 1996 law on air quality and rational energy use). The region began the review in 2004. It was no longer drawn up by a small group of experts, but reflected the outcome of a very intense process of consultation with all stakeholders (elected politicians, citizens, economic entities, etc.), with the result that it was only “approved” by the regional institution in February 2007. From that moment onwards, various institutions had to give an official ruling (including the departments, the Government, the chambers of commerce, etc.), before it could be finally adopted.

Emphasising values relating to the environment (lower CO<sub>2</sub> emissions, protecting natural areas) and social cohesion (e.g. the problems of the working classes), the scheme proposed a degree of densification, directing new construction to existing urbanised areas and a virtual ban on urbanisation in rural areas. It proposed shifting the balance of employment to deficit areas (few new jobs in Paris and western Paris). With regard to transport, absolute priority was given to public transport and the scheme mentions the dropping of existing road plans. The priority given to public transport is reflected in a focus on improving the operation of existing provision and developing services with a more local than metropolitan spirit (extending certain metro lines with a few stations, dedicated tram and bus lanes, etc.). An automatic orbital Metro line (Arc express) is added at the end. This plan, which broadly reflects the wishes of the people of the region, expressed in the consultation process, nevertheless triggered neither opposition nor enthusiasm from the population or the media: the multiple local projects were not conveyed in comprehensible maps, and metropolitan ambitions were little represented, because of the absence of large, mobilising projects. The press only showed an interest when objections were raised, for example by the Chamber of Commerce.

The Government vetoed the document in 2007, because of the abandonment of certain roads within its purview, the abandonment of the CDG express (a fast rail link between Paris airport and the capital) and above all because of the

incompatibility in the geography of the employment priorities with its desire to further develop the La Défense site, for which it had established an OIN. It also noted that the cost of the multiple public transport projects was twice to three times as high as the commitments in previous periods. This conflict showed a divergence between the Government, which emphasised its perception of economic development, and of the region, more interested in questions of social cohesion, environment and a less “clustered” employment model. In the 2010 elections, the electorate voted the existing regional majority back into power. The Government waited for the vote on the Grand Paris law (2010, see Case 4) to submit the project to the Council of State, which could not help but conclude that the Ile-de-France master plan (adopted in 2007) was not compatible with the Grand Paris law (passed in 2010). The region therefore has to produce a further revision, to make its project compatible with the Grand Paris projects, for final adoption in 2013.

# From the greater Paris transport network to the Grand Paris express, and next?

Jean-Pierre Orfeuil

The election of Nicolas Sarkozy as President of the Republic in May 2007 was the first election of a “purely” Parisian president, with no provincial attachments. He very quickly marked his interest in the region with a “big” speech in Roissy, a negative ruling by the State on the region’s master plan, the organisation of an international consultation of architects on their vision of a “post-Kyoto metropolis” and the nomination of a Secretary of State for the capital region. Without public consultation, the latter drew up a project for the region in which the buzzwords are *clusters* (highly polarised and localised development of dynamic activities – finance, research, ICT, biotech, airport zones, etc.) and a *greater Paris transport network*. This figure-of-eight automatic metro network, nicknamed the “Big Eight”, is intended to be 160 km long, include just some forty stations and provide high-speed links between current and future development hubs. With an estimated cost of between 21 and 23 billion euros, it was expected to be extensively paid for by the ensuing rise in land values, and its operation would be put out to competitive tender. When presented to the press in 2009, it was very well received because of its manifest ambition and a highly legible map. Despite a more than summary cost-benefit analysis, excessive confidence in the capacity of the authorities to predict employment growth and a period of economic crisis, a law approving the project was passed in 2010. It does not assign the task of carrying out the project to Stif, the entity responsible for public transport in Ile-de-France, but to a specific body

(Société du Grand Paris); it defines specific funding procedures (government grants, specific taxes on construction in Ile-de-France, loans) and establishes territorial development contracts between the State and the relevant municipalities adjacent to the stations. It sets out the procedures for a fast-track public consultation process. Meanwhile, the Ratp is using this time to make sure that it will be the operator of the new infrastructure. The public consultation was organised rigourously and to schedule (October 2010 to January 2011) by the public debate commission. It consulted simultaneously on the Arc express and Grand Paris network projects. It elicited the public’s two primary concerns: that the existing network should run properly, which requires large-scale modernisation costing several billion; and that the State and the region should agree on a joint project. It showed that there is much less interest in the new networks than in the proper operation of the existing network. The commission fed back these public demands to the powers that be. They produced a joint summary proposal, under the title “Grand Paris express”, a few days after the end of the consultation process. This proposal, with a cost in excess of 30 billion euros, combined investment in modernisation, joint sections shared by Arc express and the Grand Paris network and separate sections. It set out the financial contributions of the region and the state, together with the maximum return that the operator can be asked to provide. Although the framework arrangement is now in working order, the future of this huge project, exceptional both in terms of the amount invested and the weakness of the arguments in favour, currently depends on France’s economic prospects and perhaps on the results of the next presidential elections.

# Abstract: Rio de Janeiro Context

Margaret da Silva Pereira and Fabiana Izaga

Since 2010, the political, economic and physical shape of Rio de Janeiro has been changing rapidly. In the last decade, in this new era of globalization, Brazil is one of the fastest growing «emerging» economies in the world, comparable to Russia, India and particularly China. From a local point of view, until recently, the principle benefactors of this growth were located in various regions of São Paulo State, the Midwest or certain Northeastern capitals. However, in the last two or three years, Rio de Janeiro has also gone on to gain a leading economic position in the country and its 6.3 million inhabitants have increasingly observed changes in various parts of the city’s 1,100 km2. This new situation reflects different public and private investments in the city as well as new cooperative relations between local, regional and national government.

Harking back, we find other intermittent “fevers” of modernization and major



advancements in the provision of public works in the city’s history, similar to those that are currently underway. However, since the 1960s, we have not seen comparable excitement. Dating from 2008-2009, we began to see a radical change in government policy, with a concerted effort by all three spheres of government to address the economic and institutional crisis that had pervaded the region since 1980s. Also relevant is the particular focus on addressing socio-economic inequality in Rio de Janeiro and its metropolitan area. The proposed 2016 Olympic Games, was actually the largest catalyst for this new cooperative scene which focuses on urban investments in a landscape of change.

In light of this new situation, critical discourse has become focused on urban mobility as a central issue for the city. In fact, this new “urban reform,” ignited by the upcoming mega-events in 2014 (World Cup) and 2016 (Olympic Games), is heavily geared towards addressing urban sprawl, congestion and the high cost of living, working and moving in the city, with projects such as significant subway extensions and the construction of four new BRT lines. Both the private and public sector have driven the series of mega-projects that, while meant to support the environmental, cultural, and sport-related preparation necessary for these events, are currently changing the social and physical structure and infrastructure of Rio de Janeiro and its surroundings. With the eruption of these public works, the next four years will surely mark an exceptional period of change in the city’s history but the urban mobility debate and its regulation of social life still seem to need more ‘velocity’.

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# [2km] <sup>2</sup> of the neighborhood ENGENHO DE DENTRO

*The connectivity and legibility of a fragment of the Northern Metropolitan Zone*

**Margareth da Silva Pereira  
and Fabiana Izaga**

Abstract:  
This case study focuses on a neighborhood located in the northern part of Rio de Janeiro - Engenho de Dentro in the city’s “suburbs”. The zone was rural up until the mid-nineteenth century and the neighborhood is located in a vast plain, separated from the Atlantic coast of Barra da Tijuca by the Tijuca Forest and its arresting chain of mountains. The modern history of the Engenho de Dentro dates from 1854, with the introduction of the first railroads in Brazil. The district, as well as the nearby neighborhoods Meier and Deodoro, would grow around the D. Peter II railway stations (after the Republic called Central of Brazil), which opened to freight and passenger circulation in 1858, connecting Rio to Sao Paulo. Throughout the first half of the twentieth century, with the installation of a technical school for railway employees, repair shops as well as wagon and train manufacturing, Engenho

de Dentro began to attract a working and middle class population. However, between 1940-50, with the construction of road links between the Rio and other Brazilian cities, and later with the creation of numerous air routes, the railroad began to decline into obsolescence and, year by year, the neighborhood ended up losing its importance.

The sign of reversal took place in 1986 with the inauguration of the North Shopping Mall, accelerating the reconfiguration of this part of the city; another pivotal change dates from 1997, with the opening of the so-called Linha Amarela [Yellow Line] highway linking Barra da Tijuca to Avenue Brazil, which cuts straight through the neighborhood; finally, with the 2007 inauguration of the João Havelange Stadium, also called Engenhão, on the disused railway land.

The case study focused on a 2km by 2km square of Engenho de Dentro, i.e., [2Km] <sup>2</sup> - delimited to the South by the Avenues Archias Cordeiro and Amaro Cavalcanti, which border the Engenho de Dentro station’s line; to the West by the Linha Amarela; to the North by Av. D. Helder Câmara, where the North Shopping Mall is located; and to the East by the side streets that provide access to the Engenhão. The four avenues mentioned not only include the history of the district, as shown by the current conflicts in urban reasoning, but also allow the evaluation of public policies that guarantee mobility, connectivity and legibility for both urban inhabitants of the neighborhood and those who use their equipment and services, as well as relate it to different scales and rhythms of life in the metropolis. Indeed, how are these mobility issues being contemplated in relation to public and private investments at a metropolitan scale? In this sense, the case of Engenho de Dentro is a twofold exemplar: firstly, due to the neglect of the neighborhood’s own urban fabric – similar to other suburban areas - when the plans for these large works were conceived. Secondly, due to its history, comparable to many other railroad neighborhoods in Rio, which while receiving large public and private investments, paradoxically often remain abandoned.

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# Urban highways in Santiago: Promoting the mobility of vehicles, people or capital?

**Rosanna Forray, Oscar Figueroa**

Chile’s economic growth, from the end of the 80s, led to the emergence of a discrepancy between the needs for mobility of goods and people required and the country’s existing infrastructure. Chile’s prevailing economic model, since the 70s, had successfully imposed the privatization of a series of Public Services including, Electricity and Telephony,

through the sale of Public Companies and the creation of a new legal status defining the requirements in terms of competence, rights and obligations for the companies as well as the Authorities. This model was not applicable to the road infrastructure since it was impossible to privatize public space, and it was impossible to create an attractive business structure for private companies. That is why the solution for meeting this need took a long time to find, meanwhile the economy grew and the needs for product and people mobility increased. It was only after 1995 that some criteria were defined aiming at finding ways to manage private initiative infrastructure investments. These were the highway concession licenses. Originally implemented through interurban productive road projects dealing with the mobility of goods, the experience gathered contributed, at the turn of this century, to the emergence of urban highway projects.

After having developed these initiatives for ten years, the city of Santiago now counts seven urban highways. These highways extend within the city covering 224 kilometers and representing an investment of \$ 2.500 million. Five additional interurban highways are added to these, which give access to the city. All of these highways are funded through private investment. The state allows the recovery of these investments through tolls where highway users are charged. The length of the concession granted by the state to the private operators lasts long enough for them to recover their investments through the tolls. Usually, the concessions last between 20 and 30 years for each project.

Although the management of such projects has generally been successful, the works being delivered according to deadlines and generating a lively and diversified offer for the city, some issues are still critical. Firstly, there is the effect the highways have had in the use of private vehicles, and the physical expansion of the city. Secondly, there have been cases in which the works have been carried out to the detriment of poorer shantytown dwellers in the adjacent areas. There have also been institutional lacks of coordination, which resulted in significantly more expensive projects. Finally, confronted with the continuous growth of private vehicles and trips, and the subsequent increased congestion, the highway solutions are showing their unsustainability since they are unable to limit this trend and the only solution they can find is to build more similar infrastructures.

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# General Context: Santiago de Chile

**Oscar Figueroa, Rosanna Forray**

Santiago, the capital city of Chile, is a city with more than 6 million inhabitants covering 641.4 km². Over the last 10 years, the city has grown by about

500.000 inhabitants, and the country’s standard of living has improved, increasing its GDP per capita of more than 50% (going from US\$ 9.501 in 2000, to US\$ 15.001 at the end of this decade). The wealthiest quintile earns 15.6 times more than the poorest quintile. These inequalities have slightly increased over the past decade. Generally speaking, there isn’t much concern regarding the future, but while a few years ago everyone thought that the country’s situation would improve, most people currently tend to think that in the future, the country’s situation will remain the same. Legal employment represents almost 80%. Unemployment levels have remained stable around 7-8%. The job market is concentrated in the center and eastern parts (metropolitan center of the city), which is also where the wealthiest households are located. Housing segregation levels are high, but it has slightly decreased over the past years. The traditional segregation pattern is shaped as a high-income household concentration cone extending from the center to the east; heterogeneous multiple centers with the presence of medium and low-income households, and northern, southern and western outskirts characterized by large poor urban build-ups. This pattern has been slightly modified with the building of fenced condominiums destined to –upper middle classes located in traditionally poor or agricultural outskirts. The city’s residents declare 3 trips per day on average, out of which 46.76% are motivated by work or study. Most of them are done walking (36.81%), by bus (24.18%), or in a private car (20.81%). Urban practices vary depending on socio-geographical criteria: low-income men travel over long distances for professional reasons, from the poorer suburbs to the metropolitan center. Poor women tend to move locally, holding unofficial jobs ensuring closeness to their networks. Everyday commuting for medium or high-income segments are more diversified, but similar amongst them. The current city configuration, as a space growing through expansion due to closeness, frog leaps and densification, requires policies taking into account the residential choices, voluntary or not, of the residents and their daily mobility habits, where the social networks define the living space and the space where mobility is possible. Transport policies must acknowledge the role played by employment market location and networks in the households’ urban habits. It is therefore necessary to rethink residential and urban policies so as to generate mixed socio-residential spaces, taking advantage of the geographical opportunities generated in the central and peri-central areas, not only for the elites recovering spaces from the past, but also for the lower income and migrant segments.

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# TRANSANTIAGO: The failed Public transport modernization promise

**Oscar Figueroa, Rosanna Forray**

The state of Chile, following trends launched in other Latin American countries at the beginning of the past decade, started a gradual Public Transport modernization process of its cities. The most important project is located in Santiago, the country’s capital city. It was called the Transantiago.

Although the authorities indicated that Transantiago’s main objective was to improve the quality of the city’s public transport, a “modernizing” speech explained that it was even more important to upgrade the image given by the previous Public Transport system so that it would match the economic progress experienced in the country. Unfortunately, what was supposed to have been a revolution ended up in a deep crisis, the main victim of which was the users’ everyday life as they are prisoners of Public Transport. Right from the first day of implementation, they were confronted to a highly deficient system; dominated by lack of information, unpredictable frequencies, and ill designed and underestimated routes. Why did Transantiago go from a promise to a problem whose solutions endanger the very concept, which inspired the original project based on the BRT system? The logics underlying decision making at key moments: the system design, its implementation and the current remedial measures, show how the wish to order the “chaotic informality” generated by the sector’s economic liberalization policies, inherited from the times of the dictatorship, found, in the BRT, a solution to make flows efficient, and to restructure business units into operators with more concentrated capital. But in practice, to everyone’s surprise, they generated an unprecedented Public Transport political and social crisis. In the system design, the dichotomy between the political requirements and the city’s actual Public Transport deficiencies stands out. This gave way to a highly ideological debate, focusing on the technical and economic efficiency over the social benefit of the public service.

The chaotic implementation reveals how the excessive technocracy of transport agents led to designing a network of routes focused on the engineering of flows and business units, disregarding the actual user’s mobility practice. At the same time, political uncoordination resulted in a system lacking the physical and technological support required by the BRT logic. But, the most incredible thing is the surprise it generated, the dramatic and negative impact the new system had on people’s everyday lives. Finally, the period right after inception shows how changes in politics, intensely challenged and rebuked, and the crisis remediation measures caused a deep

change in the original objectives of the system; so much so that the BRT concept was abandoned. At the same time, they are unable to reverse the citizen’s discomfort as they are dissatisfied with the increase of fees and operator’s lack of implementation of the contracts, and they make take to the streets at the slightest provocation. This document concludes on a reflection about the public investment options in the Transantiago bus system and compares them to those dedicated during the same time period to the urban highway and Metro networks. This highlights how political decision making contributes to a city with socially segregated (if not leading to exclusion) transport systems, where Transantiago is seen as the transport mode for the poor.

# Why doesn’t the subway produce more public space in Santiago?

**Oscar Figueroa, Rosanna Forray,  
Rocio Hidalgo**

The Santiago subway system is one of the population’s most popular public services. Throughout its short history, it has become embedded in public perception as an amenity that inspires universal respect and pride. This reputation has even survived the negative impact on the daily experience of users generated by its incorporation into the Transantiago system since 2007. Apart from its reliable service and the success of its policy of cultural diffusion, one of the reasons for this prestige lies in its genesis, in the way it was designed, planned and built in the 1970s, an unprecedented process. An icon of modernity in the city, a scheme that produces a new type of public space. Indeed, the Santiago subway was designed from the outset to give impetus to the transformation of urban public space on scales both large and small. Its stations were to act as triggers for the creation of public spaces, levers of a profound transformation in entire urban fragments. However, there was never any question of conceiving an urban development policy with the intention of incorporating this potential. Far from it. What began as an objective – to use it as a pretext for the construction of modern public spaces both in the city centre and on the outskirts, where they were rare – gradually became a secondary priority, overshadowed by its role as a transport service, with the result that to this day it retains its self-sufficiency in relation to the complex system of actors involved in making the city. Throughout its development, each stage corresponded to a way of adjusting to the space of the city, a conception of the capacity of public space to produce and a model of institutional organisation associated with urban production. Initially, in the midst of a modernising functionalism associated with the idea of a more



egalitarian city, the political goal was to produce public space that would represent public action. As the mobility of goods, services and people was accelerating and spreading well beyond the city, by imposing the paradigm of segregated speeds, specialised networks and obstacle-free continuity, public action was to be expressed by stations designed as works of modern architecture, symbols of public power, which were often erected at the intersection between expressway systems and the existing urban fabric, breathing a new spirit both into the city centre and the poorer outskirts. Subsequently, the overlap between transport space and street space found new expression in the case of Providencia, under the aegis of local government. The latter, seeking to revitalise the linear centrality formed by Providencia Street, grasped the opportunity of the new subway to double shopping space by creating a significant zone of influence, fed by subway stations linking directly to public squares, shopping malls and privately financed property developments. Inevitable contradiction, now – at a time of constant movement and overlapping timescales – the stations have become specialised and reduced in function to mere network connectors resembling sidewalk kiosks. Self-sufficiency reigns. For example, stations located near shopping centres are cut off from the space of the street, linked by underground passages. Graver still, it is a missed opportunity to create a new type of space of public communication in the places where the subway and bus combine in the integrated Transantiago system, where currently pedestrians have to overcome obstacles, confusions and inconveniences of all kind, at the risk of their lives.

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# General background – abstract

**Eduardo Alcântara de Vasconcellos**  
**Adolfo Mendonça**

São Paulo is the largest city in Brazil, with 11 million inhabitants. It is the core of the São Paulo Metropolitan area, which encompasses 39 cities and a total population of 20 million. Over the past 10 years, the population has grown slowly, the urbanization process in Brazil having reached its peak in the 1990s. Between 1997 and 2007, the metropolitan population swelled by 2.7 million, though very few in the city of São Paulo itself. The disposable income of the wealthiest 10 % is some 10 times higher than that of the poorest, a gap that has fallen over the last decade. A large proportion of the population (58%) is confident that the city is moving in the right direction. Formal employment represents 75 % of total employment (excluding sole traders). Unemployment has fallen to a current level of 6%. Formal jobs are located in a few zones (centre and southern areas). The wealthy population tends to concentrate in the west of the city, with parts in

the south. Generally speaking, wealthy and poor populations live in separate enclaves dispersed across the territory. Every inhabitant of a conurbation travels on average 17 km per day (mobile persons, all modes and all purposes). Necessary journeys for work and education account for 70% of all trips. For their journeys in the conurbation, inhabitants mainly use the following modes (2007 data): 33.6 % walking, 36.9% public transport, 27.2% automobiles and 1.9% motorcycles. From the point of view of residents, the 4 main problems are as follows (data from a general city survey, 2009): Problem 1: Social inclusion and citizenship – mostly concerns the poor Problem 2: Cultural and leisure activities – mostly concerns the poor Problem 3: Mobility: concerns everyone Problem 4: Job opportunities – mostly concerns the poor (Source: IBOPE – “Indicadores de percepção da cidade de São Paulo”, São Paulo, 2009). Since the beginning of the century, the projects/visions of the responsible public bodies have been as follows: The city traffic department (CET) has been mostly concerned with congestion; the city public transport authority (SPTrans) with hiring and controlling private operators; the Metropolitan Transport Authority (STM) with the finance and operation of trains and the subway. They have had to tackle the following problems: Problem 1: Local: congestion has been increasing in the last 40 years. Problem 2: Local: bus service quality has been low, especially with regard to vehicles, time schedules and low speeds caused by congestion. Problem 3: Metropolitan: trains have historically provided low-quality services. Metro use is high but the network is small relative to demand. The main policies followed have been: Policy 1: Local: a) To increase traffic operation resources. The results are meagre, since the vehicle fleet has been growing much more quickly than operational action. b) To build new large roads: new roads quickly become congested due to automobile demand. Policy 2: Metropolitan: a) To improve the quality of suburban railways: a major program has been implemented since 2005 and the first results are emerging (large increase in demand). b) To build more subway lines: new infrastructure has been increasing very slowly and congestion on the system remains high.

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# São Paulo: the middle-class owns the city?

**Eduardo Alcântara de Vasconcellos,**  
**Adolfo Mendonça**

The congestion problem in São Paulo dates from the 1960s, when the automotive industry was developed in Brazil and generated a rapid increase in the vehicle stock. In the late 60s, the beginnings of congestion put pressure on the public

agenda, leading to the first attempts to alleviate travelling conditions. Although both public transport users and car drivers were affected, only the latter were able to pressurise the government and obtain decisions in their favour. Given the general view of automobile use as symbol of progress, most initiatives aimed to expand the road system, an effort that absorbed some 30% of the city budget between 1965 and 1973. The 1973 oil crisis slowed investment and diverted some to public transport, but this movement petered out with the end of the oil crisis. When the city became responsible for its own traffic (previously a state prerogative), substantial investment went into day-to-day traffic management, reducing congestion levels. However the rapid increase in the automobile fleet hampered these efforts. At that time, a licence-plate scheme that took 20% of automobiles off the streets each day had a very positive impact in alleviating congestion. Until the late 1990s, the idea that expanding the road system was the solution remained very strong. The attempt to improve bus flow conditions by means of bus lanes had modest results, because of poor design, limited resources and weak enforcement. The subway, although serving a large demand, was clearly inadequate to deal with the increasing congestion. Alternative proposals only emerged in the 2000s, when the limits of highway expansion became clearer and environmental issues became paramount. Extensive investment began to go into rail and subway schemes, but the low-quality, low-speed bus system and the exponential increase in the automobile and motorcycle fleets limited the final results. The future of the public agenda therefore remains unclear, since conflicting interests associated with private and public transport have been hindering an agreement that could foster major change.

# São Paulo: Who cares about buses?

**Eduardo Alcântara de Vasconcellos**  
**Adolfo Mendonça**

The regulation of public transport supply in Brazil generated a large urban bus and service industry. The newly-formed enterprises had to create modern administrative and economic procedures and generated strong business across the country as a whole. The extensive trend towards urbanization ensured increasing demand for bus services. However, failures in the contracting processes and in the ability of local governments to control the private operators, led to the emergence of large monopolistic enterprises, some running more than 5,000 buses (an asset value of around USD 800 million). This allowed a number of providers to control the public agenda and obtain contracts that hindered competition and generated large profits. When we look at dedicated infrastructures – bus lanes – and integrated bus

systems, we find very few good examples in Brazilian cities. The first example of bus lanes in Curitiba was followed by a handful of cities, with smaller, less ambitious schemes. In 2007, existing bus lanes used no more than 3% of the roads travelled by buses and most served less than 200,000 passengers per day. There are several reasons for this modest result. The first relates to the regulatory environment, which gave a few select operators very favorable contracts and excellent revenue opportunities. The operators were legally able to use the contracts to block any major change to services – especially those entailing the transformation of traditional line-by-line systems into an integrated system and trunk lines operating in dedicated lanes. Another major factor is the consistent policies favouring the purchase and use of the automobile – and more recently – the motorcycle. This support not only diverted the majority of resources to road building but also drove bus users toward private modes, especially as cars and motorcycles benefited from hidden subsidies. In the specific case of São Paulo, after the building of the 33 km-long ABD corridor in the 1980s, nothing relevant was done. The negative impact on public opinion caused by the badly planned and operated Santo Amaro – 9 de Julho corridor in a wealthy area in the 1980s became a major barrier to proposals for new bus lanes, which was reinforced by the operator’s opposition to changes.

# São Paulo: Motorcycles invade the city and kill people: and now?

**Eduardo Alcântara de Vasconcellos**

The support for motorcycle production and use in Brazil in the 1990s led to a 15-fold increase in annual sales and a growth in the total stock from 2 million in 1992 to 14 million in 2011. The worst consequence of this policy was the exponential increase in motorcycle accidents. The number rose from 725 in 1996 to 10,000 in 2010, resulting in 50,000 deaths and 150,000 serious disabilities, in the name of “progress” and “freedom for the poor”. Several factors may be cited to explain what happened. The motorcycle arrived in Brazil long after other motor vehicles constituted the bulk of traffic – trucks, buses and automobiles. No special road adaptations, educational programmes or enforcement logistics were implemented. Motorcycles had to “find their way” through the traffic streams and faced serious risks, given the inherent vulnerability of driver and pillion. Because of the difficulty of finding good good jobs in the formal economy, many poorer young people chose to work as motorcycle couriers. Being paid on a piece-time time basis, they would risk their lives by filtering between lines of large, speeding vehicles, a cause of 35% of fatalities. The rise in the number of motorcycles was supported by federal tax discounts to

the industry and by low interest rates to finance motorcycle purchase. The motorcycle then quickly became an object of desire for many young people. Annual industry sales increased from USD 0.5 billion in 1995 to USD 4 billion in 2007. However, the industry avoided the road safety issue, not wishing its products to be associated with road death statistics. They remained silent, responding by organising road safety training under a “help society” banner. In the specific case of São Paulo, the number of motorcycles also escalated and so did the number of fatalities – about 450 a year in 2009, higher than that for car users. The local authorities managed to improve working conditions for motorcycle couriers, but solutions to create safer travelling conditions in dense traffic have so far been unsuccessful. Brazilian society now faces an enormous challenge – that of remodelling the traffic environment in order to reduce motorcycle fatalities and injuries.

# What effective urban transport policies has Shanghai adopted to deal with rapid growth?

PAN Haixiao  
YE Song

With rapid economic development, the population and surface area of Shanghai have expanded rapidly in the last 20 years. With very poor urban transport infrastructure in the late 1980s and, unlike Beijing, a lack of resources and land to extend road space, a basic consensus was reached by different government departments that car use needed to be controlled in Shanghai, despite the fact that the automotive industry was identified as one of the pillars of Shanghai’s economic development. However, an alternative, convenient and reliable urban mass transit solution needed to be found to support urban and economic expansion. This paper will describe Shanghai’s urban transport infrastructure and mobility characteristics, covering aspects such as modal split, travel time and distance, metro use and car ownership etc, after more than two decades of massive investment in urban transport systems. In 2002, Shanghai’s municipal authority issued China’s first urban transport white paper, following 5 years of discussions and negotiations between stakeholders, in particular different government departments. This was the first time in China that urban transport policy had risen to the top of a municipal agenda. In this white paper, Shanghai defined nine priorities for urban transport policy, including:

1) **Controls on motor vehicles:** Because of the negative impact of motor vehicles on road space and the environment, the Shanghai government took measures to control traffic demand, such as licence auctions and parking management.

2) **Continued construction of key transport infrastructures:** In recent years, transport demand in Shanghai had increased rapidly, urban transport facilities were highly saturated, roads severely congested. Shanghai increased the construction of transport infrastructures such as urban expressways, freeways, bridges, etc.

3) **Coordination between urban land use and transport:** Shanghai sought to increase controls over spatial planning and urban transport systems.

4) **Building multimodal urban transport systems based on public transport priorities:** metro construction became the key policy instrument to encourage people to use public transport, and extensive local government revenues were collected from land leasing and car plate auctions, with the involvement of district authorities and developers.

After the successful bid to host the 2010 Shanghai World Expo, Shanghai faced great challenges in organising transport for more than 70 million visitors in six months – i.e. some half a million to one million extra passengers to the Expo site in the highly congested area near the city centre on both sides of the Huangpu River – while still providing transport for the normal daily activities of citizens. A set of consistent travel demand management strategies were developed to organize visitor travel, notably “zero” car parking, the building of metro lines and a balanced time-space strategy with ITS to allocate routes for coaches travelling from other cities. This strategy avoided the need for massive road construction. This successful experience in transport management also offered other cities in China a live showcase of a sustainable solution for urban transport problems.

The final question is whether this massive investment in improving urban transportation will be shared by all social groups. Our survey shows that the metro system is unaffordable for people on low incomes. In addition, there is still no well-established mechanism for assessing the value of metro construction, and the question of how to maintain a high-quality metro service in the long term needs to be explored. Bicycles or electric bikes are now the primary mode of transport for low-income groups, although they also benefit from public transport transfer discounts. Social inclusion is a factor that needs to be taken into account in urban transport strategy.

# To cycle or not to cycle? A policy story behind the decline of the bicycle.

TANG Yang  
PAN Haixiao

Cycling is a green and healthy mode of transport, which also helps to relieve congestion, reduce urban land use and cut energy consumption. From an environmental perspective, cycling is seen as the bright future of urban



transportation. In China, there is a long tradition of cycling, and in the 1980s China was known as “the kingdom of the bicycle”. Shanghai was once China’s biggest bicycle manufacturing base and cycling was and still is one of the most important commuting modes in Shanghai. According to statistics, however, the bicycle’s modal share in Shanghai fell by more than 60% from 1995 to 2009. And the deterioration of the cycling environment has begun to be a matter of concern

Over the last few decades, there has been no clear bicycle transportation policy in Shanghai, and its attitude towards cycling has fluctuated. Were previous transportation policies conducive to the decline in cycling? How have previous transportation policies influenced cycling trends in Shanghai? This paper aims to answer the following three research questions

- 1. What are the cycling trends in Shanghai? What transportation policies are relevant to cycling?
- 2.How have previous transportation policies influenced cycling in Shanghai and why?
- 3.What impact have these policies had on local cyclists?

Firstly, the paper uses statistical data and relevant documentation to assess cycling trends in Shanghai and previous transportation policies which may have affected the development of bicycle transportation over those decades. For example, in the 1990s, the promotion of public transport generated competition with the bicycle. Secondly, because of the increase in road traffic congestion caused by the boom in car ownership, quite large numbers continue to use bicycles or e-bikes, or have returned to the public bicycle system. The paper seeks to address the motives behind the policy making process and to analyse its impact on cycling and its environment. Thirdly, based on the analysis of the survey data, the paper discusses changes in the characteristics of local cycling under the impact of these policies. According to the data, despite the low transfer rate, cycling is the most efficient mode for transfer to the metro. In Minhang district, located at the far end of Shanghai’s first Metro Line, a bike-sharing system has been introduced to encourage cycling and has been well received by local residents. Finally, some useful lessons are drawn from Shanghai’s experience to show the importance of the sustained cycling policy. The insights gained from this study can benefit other Chinese cities as they seek to improve conditions for cyclists.

# The Dream of “TOD” in Shanghai’s Periphery

PAN Haixiao  
XU Mingcai

The concept of transit-oriented development – i.e. the encouragement of high-density development around metro stations with business, commercial and

cultural activities – has been widely accepted in China. This is particularly true of newly developed peripheral areas along metro line extensions, to encourage people to use public transport and to eliminate excessive car dependency. However, the involvement of many stakeholders with different objectives makes the process more complex. This paper begins by presenting the urban planning process in Shanghai Region in order to understand the functions of each stakeholder.

Several station areas in the Shanghai periphery were selected for this study, comparing land use around the stations through field surveys and analysing the difference between plans and reality, in order to explain the underlying reasons. Four typical regional metro stations were chosen for analysis: Xinzhuang, Jiuting, Songjiang New City and Jiading New City. Jiading New City and Songjiang New City stations are located 40km from Shanghai city centre in Shanghai Region’s secondary central city. These cities were planned to accommodate populations of 1 million, as part of the decentralisation of Shanghai’s regional spatial structure. There has been extensive property development around Xinzhuang and Jiuting stations for newcomers from other provinces working in Shanghai central area or for people relocating from the central city to areas with large apartments and good transport amenities.

After some seventeen years of progress, the characteristics of transit-oriented development have become clearer, though “TOD” was an unknown concept at the beginning. The purpose of building line 9 was to link Shanghai city centre with Songjiang New city, on the “TOD” principle. However, the results have not been entirely positive, because of the location of metro line 9 a long way from the planned activity centre and without connection to the existing activity centre in the older parts of Songjiang new city.

Located on the same metro line, Jiuting revised its comprehensive plan to match the metro plan, with relatively high density development around Jiuting Station. However, much of the land around the station was occupied by industry, warehouses, etc. Because redevelopment costs are very high, most of the newly developed property is located some distance from the metro station, so the intensity of land use is lower around the metro station, with the result that Jiuting station is not so accessible. Nonetheless, people still use the metro extensively if it was their intention before moving into the area and they have no a car.

The newly built Jiading station area has most of the features of transit-oriented development, largely because Jiading local government shared the investment costs, wishing to maximize property values to support the building of the metro line to Jiading. It is too soon to observe resulting land use development around the station in the newly developed area.

How can the dream of TOD move from dream to reality? We still need empirical studies and capacity building to coordinate the various stakeholders in the elaboration of a consistent land use and transport development strategy.

# Streets in Shanghai: transformations and new dynamics

**ZHUO Jian**  
**TANG Xiaolong,**  
**ZHANG Xiaoling**

Street is a place where we move around, where we live, where we work, where we parade, where we rub shoulders, where we jostle: countless practices that intersect and intercept, making the street a locus both of encounter and of conflict! And in all the cities of the world, the same questions: who and what are the streets for? Who do they belong to? Who decides, controls, oversees? How can we reconcile all the speeds, all the forms of transportation, the needs of residents and passersby, of shopkeepers...? How can we make them interpretable, fluid, friendly? How much should advertising, business, freedom of expression, art, be able to show themselves in the street, take over the street?

In reply to these questions raised by the IVM touring exhibition - the street belongs to all of us - this project will take Shanghai as the case city and look for the answers in the context of Chinese cities. As the first economic center of China, Shanghai has experienced since 1980 the socio-spatial transformations in depth. Particularly, the rapid development of urban mobility affected largely the walkable environments of the metropolis and result in the reconfiguration of urban streets.

The aims of the project are:

1/ To record the transformations and represent the current state of streets (both the physical layout and their usages) in Shanghai with images and graphics documents

2/ To investigate the logics and the mechanism of these transformations

3/ To figure out the common characters of these streets and to imagine the urban street in the future

The project will be carried out in three parts:

The first part will summarize the transformations of urban streets in Shanghai during the last 3 decades. The relationship between spatial reconfiguration and the development of urban mobility will be considered as a main issue in this retrospection study;

The second part will focus on the question “street and its actors”. The main avenue whose transformations depend on the initiative of public authorities (like Nanjing Road) will be compared with the new emerged small commercial streets in residential areas on inhabitant’s initiative (like Yutian Road);

The third part will put forward the innovative street design. Some streets in special urban environments will be investigated: traditional street in historical

districts, commercial streets in touristic areas, the junction with subway stations and the vertical street in big commercial center.

The morphological analyses of architecture will be adopted as the main methodology. The final output of this project will be rich of graphic documents associated with short notes in English.

Lined area for writing or drawing, consisting of 30 horizontal dashed lines.



**Les premiers  
rapports  
d'étonnement**

**The first  
startle  
reports  
In English**



“Qu’est-ce qui m’étonne dans ces études de cas de cette ville que je ne connais pas ou peu?”

C’est à cet exercice que les chercheurs se sont livrés. Leur point de vue décentré et “étranger” permet de pointer non pas des failles mais des questions saillantes, de déconstruire quelques idées reçues, de revenir vers son propre terrain avec un autre regard.

Le rapport d’étonnement, méthode inspirée de grandes entreprises, consiste à demander à un nouvel arrivant de produire une note sur ce qui l’a surpris, aussi bien dans les modes de fonctionnement et d’organisation que dans l’aménagement, les stratégies, les relations sociales, etc. Les questions seraient : pourquoi telle priorité dans cette ville et pas dans la mienne (et inversement)? Pourquoi certains types d’expériences se transmettent et d’autres, y compris les échecs, ne dépassent pas la frontière de la ville? Pourquoi certaines valeurs considérées comme universelles sont-elles occultées dans la mise en œuvre d’une politique? Comment se fait-il que des règles imposées aux pays émergents ne soient pas appliquées dans les villes des pays développés? ...

A suivre en langue originale sur [movemaking.com](http://movemaking.com)

“What is it that surprises me in these case studies about a city of which I know little or nothing?”

This is the exercise that the researchers undertook. Their oblique and “alien” viewpoint helps them to identify not deficiencies, but salient points, to deconstruct a number of received ideas, to return to their own field with a different perspective.

In the shock reaction approach, a method drawn from a practice employed in large companies, newcomers are asked to produce a report on things that surprise them, whether in methods of operation and organisation, structures, strategies, social relations, etc. The questions would be: Why does this city pursue a particular priority whereas mine does not (and vice versa)? Why do certain types of experience spread, whereas others, including failures, never go beyond the boundaries of the city? Why are certain values that are considered universal ignored in the implementation of a policy? How is it that rules that are imposed on emerging countries are not applied in cities in developed countries?...

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# Startle report on Lima – Case study

**Isabel Arteaga Arredondo**

Bogotá, January 2012

Generally speaking, the two case studies reviewed (*how to walk in Miraflores*, and *from Public Transport companies to the Metropolitan*) show current mobility features, which are shared with other Latin American cities such as Bogotá. It is surprising to hear that in both cities (Lima and Bogotá) similar problems arise and similar solutions have been found at different times, despite the differences at the political, social and cultural levels. But it is also surprising to find out, through these examples that we know very little about the experiences of other countries in our region. We find that urban mobility policies implemented have gone through the same conflicts upon inception, but at different times, and that we haven’t learned from that experience so as not to fall into the same traps. The first case, *how to walk in Miraflores* aims at understanding the impact pro-mobility projects have had on the Miraflores district (one of the most touristy in Lima) and determining which are the pending issues as far as safety and accessibility of its pedestrian network is concerned, focusing on reduced mobility.

It seems obvious that in our cities, the automotive mobility logic prevails over the pedestrian one. It has led to the development, not only of the road infrastructure, but also the urban perception, the way we understand the city, the way we move around it. This still seems to be a constant theme, despite the important steps taken in recent years in order to balance the pedestrian and automotive logics. This case study highlights it in Lima, in Bogotá it has been debated over the last ten years when priority started being given to pedestrian areas as opposed to areas dedicated to cars. This objective, however, has not been fully reached. The prevailing logic seems to continue being: vehicles before pedestrians. It is surprising to find out, through the data in

this case study; about the little interest Lima’s residents have for pedestrian mobility and sidewalk conditions, despite the high percentage of trips made on foot. I consider that Bogotá has come a long way in this area, based on the Cultura Ciudadana (Citizen Culture) programs launched in the mid 90s, and on a number of civil engineering works built in 2000. Nevertheless, this topic still seems to be considered as less important than bringing solutions to “on wheels mobility”. One of the cases mentioned in the report and which I consider as shared with Bogotá is linked with dedicating streets to pedestrian and the impact this has had in the transformation of urban space and social practices, particularly in anything related to the development of “new leisure areas”. The physical improvement of the street and the transformation of the road surface into public space, have obviously improved the local environment and pedestrian’s urban quality of life. It is, nevertheless, difficult to hope that these operations will have an impact at the urban scale and that they will be duplicated in any part of the city that is not strategic for tourism or leisure (heritage centers, restaurant areas, etc...)

On the other hand, regarding the debate about underground parking lots in public spaces (parks or squares for instance), in cities such as Bogotá it still hasn’t emerged. For some, increasing vehicle access to already saturated commercial areas is counterproductive for mobility; for others who refer to positive examples such as European cities (for example Barcelona), these have proven not only access improvement to those areas and a rejuvenation of the public space, but also the use of the levels below a public space can generate income for the city as well as requalify it. Another relevant topic dealt with in the document is the census of public and private objects (street furniture and fixtures) found in the relevant streets. We have tried to analyze why so many of them are not well located, which lead us to think that it is the institutional lack of coordination together with fragmented private initiatives that have made these elements prevent rather than facilitate pedestrian mobility in this touristy district. Usually, in such cases, the responsible institutions aren’t coordinated and efforts are made individually which produces a partial vision of the city that, as is the case here, counters pedestrian quality mobility. This interesting observation of the streets,

their furniture, fixtures and signposting aiming at improving reduced mobility population access, could lead to specific recommendations for the public authorities dealing with how to reorganize public and private furniture and fixtures on the sidewalks, together with an adapting of the streets in order to facilitate walking ... based on this observation, what could these recommendations be for the short, medium, or long terms?

The second case study: **From Public Transport companies to the Metropolitan: A transport improvement in Lima?** Recounts the appearing of Lima’s Metropolitan (BRT), and tries to establish whether this mode of transport is a real improvement, solving transport issues in this city since Lima’s inhabitants described it as being one of their major concerns after safety.

In Bogotá, as in Lima, traditional (disorganized bus services) and new (BRT in this case) systems currently coexist. It is acknowledged that the BRT network is not the only mode of transport in these complex cities, and transport mode diversity is not only necessary, but also expected. The question, in both cities, is: how can they coexist? Bogotá is trying to implement an Integrated Public Transport System (SITP), which would include the Transmilenio BRT system together with buses from the old system. The SITP comprises the integrated connection and operation of different modes of Public Transport, the institutions planning mobility, accessibility infrastructure, circulation and collection of this system amongst other things. In the case of Lima, the question would then be whether considering getting rid of the old system would be possible and realistic?

Similarly, Public Transport in Bogotá has been private in a large part... the similarities with Lima are surprising in this respect according to the account of this case study. Deregulation and total liberalization, informality, oversupply, relationships between stakeholders, the struggle to get any additional cent, etc. are characteristics of Public Transport in these cities and are the reasons why solutions such as the BRT have started to appear. These sometimes appear to be the “only and real” solutions to the consolidated chaos. Many of the strategies mentioned in Lima are similar to those implemented in Bogotá... It would be interesting to identify which public policies and strategies were adopted in this liberal system, in order to get

rid of unfair competition in attracting passengers, the Metropolitan being one of them.

It is obvious that the Metropolitan is not the solution to the total revamping of the Collective Transport System in Lima. What other strategies have been implemented? How is the Metropolitan integrated with the Metro, and what are the results? How are the local and national institutions in charge coordinated? Do they represent a complementary network? How do these two systems improve passenger travel time? How do municipal and national policies complement each other for the implementation of these two new systems? What might be the impact on urban mobility improvement over the short, medium and long terms?

Undoubtedly, one of the mandatory strategies in such a case is the re-education of Collective Public Transport users. A few years ago, in Bogotá, a Citizen Culture program was implemented with this objective. Usually, the lack of formality of the traditional system makes it highly valued by the users compared to the rules imposed by an organized system such as the BRT or the Metro, particularly at the onset of implementation. Reactions will always start by being negative due to resistance to change. Later, when the efficiency of the new modes of transport has been proven, urban culture will change. The problems mentioned about the inception of the Metropolitan are similar to those witnessed in Bogotá when the Transmilenio was introduced. Changes are always difficult, especially when going from informal to formal, from disorganization to rules imposing order. It is important to note that the Metro and BRT alone will not be able to change the current transport system, it is necessary to set up a multi-modal system integrating other modes of mobility (for example integrating bicitaxis to the SITP in Bogotá, which is currently unthinkable). Otherwise, mobility will continue being impossible in our cities. Lima, Santiago or Bogotá have proven that no change of this nature has ever been implemented without some technical, political or citizenship issues.

# Startle report on Paris Region – A bad project well sold?

**Juan Pablo Bocarejo**

Bogotá, 09/01/2012

The case studies for Paris focus on the instruments, the actors and the political issues that have culminated in transport and development projects which will mark the Paris region over the next few decades.

The thing that startles me the most is the way the big decisions were taken for the adoption of the new transport plan for the Paris region. I am first struck by the fact that a plan which had been put together through a long consultation process and a feasibility analysis (the SDRIF), possibly unfamiliar to the public, was replaced by a very different and rapidly constructed project. This phenomenon, in which the institutional framework, the rules for the investment of public funds and the continuity of long-term plans, are interrupted and a new vision imposed, is precisely what we see in developing countries, where institutions are weak. Here, the arrival of a new government is often accompanied by the suspension of existing projects. Lack of long-term vision and ambition for territorial integration in the SDRIF and therefore need for a saviour, or desperate action?

The fact that this new vision comes from the State is also surprising. Before Sarkozy’s arrival in power, with the changing composition of the STIF and the reduction in 2006 of state participation in the funding of public transport in Ile-de-France, it looked as though the state’s influence in regional affairs, and especially in transport, was diminishing, and that local autonomy was increasing. Unlike London where, since 2001, the Greater London Authority, headed by the Mayor, is responsible for the city’s affairs, with a high degree of local autonomy, recent years have seen a greater desire on the part of central government to intervene in Paris.

The flagship project itself, the “Big Eight”, of which I had never heard when I looked at the transport plans for the Paris region just 5 years ago, is also surprising, both in its ambition and its cost. The gamble of the Big Eight is to

radically alter the way the Ile-de-France region functions, by creating new centres, with better connections through the new public transport system. Although the Paris region was previously an example of innovation in territorial planning, with its new town concept, betting on a relocation of employment and strong employment growth in the future, which would be the basis of the use of the Big Eight, seems a risky gamble.

What also surprises me is the way the project seems to change gradually over time, probably because it was put together too quickly at the beginning. Imagining that this costly project will be financed predominantly from land value surpluses is undoubtedly optimistic, with significant budget revisions, changing the project owner and operator gives an impression of improvisation...

In some countries, the evaluation of transport projects is a significant preliminary process in their implementation. Detailed methods have been established and their application required by law for a project to be considered. These methods begin with a cost-benefit analysis (CBA), which is increasingly accompanied by multi-criteria assessments. It is this type of analysis which is required by the World Bank when a developing city is seeking funds for a transport project, and it should be a factor in the decision-making process. “Best practices” for project evaluation and decision-making suggest a comparison with other similar projects. Investments in increasing the quality and capacity of certain parts of the existing network and extending them are probably more economically viable than the Big Eight. The Big Eight could be a new textbook case of an economically failing megaproject, like the Big Dig in Boston and certain high-speed trains and metros, if system demand and costs are not rigourously assessed and decisions taken accordingly. The report on this project presented in the Making of Movement, suggests that the benefits of the project are uncertain, or at least deserve a good risk analysis, that the investment and above all the operating costs have not yet been properly



specified, and that the sources of funding are not very clear, in a situation where transport subsidies in Ile-de-France are already substantial.

Finally, the example of Paris and the example described in other cases in the Making of Movement show that the process of constructing and making decisions on

transport projects seems to focus on new benefits, which are difficult to assess using traditional project analysis tools. Innovation, impact on the city, not to say the regional economy, green transport, these are the criteria considered in 21st-century projects, to the detriment of factors of effectiveness, speed and efficiency.

# Startle report on Paris Region (preliminary)

**Andrés Borthagaray**

Buenos Aires, 22/01/2012

Paris is an emblematic case for several reasons. First, there is the role it plays, with its region, as a benchmark for the legitimacy of arguments, sometimes with the same examples illustrating opposed positions. Then as a permanent laboratory of ideas, for forward-looking projects, public power and the force of its political debate and as a generator of ideas. For this reason, the context and case presentations are a source of surprise. We clearly see an approach that is provocative in the right sense, strongly argued, paradoxes and critical views on a system which, seen from a distance, fails to take a sufficiently contextual perspective on what already exists. In other words, we can understand that the public transport system offers all sorts of reasons for wanting change. But this draws attention to the fact that there is insufficient awareness of its qualities. It is taken so much for granted that people forget what would happen if it didn't exist.

From an outsider's perspective, the public influence of institutions such as the RATP and le STIF, the advances in the guide network, the frequency of service, the coverage, the developments and even the connection between discourse and action, with its excesses, are all factors that attract attention. Especially when all this is being observed from a country where transport provision comes essentially from concessions managed by private players, where regulatory agencies generally do not have the same influence, where employees do not necessarily enjoy the

same scale of welfare benefits. The value of quality of service is relative, and from this point of view we expected, within our interpretive framework, that it would be more positive than the assessments suggest. Once again, one can understand the reasons why the inhabitants of inner Paris and their metropolitan neighbours may have objections, either to the system or to the measures taken for its future. But even though the residents of the suburbs may have been somewhat neglected with regard to restrictions on the car, they do not seem to have voted against the parties that promoted these policies. Of course, it is difficult to identify how much of a role mobility policies play in the election, but the connections between measures and principles in the political sphere do not necessarily lead us to the same conclusions. True, car restriction policies have been characterised, in Paris as elsewhere, by a shift in priority from vehicle traffic flows to the landscape and non-motorised forms of travel. But also to transverse traffic flows. And the inability to find a parking space or driving space is partly explained by the Urban Transport Plans, but we would have made more of the impact of the self-restriction of car use in response to density. It seems to be slightly more a general feature of dense city centres than in itself the outcome of restrictive policy in Paris.

As regards the debate on a plan that is somewhat sparse in communication terms, compared with one that is more comprehensible, we would have thought that within the context of advanced development, the second would not necessarily come out a winner, even in the short term. Ultimately, the critiques directed by stakeholders at the system of governance are closer to those of other cities than the differences in context would lead us to believe.

# Startle report on São Paulo Public transport – Access and priority

**Oscar Figueroa**

Santiago de Chile, 15/01/2012

Overall, urban public transport system operation in Brazilian cities, particularly in Sao Paulo, has always been a model in Latin America, especially compared to their performance in other countries. Nevertheless, this document brings a new approach to this experience, or at least focuses on less well-known characteristics that are worth noting:

Public transport systems have lost efficiency, particularly regarding capacity, commercial speed and service levels.

Efforts to improve public transport through the use of buses have proven insufficient, or mis-implemented, with stakeholder resistance and unconvinced management.

Bus based collective public transport improvement doesn't seem to interest anyone else than captive users.

No clear solutions in order to improve the performance of the system seem to emerge. In this context, other issues which may be the cornerstone of the problem can be analyzed: The Sao Paulo fee (US\$ 1.3 per passenger) is one of the highest in Latin America, and fifty trips a month represent about 30% of the monthly minimum wage (CAF).

But, the transport vouchers (VT, Vale Transporte) bring this percentage down to only 12%, which proves that users employed in the formal sector clearly benefit from the system as opposed to informal workers.

The VT scheme benefits the formal workers (50% of captive users) since they do not bear the actual official cost.

The VT benefits transport companies since it enables them to overcome the decrease in yield thanks to the classic solution consisting in increasing tariffs, while avoiding social conflict.

The VT benefits companies in general since, by subsidizing transport, they get a tax cut. Therefore, the system's efficiency

improvement doesn't seem to be an interesting objective for society, at least not for the society in power. This generates phenomenons which impact the rest of the population, which is weaker from the social, economic and political points of view:

- High possibility of tariff increase.
- Strong presence of informal sector, inefficient and expensive, as a response to the inability and lack of interest in generating more efficient systems, as far as operations, regulations and new investments are concerned.
- Transport sector relatively mastered without any intensive conflicts appearing up to now.

To summarize, the premise of *splintering urbanism* seems to be developing here: the lower income sectors access poorer, expensive and dilapidated networks, while the formal system ensures its own stability and duplication without increasing social costs.



# Startle report on Santiago de Chile

**Mathieu Flonneau**

Paris, 22/01/2012

## Transantiago: convergences and divergences between the public service role and techno-economic rationale of the system

This startle report could be entitled: **“Transantiago or the misfortunes of virtue”!** There is indeed a certain sadism entailed in contemplating the ineffectiveness and counter-productiveness of a system supposed to establish a public transport network, which is finally – but very quickly – discredited on the grounds of the demands of that same public service. A sigh and a shrug could even accompany the sense of spite at the de facto near-terminal abandonment of a system that, though “virtuous” on paper, has proved fruitless. Surprisingly, especially for the western European observer, it is the question of the acceptability of a public transport service to the very people it is intended for, which was asked by the wrong institution – in terms of a starting process – of the Transantiago. In this respect, the report talks of a form of reciprocal and shared mismatch, between operators and users, with regard to the meaning, practice and culture of public service. Counter to their primary function in the context of the Chilean capital, this text reveals the illegitimacy and inappropriateness of certain measures intended to promote public transport. Paradoxically, the antisocial dimension in the introduction and operation of the reform to the Metropolitan transport system in Santiago seems to be total.

Ultimately, what is astonishing is not the failure, which is always possible, but the difficulty there is in drawing positive or useful lessons from this particular failure in Latin America. When the aerotrain or Aramis fail in France or in Paris – as Bruno Latour has shown – an entire system is reconfigured around a few “lessons” and even, let us say, “advances” or perspectives – over time, of course, and in Chile’s case, the historian would ask to review the situation in 15 or 20 years... – whereas in the case of Santiago, the impression is that things are radically deteriorating.

The term “virtue” used in the study casts a directly moral light on the apparently purely technical question of efficient transport provision for urban and suburban populations. The report presents as original facts the ultimate mismatch between expectations and results in terms of performance and economic benefits in the capital of a developing country which aspires, as is noted, to be a “world-class city”.

The extreme politicisation of the project’s backers, at the highest level of the State (Ministers and President), also emerges. It is undoubtedly true that this aspect of the project contributed to the burning of a certain number of bridges.

The mismatch between the service provided and territorial needs emerges to a spectacular degree. Objectively, the economic deregulation of the 1990s undermined the solutions that the

BRT was supposed to provide in the second half of the 2000s. The impressive micro-entrepreneurial activity that emerged over this period proves to be one of the factors in the “satisfied” attachment to the old system, which had benefited from the expansion of private enterprise.

The result was an incoherent understanding of the geopolitical reality of a city clearly exposed to social violence. The rise in road and street violence were clear symptoms of this mismatch.

The social role played by private car ownership also seems to have been underestimated in the planning of the reform, which was completely inadequate to manage the growing requirements for mobility and urban expansion.

Ultimately, the failure reveals that the system of participants was incomplete: civil society was never represented in the public arena; the failure of the Transantiago remain loyal to its own principles therefore reveals a failure and impasse in the governance of this issue by the public authorities.

Overall, this research makes a useful contribution to a plural and complex understanding of a crisis of mobility in an emerging city. The discovery that the best intentions can have disastrous and socially unacceptable consequences for the populations that were initially their intended beneficiaries is therefore a topic of consideration for which this study provides a useful introduction.

## Startle report on Beijing – Analysis on Beijing’s motor vehicle usage restriction Policy

**Rosanna Forray**

Santiago de Chile, 25/01/2012

Beijing’s case is very attractive; first of all due to the gigantic proportions of the phenomena public policies must tackle. Secondly, because in the light of such a challenge the strategy is twofold: On the one hand temporary measures are taken with mandatory implementation which must be obeyed publicized through public communiqués, and on the other hand, the implementation is carried out through a trial and assessment process, both before it’s launch for the Olympics then afterwards to shift from an exceptional measure to one which is sustainable over time. Although the comparison is quite out of proportion, it is surprising if we look at the Santiago de Chile experience, where the practical implementation of a radical change of public transport system (Transantiago), overnight, led to a big-bang with severe consequences.

A second element of surprise in the case of Beijing is the restricting of Local Government and Public Administration vehicles. Although we don’t know their share in traffic congestion, it is impressive for two reasons: it must have had some impact on public services, and this measure wasn’t only implemented during the trial period before the Olympics, but also during the sustainable phase afterwards; and finally, because of the symbolic value of demonstration and example for citizens, set by public administration behavior.

A third element of surprise is the capacity to be disciplined, and the social support given to the proposal for these measures. These seem obvious given the successful results achieved. The user surveys regarding the adoption or refusal of those measures were also very positive. Going from temporary measures to a long term strategy is also very interesting: including when there were mixed results. But, given their success during the first phases, it isn’t clear why these measures were reduced over time, when they were becoming part of everyday practices and part of a routine. It

would have been interesting to find out what their impact had been on passengers. One of the elements debated in this case study is the underlying assumption that the basic reason for traffic congestion results from a discrepancy between the growing transport demand, due to the sustained increase in cars and limited offer of infrastructure. This is due to the slow construction of roads. One of the remediation measures would be to build additional infrastructures in order to improve capacity. In the case of Chile, the same argument was used in order to justify the

construction of the urban highway network, with opposite short-term results: it has increased the congestion in the city as well as the number of circulating cars. To conclude, the need to expand the scope of the measures, ranging from urban restructuring to behavioral changes, and public transport development, is obviously relevant, but the interesting part of the Beijing proposal lies in the challenges posed by the idea of diversifying public transport modes and the environmentally conscious travel modes.

# Startle Report on Lima, Peru

**Fernando Lozada-Islas**

Mexico, January 2012  
Documents referred to in this report:

¿Cómo se camina en Miraflores?  
By: Mariana Alegre Escorza

**De las empresas de transporte público al Metropolitano: ¿una reforma en el transporte de Lima?**  
**By:** Claudia Bielich

Of these texts, one deals with pedestrian mobility in an “upper middle class”, highly touristic district of Lima, and the other with the problem of “traditional” urban public transport and the introduction of a first BRT line, expected to trigger an “integral” modernisation of Lima’s urban public transport systems.

## Introduction:

Before writing this startle report, I first had to understand the meaning and requirements of such a document: “ ... inspired by the practices of large firms, [this kind of report] involves asking a newcomer to produce a memo on what he or she finds surprising in the company, whether in operational methods and organisation, systems, strategies, corporate relations, etc. The aim is to produce a critical report, but to ask questions from the perspective of a foreign researcher,

highlighting what might seem unfamiliar in the planned public action or else in the perceived priorities, which would be impossible in the researcher’s own country. The startle report generates new questions from a different perspective.” In order to situate myself in the context of this report and its methods, and express my views more effectively on the subject, I think that it is important to specify that I do not know Lima and have never been to Peru and that, before reading the two papers, I had no precise idea about the nature of this capital city. In the process, I did some research to help me understand the content of the papers. My perspective will undoubtedly be influenced by the fact that I am Mexican, and spent 7 years of my student life in France. And also by the fact that every year I spend varying periods of time in Europe (2 to 5 weeks a year) and that I have just completed a one-year stay in Paris. Also, the fact that I live in Ciudad Juarez, in northern Mexico, a city with severe urban problems, not least urban mobility, could limit my capacity to be startled. Ciudad Juarez is right on the US border, part of a binational metropolitan area including western Texas and southern New Mexico. As a result, I am a regular visitor to towns in these US states, and to many others, given the ease of air travel.

In Latin America, apart from Mexico’s biggest cities, I know several in South America, in particular capitals: of Chile, Brazil, Argentina,

Uruguay, Colombia, and also Guatemala, in Central America.

I wanted to make this clear, because I think that it could have a direct influence on my “capacity for surprise” and that it could somewhat affect the idea of “... which would be impossible in their own country”. Coming from, and living in a Latin American country, there are few things in Lima that would be impossible for me in Mexico, although the opposite (in the current context of violence) would be more probable.

To return to the purpose of the report, I have tried to present my impressions, my “startlement” in a sort of logical sequence without necessarily specifying if it comes from one paper or the other. I hope I have not (totally) failed in this objective.

## Startles report (plural)

The first thing that surprises/startles me in the two papers is that, despite the fact that they are written by women, one of whom focuses on accessible pedestrian routes, neither of them tackles the specific situation of women in relation to urban mobility. Whereas in Europe there has been talk for some years of “Women’s right to the city”, in which mobility is fundamental, and in certain Latin American cities there are, for example, initiatives (however dubious) to set aside sections in urban public transport exclusively for women, in these two papers there is only a “universal” pedestrian or passenger, apart from a slight nod to people with reduced mobility. I think that this demonstrates a lack of awareness of the specific urban mobility needs of women. Although the figures are not entirely clear, one can easily deduce that Lima is primarily a city of public transport and pedestrians, with few cars. In these circumstances, it is surprising to learn that a July 2010 survey by the citizen observatory “Lima Cómo Vamos” canvassed views on whether public investment should prioritise pedestrian infrastructures or wider and faster roads for cars. To start with, I think that this is a false debate, because the two infrastructures are not mutually exclusive but essentially complementary. And also, the investment levels for the two are not comparable. What is more surprising is that in a city where a large majority of the population travels on foot or by public transport, opinions were divided roughly 50-50.

In a city where the population is primarily pedestrian/public transport, where pedestrian

infrastructures are virtually non-existent or grossly inadequate, issuing a law that imposes warnings and fines on pedestrians for “traffic violations” is quite simply senseless and reflects a total insensitivity to the reality of mobility and to social reality. In my opinion, such a law and the attempt to apply it, would constitute an act of serious social discrimination under which “foot citizens” would be less important than “motorised citizens”.

On reading the two papers, one is immediately aware of a serious general problem in the city regarding “compliance and imposing compliance with” the law, whether in guaranteeing pedestrian mobility or operating public transport routes.

In their respective papers, the authors call for new rules, and increased stringency, to improve conditions in the domains they cover. In other words, they call for a new framework of governance. However, do we know what governance is already in place? If by governance, we mean the existence of clear standards and rules, and by governability the real possibilities of applying those standards and rules, from these documents I would say that governance exists but that there are problems of governability, because neither the authorities nor citizens seem to be able to apply and obey them. As a result, everything happens in a context of degrees of “tolerance”, where laws and rules become indefinitely more flexible, in content and form and over time. And once a rule begins to be bent or flouting is tolerated, there is no knowing when, where and how it will stop. Even worse, all the parties involved, whether public or private, go along with the infringement of the law/ standard and perverse complicities are created. In both papers, we see a lack of practical reference to specific standards and rules, in which infringements can be identified, whether relating to sections of pedestrian tracks or the terms of concessions for public transport lanes, stopping points, working time, etc. The impression one gains is that no norms or regulations exist. On the basis of the papers, therefore, it would seem that in respect of governance, everything remains to be done, that new and more regulations are required. However, the problem is more serious: governance exists, standards and rules exist, what is lacking is the will or the real ability to apply them. Therefore, no governability. So why should a system that is accustomed to ignoring laws change its habits simply because



new laws are introduced? Would it not be better to begin by ensuring that the existing legal framework is respect, a framework that everyone recognises even if they ignore it, before changing it?

In both cases, the authors of the papers seem to expect a will to change to arise simply from the goodwill, the good intentions, even the philanthropy of the authorities and certain economic and social players, and not from an obligation to respect the rights of citizens, pedestrians, public transport users, to safe, effective and comfortable mobility. Not to mention the importance of urban mobility to the productivity and competitiveness of the economy of a city and a region.

The role of the State in guaranteeing citizen mobility is not fully dealt with and only touched on in references to public transport service “concessions”: this implicitly reflects the public authorities’ abdication of responsibility for public transport to private enterprises, which habitually break all the rules applicable to them, but have no hesitation in appealing to the law when they feel their interests threatened. For example, suing the authorities for supposed “monopoly” when they want to prevent alternative modes competing with BRT lines. This perception of the state by the authors is very probably shared by almost the whole population which, despite everything, claims to be generally satisfied with the state of the pedestrian routes and formal and informal public transport services. The introduction of the first BRT line in Lima, in July 2010, raises the question: why did Lima take so long to try to mitigate its public transport problem, when a wave, almost a tide, of BRTs, had been sweeping through Latin America since the late 1990s?

Another question also suggests itself: if the expected demand for this first Metropolitano line was more than 700,000 users a day, why didn’t they instead consider a “heavy” long-term solution? In many cities around the world, a footfall of 300,000 passengers a day fully justifies the construction of a subway line, for which the LCC (life cycle cost) over 25 or 30 years is very competitive with that of BRT schemes.

Just a few days ago, Lima’s first subway line had started operation over a 34 km stretch. What would have been the criteria for building it instead of a BRT line?

After almost a year of operation, the Metropolitano has already had two accidents, involving a pedestrian and a cyclist, resulting

in one death, a fact mentioned by the author. However, it would be interesting to know how many accidents occurred before the Metropolitano. One might be surprised to find that the figure was markedly higher, but attracted little media attention, because the perpetrators were not institutions, but small fragmented operators.

It is surprising to find that despite the infrastructure, and the available buses, the Metropolitano’s running hours are quite short, stopping at 9 pm, this in a capital city and on a major traffic route. What are the reasons?

I would like to end this startle list with two perceptions implicitly made by the authors, and undoubtedly shared by the population of Lima, about the concept of “mobility” and “traditional transport”.

On reading the first document, one has the impression that the term “mobility” is exclusively reserved for “alternative mobility”, whereas it is applicable to any mode or means of travel.

In the second document, the term “traditional transport” is used for the Metropolitano BRT service. The main difference is apparently the capacity of the transport units, but apart from this it would seem that the word “traditional” is used for all the bad features of Lima’s formal and informal transport systems, as if they were inherent characteristics. Nevertheless, lines operating small buses, providing connections or local drop-off services, are not necessarily of bad quality and can be as comfortable and efficient as a service like the BRT. What I think is serious about this perception is that as soon as people or users “internalise” the idea that “traditional” buses are intrinsically bad and totally inefficient, no one will expect anything better of them, no more improvements will be demanded and the only objective will be to replace them with a BRT line,... which could never happen.

# Startle report on Bogotá –Latin American laboratory of urban innovation and sustainable mobility

**Alain Meyere**

Paris, 06/02/2012

In the eyes of European observers, Bogotá – like other Latin American cities – is one of the places where specific responses are being invented to the questions of sustainable mobility and probably mobility alone. What clearly emerges in the different texts on Bogotá contributed to this international research programme, is that these original approaches, which are no longer simple transpositions of solutions from elsewhere, have taken time to be recognised and accepted by local technicians, politicians and opinion leaders.

The history of subway projects is a good example of this evolutionary change. The first studies date from the early 1980s and begin with an observation widely agreed at the time, that traffic congestion was continuously increasing as economic growth made cars more affordable, and that the transport infrastructures – whether road or rail – were not keeping up. As the country’s capital, Bogotá had at the time a special status that placed it directly under the influence of the State and, as a result, what happened there was a national issue which no President of the Republic or candidate could ignore. The subway system was presented not only as the solution to mobility problems, but also as the visible manifestation of Colombia’s accession to modernity, and the condition of its economic development. This vision was shared by different politicians enough for it to become a frequent feature in the electoral programmes of successive presidential candidates, but was never implemented because each time the requisite budgets proved beyond the reach of the authorities. First lesson in this retrospective examination: utopia can paralyse!

It took more than 15 years for things to change. Whereas the transport studies recommending a subway system were all produced by consultants who were of good repute but not from Latin America (Spain, France, Italy, England, Japan), a visit by the then mayor of Bogotá to Curitiba resulted in a geographical shift in references and the arrival of the TransMilenio. This system would provide a rapid response to the recurrent mobility problems, give Bogotá a name in the international community of transport planners and finally, along with other factors, contribute to the change of image that the country has experienced. Today, a decade after the opening of the first sections of the TransMilenio and precisely because of its popular success, the question of a subway system is back on the agenda, but in a profoundly different context, because TranMilenio is much more than a mere transport technology.

The 1990s were also a time of profound reassessments, all of which contributed to a gradual remodelling of the mobility paradigm. In terms of the governance of the capital city, the State disengaged and granted more autonomy to Bogotá. The local authorities became more involved in the governance of the transport system, creating a public company in which the City had a majority holding, TransMilenio S.A., responsible for the infrastructure (dedicated lanes and stations), which in turn signed concession agreements with private bus operators. This marked a shift from the archaic system of operating licences, where it was left to the operators to propose a service, to a system where the initiative for defining a service rested with a public authority. More generally, politicians, technicians and urban planners were thinking more widely, beyond transport alone: their focus was now on mobility and, in relation to the physical integration of the infrastructure, on the sharing of the roadways and more generally of public spaces, between



the different transport methods. Against this background, the implementation of the TransMilenio generated new problems or conflicts that had not been anticipated: conflicts of scale between local mobility and citywide or regionwide mobility, conflict between competing uses (transport versus business) of sparse and coveted space. A succession of issues came to the fore, first regarding quality of life in the city, then regarding the processes of urban regeneration and finally regarding the social inclusion of the most disadvantaged populations. In this respect, the case of the **Bicitaxi** is highly instructive. It shows that the shift from a technocratic, naive and restricted view of mobility based on the subway system as a vector of modernity, to an approach that is both more pragmatic and more comprehensive, has not yet been accomplished, in particular within the administration. The Bicitaxi system links with the end of the TransMilenio line, providing bicycle taxi services to the main

stations in one direction and access to the less dense urban areas in the other. It therefore plays an essential role in the success of the primary transport system, and significantly extends its radius of action. In practice, it exists in different versions for different neighbourhoods. The public is aware of its presence, its fare structure, its collection points and even its rules, recognises the vehicles by their standardised colours, and therefore uses it. By its very nature, it represents an energy-efficient and green alternative to standard methods of transport, and its modest fares have a positive impact on the mobility of the poorest social groups. Finally, it exemplifies the capacity for self-organisation of a whole section of the population and provides a living for many poor families. Despite its obvious utility, this system is illegal: the government refuses to recognise it, ostensibly on grounds of safety, while tolerating its presence. Why this ambivalence?

Handwriting practice lines on a white background.



**What city  
or cities  
do the  
world's  
students  
dream  
of? First  
results**

**In English**

**De quelle(s)  
ville(s)  
rêvent les  
étudiants  
du monde?  
Premiers  
résultats**

Les croyances, les valeurs, les utopies influencent la mise en œuvre de projets ou de politiques de mobilité. Révéler les imaginaires et les éventuels changements de valeurs chez les futurs acteurs et décideurs de nos villes peut donc nous renseigner sur les représentations qui imprègnent autant le monde académique que le monde de l'action publique et qui détermineront les choix pour l'avenir.

L'enquête sur ces utopies a été réalisée auprès de 700 étudiants, de la première année d'université au master de spécialisation, en architecture, urbanisme, ingénierie des transports, dans 14 villes: Eindhoven, Daegu, Pékin, Buenos Aires, Bogotá, Barcelone, Paris, Canton, Lima, Mexico, Rio de Janeiro, Santiago du Chili, São Paulo, Shanghai.

Cinq questions ont fourni un cadre général à leurs travaux:

“Quelle serait pour vous la ville idéale telle que vous l'imaginez, sans contrainte de réalisme? Qualifiez-la en 5 adjectifs.”

“Pour vous déplacer dans votre ville ou dans votre quartier, de quels moyens de transport rêvez-vous?”

“Quelles types de “qualités” attendez-vous des moyens de déplacements?”

“Citez trois villes que vous qualifiez de “mythiques”, qui constitueraient pour vous soit un idéal, soit un repoussoir, et expliquez en quoi elles le sont pour vous.”

“Si vous aviez le pouvoir de changer et d'améliorer votre ville, que feriez-vous? Pourquoi? Au nom de quoi?”

Ils ont répondu sous forme de dessins, de vidéos, de textes narratifs, de cartes postales, ou de réponses à un questionnaire. Un groupe de travail, composé de Mathieu Flonneau, Rosanna Forray, Pierre Lannoy, Carles Llop et Gaëlle Rony en a souligné les tendances fortes.

Les textes qui suivent reprennent quelques grandes lignes de ce travail. Ils serviront à un webdocumentaire sur les réalisations des étudiants.

Retrouvez l'ensemble des travaux et la suite des analyses en langue originale sur [movemaking.com](http://movemaking.com).

Beliefs, values, utopias influence the implementation of mobility projects or policies. Revealing perceptions and possibly changing values among the future practitioners and decision-makers of our cities can therefore tell us about the perceptions that govern the academic world and the world of public action and which will determine choices for the future.

The survey on these utopias was conducted with 700 students, from first-year undergraduates through to Masters students specialising in architecture, urbanism, transport engineering, in 14 cities: Eindhoven, Daegu, Beijing, Buenos Aires, Bogotá, Barcelona, Paris, Guangzhou, Lima, Mexico, Rio de Janeiro, Santiago de Chile, São Paulo, Shanghai.

Five questions formed a general framework to their research:

“What would you imagine to be the ideal city, regardless of what might be ‘realistic’”? Describe it in 5 adjectives.”

“What forms of transport do you dream of as a way of moving around your city or neighbourhood?”

“What types of ‘qualities’ would you like to see in methods of transport?”

“Give three cities that you would describe as “mythical”, which you would see either as an ideal, or as an anti-ideal, and explain what makes you think of them in this way.”

“If you had the power to change and improve your city, what would you do? Why? On what grounds?”

They gave their answers in the form of drawings, videos, narrative texts, postcards, as well as responses to a questionnaire. A working group made up of Mathieu Flonneau, Rosanna Forray, Pierre Lannoy, Carles Llop and Gaëlle Rony, identified the salient trends. The texts that follow pick out some of the main outlines of this research. They are preparing a web documentary on the students' work.

You will find all the work and continue analysis in the original language on [movemaking.com](http://movemaking.com).

First analysis on the historical background of students' utopias.

Mathieu Flonneau

18/02/2012

The Making of the ideal city has a rich history. Ever since utopia has existed as a focus of human intelligence in its quest for better living conditions, i.e. literally since the 16th century, the motif of movement has often occupied a crucial position in the general picture. However, the status of this theme, spectacularly though temporarily explored in universal exhibitions in the 19th and 20th centuries, has evolved, especially in qualitative terms, a fact that is clearly demonstrated for modern times by the different international student contributions produced in preparation for this IVM event.

The diachronic counterpoint that we offer will give historical perspective to the images, by exploring the fluctuations in the different fictions of motion invented by the human imagination. The various sequences and views provide food for thought about the decline, or rather the reformulation, of the technological imagination and reveal the resurgence of the utopian current in other, more qualitative domains.

While it is true that the big, classical themes of utopia – journeys that are faster, longer and more people-intensive – seem under attack in the illustrations here, a form of consensus seems to remain regarding the permanence of the need for mobility.

Sometimes humorously, and against musical backdrops that are highly revealing (clearly more technopop in Asia and more intimate and ironic in Europe or Latin America, broadly speaking), we will see that the proposed mobility systems contain values that all suggest a global shift in existence. Indeed, out of all these dreams, the idea that by acting on mobility we act on society as a whole, seems to emerge intact.

The result is that in these dream cities, speed is no longer the only priority; the city must be safe, integrated and accessible. This finding is clearly the product of a historical shift. We will also explore the fact that utopia has traditionally been built within an anti-urban tradition. However, in the cases we see here, this powerful constant of rejection of the city is in a minority, whereas the idea that seems to predominate here is the possibility of reform.



First ideas for the conference The Making of Movement

10/02/2012

Today’s young adults carry ideas, dreams and hopes about the City of tomorrow. From Santiago to Bogotá, from Rio de Janeiro to Barcelona, from Beijing to Daegu, dozens of students have responded to IVM’s call and created, drawn, glued, cut and mounted a whole series of visual documents (pictures, videos, postcards) describing, staging and depicting their urban utopias. We will try to give a glimpse of the richness of this worldwide urban imagination, focusing on the drivers of change expressed in these extraordinary productions. Whether in terms of the environment, public spaces, new mentalities, technological innovations or different kinds of infrastructures, what emerges is not only an image of the ideal city, but also a certain conception of what might (or should) engender it. In these unconstrained visions, who are the actors of the future city, who and what carries the power to generate it, to build a renewed city, to breathe life into another system of mobility? The diversity of the responses to this question will be the main topic of this talk. But the aim will also be to emphasise the strong convergence between the student contributions: tomorrow’s City will necessarily be dynamic, a space of passage, of animation, of mobility. In this city, perceived as a network of mobilities, the urban becomes characterised by the demand for and creation of public transport, lightweight mobilities and new environments: a whole panoply of tools, objects and attitudes that generate a new way of living together and will embody within themselves one of the visibly essential fundamentals of the future city – mobility.

Marie Balteau & Pierre Lannoy (METICES, Brussels Free University)

Inhabiting the present and future of the City: Setting ideas in motion, thoughts on the move. On student utopias as movers<sup>1</sup>

Carles Llop

The “dreams” of students – founded in the essentially naive perspective of the true “dreamer” – provide a real dimension for research, because they seek and construct a future and a narrative that open up possibilities to recreate the impressions of a reality that they dare to go beyond (in other words truly re-search).

In thinking about mobility, they offer us a kaleidoscopic diversity of explorations, visualisations and imaginings about the future (mediate or immediate). They take on the role of “researchers” through their proposals, free of constraints and based on the multi-criterion hypertext that the ideas of these young explorers open up and display.

They provide us with a narrative of the motivations and phenomenologies of motion, and what we experience in moving, in passing through, in slipping by,... In fact, they give us a very rich description of “movement”, i.e. the multiple actions which – as much as mobilities – have their origin in the experience of the city and of the newly constellated urban territories. Perhaps their values and desires emerge from the operational ideas of the agents of urban policy and/or the views of researchers who are familiar with trends, directions, types, criteria, but they expand our vision and offer us imaginings for the future.

So we can say that their proposals carry us towards a new hyperdynamic picture (simultaneous, panoramic, diverse,...) of what reality will become. We can also see that their dreams differ widely depending on the culture and sociocultural context they live in or the environments they know. However, their fresh “panorama” offers diverse ways of doing things and “portraits” and scenarios for the future. According to the territorial context, therefore, the future is envisioned as a multiplicity of scenarios, despite the standardisation supposedly brought about by the gradual cross-cultural hybridisation of social groups and the stereotypes that emerge from this process.

They bring us ways of interpreting, a way of occupying a space of storytelling and personal “psychogeobiographies” (“biomouvegrapiés”) on their own lives in motion and the awareness that “moves our life” and the motion through which people speak and understand “urban movements”. As a result, the contributions of these young researchers become a database of the perceptions of the “protagonists” and of the true components of mobility, of everything that moves in real time (people, goods, ideas, energy, floods,...). “Fluids and flows”, particles in motion (whether cars, goods, objects, data, information, bits) are the materials to think about. It is living things that move, and multiple are the channels they use.

We should not sum up the contributions of the “dreamers”, let alone categorise them into types or stereotypes. The important thing is to explore and consider what is new, what surprises, rather than impose a synthesis that excessively codifies and limits reality. Beyond tangibles and matters that can be precisely defined and delineated, I think that I can glimpse the nature of a future demand that will form the basis of a new sense of mobility, in other words a “mediation” of what the visions for future mobility suggest in terms of new requirements, possibilities, resources, ... but also the new “environments”, i.e. imaginings for the city... which emerge from the problems observed and experienced and from the commitment to innovation and to the regeneration of public policy priorities and the creative initiatives of entrepreneurs.<sup>2</sup>

<sup>1</sup> Future visions and utopias of the city/mobility. DREAMS FOR A BETTER CITY. POINT OF VIEW, Contributions on the student surveys: “What is it that drives public action on urban mobility issues? The making of movement in global cities”, Institut pour la Ville en Mouvement et La Fabrique de la Cité (2011-12).  
*The summaries are based on contributions by the participants and a working group made up of Mathieu Flonneau, Rosanna Forray, Pierre Lannoy, Carles Llop and Gaëlle Rony, so quotations are implicit in the text content.*

<sup>2</sup> See also the evaluations of colleagues on the working group made up of Mathieu Flonneau, Rosanna Forray, Pierre Lannoy, Carles Llop and Gaëlle Rony.

It is in the multiple perspectives, the experience of life and movement in the cities, of this great international group of students, that we can detect a diagnosis of the dissatisfactions that form the starting point for a desire to change. A certain number of common observations can be identified:

- time “wasted” in buses, cars, at motorway intersections
- the hegemony of the car in public space and the car as status symbol
- the deficiencies of the public transport system
- the deficiencies of infrastructure for pedestrians, bicycles and green transport methods
- the loss and gradual disappearance of environmental quality relating to mobility
- pollution and its effects on health
- exponentially rising energy consumption
- spatial segregation as a result of unequal resources
- social and economic inequalities in spending power
- the emerging crisis of the welfare state
- the mental barriers of urban planners and managers

We see here a trend that could be defined as a stereotyped view of urban mobility, but it is the dream, as a form of progress and metaphor for a new model, which is the research focus of these students, given triggered by the impetus of the survey.<sup>3</sup>

In my opinion, the following conclusions can be drawn:

**1. Mobility is the action of *Homo movens*: The human as a being in motion is the true protagonist of mobility.**

*Homo movens* is a protagonist who takes many forms: living, vibrating, passing, strolling, extraterrestrial, transcitizen,... I fear that choosing a subject without taking account of the condition of the true subject of mobility could damage future plans for urban design. Weakening the debate on the totality of the desires and needs of residents and users of the city (i.e. **inhabitants of different kinds**, including those “in transit”) might undermine the meaning of the management of urban mobilities. We need to have a clear position and **situate movement and mobility simply as a condition of mediation**: moving to relax, to situate oneself, to wait for what one is looking for, what one wants. A mediation for the acts of living.

So the valences of mobility could be perceived as:

- a right to the city
- an effort to build relations of citizenship
- a relationship with the environment at various scales
- an environment that promotes the balances of urban life
- a space of priorities for movement

**2. Mobility is not just a technical but a socio-anthropological question**

Mobility as action and life offers us the immeasurable benefit of articulating habitability, activity and mobility (HAM) in the urban experience. From this perspective, mobility is the service that creates the condition of inhabiting, and systems of transport are the spaces that can enhance life through:

- integrated transport systems
- facilities for people with disabilities
- urban information and guidance systems
- targeted information to promote citizenship
- automation as a resource for effective mobility
- osmosis between transport modes and urban space
- the hybridisation of air transport
- shared use of public and private vehicles

- use of dedicated multi-infrastructures for individual mobility (bicycles, electric bicycles,...)
- intermodal public transport
- ...

**3. The new dimensions of mobility require multiple spaces and scales, new areas of intermediation**

Since **the city will increasingly be a mixed territorial magma** and, because of autonomy and quality-of-life needs, the conditions of movement will become increasingly wider, what interests us more than individual mobility is the ability of the city to attract (through services, economic opportunities, cultural plurality). Mobility will develop at a multiplicity of spatial scales in a future marked by gradual urban dualisation: loose city vs concentrated city; mosaic city vs sprawling city. The new spaces of intermediation configure new types of urban space:

- urban halls
- transit stations
- intermodal hubs
- multimodal exchange points at city entrances
- ...

**4. As against the multiplication of infrastructures, what is envisaged is a new multiplex system in which public space, the foundation of urban territoriality, is:**

- practical
- comfortable
- effective
- environmentally friendly
- sustainable
- spacious
- affordable
- cost-effective
- enjoyable
- fun and pleasurable
- local
- functional
- ecological
- accessible
- socially equitable
- attractive and convenient
- clean

**5. A shared, fluid space of simultaneity that avoids the fragmentation of the street.**

Urban space and streets that constitute three levels of the city: below ground, sidewalk level, the overhead city, where overhead and underground movement are articulated.

**6. Managing future mobility in which the desires and priorities of mobility are seen as fundamental. People rather than things:**

- with a focus on autonomy and community
- with greater emphasis on the public than the private
- with heterogeneity and diversity rather than homogeneity
- with flows for leisure and for people
- with space for the unexpected, coincidence, surprise
- with action against the hegemony of the car and in favour of pedestrians
- with people-centred automated transport
- ...

**7. More flows + less movement**

In my opinion the priority is: **Less movement! More access to flows** (goods, services, information, culture, enjoyment, economic,...). **Choosing and deciding on movements and methods**: that will be the

<sup>3</sup> Future visions and utopias of the city/mobility. DREAMS FOR A BETTER CITY. POINT OF VIEW, Contributions on the student surveys: “What is it that drives public action on urban mobility issues? The making of movement in global cities”, Institut pour la Ville en Mouvement et La Fabrique de la Cité (2011-12).

richness of the 22nd century, when **taking time and choosing** will be the principles of **the art of living**. An art of living in an urban, even hyperurban mode. And not one single model, but a diversity of scenarios and a mix of possibilities.

**8. Mobility can be remodelled through a new conception of the city as a territory of flows and networks, i.e. through a new conception of territoriality.**

This is where we come to my concept of HAM (habitability, activity, mobility)! Since **the city will increasingly be a mixed territorial magma** and, because of autonomy and quality-of-life needs the conditions of movement will become increasingly broader, what interests us more than individual mobility is your intuition of what makes an attractive city (services, economic opportunities, culture, even surprises,...).

- the double city:centre(s) in relation to peripheries
- constellation cities vs sprawling cities
  - dense city vs loose city
  - city of culture
  - small-scale green space
  - high-quality citizenry
  - TOD, transported oriented development
  - eco-neighbourhoods
  - environmental quality
  - sharing of the city
  - new trends towards a mix and diversity of activities
  - SMART cities

**9. An imagined future mobility with a new territoriality raises a panoply of questions about objects, instruments and systems.**

So the question will be: who will be the movers of the city (responsible for what the city offers or imposes on you)? Why? What will the people who control the “offers” or fake services expect of you? Everything commercialised? New forms of dependency? Control or true autonomy? Free societies or societies demonised for dependency?... Yes, you are right, the mobile city is something that can remodel the paradigms of societal organisation!

- Minimal interventions vs megastructures
- Other forms of energy
- Teaching and learning new process models
- Multimodal and intermultimodal.

- And who will provide the impetus?
- civil society
  - citizens as protagonists of social action
  - exchange of information and mutual learning
  - ...

**10. For a planned move towards Smart cities (intelligent regional conurbations) based on new urban metamorphoses:**

- Urban metamorphosis 1: renaturing the city in harmony with the natural landscape
- Urban metamorphosis 2: one single multipurpose channel, the multiplex city vs multichannel urban traces
- Urban metamorphosis 3: easy city, friendly city, practical networks and public transport; and social and cultural interaction

- And how?**
- through equal access to urban mobility
  - a new citizenship in which social interaction becomes more important in public affairs
  - interacting through innovation in technological resources

- looking after people by means of advanced technologies
- promoting new ways of learning
- using augmented reality
- reducing movement by increasing access to flows
- exploring enjoyable mobility and enhancing the habitability of (or in) mobility
- exploring governance, the capacity for negotiation, and testing efficient forms of organisation

More than the ordinary City, we need to be thinking about a **territory\_network\_village** where there is more room for people than transport, for access than systems... That is why **organisation is the priority in this progressive city\_world**, a scenario into which we are projected without alternatives. That is why dreams are the level on which the **inhabitant of the present creates the future of the City, setting ideas in motion, thoughts on the move.**



# First Analysis

## Jean-Pierre Orfeuil

Within the framework of an international research programme entitled – “The Making of Movement: What is it that drives public action on urban mobility issues?” – headed by IVM with Fabrique de la cité and various other partners (see the open interactive website [movemaking.com](http://movemaking.com)), surveys on their aspirations for the ideal city and mobility were conducted with students of architecture, urbanism and transport, in different universities around the world (Latin America: Bogotá, Buenos Aires, Lima, Mexico, Rio de Janeiro, Santiago, São Paulo; Asia: Daegu (Korea), Guangzhou, Beijing, Shanghai (China); Europe: Barcelona, Eindhoven, Paris).

In each of these areas, groups of from 20 to more than 100 students worked in several sessions incorporated into their study programme. In certain cases, research was done in different courses or universities within the same city, allowing comparative analyses.

The common objective was to identify desires for the city, the values underlying them and their implementation in terms of urbanisation and dominant transport systems. However, the methods used were very diverse, from every perspective: open individual work, relatively closed questionnaires or group workshops; text or visual media, postcards, videos; references to iconic cities, or conversely cities representing an anti-ideal; exclusive focus on dreams, or identification of a nightmare counterpoint... Similarly, the syntheses were conducted by the local teams using different methods, some tending towards the quantitative, others the qualitative, yet with the aim of identifying the salient keywords or themes. This is essentially the material we start with.

### 1. Iconic cities.

Broadly speaking, the iconic cities fall into two categories: either cities that are close to the students’ environment (Singapore, Hong-Kong and Australian cities for the Chinese, Curitiba or average cities for the Latin Americans, or European cities (Paris, London, Amsterdam, Stockholm, Bern, Zurich, several Italian cities), with New York and Chicago being the only North American cities cited. The anti-ideals are either the student’s own city, or cities on the same continent perceived as chaotic (Indian cities for the Chinese, Latin American cities in Latin America). European cities do not come into this category, and nor does Los Angeles, which is rarely mentioned.

### 2. Urban aspirations: values emphasised

There is unanimous emphasis on one theme, the environment, but with differing meanings. The issue of the city’s contribution to climate change is explicitly raised only in Ghangzhou, and the problem of adapting to heatwaves only in Daegu, although the prospect of future oil shortages generates questions pretty much everywhere. The role of nature in the city is much more in the forefront, in very varied forms, from green spaces in places where agricultural production in the city is clearly most lacking, to natural urban landscapes, to enhancing the role of rivers and the “renaturing of the city”. A connected and (to us) slightly unexpected theme is cleanness, but here again with nuances: a “clean” city does not show its dirt, does not damage health through vehicle emissions, is not “unclean” in terms of the actions of its

residents or officials... Also noteworthy are elements on urban aesthetics (in China), and on urban comfort (pretty much everywhere).

The second dominant theme is the equitable city, the shared city, the city that gives all its citizens (including those with disabilities, tourists and visitors) equal access to the resources they need to live their lives. This theme is as strong as the first in Latin America and in Europe, markedly less so in Asia.

Amongst other very strong themes, but with an intensity that varies between places, are two recurrent topics. The need for continuity with the past is reflected in heritage approaches (very present in countries with a strong focus on identity in Latin America and China, where erasure of the past has been greatest). Safety and security is an issue in China largely in terms of road safety, and unanimously present in Latin America on three levels: civil security, pedestrian safety, security on public transport. Here, it is often associated with a desire for calm, the promotion of order in societies and cities where chaos currently reigns.

Finally, it is noteworthy that the topic of the creative, innovative city emerges in only one contribution, from Daegu.

### 3. Urban aspirations: size and shape of the city

Surprising as it may seem from students in these disciplines, this question is either relatively underdeveloped, or characterised by contradictory desires. There are few references to a desired size. The concept of the “metropolis” is not highlighted as valuable in itself, although some of its attributes (good connections to the rest of the world, social mix) are more explicitly expressed. In certain cases (Latin America, China), the dream city is often smaller than the city where the contributors live, not on principle, but in the hope that it will be more manageable. The question of the compact city arises, but not everywhere, and there are frequent references in Latin America to the “ordered” city, one with a pilot (or an autopilot) in the plane.

On the other hand, there is virtual unanimity on one point, a city made up of neighbourhoods where everything (or almost everything) can be found locally, a city on a human scale, where moving between districts is possible but not compulsory. The following are often (but not always) associated with this point: a social mix within neighbourhoods, the lively atmosphere that results from this, neighbourhood production systems (local area maintenance, small-scale farming, etc.). Inevitably, this configuration is always associated with generous public spaces, which exclude polluting or even simply fast-moving vehicles. Despite this conception of the city as a “union of autonomous neighbourhoods”, the idea of a city centre, a locus more of identity than function, is usually present. Similarly, the idea of a city of enjoyment is often emphasised.

### 4. Aspirations for mobility

The dominant aspirations broadly converge, and what dominates is broadly quality: convenience and comfort. The “moment” of transport – the journey and its enjoyment – is to be valued rather than minimised. The other values, with varying priorities, are safety, efficiency, affordability, environmental sustainability. Last comes speed, though it is not very clear if this is already included in effectiveness.

**5. Aspirations with regard to traditional transport systems** Two methods win hands down. They are the subway and the bicycle, everywhere a subject of positive perceptions

(slightly less in China for the bicycle), even where these systems are not very prevalent (bicycle in Korea, subway in Latin America, home of the bus).

On average, however, road transport (car, bus, motorbike), is not seen as dream material, except in Europe for “augmented pedestrian” systems (powered rollerblades, electric bicycles, etc.).

Walking is always mentioned, but more as a matter of “political demand” (pedestrian safety and comfort) than as dream material.

Moving onto systems, the idea of intermodality is strongly promoted (e.g. transfer hubs, bicycle + subway), which implies systems that are “ordered” by organising authorities, as is the idea of hybrid systems (public bicycle systems).

6. Freedom to innovate relative to the existing situation

Three major directions for “interdistrict” systems: use of the third dimension, sometimes underground (including cars), often overhead (“traditional” systems, such as cable cars, through to all sorts of individual flying objects (especially in Korea)), automation for subway systems and for remaining cars, and the sharing of fleets of individual vehicles, already referred to. Ultimately, still the same priority: public surface space reserved for community relations and walking and cycling.

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**Our thanks to all the students!**

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## In English

# Actes du Prix Jeune chercheur

# The Young Researcher Prize Proceedings

# Retracer l’histoire d’une controverse urbaine : Appel à communication pour jeunes chercheurs

■ L’appel à contribution a été adressé aux jeunes chercheurs, docteurs et doctorants. Les contributions pouvaient relever de différentes disciplines et en mobiliser plusieurs : urbanisme, planification, sociologie urbaine, sociologie des problèmes publics, sociologie de l’action publique, ingénierie des transports et de la mobilité, analyse de discours, etc.

■ L’objectif était de retracer l’histoire d’une controverse qui a opposé des acteurs sociaux dans un contexte où les méthodes d’évaluation traditionnelle fondées sur l’intérêt général sont contestées. Quelle expression des intérêts d’acteurs, quelles représentations de la ville, du développement durable, de l’action publique, de valeurs... révèlent les processus sous-jacents au conflit? Comment le problème a-t-il émergé dans l’espace public? Quels acteurs sociaux le portent? Comment a-t-il été mis à l’agenda médiatique et/ou politique? Quelles sont les “scènes” de ces débats/publicisations ? Autour de quels projets/mégaprojets/objets/objets fétiches se font les débats? Autour de quelles questions se créent des conflits d’idées et/ou d’intérêts? Quels sont les arguments mobilisés? Par qui? Au nom de quelles valeurs ou visions de l’ordre urbain? Selon quelles références à d’autres territoires (modèles de villes, importations d’idées etc.)?...

■ Les jeunes chercheurs intéressés ont dû envoyer un court curriculum vitae ainsi qu’un résumé de leur communication (3000 caractères espaces compris maximum) incluant le titre de la contribution, ou le texte entier de leur communication (30000 caractères espaces compris maximum).

■ Le Comité scientifique décernera à la meilleure contribution le Prix Jeune chercheur.

■ Cette action est financée par la Région Ile-de-France (0810 18 18 18).

Retrouvez les textes en langue originale avec leurs illustrations en couleur sur [www.movemaking.com](http://www.movemaking.com).

## Retracing the history of an urban controversy: Call for contributions from young researchers

■ The call for contributions was addressed to researchers holding or working towards a doctorate in China, Latin America and Europe. Contributions may pertain to different and multiple disciplines: urbanism, planning, urban sociology, sociology of public problems, sociology of public action, transport and mobility engineering, discourse analysis, etc.

■ The objective was to retrace the history of a controversy: What expression of the stakeholders’ interests, what representations of the city, of sustainable development, of public action, or values... reveal the processes underlying conflict? How did the problem emerge into the public arena? Who are the social stakeholders involved? How did it come onto the media and/or political agenda? What are the “arenas” in which these debates and public conflicts take place? What projects/megaprojects/fetish objects are at the centre of the debate? Around which questions do conflicts of ideas and/or interests emerge? What arguments are brought to bear? By whom? In the name of what values or visions of the urban order? According to what references to other places (models of cities, imported ideas, etc.)?...

■ Researchers who were interested sent a short CV and a summary of their paper (maximum 3000 characters including spaces) including the title of the contribution, or the full text of their paper (maximum 30,000 characters including spaces).

■ The Scientific Committee will award The “Young Researcher” Prize for the best contribution.

■ This initiative is financed by the Ile-de-France Region (0810 18 18 18). You can see all the work in its original language and with its color illustrations at [www.movemaking.com](http://www.movemaking.com).



## City and mobility in crisis: a case study in Athens City Centre

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## 1. Introduction

### 1.1 City and crisis

The term ‘crisis’ refers to something more severe than a problem or even a cluster of problems, reflecting the shock stimulated by the severity of changes (Johnston and Taylor, 1989). The 2008 global financial crisis is considered as a major crisis in the history of capitalist development; Mayer (2009) considers it comparable to both the Great Depression and to the crisis of Fordism. The financial activities are superior services, historically developed in the center of capitals in major economic countries (Sassen, 2002). State and urban policy analysis cannot thus be dissociated from any financial crisis (Fujita, 2011). The 2008 crisis was in essence an urbanization crisis, growing out of speculative investments relating to the built environment and to the massive redistribution of real income that is embedded in the normal operations of the industrial capitalist city (Harvey, 2008). A large part of the capital surplus going into bubble formation has been absorbed in urbanization, urban restructuring, and urban expansion. Urban restructuring must first be seen as crisis-generated (Soja, 2009). The re-capitalization of capital is an intensification of processes that are endemic to global capitalism; these processes make urban restructuring more visible and dramatic (Friedmann, 2009). However, people, spaces, and activities are affected differentially by on-going restructuring procedures. As an example, the 2008 crisis produced a restructuring that consolidated and enhanced the political economy relevance of the City of London regardless of its negative impact on the global financial sector and the local labor force (Talani, 2011).

Transport is a derived demand; it is rarely consumed for its own sake but instead as a means to an end (Cole, 2005). On the other hand, real estate markets follow the swings in aggregate economic activity (Gottlieb, 1976), and transmit the effects of general economic change on space (Haila, 1988). Consequently, transportation offer (of both services and infrastructure) can be understood as the means to reshape land values, space, and economic policies. With sufficiently good information flows, improved accessibility is capitalized in land values in conjunction with the initial investment decision (Andersson, 2008). Besides, transportation costs have long been recognized as a crucial determinant of both the formation of cities and of the spatial distribution of economic activities within urban areas (Alcaly, 1976).

Transportation networks cater for the seamless mobility and smooth flow of people, goods, and information; they materialize flows. When space of flows are substituting space of places (Castells, 1985), the role of transportation is upgraded to become a key determinant of urban structure and restructure. Transport planning decisions affect land use development, and land use conditions affect transport activity in a complex and dynamic relationship (Litman, 2011).

Besides, smart growth and new urbanism theories in essence conceptualize transit-oriented developments. We believe that travel demand patterns can capture crisis and urban restructure collateral effects, both directly (as being adjusted to offer) and indirectly (as being adjusted to consumption patterns). Observing changes in travel demand enables for a more substantive interpretation of crisis causes, magnitude, and effects. As Heikila (1998) maintains, economic crises are deeply urban in character and in origin, and therefore the resolution of the crisis should address the urban economic crisis.

### 1.2 Athens in crisis

In May 2010, the International Monetary Fund (IMF) along with Eurozone governments provided Greece with short- and medium-term loans of over 100 billion euros. In order to assure repayment, the Government keeps on announcing austerity measures that reduce citizens’ real income; low-income groups are mostly affected. These measures include high taxation on gasoline; a drastic reduction in congestion intensity and duration has been observed over the last period with public transport (PT) catering for great part of the surplus in travel demand. However, the Government also announces budget cuts in PT subsidies forcing Transportation Authorities in a drastic reduction of existing bus lines and an increase in PT fares.

In addition, the industry, all commercial activities and services have been severely affected by recession and are significantly contracted following overall economy trends. Within all Athens metropolitan area, the City Centre has been most severely affected by the financial crisis due to a previous inflation in land values and other reasons. PT planning, while ignoring these drastic changes in the Athens city centre, could lead to deeper recession and a further shrinkage of the City Centre financial activity. Further, it could drastically reduce mobility and accessibility of the most highly affected income groups, leading them to marginalization.

Citizens mobilize against austerity measures and form a movement called ‘*I don’t pay*’ (‘den plirono’ in Greek) whose members do not validate their ticket on-board. Non-members feel like paying for the transportation costs of movement members and, thus, social tension is triggered. In parallel, PT Authorities see their income further decreased and encounter serious viability problems. The Government applies additional penalties to offenders and at the same time announces further cuts on the PT subsidies. Consequently, the quality of service is further reduced and citizens react more severely.

### 1.3 The context

In January 2011, roadway concessionaires were experiencing a reduction in their revenues as interurban mobility has been decreasing due to the crisis. Furthermore, alternative (toll-free)



itineraries were preferred when available. As a result, concessionaires announced significant increases (4-40%) in toll rates of all vehicle types. Such increases had been initially foreseen in the Project's financing plan agreed with the Greek State and the Lenders. However, several constraints applied mainly due to the financial crisis:

- alternative road network not operational as all public works are in suspension
- drivers seeing their real income continuously decreasing due to salary decrease
- gasoline price going up (by 40% in a year's time) due to additional taxation

Drivers using the national motorway network were asked to pay an amount of about 25 euros for a distance of 500km (on the motorway connecting Athens to Thessaloniki); the situation being more severe for farmers and local residents that were asked to pay on a daily basis as rates are fixed per passage<sup>1</sup>.

Soon afterwards, a reaction movement was formed, mainly in the Greek Countryside, with local authorities and politicians participating. The idea was to pass through the toll stations without paying; the concessionaire not having the right to arrest offenders. Local police forces were inadequate to enforce the payment and, in some cases, even intentionally inefficient. The movement 'I don't pay' grew rapidly and gained supporters from all around the country. On all major holidays, teams of supporters organize the blocking of toll stations and 'lift the bars' manually for all drivers to pass through free of charge. Local political parties and stakeholders actively participated to the movement as they identified a significant potential for their political interests. They explained their attitude on the grounds of social equity. Nevertheless, political parties avoid to officially take position; with left-wing being mostly favorable and right-wing disapproving of this practice. Progressively, the movement 'I don't pay' extended its activities to struggle against additional austerity measures such as public transport fares and extra taxation on real-estate. The rhetoric of supporters consists in the fact that politicians are mostly responsible for the current situation of the country and that they should primarily pay for the debts. Low- and medium- revenue classes must not pay for a crisis that is not of their responsibility. The latter is a common belief shared by large part of the Greek population that is, a priori, favorable to 'I don't pay' behaviors even if not personally participating.

The media, both electronic and print, adopted a rather controversial attitude. On one hand, all well-known journalists openly disapproved of the movement and developed arguments against it. On the other hand, they persisted commenting on 'I don't pay' by every-day

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<sup>1</sup> Indicative announcements in the media: <http://www.skai.gr/news/greece/article/159698/auxisi-diodion-ston-autokinitodromo-an-peloponnisou/>, <http://www.tanea.gr/ellada/article/?aid=4616667>

reports; the latter being rather exceptional as most of the other reactions to severity measures scarcely were brought to light. Publicity by media offered wide recognition to the movement that progressively gained more supporters. Interestingly, significant stakeholders of the media are also significant stakeholders of motorway concessionaires. As an example, AKTOR concessions S.A. is holding 71,7% of the MOREAS S.A. (concessionaire of the Peloponnesian motorways), 17% of Olympia Odos motorway, 59,3% of Attiki Odos motorway while at the same time holding 25% of MEGA CHANNEL (the most popular TV channel) and the newspaper ETHNOS. Shortly after the peak of the movement, major concessionaires asked for re-negotiations regarding the Agreement as they declared lost revenues by fault of the State's inefficiency to enforce 100% toll payment. The demand was legitimate and they, thus, achieved significant gains in their revenues that would have otherwise been constantly decreasing. One would say that on the mid-term, 'I don't pay movement' turned in favor of major Motorway Concessionaires.

The scientific society immediately denounced 'I don't pay' via the communications of the Hellenic Institute of Transportation Engineers (HITE)<sup>2</sup>. They declared that '*given the current financial context, not paying the tolls has a negative impact on public interest. Paying the toll rates is a user obligation while enforcement is on the exclusive responsibility of the State.*' Noticeably, the Institute has not conducted any research on the subject which, in the author's opinion, is not a transportation engineering issue. Interestingly, HITE president is also the CEO (Managing Director) of Attikes Diadromes SA, the Operating Agency of Attica Tollway (Attiki Odos), in Athens, Greece. Attiki Odos is a privately owned peri-urban motorway that practically serves as Athens ring.

In the case of Public Transport, 'I don't pay' attitude consists in not validating the ticket when on-board. This part of the movement was barely presented on the media and did not gain the great support of Citizens. The debate began on late 2010 when the Hellenic Ministry of Transportation announced that additional revenues from fare tickets were needed so as to cover operational costs and ensure the viability of Public Transport Operating Companies. Markedly, both the PT Organizing Authority (OASA) and the PT Operations Company (ETEL, metro) are public companies and, in practice, no control is being made. The annual contracts do not include quantified indicators of quality of service offered to users, and so on. Shortly after the fare increase, a significant reform was made regarding PT scheduling and routing mainly affecting bus lines; the objective being always to decrease operational costs.

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<sup>2</sup> Hellenic Institute of Transportation Engineers official website: [www.ses.gr](http://www.ses.gr)

Bus lines geographically cover most of the Athens Metropolitan area and answer to a large part of transportation demand as there are only 3 urban metro lines and one suburban railway line. Following this reform, some lines have been suspended while others have been merged. The PT time window has been shortened; the frequency of all lines has been decreased and many drivers have been transferred to other services or been fired. Nevertheless, the fare was increased by 20-40% for all users and state contribution to PT ticket funding has been decreased from 70% to 40%<sup>3</sup>. In February 2011, ‘I don’t pay’ in PT was presented in the media as practically inexistent. At the same time, the Government decided to penalize offenders that -besides paying 60 times the ticket price- would additionally have to stand at the Court and face 3-month imprisonment<sup>4</sup>. Social pressure obliged the Minister to reduce penalty to 3-30 days of imprisonment<sup>5</sup>.

### 1.4 Research scope

While there is an increasing interest in the field of travel behavior change, little attention has been given to the behavior change due to financial crises. Increased ridership has mostly been studied as a positive aspect of Mobility Management strategies. These strategies encourage a shift towards public transit and, consequently, expand and motivate sustainable travel choices. However, a similar shift towards PT is actually observed due to reasons different from enhanced mobility awareness or ecological sensitivity; i.e. purely financial reasons. Such changes are not voluntary nor the outcome of well-designed awareness campaigns. Instead, they are dictated by necessity and affect travelers unevenly. On the other hand, not validating the ticket on-board has always been commonly associated to inappropriate and irresponsible practices of low-age, low-education and/or low-income groups. However, in crisis regimes, such attitudes may reflect public opinion and, even, social responsibility. Crisis-related changes have different inherent characteristics and consequences. We thus believe that the process of travel change during crises should be separately examined and addressed.

The objective of this paper is to provide insight in the impact of crisis on Athenians’ travel behavior and to explore the characteristics of the movement ‘*I don’t pay*’. To this end, we perform an analysis based on two axes: (1) travel survey (N=300) in order to capture emerging trends in travel demand characteristics, and (2) a specific survey (N=300) focusing on the opinion and practices of PT riders regarding ‘*I don’t pay*’. We attempt to establish links between the demographic profile of participants (gender, income, travel habits, and so

on), their opinion of the movement, and their travel behavior. Urban and mobility planning while ignoring these emerging trends could lead to deeper recession and shrinkage of the City Centre’s financial activity.

## 2. Study Design

### 2.1 Study Area

Athens is the economic and political centre of Greece as it accounts for almost 50% of the country’s GDP, with the average annual income being around € 27,000 per capita (constant 2007 prices). Until the 1970s, Athens was a rather mono-centric city in which offices, retailing and wholesaling, small-scale industries and housing were expanding within a short radius around the city centre. A number of significant socio-economic and spatial transformations took place; they resulted from both local dynamics of the city and the global dynamics. In particular, the investment shift from industry to commercial and residential real-estate development as well as the growth of financial activities and producer services caused significant transformations. The 2004 Olympic Games further exacerbated land price inflation and triggered extended gentrification schemes. As a result of these processes, the Athens metropolitan region has been transformed from a single-core to a multiple-core metropolitan area; the macroform of the area is determined by the dispersion of activities towards the periphery. Nevertheless, the role of the CBD is still dominant.

The Athens City Centre boasts a huge economic activity including commerce, finance, entertainment accommodation, and small-sized industries that produces a high demand for transportation (approximately 5.000.000 journeys on a typical working day). It has a surface of about 39.000 km<sup>2</sup> and a population of only 700.000 inhabitants as housing on the suburbs is preferred. The City Centre is served by a mass transit system of 3 metro lines, 2 tramway lines, 1 suburban railway line, 360 bus lines, and 20 electric bus lines (trolley). The study area comprises the most significant part of the Athens City Centre being delimited by the following arterials:

- Vasilissis Amalias avenue
- Vassilissis Sofias avenue
- Alexandras avenue
- Trikoupi
- Arsaki
- Aiolou
- Mitropoleos

<sup>3</sup> Announcements in the media: <http://www.enet.gr/?i=news.el.article&id=219422>, <http://www.tanea.gr/ellada/article/?aid=4618452>

<sup>4</sup> <http://www.enet.gr/?i=news.el.article&id=250302>

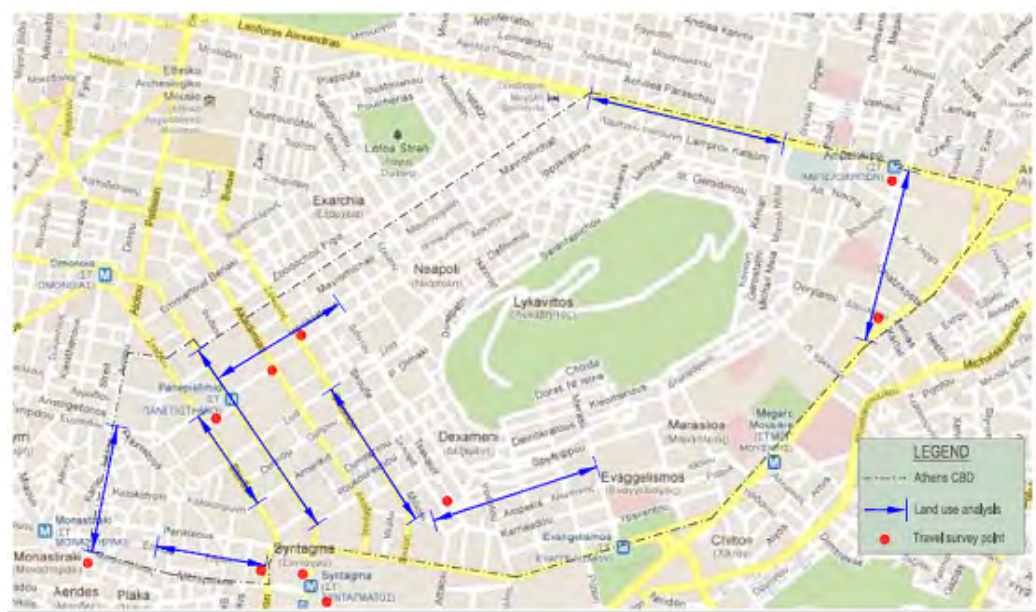
<sup>5</sup> <http://www.tanea.gr/ellada/article/?aid=4618452>

- Vasilissis Amalias avenue

2.2 The survey

We undertook a stated preference travel survey among 300 pedestrians (random sampling stratified per hour of the day) walking along selected arterials. In-field questionnaire surveys are appropriate for stated preferences travel surveys (e.g., Grdzelishvili and Sathre, 2011). Survey points were selected upon various criteria such as proximity to metro and bus stations. Responders were asked about demographic characteristics (such as age and gender), personal travel habits (such as mode choice) within the Athens City Centre, and crisis-related travel pattern changes in 2011. However, the focus was on their opinion about ‘I don’t pay’ as well as on their personal behavior regarding PT ticket validation. The interviews were temporally distributed within the day in order to capture all travel purposes (e.g. work, entertainment). The map of Figure 1 provides all relevant spatial information; i.e. the area considered and the survey points of interest.

Figure 1 Study area and points of interest



2.3 Sample Description

Table 1 summarizes sample characteristics as stated by the 300 respondents along with their trip characteristics on the day of the survey. About half of the respondents visit the city centre on a daily basis mainly to go to work. Noticeably, only 3% of the sample declared annual revenues exceeding 40.000 euros; the latter may suggest a move of upper-income groups towards the suburbs.

Table 1 Summary Statistics on Sample Characteristics

Variable	Type	Statistics	Description
Gender	binary	F(1)=45,67%	=1 if male; =2 otherwise
Age	continuous	M=35,5,SD=12,75 Max=77, Min=17	in years
occupation	categorical	F(1)= 12,67% F(2)= 8,00% F(3)= 6,33% F(4)= 11,33% F(5)= 38,33% F(6)= 21,67% F(7)=1,67%	=1 if studying; =2 if unemployed; =3 if pension; =4 if commerce; =5 if intellectual work; =6 if manual work; =7 if other
annual revenue	ordinal	F(1)=38,33% F(2)=58,67% F(3)=3,00%	=1 if <10.000€; =2 if 10 to 40.000€; =3 if >40.000€
time of interview	categorical	F(1)=33,33% F(2)=33,33% F(3)=33,33%	=1 if 8-10h; =2 if 14-17h; =3 if 20-22h
travel mode	categorical	F(1)=45,33% F(2)=37,33% F(3)=4,67% F(4)=10,33% F(5)=1,67% F(6)=9,33% F(7)=7,67% F(8)=2,33%	=1 if including metro; =2 if including bus; =3 if including tram; =4 if including walking>10min; =5 if including cycling; =6 if including private car; =7 if including motorcycle; =8 if including other (taxi)
mode transfer	dummy	F(1)=18,67 %	=1 if yes; =0 otherwise
Origin	binary	F(1)=30,67%	=1 if within CDB; =2 otherwise
Destination	binary	F(1)=78,33%	=1 if within CDB; =2 otherwise
Passing through	dummy	F(1)=11,67%	=1 if yes; =0 otherwise
Travel purpose	categorical	F(1)= 45,7% F(2)= 5,6% F(3)=29,2% F(4)= 4,1% F(5)=12,4% F(6)= 1,2% F(7)=0,9% F(8)=0,9%	=1 if work; =2 if studies; =3 if entertainment; =4 if medical; =5 if shopping; =6 if sports; =7 if protest; =8 if other
Frequency	ordinal	F(1)= 22,67% F(2)= 44,33% F(3)=28,67% F(4)=3,00 % F(5)=1,33%	=1 if every day; =2 if 5days/week; =3 if 1-2days/week; =4 if once/month; =5 if <once/month

F: frequency, M: average, Min: minimum, Max: maximum

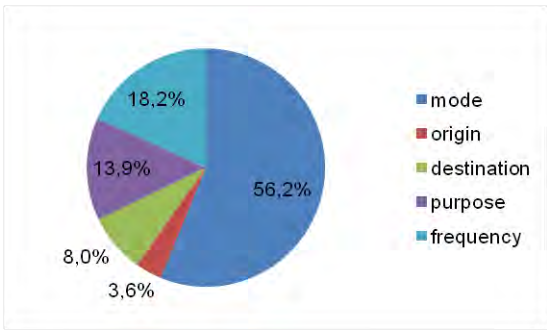


3. Main Findings

3.1 Travel Behavior

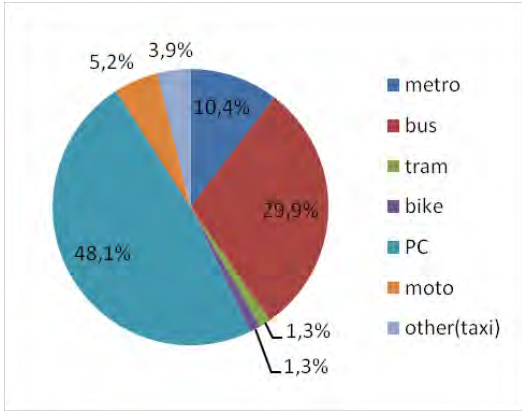
Among the 300 respondents, 107 individuals (36%) stated to have changed their travel patterns in 2011 due to reasons related to the financial crisis. This finding comes to verify our initial assumption that crises have a severe impact on travel behaviors of affected populations. Figure 2 depicts the distribution of stated changes for the sub-sample of the 107 individuals. Noticeably, over half of the changes refer to mode swifts while almost 1/5 corresponds to travel frequency reductions. Very few changes refer to differentiations in O-D patterns. These findings suggest that consumers try to reduce the cost of their daily activities as a first reaction to crisis impacts upon their real income. However, the actual scale of the crisis has not (yet) forced citizens to change their origin and/or destination. Significant changes in trip origin would imply that lower-income classes were forced to move due to inability in paying the rent.

Figure 2 Distribution of stated changes in travel patterns



Responders indicating changes in travel patterns related to mode choice were further questioned about the mode whose use has been reduced. Figure 3 illustrates the distribution of received answers; nearly half of them regarded a reduction in private car (PC) use. If we compare figures 4 and 5, we can infer that gasoline shows high elasticity; at least for the current price levels and market state. Indeed, it is generally accepted that traffic congestion in the CBD has been recently reduced in both intensity and duration. Surprisingly, bus use presents a significant reduction as well. This can be explained by the fact that PT governmental reforms were mainly related to bus lines.

Figure 3 Distribution of reduced mode use



3.2 ‘I don’t pay’ attitude

Regarding ‘I don’t pay’, a detailed presentation of received answers by geographical sector considered can be found in the annex. Table 2 summarizes the major findings of all 10 sectors. According to the analysis performed, over ¾ of the Athenians have a positive or indifferent opinion about ‘I don’t pay’ regardless of travel mode. Nevertheless, only 10% of responders declared never to validate their ticket on-board. In total, 22% declared to sometimes validate their ticket.

. Table 2 Aggregate travel survey results

	Revenue		Travel purpose			‘I don’t pay’		Mode
	<10.000€	unemploy ment	work	entertain ment	shopping	Negative opinion	Sometimes validate	P.T.
1	43%	16,7%	46,7%	30,0%	6,7%	33,3%	30,0%	85,4%
2	30%	3,3%	63,3%	13,3%	13,3%	26,7%	36,7%	82,5%
3	52%	6,7%	50,0%	30,0%	3,3%	46,7%	10,0%	74,3%
4	30%	6,7%	60,0%	16,7%	16,7%	30,0%	23,3%	84,2%
5	33%	3,3%	53,3%	16,7%	16,7%	6,7%	36,7%	60,0%
6	50%	16,7%	50,0%	33,3%	3,3%	36,7%	20,0%	83,8%
7	50%	10,0%	46,7%	20,0%	20,0%	23,3%	46,7%	67,7%
8	23%	6,7%	33,3%	46,7%	13,3%	26,7%	20,0%	70,5%
9	45%	3,5%	40,0%	30,0%	23,3%	3,3%	40,0%	56,7%
10	30%	6,7%	73,3%	3,3%	3,3%	10,0%	53,3%	60,0%
avg	38,6%	8,0%	51,5%	24%	12,0%	24,3%	31,7%	72,5%

Table 2 data allow for interesting remarks to be made. However, it should be noted that further statistical analysis and larger sample sizes would contribute in validating results and in

gaining additional insight. Overall, it seems as though the unemployment rate rises in sectors frequented by low-income groups. Commuting to work was found to be the major travel purpose. Noticeably, on the most commercial road (Ermou), only 16,7% of travelers declared shopping as their travel purpose; the latter coming to verify the magnitude of changes in the City's economic geography.

The percentage of Athenians disapproving of 'I don't pay' shows large oscillations among geographical sectors considered. It was measured at 3,3% on Aiolou street, it seems growing to 37% on Mitropoleos, while reaching 50% on Panepistimiou avenue. Noticeably, revenue distribution is similar on these three arterials. One could, thus, infer that Athenians' attitude regarding 'I don't pay' is independent to income. The same goes for unemployment rate, average age, and education level. Overall, no obvious correlation patterns were found between 'I don't pay' attitude and demographic characteristics. On the contrary, we observe that in areas where high PT ridership is high, negative opinions about 'I don't pay' are also comparatively high and vice versa. Consequently, it can be assumed that regular PT users do not approve of 'I don't pay'. Significant differences across geographical sectors regarding 'I don't pay' practices (i.e. validating or not validating the PT ticket) were also observed. In particular, the percentage of PT passengers never or sometimes validating their ticket on-board fluctuates between 10 and 53%. As anticipated, the sectors of high disapproval rates experience low levels of passengers not validating their PT tickets. However, no apparent relation between sample demographic characteristics and 'I don't pay' practices was observed.

#### 4. Conclusions

On one hand, crises are inherent to capitalism and strongly related to most urban phenomena; state and urban policy analysis cannot thus be dissociated from any financial crisis. On the other hand, transportation –either public or private- is a key determinant of cities' economic geography and citizens' everyday life. We thus believe that observing changes in travel demand enables for a more substantive interpretation of crisis causes, magnitude, and effects. In the case of the Greek crisis, the Athens City Centre has been severely and manifold affected; with land values being drastically reduced; transportation offer and demand also decreasing. Citizens mobilize against austerity measures and form a movement called '*I don't pay*' whose principle consists in not validating the PT tickets. The objective of this research was to provide insight in the impact of crisis on Athenians' travel behavior and to explore the characteristics of '*I don't pay*'.

In this context, we first undertook a qualitative research emphasizing on public opinion, scientific community reaction and the media, as well as on urban values in question. This research revealed complex relationships and conflicting interests among social actors concerned (local and state political parties, transportation authorities, media, PT users, and so on). We then designed and performed a pilot diagnostic by means of a travel survey on pre-selected points of the Athenian road network. Over  $\frac{3}{4}$  of the Athenians seem to have a positive or neutral opinion regarding 'I don't pay' in urban transport. However, no correlations to the demographic profile were observed. On the contrary, there is empirical evidence indicating that regular public transport users as well as people whose declared travel motive is 'entertainment' do not approve of 'I don't pay' practices.

Our findings come to verify the initial hypothesis that travel demand characteristics and reflect the crisis in the urban context. The present analysis revealed trends and interconnections that have not been discussed in the literature and need to be further studied. It seems like the financial crisis is actually reforming consumption patterns and travel behaviors both directly (as transport is a service to be consumed) and indirectly (e.g. via travel purposes such as shopping). PT ridership is definitely increasing as citizens are faced with financial problems and not as a result of increased PT attractiveness. Passengers not validating their ticket seem to express a political disapproval against the Government that is not associated to their income. Nevertheless, regular PT users are in position of understanding the vicious circle triggered by such practices and do not adopt them; without however necessarily disapproving of them. Overall, we believe that this research brings into light crisis consequences that would have otherwise been neglected.

We should note though that our approach suffers from certain limitations. First, sample size is limited and does not accurately reflect the population. Second, previous research on the topic is scarce and comparisons were not possible. Third, further statistical analysis would be beneficial in order to identify quantitative trends and to better interpret the findings. Most importantly, the financial crisis, the urban restructuring, and the change in travel demand are all phenomena in process that need to be monitored during the on-coming period. A comparison with the Argentina case may also shed additional light. Overall, study results revealed important trends and we, thus, intend to continue the research towards the aforementioned directions.

## References

Alcaly, R.E. (1976) Transportation and urban land values: a review of the theoretical literature, *Land Economics*, 52 (1).

Andersson, D. E., Shyr, O. F., Huang, T-W., Wang, J. C. (2008) A Tale of Two Cities - How Transit Accessibility and the Financial Crisis Affected the Price of Commercial Properties in Taipei and Kaohsiung NSC 98-2410-H-006-093-SSS, National Science Council, Taiwan.

Castells, M. (1985) High technology, economic restructuring, and the urban regional process in the United States, In M. Castells (Ed.) *High Technology, Space, and Society*, Beverly Hills and London and New Delhi: Sage Publications.

Cole, S. (2005) Applied transport economics: policy, management and decision-making, Third Edition, The Chartered Institute of Logistics and Transport, UK.

Friedmann, J. (2009) In: Soureli, K., Youn, E. *Urban Restructuring and the Crisis: A Symposium with Neil Brenner, John Friedmann, Margit Mayer, Allen J. Scott, and Edward W. Soja*, Critical Planning Summer.

Fujita, K. (2011) Financial crises, Japan's state regime shift, and Tokyo's urban policy. *Environment and Planning A*, 43 (2) 307–327.

Gottlieb, M. (1976) Long Swings in Urban Development, NY: National Bureau of Economic Research, USA.

Grdzlishvili, I., Sathre, R. (2011) Understanding the urban travel attitudes and behavior of Tbilisi residents, *Transport Policy*, 18 (1) 38-45.

Haila, A. (1988) Land as a financial asset: the theory of urban rent as a mirror of economic transformation, *Antipode*, 20 (2) 79–85.

Harvey, D. (2008) The right to the city, *New Left Review* 53.

Heikila, E. (1998) Resolving the crisis in southeast Asia's property sector. Paper Presented to the 16th Eastern Asia, Regional Organization for Planning and Housing (EAROPH) Congress, Denpasar, Bali.

Johnston, R. J., Taylor, P. T. (1989) Introduction: a world in crisis? In *A World in Crisis*, R. J. Johnston and P. T. Taylor, eds. Basil Blackwell, Cambridge, MA, 1-15.

Litman, T. (2011) Land Use Impacts on Transport - How Land Use Factors Affect Travel Behavior, Victoria Transport Policy Institute. Available at: <http://www.vtpi.org/landtravel.pdf>

Mayer, M. (2009) In: Soureli, K., Youn, E. *Urban Restructuring and the Crisis: A Symposium with Neil Brenner, John Friedmann, Margit Mayer, Allen J. Scott, and Edward W. Soja*, Critical Planning Summer.

Rose, G., Marfurt, H. (2007) Travel behavior change impacts of a major ride to work day event, *Transportation Research Part A* 41, 351-364.

Sassen, S. (2002) Locating Cities on Global Circuits, In: *S. Sassen*, ed. *Global Networks, Linked Cities*, New York, London: Routledge, 1-36.

Scott, A. J. (2009) In: Soureli, K., Youn, E. *Urban Restructuring and the Crisis: A Symposium with Neil Brenner, John Friedmann, Margit Mayer, Allen J. Scott, and Edward W. Soja*, Critical Planning Summer.

Soja, W. (2009) In: Soureli, K., Youn, E. *Urban Restructuring and the Crisis: A Symposium with Neil Brenner, John Friedmann, Margit Mayer, Allen J. Scott, and Edward W. Soja*, Critical Planning Summer.

Talani, L. S. (2011) The Impact of the Global Financial Crisis on the City of London: Towards the End of Hegemony? *Competition & Change*, 15 (1) 11-30.



Annex

Survey results by geographical sector S1 to S10

S1	Alexandras avenue												
Travel survey													
Point	'Ampelokipoi' metro station												
Sub-sample characteristics			Travel purpose										
size	N=30		<table><tr><td>work</td><td>46,67%</td></tr><tr><td>studies</td><td>6,67%</td></tr><tr><td>entertainment</td><td>30,00%</td></tr><tr><td>shopping</td><td>6,67%</td></tr><tr><td>sports</td><td>10,00%</td></tr></table>	work	46,67%	studies	6,67%	entertainment	30,00%	shopping	6,67%	sports	10,00%
work	46,67%												
studies	6,67%												
entertainment	30,00%												
shopping	6,67%												
sports	10,00%												
revenue	F(1)= 43% F(2)=57% F(3)=0%	=1 if <10.000 euros =2 if between 10 and 40.000 =3 if >40.000 euros											
Gender	F(1)=50% F(2)=50%	=1 if male =2 if female											
Age	AVG=31,8	SD=9,3											
	Min=18	Max=58											
Occupation	F(1)=10,0% F(2)=16,7% F(3)= 3,3% F(4)=30,0% F(5)=26,7% F(6)=19,0% F(7)=3,3%	=1 if studying =2 if unemployed =3 if pension =4 if commerce =5 if intellectual work =6 if manual work =7 if other											

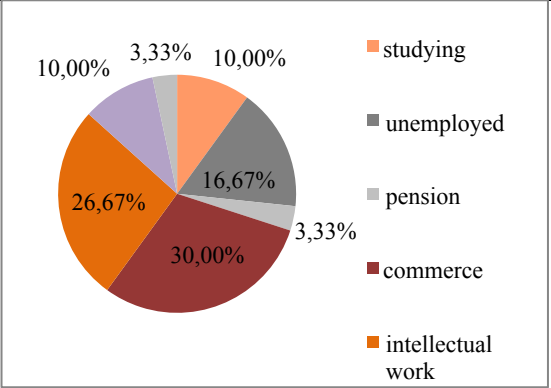
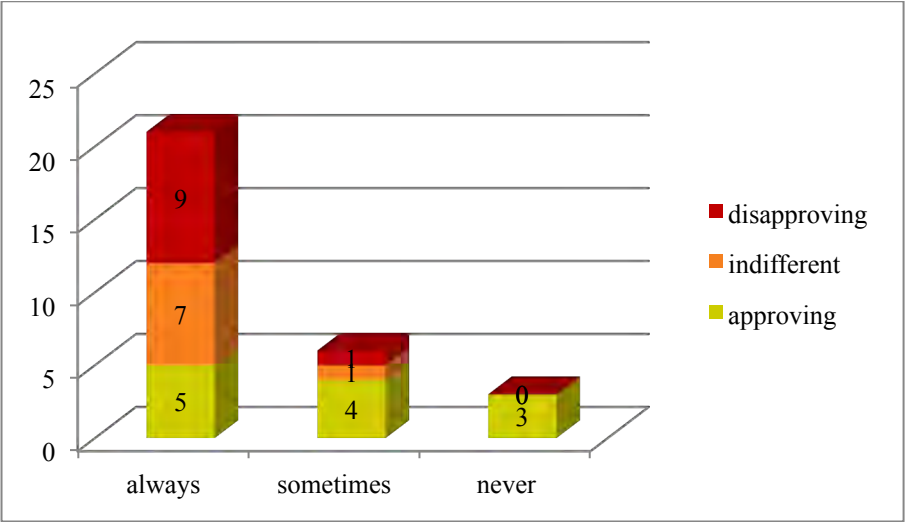


Figure 1 S1: I don't pay attitude and practice



S2	Ipokratous												
Travel Survey													
Point	Ipokratous & Solonos												
Sub-sample characteristics			Travel purpose										
size	N=30		<table><tr><td>work</td><td>63,33%</td></tr><tr><td>studies</td><td>13,33%</td></tr><tr><td>entertainment</td><td>13,33%</td></tr><tr><td>shopping</td><td>3,33%</td></tr><tr><td>other</td><td>6,67%</td></tr></table>	work	63,33%	studies	13,33%	entertainment	13,33%	shopping	3,33%	other	6,67%
work	63,33%												
studies	13,33%												
entertainment	13,33%												
shopping	3,33%												
other	6,67%												
revenue	F(1)= 30% F(2)=67% F(3)=3%	=1 if <10.000 euros =2 if between 10 and 40.000 =3 if >40.000 euros											
Gender	F(1)=43% F(2)=57%	=1 if male =2 if female											
Age	AVG=34,2	SD=13,1											
	Min=22	Max=77											
Occupation	F(1)=6,7% F(2)=3,3% F(3)= 6,7% F(4)=10,0% F(5)=43,3% F(6)=30,0% F(7)=0,0%	=1 if studying =2 if unemployed =3 if pension =4 if commerce =5 if intellectual work =6 if manual work =7 if other											

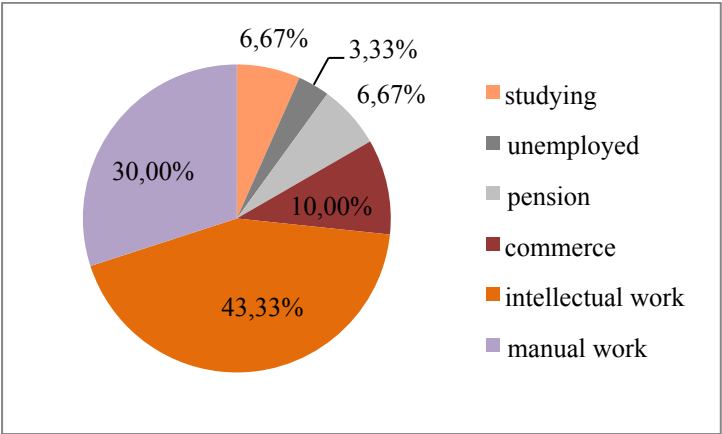
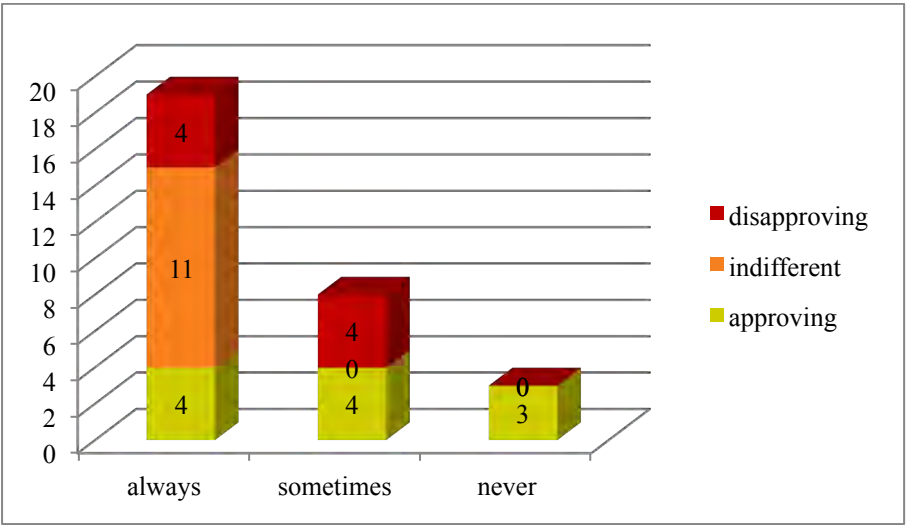


Figure 2 S2: I don't pay attitude and practice



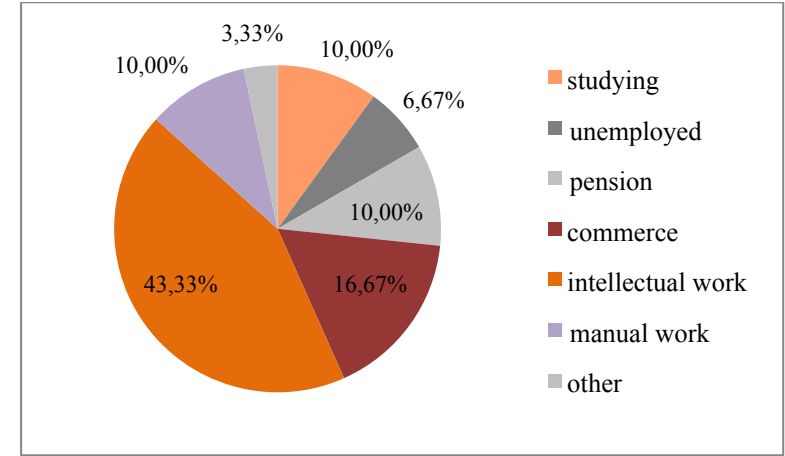
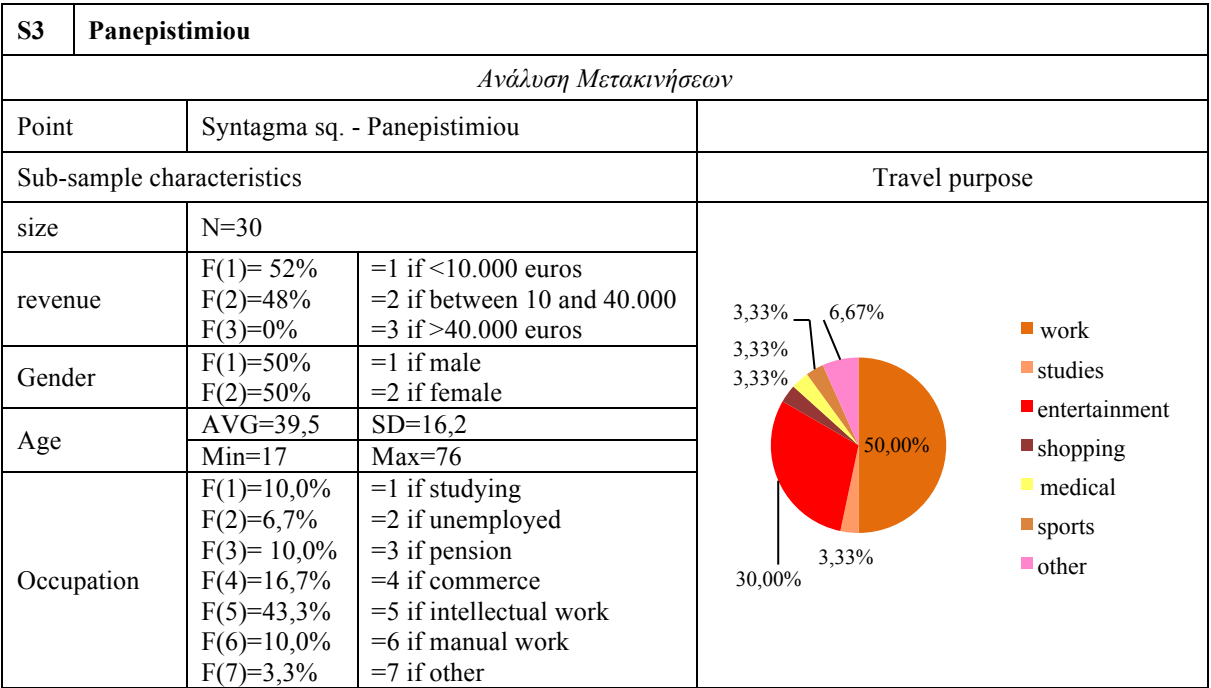


Figure 3 S3: I don't pay attitude and practice

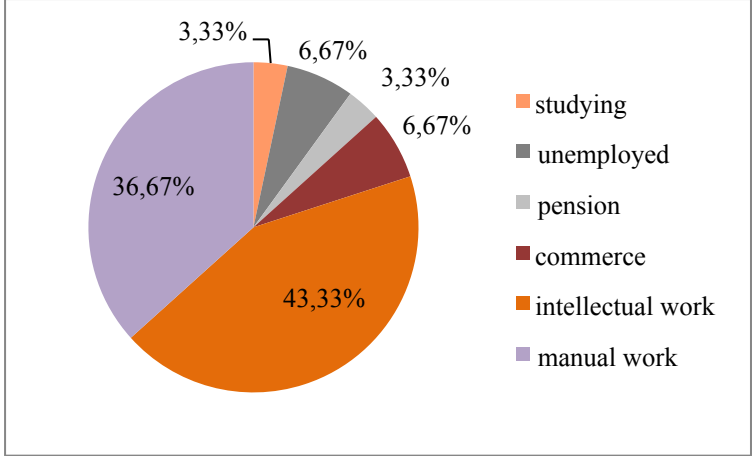
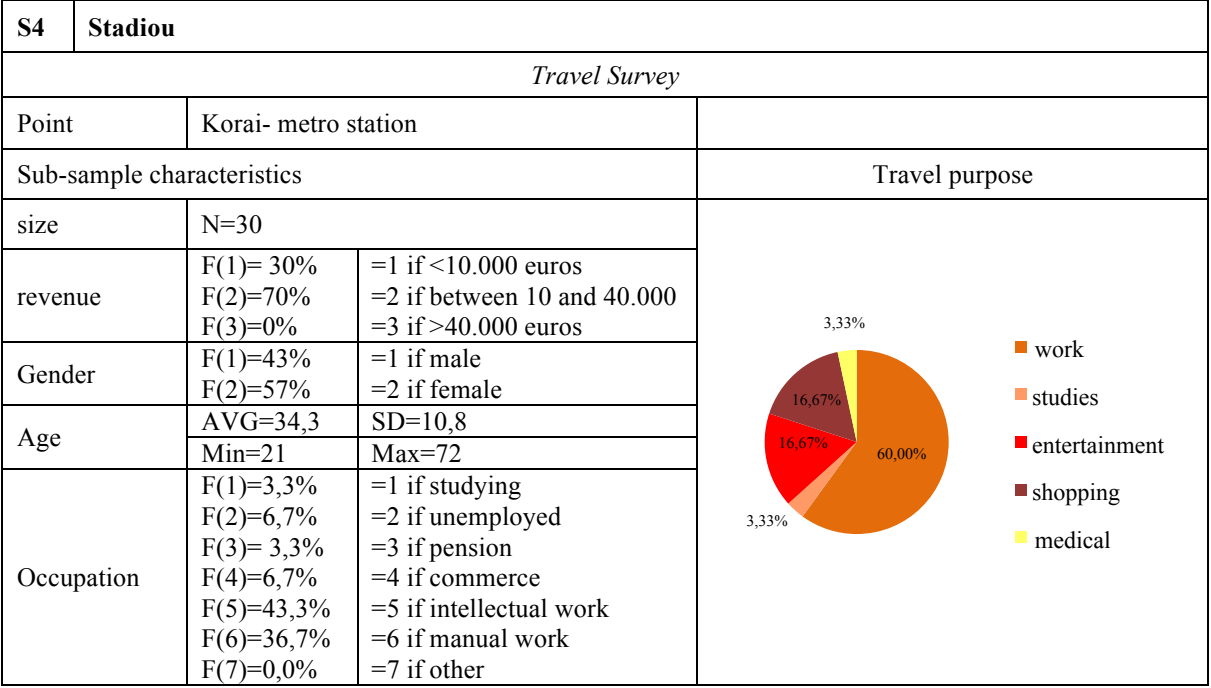
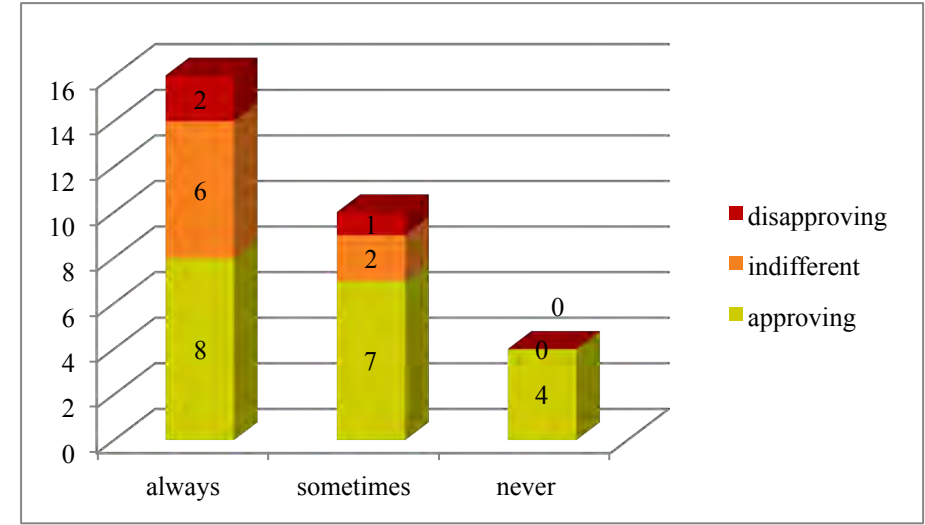
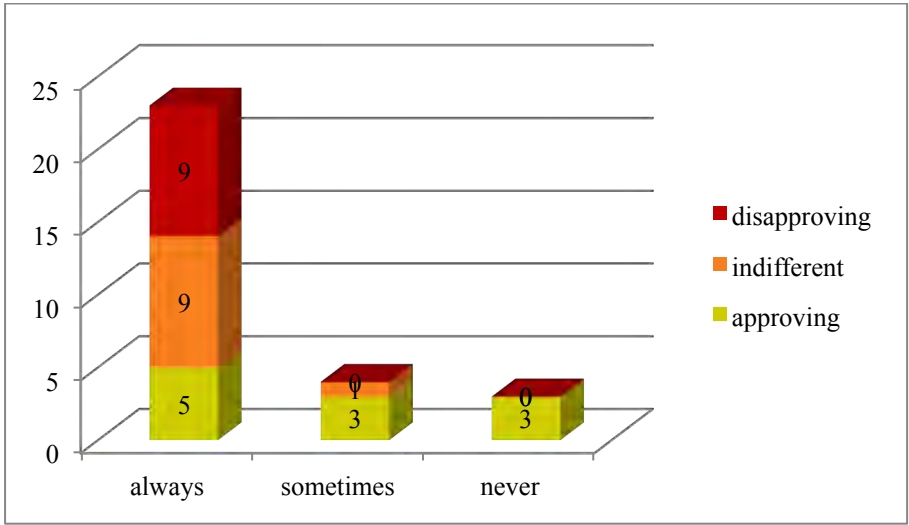


Figure 4 S4: I don't pay attitude and practice



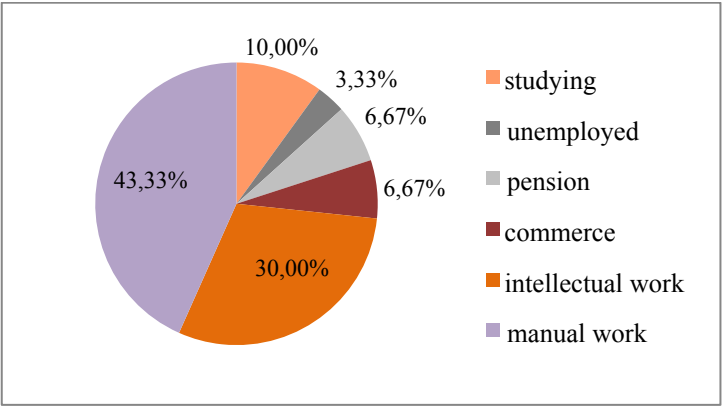
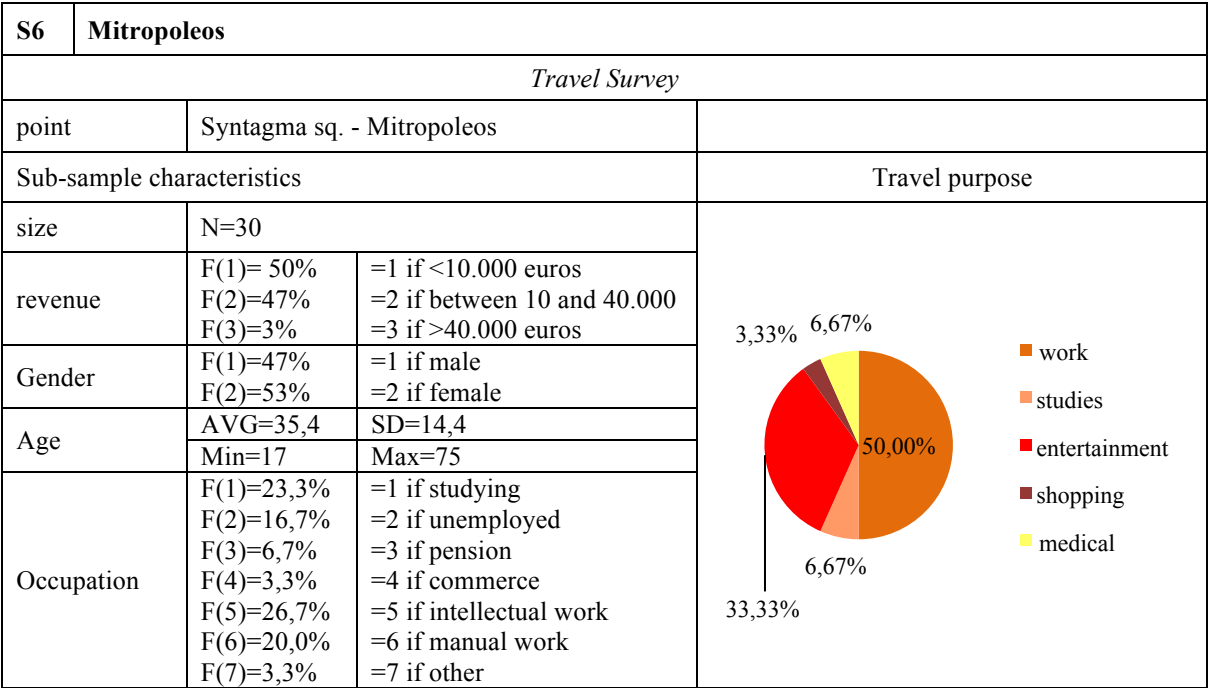
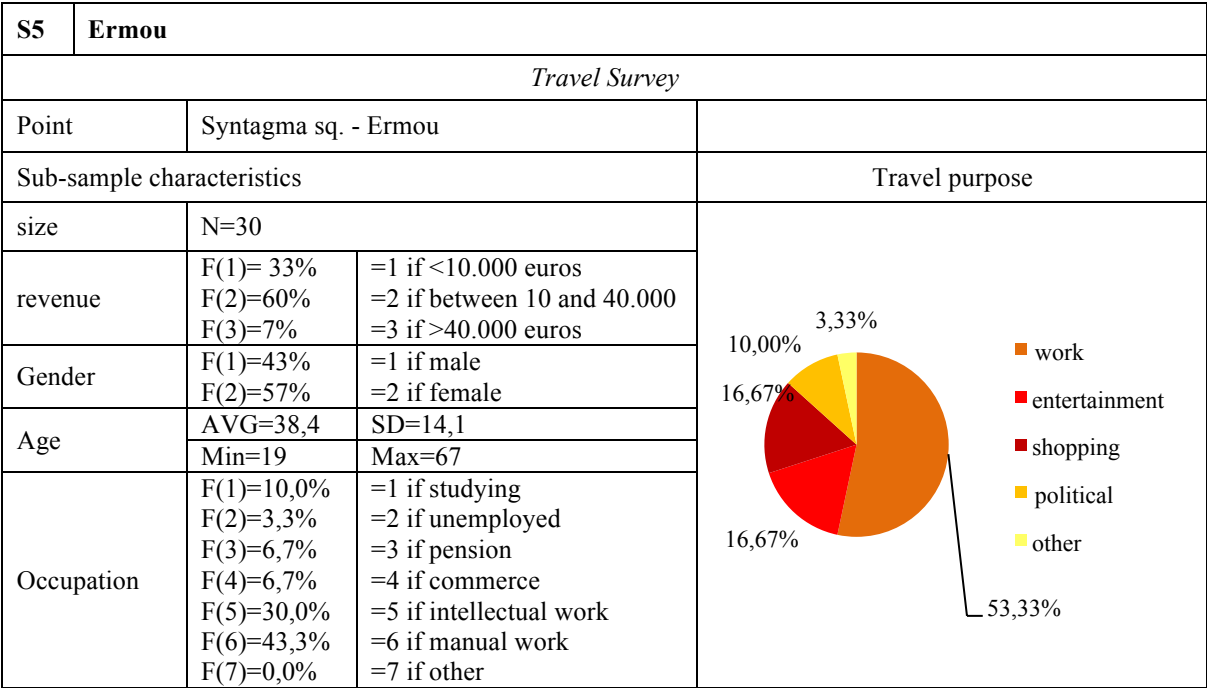


Figure 5 S5: I don't pay attitude and practice

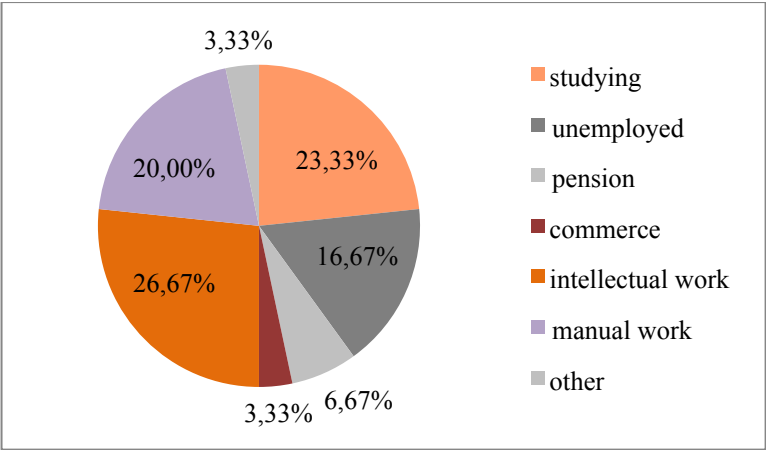
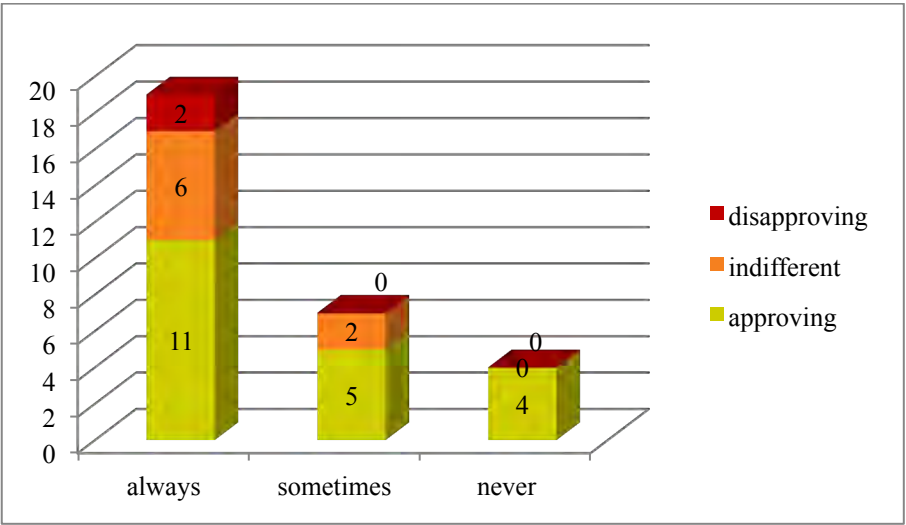
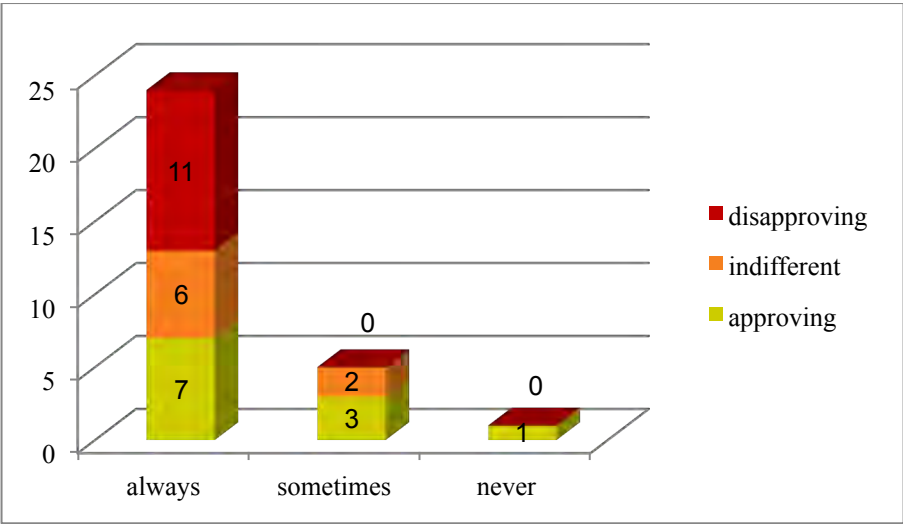


Figure 6 S6: I don't pay attitude and practice





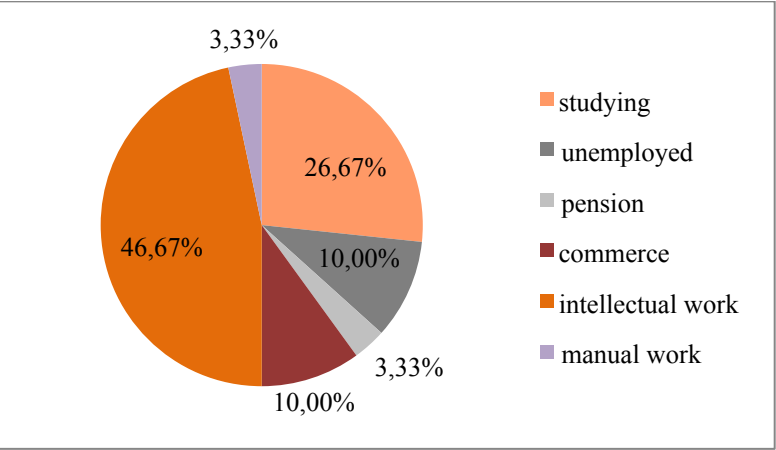
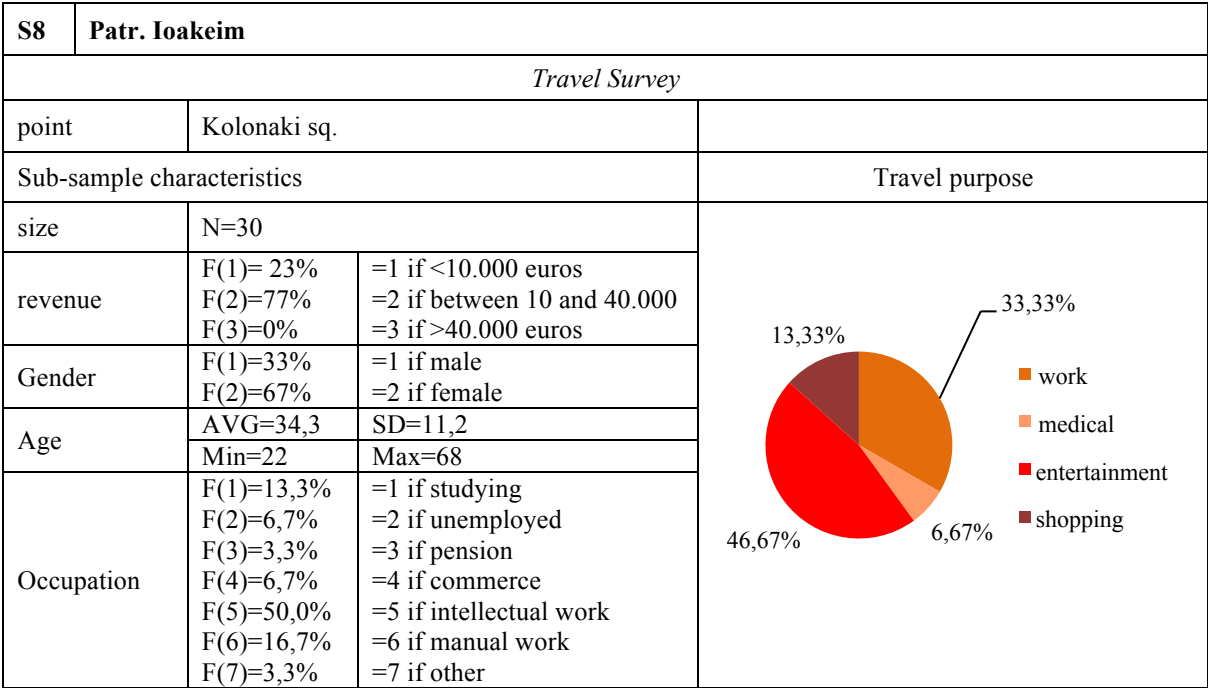
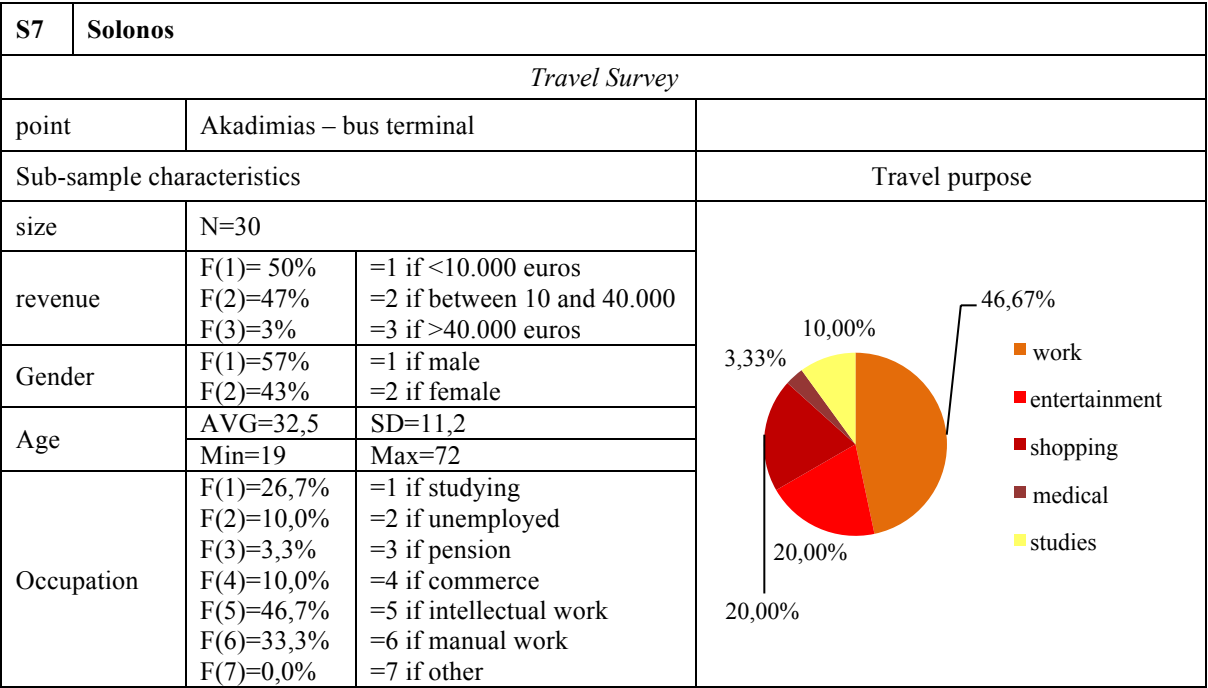


Figure 7 S7: I don't pay attitude and practice

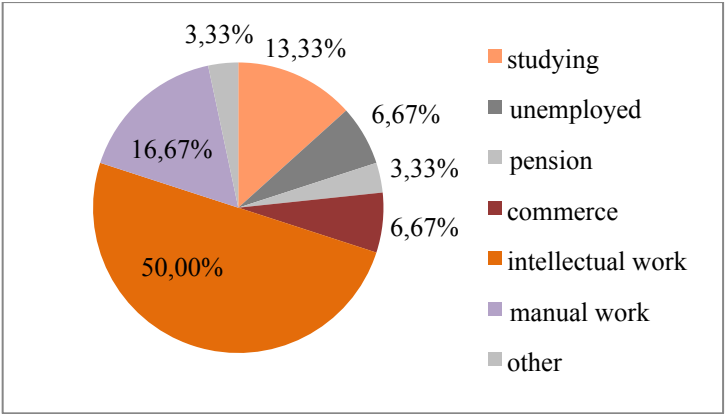
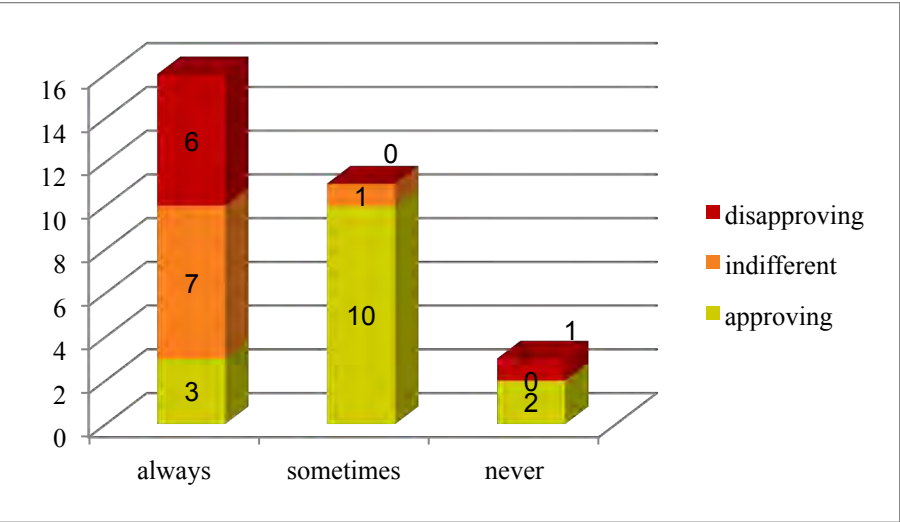
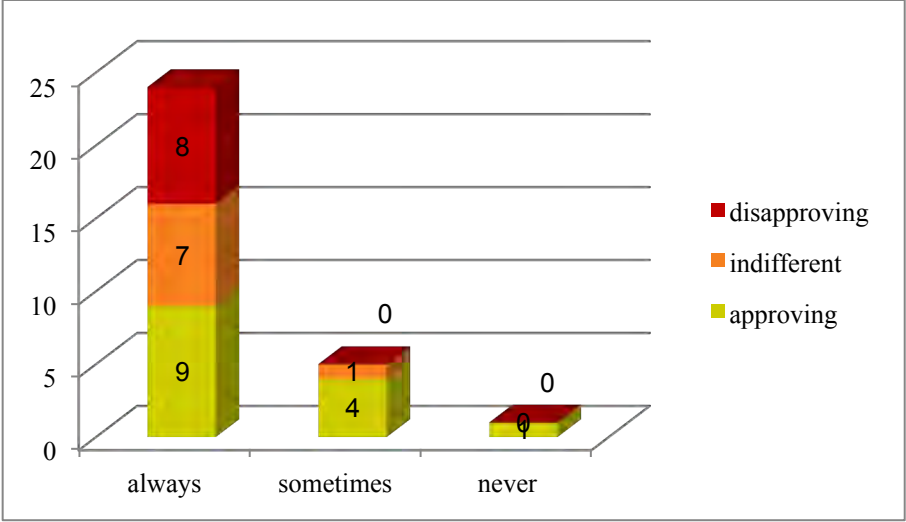


Figure 8 S8: I don't pay attitude and practice



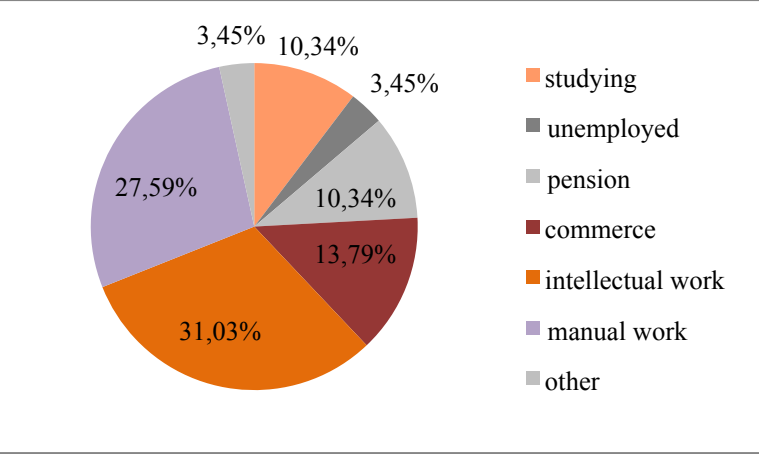
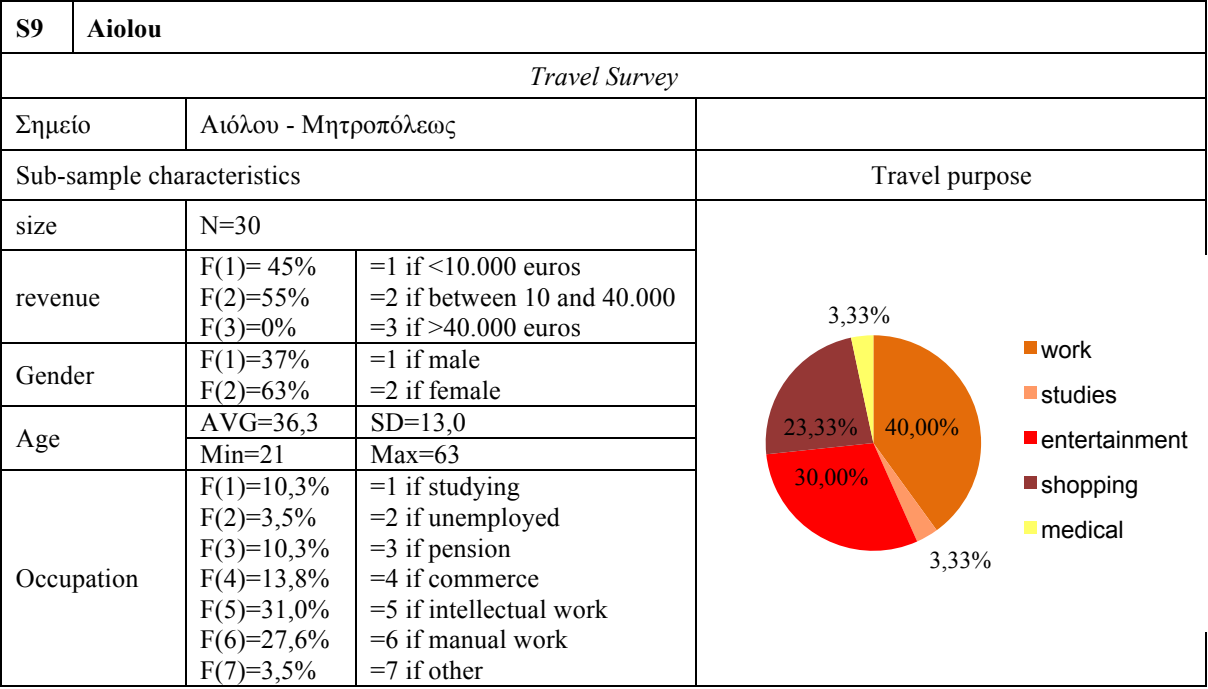


Figure 9 S9: I don't pay attitude and practice

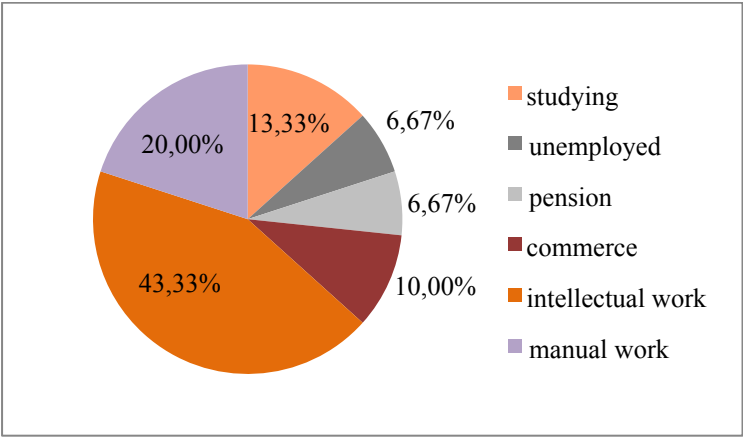
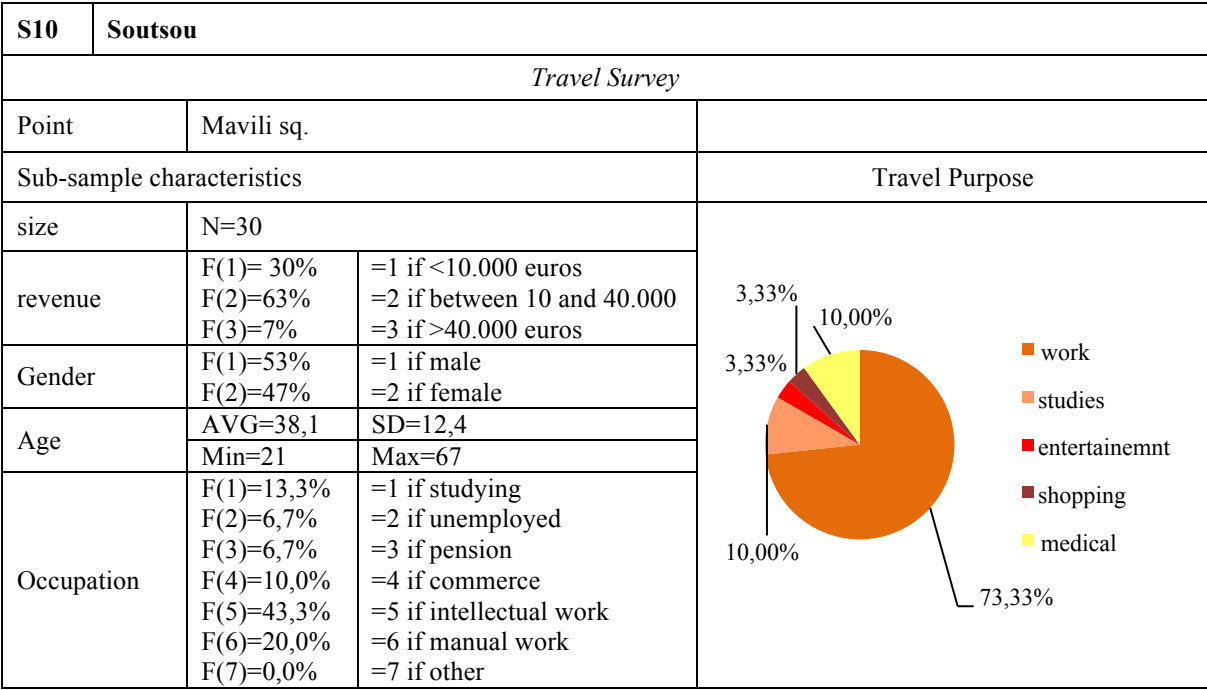
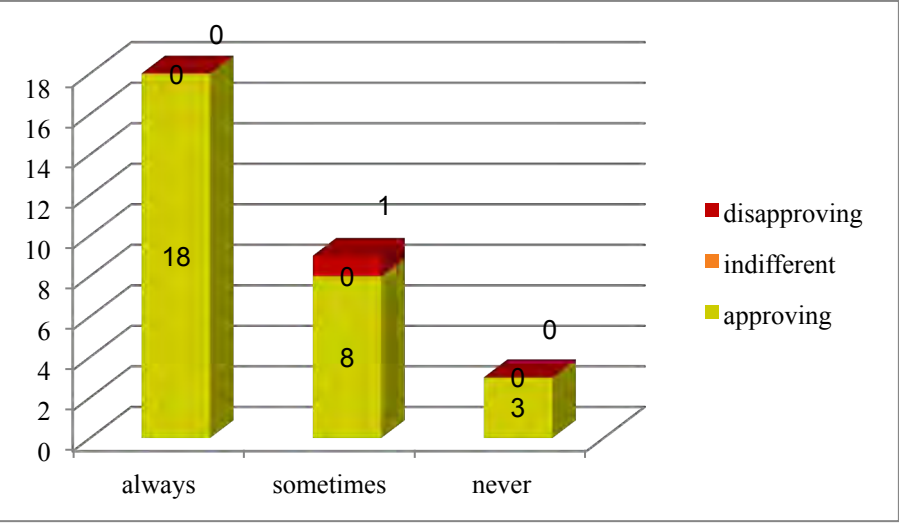
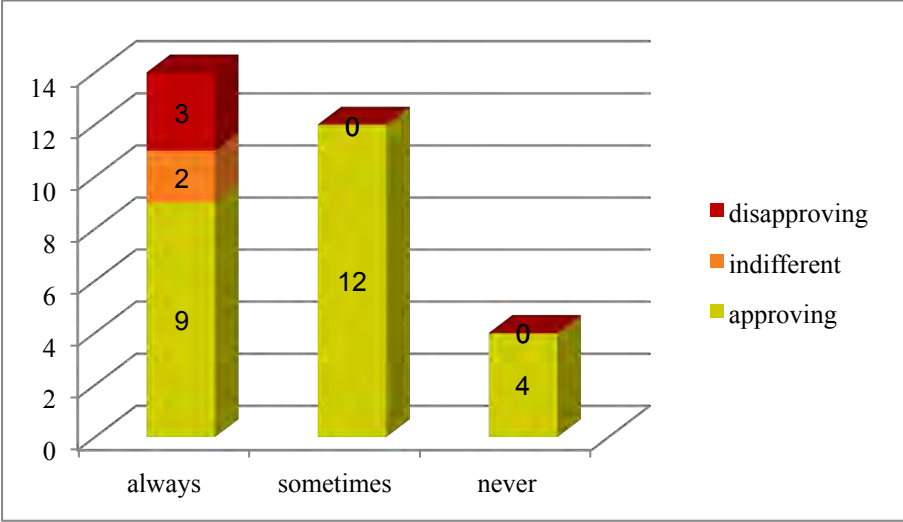


Figure 10 S10: I don't pay attitude and practice



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Post-doc researcher  
FUSL-Bruxelles

## Introduction

Belgium is characterised by a centrifugal federalism (Pâques, 2005) in which the parties to the federation constantly seek to maximise their autonomy. This federalism of “dissociation” (Delpérée, 2011) is rendering political and institutional life in Belgium increasingly complex (Delwit and Pilet, 2004). These community conflicts have effects on the management of public problems, especially when these span regional and/or institutional boundaries which then have to be crossed.

Issues of mobility are particularly typical of these problems. The division of jurisdiction in this domain places the Regions at the centre of the decision-making process, because the Regions are sovereign in their territories with regard to public transport. That having been said, the federal level also has jurisdiction, in particular because it controls the SNCB (Belgian National Railway Company). And finally, there is also jurisdiction at municipal level, which manages certain roads, parking policy and draws up a municipal mobility plan (transport planning document). This fragmentation of jurisdictions (Aussems, 2009) makes the management of mobility complex, especially as, along with the multiple levels of authority, there is the issue of relating to a wider scale that only rarely matches the institutional boundaries of the different territories.

Yet this question of mobility is crucial to the future of the Brussels-Capital Region (RBC) which is regularly portrayed as a region on the verge of asphyxia under the pressure of cars... Since the creation of the RBC in 1989, this problem has been at the heart of political and societal debate. How to bring an end to an “all car” policy which, since the late 1950s, has profoundly marked the urban space by driving suburban growth and is severely damaging quality of life in the city? How to design a new mobility policy with a territorial planning process that would bring an end to urban sprawl? What can be done to overcome the institutional barriers between the federal Belgium’s different components, which make it impossible to untangle a public problem – the problem of mobility around the capital – which exceeds the scale of a single territorial entity and requires close collaboration between public and private actors operating at different scales?

Around the case of the establishment of an RER (Regional Express Railway) from, to in and around Brussels, we will show that these questions of mobility lead to the formation of a “space of rivalries and management of those rivalries” (Nahrath and Varone, 2007, p. 237). We will begin by retracing the origins of this space of rivalries by showing that the REI is at the heart of numerous conflicts of usage, conflicts around visions of the city and also around the practical implementation of mobility policies. These conflicts have a powerful impact on the regulatory domain, which we will go on to explore, to the point that although emerging

<sup>1</sup> This study forms part of a postdoctoral research contract begun on 1 January 2011, funded by the Brussels-Capital Region. In methodological terms, the study is based on a documentary analysis of archives and press articles covering the period 1989 to today. We also conducted 14 semi-directive interviews with people involved in the RER case.

forms of governance may be observed that evince a distinct shift towards the desectorisation and reconfiguration of territorial scales with the aim of constructing, through negotiation, a new public transport network, the RER is still trapped in a political impasse.

## 1. The RER, a space of complex rivalries

Mobility in the RBC is particularly problematic and has been a topic of public debate since the creation of the Region, in 1989. Before analysing the way the space of rivalries is constructed, we should begin by identifying certain factual elements concerning the situation of Brussels, seen as one of Europe’s most congested cities.<sup>2</sup> First, the proportion of long-distance daily commuters here is particularly large, to the point that it has been described as a “society of commuters” (Montulet et al., 2008). The practice of commuting – first by rail, then by motorway, with the formation of a very dense motorway network going back to the 1950s – has been promoted by the authorities and has even come to embody “a constitutive factor in the urbanisation of Belgium and of Brussels in particular. Even today, it continues to determine the conception of urban structures and of day-to-day mobility”. (Dessouroux, 2008, p. 4) Urban sprawl, the presence of a highly developed motorway network, and a very high level of car ownership, tend to overshadow another significant factor: one of the densest railway networks in Europe.<sup>3</sup> Belgium acquired a railway network very early, which developed in a star formation around Brussels, making the capital the central node in the network around the North-South Connection (Van Meerten et al., 2002). Station density within the area of the current RBC (161 km<sup>2</sup>) was 20 stations in 1880 and more than 30 in 1920. Today, 31 stations and stopping points are in use, but in the meantime railway development policy has given way to an “all car” policy, the object of harsh criticism since the late 1980s (Hubert, 2008).

Since the creation of the RBC, the idea of an RER has entered the public debate. Although there were certain foretastes, the main protagonists agree that it was really at that moment that the project was launched, under the combined pressure of two stimuli. In December 1988, Stratec (an independent design office, created in 1984) submitted its final report to the SNCB, which had commissioned a study to try and increase the company’s market share of rail traffic into Brussels. The study’s conclusions show that the SNCB’s market share diminished within a radius of 37.5 km around Brussels, although the greatest potential was located inside this area, which is a major commuter breeding ground. Following this, the authors invited the SNCB to “partially replace the current interurban type service with a suburban type service [...] on its urban routes this type of service would also attract a proportion of intraurban and peripheral journeys [...] and would therefore contribute positively to improving the level of urban public transport in Brussels”.<sup>4</sup> Although the report does not mention the acronym “RER”, it identifies the same objectives, which reflect a commercial goal of the SNCB, which was losing ground at the time. The SNCB began work on this topic and a more precise plan for a future suburban network, similar to the Paris RER, was sketched out, still by a private

<sup>2</sup> The survey conducted by Tomtom (June 2011) ranks Brussels in first place for the most congested cities: <http://www.tomtom.com/news/category.php?ID=4&NID=1159&Lid=13>; Maerivoet, S., Yperman, I., *Analyse de la congestion routière en Belgique*, Report for the Federal Public Mobility and Transport Department, 15 October 2008, <http://www.mobilit.fgov.be/data/mobil/congesf.pdf>.

<sup>3</sup> The density of the railway network in Belgium is the second highest in Europe: 116 km of railway per 1000 km<sup>2</sup>, which places Belgium just behind the Czech Republic and a long way above the EU average (50 km). Source: eurostat – 2008 : [http://epp.eurostat.ec.europa.eu/cache/ITY\\_OFFPUB/KS-SF-08-O28/FR/KS-SF-08-028-FR.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-SF-08-O28/FR/KS-SF-08-028-FR.PDF).

<sup>4</sup> STRATEC, *Etude de la desserte ferroviaire de Bruxelles and environ*, final report for the SNCB, 5 December 1988, p. 31.



consultancy<sup>5</sup> and with little transparency. Nonetheless, the company held back, with frequent allusions to technical and financial problems. Nonetheless, the RER was explicitly knocking at the door in the first electoral campaign at RBC level in June 1989. Several parties alluded to the network, against a backdrop of factors such as urban paralysis, congestion, excessive car dependency, emerging environmental concerns, etc.<sup>6</sup> “The paralysis of Brussels” was a theme that was taking on a growing importance in political rhetoric, picked up by the media and given a further sensationalist slant. Once the Region was established, there was talk of the need for a transport plan for Brussels (the future IRIS plan) which would place the accent on public transport. That having been said, at the first meeting of the Brussels regional executive, the Green Party opposition pointed out that despite the rhetoric: “there are consensuses – for example the consensus about the car – which are difficult to break.”<sup>7</sup> The position of the car in the city was one of the big factors moulding the space of rivalries even then, but it was not the only one. Here, we present three major debates that have structured and punctuated the existence and progress of the RER project.

### 1. 1. Rivalries over uses

Who would benefit from the RER? What types of use would it promote? What would it be its effects on mobility, but also on household residential strategies? There are heated debates around these questions. If it is really Brussels politicians who are leading the dance to promote the RER by taking certain initiatives with regard to negotiating or publicising the issues, their standpoint is far from unanimous.

For some politicians, the RER certainly needed to resolve the phenomenon of commuting by car, by prompting a modal shift from the car to the train, but it also needed to settle the problem of internal mobility within Brussels by helping city residents. However, the Brussels executive was critical of the fact that the SNCB’s first plan for the RER “takes no account of internal mobility within Brussels. But if it resolve matters in the other Regions, it should also tackle, even if only partially, the problem of Brussels.”<sup>8</sup> The Brussels executive suggested promoting two lines, to the west and east of Brussels,<sup>9</sup> as a precursor to the RER, which would support the development of internal mobility by providing better provision to areas outside the centre that were less well served by the existing rail network, which primarily passes through the North-South Connection. This promotion of mobility within Brussels was not necessarily to the taste of the other regions, first because, for their part, they wanted to encourage the fastest possible access to the centre of Brussels for their commuters, and second because they saw it as a form of pilfering from federal funds. Flanders, for example, had this to say in 1992: “If we analyse the current situation, we rather have the impression that the Brussels-Capital Region wants to resolve its problems by involving the other regions and delving into the public purse at federal level, at Flemish regional level or at Wallonian regional level.”<sup>10</sup> It is clear that for the other Regions, as for the SNCB, which could see the advantages in terms of its market share, it was indeed commuters who were the main potential users. Paradoxically perhaps, certain Brussels politicians agreed: the RER is not

fundamentally the business of the people of Brussels! “It is the Flemish and the Walloons who live within a radius of 30 km of Brussels who need a Regional Express Railway. Brussels residents themselves will use it only occasionally. No reason therefore that the Brussels region should bear the main costs of building a network which risks further accentuating the exodus of its inhabitants.”<sup>11</sup> The primary motive in this statement was to avoid having to contribute heavily to its potential funding.

The above quotation suggests the outlines of another element of the debate: what if the effect of the RER was mainly to empty Brussels of its residents? Some indeed believed that the RER might exacerbate the exodus of rich households from Brussels by offering fast and frequent access to the city’s employment hotspots whilst offering the former residents a quality of life assumed to be more pleasant in the “rural” fastnesses of Wallonia or Flanders and also a more attractive property market. Essentially, it was a traditional debate about urban sprawl. The fear of seeing a flood of Brussels residents leaving the city as a consequence of this network was present from the genesis of the project.<sup>12</sup> The RER was seen as an interesting but destabilising service, the RER might prove “dangerous”, because the Region would “lose in habitants and jobs and a network like the RER should not encourage further departures”. This argument found support in the demographic context of Brussels (which has changed markedly since): between 1971 and 1991, the RBC lost 11% of its population whereas the outskirts gained 20%. Employment also dispersed, whether within the regional boundaries or outside (Dobruszkes, 2008). As a result, the RER was described as the worst possible thing for a region that was also underfunded, particularly because tax was levied at the place of residence. Studies modelling the effects of the RER on residential location confirmed the risk of exodus (Boon and Gayda, 2000). For this reason, certain Brussels politicians became much exercised about the possibility of transforming the “[...] capital into a utilitarian space in which the legitimate expectations of inhabitants and the quality of their living environment become secondary considerations.”<sup>13</sup> In order to counter this exodus, the RER would need to make inroads into the supremacy of the car, in particular by support measures.

### 1. 2. Rivalries about visions of the city

Behind these positions, which focused sometimes on the people of Brussels, sometimes on commuters, we also see the emergence of different visions of the city or different criteria underpinning each standpoint. Is Brussels a single-centre city, a city of offices concentrated around the main stations running through the North-South Connection and the stations bordering the European district? Or on the contrary, is Brussels a polycentric city, a city that needs to be restored to its inhabitants who have already paid a heavy price for railway development? These different images of the city can be found in the concrete proposals prefiguring the future RER service. At the risk of (slightly) caricaturising the debate, the goal of the Walloons and the Flemish is to access the centre of Brussels as quickly as possible, via the North-South Connection or the European district. They want the maximum number of stopping points within their respective regions, and the minimum in the Brussels region, since the aim is to avoid increasing travel time with stops that are deemed unnecessary. No question either of routing the trains to less important stations, like the West station. Brussels is thus limited to its extreme centre and to the European district, a city of commuters with a few

<sup>5</sup> VANTROYEN, J-C., « Le chemin de fer pour éviter l’asphyxie de la capitale », *Le Soir*, 29 mai 1989.

<sup>6</sup> See for example: BROCHE, J-C., « Le FDF verdi exalte les transports », *Le Soir*, 11 avril 1989, p. 10 ; BOUILLON, P., « Pour le PSC, à Bruxelles, la personne est aussi capitale », *Le Soir*, 22 mai 1989, etc.

<sup>7</sup> Council of the Brussels-Capital Region, *Full minutes*, Plenary session of Thursday, July 13, 1989, p. 44.

<sup>8</sup> ALSTEENS, O., « Le plan Star 21 de Mr Dehaene a oublié les bruxellois », *Le Soir*, 21 April 1990, p. 10.

<sup>9</sup> *Ibid.*

<sup>10</sup> SAUWENS, J., Community Minister of Transport, External Trade and State Reform, *Le RER à toute vitesse*, Proceedings of the round table of June 5, 1992, Brussels, p. 5.

<sup>11</sup> The speaker is the chairman of the SP party, a Brussels resident himself. TELLIER, D., « Le SP appuie le plan Transport SNCB. Le RER n’est pas l’affaire des bruxellois », *Le Soir*, 1<sup>er</sup> août 1997, p. 4.

<sup>12</sup> Council of the Brussels-Capital Region, Record of interventions and oral and news related questions, 13 March 1992, p. 197.

<sup>13</sup> Charles Picqué, *Pour Bruxelles. Entre périls and espoirs*, Bruxelles, Editions Racine, 1999, p. 123.

employment hubs. By contrast, the RBC wants to maximise the number of halts in its region and to promote a more harmonious use of a railway network that exists to serve mobility within the city. This would relieve the load on its subway network, also overcrowded in its central areas, and would develop other potentials, such as the West station, by means of intermodal hubs, etc. The city's image is more polycentric, particularly in recent political debates, and moreover the centre is not necessarily the starting arrival point for journeys within the city.

Other images of the city are also competing in the criteria deployed in negotiation or in public debates. For example, the RER would help the city “breathe”, develop “sustainable” mobility insofar as “the train is the most environmentally friendly form of transport”, making it “an essential contributor to sustainable development”.<sup>14</sup> The RER should promote this modal switch from the car to alternative transport methods, a switch much heralded as a political goal in the RBC's IRIS and IRIS 2 mobility plans. The latter plan, adopted in 2010, set the objective of reducing car traffic by 20% (IRIS 2, p. L1). These political plans reflect the “imperatives of the Kyoto protocol” (IRIS 2, p. 4) and seek to promote sustainable mobility, guarantee quality of life (notably by improving air quality) and to make Brussels accessible to all. The RER is part of the arsenal of measures designed to achieve these objectives. In fact, the environmental associations of the three Regions were broadly in favour of the network,<sup>15</sup> provided that it coincided with additional measures to reduce the impact on local residents and, for the people of the city, it took into account mobility within Brussels. Alongside the image of Brussels as an “eco-capital” (IRIS 2, p. 18), by inducing a modal shift, the RER could also provide better access to the economic hubs and to businesses. Not least paradoxical, indeed, is it the fact that by reducing car pressure the RER would... improve traffic flow for the remaining vehicles on the roads, an important argument for certain actors, as the social partners of the three Regions have acknowledged.<sup>16</sup> So much for Brussels as an “economic capital”...

### 1. 3. Rivalries around mobility policies

The RER also arouses debate, is the object of political negotiations and even technical polemics, with regard to the practical policies to be implemented, their degree of feasibility, their potential effects. The least that can be said is that, in this sphere of rivalry, the SNCB parent company holds all the cards in that it owns the rail infrastructure (through its subsidiary Infrabel), commissions all the engineering work on its network and operates all passenger traffic (via SNCB-voyageurs). The public company's monopoly position in regulating the rail services has often been decried: it is the company that is accused of time after time impeding the progress of the project. Indeed, by its own admission, the RER is not its “core business”, which is more about regional transport services. As a national company, it has but little interest in suburban rail development and is therefore more focused on its IC/IR plan (between towns and regions) and its international development. The SNCB has put forward other imperatives in the debate, which have an impact on policies: profitability and operating speed; the robustness of the network and transport safety. These imperatives often take clear precedence over other issues, including sustainable development, and allow the SNCB or Infrabel to put the brakes on certain projects. To take just one example, a subject of technical controversy but also more broadly of public debate, the problem of overcrowding on

<sup>14</sup> BOVY, L., “RER: a necessary mobility project”, Presentation to the Economic and Social Committee, 28 October 2010.

<sup>15</sup> See, for example: IEW, IEW' opinion on the RER, September 1, 2004.

<sup>16</sup> Joint statement by SERV, CESRBC and CESRW, *Le Réseau Express Régional*, 27 juin 2006.

the North-South Connection allows the SNCB to close certain projects, or conversely to promote others. There is widespread suspicion about its actions: other routes should have been chosen, other technical solutions could have been found, and even worse, if the SNCB has accepted the RER, it is because this project will enable it to boost its infrastructure capacity (the expansion to 4 tracks, the Schuman-Josaphat tunnel) to the advantage of its own network.

Other policies are associated with the issues of infrastructure development and the RER's operating procedures. It would seem, in fact, that it will not resolve mobility problems unless drastic accompanying measures are taken, measures designed firstly to make the train more attractive by penalising car use in different ways (such as parking policy, cutting traffic lanes or introducing congestion charging), and secondly to influence mobility demand by urban planning policies that promote density and development around areas with better public transport provision. The accompanying measures go hand-in-hand with the flight from the city and urban sprawl. A first survey conducted between 1996 and 1998 confirmed the risks of urban sprawl generated by the RER (Boon and Gayda, 2000). Other later studies in 2002 and 2003 also show the degree to which the urban exodus will be facilitated if certain accompanying measures are not taken. These studies also test the effectiveness of such possible measures: unsurprisingly, simply increasing public transport provision is not enough to mitigate the exodus.<sup>17</sup> The dominance of the car needs to be tackled. The RBC will struggle to impose these support measures on the other actors, undoubtedly considering them more necessary than do the other regions. However, it is not enough for the other regions to build car parks around the future RER stations. The RBC and its 19 constituent districts also need to adopt coherent measures with regard to roads, parking, prioritising public transport, etc. However, from the early days of the project, timidity has been the order of the day: the “all car” culture that has underpinned development in Brussels since the 1950s is tenacious, and many parties or pressure groups have expressed their apprehensions on the issue.

### 2. The RER, attempts at regulation: towards a “functional space”?

#### 2. 1. Observations and definition of the concept

The discussion surrounding transformations in public action and the new forms of governance that they produce is dense and has generated numerous scientific studies. Three observations underpinned the proposals formulated by Stephan Nahrath and Frédéric Varone (2007) to decode certain of these changes in terms of “functional space”. The first observation, already clearly flagged by others before, suggests a form of desectorisation of public action. The handling of public problems suffers from an excessively sectoral and excessively fragmented approach. Horizontal integration, coordination, a “global” approach, “one-stop shops” a “project-based” vision are all attempts to solve the problems, in terms of effectiveness, generated by sectorial public action. Some policies, those which have strong “spatial impacts” (Terribilini and Varone, 2004) in that they directly seek to alter the form and usage of space (planning and transport policies, environmental policies) are all the more concerned in that “the scope of the public problems around which these policies crystallise are often out of step with the sectoral approaches of public policy as well as with the institutional territories in which they are embedded” (Nahrath et al., 2009). The fact is that thinking about environmental problems, about water policies, requires a global approach that spans administrative and institutional boundaries. The second observation is linked with the above

<sup>17</sup> *Ibid.*, p. 92; Moreover, “increasing the cost of car use [including tolls ] and restrictions on parking are the most effective measures for reducing congestion” (*Ibid.* p. 55)



quotation, since it consists in showing the need to go beyond the institutional borders of a national or infra-national area. Different examples of public action exist, such as “river contracts”, which seek to go beyond these “territorial and institutional architectures ill-adapted to the problems” (Leresche, 2001). Finally, the third observation relates to the gradual calling into question of “exclusive property rights” (Nahrath et al., 2009). The need for sustainable resource management, a legitimate desire to live in a healthy environment, makes it necessary to redefine the right to use certain resources such as the air, the landscape, the environment, in so far as their use, even as an “owner”, can also generate negative externalities that a wider section of the population has to suffer.

The concept of a functional space, formulated on the basis of these observations, relates to the emergence of a more or less territorialised social space, of rivalries around an emerging public problem, that certain actors seek to define and delineate. It also takes on a more institutional aspect in the attempt to encompass the processes by which public actors (sometimes associated with private actors) try to regulate these rivalries.

Our intuition is that the RER project provides a fine example by which to analyse the heuristic fruitfulness of this concept<sup>18</sup> through the three observations described above (points 2.2, 2.3 and 2.4). Indeed, the ups and downs of the project (which we will not cover here), culminated in the conclusion of an agreement on 4 April 2003 between the three Regions and the Federal authority, which created space for negotiation between all parties, including the four transport companies involved, in order to finalise this RER network. Different bodies worked together to produce a report, in June 2009, proposing an intermediate scenario for the introduction of the RER in 2015. Extensive infrastructure work is underway and important rolling stock choices have been made. It is now up to the different political structures to approve the scheme proposed by the 2009 study, approval that was held up by the regional elections, the establishment of new ministerial offices, then by the larger community crisis experienced by Belgium and the absence of a federal government.

## 2. 2. Towards transterritoriality?

Despite the lack of an institutionally defined metropolitan space, there exists a “de facto” metropolitan area around Brussels, in particular from the perspective of individual mobility. Gradually, the construction dynamics of the public problem of mobility and the RER has resulted in the establishment by the different public partners of RER zone (see Figure 1 in the annex), extending well beyond the RBC and taking in 135 communities, including 33 in Wallonia and 83 in Flanders. The RER’s future operational system is designed from a geographical space which spans institutional structures and requires consultation between the different actors. This zone, established by the 2003 agreement, constitutes the benchmark space in terms of the development of the RER. Does this mean that this zone has become the relevant space where the various actors can jointly discuss action towards the development of a coherent mobility policy? That the different choices have been made on the basis of this territorial configuration for the purpose of advancing the objectives of the agreement, which

<sup>18</sup> Although we find the term “functional” space ambiguous because it can refer to currents of thought or practices which are actually based on the opposite premisses – i.e. in short, the containment of functions within a given space (e.g. functional urbanism) – we will use this notion which has the advantage of holding together the three observations previously described. Moreover, if we think beyond the standard concept of functionalism in sociology, to that of “functional” democratisation defined by Norbert Elias, we have here an example of a use of the notion that refers to a more “common” meaning of “function”, since functional democratisation is a “bottom-up” process of democratisation, signifying “the reduction of power differences between the different social categories” (Elias, 1991, p. 78), which cannot be assimilated to a process of so-called “institutional” democratisation..

are to promote the modal shift from the car to the train through the construction of an efficient RER network? Despite the good intentions, this would seem far from clear. When one analyses the spaces of negotiation through the documents produced and interviews with the parties involved, the first thing one notices is the persistence of the “community” conflicts that overshadow the project. Each region continues to seek to maximise its advantage through the development of the RER (or more broadly, railways), which sometimes leads to demand that are totally absurd from a public interest perspective. The timetable and progress of the RER are, moreover, subject to surges or conversely to slowdowns, reflecting the timetables and political agendas of each of the partners. Furthermore, coordination between communities has not been achieved, which makes a global vision problematic, even at the scale of the RBC. Ultimately, what emerges is a complete failure to render this space free of political interests and institutional territoriality. And these are factors that other authors have identified as important to the success of mobility projects (Sagër, 2004).

## 2. 3. Towards intersectorality?

Beyond the attempt to get actors at different institutional scales to work together and to coordinate their activities, the creation of an RER “functional space” is also an opportunity to extend the vision beyond policies with an excessively sectoral focus: it has become obvious, a no-brainer (Offner, 2007), that mobility policies require a global approach, more than “mere” transport policy alone (Maksim et al., 2010). The joint rationales underpinning rail use and environmental protection require action to be co-ordinated from a sustainable development perspective, a priority that has profoundly transformed transport policies. Mobility policy in Brussels is not exempt from this rule. Desectorisation can also be observed in the need to adopt measures to accompany the introduction of the RER, concentrated on reducing the use of the private car and, even more broadly, on urban and territorial planning. However, numerous obstacles to a move in this direction are apparent. As admitted by the negotiators involved in the “RER” agreement of 2003, discussions about accompanying policies have not yet begun. This is clearly the poor relation in the implementation of the agreement. What progress is nevertheless apparent has occurred in each of the regions, separately, in their desire to integrate territorial planning with mobility. That being said, despite the good intentions, it is clear that the different administrations have great difficulty working together and incorporating “mobility” criteria into their priorities, or else in communicating on rail development strategies in order to avoid, for example, spaces being differently classified in urban planning projects. In addition, despite the rhetoric, urban development projects continue to come up against the dominance of the automobile.

## 2. 4. Towards a redistribution of rights of use?

The rail infrastructure can be analysed as an artificial resource with the capacity to distribute goods and services via transport provision (Aubin and Moyson, 2011). The RER project, by creating a negotiating space between actors which will culminate in a political decision applied to the railway, generates demands aimed at modifying the use of that resource, which is not infinitely extendable because of technical limitations (e.g. the number of slots available or overcrowding on a section) or financial limitations. This redistribution of the rights of use of the resource is based on several arguments. The environmental argument is the first: the development of more sustainable mobility which should benefit the whole RER zone in order to achieve the imperatives of the Kyoto protocol and also compliance with a series of European directives on air quality, non-compliance with which would expose the RBC to penalties. Although this too generates polemic, the RER would partially make it possible to



meet these imperatives: the rail resource is thus understood as serving a more global resource, associated with environmental quality. The argument of fairness is also advanced, notably by the RBC, which sees itself as disadvantaged in terms of rail investment and service provision.<sup>19</sup> The argument also rests on the fact that Brussels residents experience many negative externalities in the uses or development of this rail resource (through a concentration of large infrastructures affecting the city, such as the North-South Connection, which has generated major engineering works in densely populated areas) without receiving enough direct benefit or, moreover, seeming to have any control over the decision-making process. Here again, if the RER functional space is indeed a locus of discussion around a form of redistribution of rights of use, we note that it does not really incorporate views relating to a higher standard, the issue of environmental protection, which would probably lead to more equitable choices. That is the case, for example, in certain policies in Switzerland, where development plans for facilities that will increase traffic levels are considered in the light of the additional journeys they will generate, and are therefore limited on the grounds of total shared emission quotas (Nahrath, S. et al., 2009).

### Conclusion

Brussels is not the only city to experience the problem of combining “functional space” and “institutional and political space” (Sénécal and Bherer, 2009), yet here, as elsewhere, political intentions are present: they are about considering mobility beyond institutional and territorial spaces, beyond administrative divisions, in order to promote sustainable development and ultimately to reduce car congestion. If the spaces for deliberation about a new instrument of mobility from, in, to and around Brussels, suggest the possibility of a new, more effective and integrated form of governance, it has to be said that they are a long way from matching the original political intentions. Might this be a particularly egregious example? Without giving further details here that imply that this is indeed the case, we would like to move to a more general perspective and raise three points: 1) even metropolitan institutions, when they exist, sometimes find it hard to think beyond the institutions and territories that created them (Boudreau and Collin, 2009); 2) comparative approaches have shown, with regard to the coordination between urban planning and transport, that failures are markedly more frequent than successes, regardless of the politico-institutional arrangements (Paulhiac Scherrer, 2010); 3) despite the spread of international sustainable development criteria, they are not easy to translate into principles of social organisation at local level, since they too run counter to traditional forms of public intervention (Da Cunha et al., 2005; Hamman, P., 2008).

### Bibliography:

AUBIN, D., MOYSON, S., 2011, « La régulation du rail en Belgique. Analyse des régimes institutionnels depuis 1832 », *Courrier hebdomadaire du Crisp*, n°2114-2115.

AUSSEMS, M., 2009, « D’une politique des transports à une politique de mobilité globale ? », in BEAUFAYS, J., MATAGNE, G., *La Belgique en mutation. Systèmes politiques et politiques publiques (1968-2008)*, Brruxelles, Bruylant, pp. 285-311.

BOON, F., GAYDA, S., « Quelques impacts du futur RER sur la région bruxelloise et sa périphérie. », communication présenté au 14e Congrès des Economistes Belges de Langue

Française en novembre 2000, disponible on-line : <http://www.stratec.be/files/articles/IMPACTSRER2-FB.pdf>

BOUDREAU, J-A., COLLIN, J-P., 2009. « Épilogue. L’espace métropolitain comme espace délibératif? », in SENECA, G., BHERER, L., *La métropolisation et ses territoires*, Québec, Presses de l’Université du Québec, p. 278-287.

DA CUNHA, A., KNOEPFEL, P., LERESCHE, J-P., NAHRATH, S., 2005, *Enjeux du développement urbain durable*, Lausanne, Presses polytechniques et universitaires romandes.

DELPEREE, F., 2011, « La Belgique existe-t-elle ? », *Pouvoirs*, n° 136, pp. 9-19.

DELWIT, P., PILET, J-B., 2004, « Fédéralisme, institutions et vie politique. Stabilité, instabilité et retour », in COENEN, M-T., GOVAERT, S., HEINEN, J. (Ed.), *L’Etat de la Belgique. 1989-2004 : Quinze années à la charnière du siècle*, Bruxelles, De Boeck & Larcier, 2004, p. 44.

DESSOUROUX, C., 2008, « Le poids des héritages », *Transports urbains*, n° 114, pp. 4-7.

DOBRUSZKES, F., 2008, « Un cadre peu propice à l’utilisation des transports collectifs », *Transports urbains*, n° 114, pp. 8-15.

FRENAY, P., 2009, « Pour un projet de développement territorial associé au RER bruxellois Essai de mise en évidence des facteurs déterminants fondamentaux », *Brussels Studies*, n°31.

HAMMAN, P. (dir.), 2008, *Penser le développement urbain durable : regards croisés*, Paris, L’Harmattan.

HUBERT, M., 2008, « L’Expo 58 et le « tout à l’automobile », *Brussels Studies*, numéro 22.

KAUFMANN, V., SAGER, F., 2006, “The coordination of local policies for urban development and public transportation in four Swiss cities”, *Journal of Urban Affairs*, vol. 28, n°4, pp. 353-374.

LERESCHE, J-P., 2001, « Une introduction : Gouvernance locale : une perspective comparée », in LERESCHE, J-P., *Gouvernance locale, coopération et légitimité. Le cas suisse dans une perspective comparée*, Paris, Pedone, pp. 11-27.

MONTULET B., HUYNEN P., HUBERT M., 2008, “Belgium – A Society of Commuters”, in SCHNEIDER N.F., MEIL G. (dir.), *Mobile Living Across Europe I. Relevance and Diversity of Job-Related Mobility in Six European Countries*, Barbara Budrich Publishers, Opladen & Farmington Hills, pp. 269-304.

NAHRATH, S., VARONE, F., 2007, « Les espaces fonctionnels comme changements d’échelles de l’action publique », in FAURE, A., LERESCHE, J-P., MULLER, P., NAHRATH, S., *Action publique et changements d’échelles : les nouvelles focales du politique*, Paris, L’Harmattan, pp. 235-257.

<sup>19</sup> « Picqué : j’ai peur que la SNCB oublie Bruxelles », *Le Soir*, 7 juin 2011.

NAHRATH, S., VARONE, F., GERBER, J-D., « Les espaces fonctionnels : nouveau référentiel de la gestion durable des ressources ?» *VertigO- la revue électronique en sciences de l'environnement*, vol. 9, n°1, mai 2009.

OFFNER, J-P., 2007, « Introduction », *Flux*, n° 69, p. 5.

PAQUES, M., 2005, *Droit public élémentaire en quinze leçons*, Bruxelles, De Boeck et Larcier.

PAULHIAC SCHERRER, F., 2010, « A la recherche d'un référentiel territorialisé : Retour critique sur les fondements d'une analyse cognitive des politiques urbaines », in MAKSIM, H., VINCENT, S., GALLEZ, C., KAUFMANN, V., *L'action publique face à la mobilité*, Paris, L'Harmattan, pp. 181-200.

SAGER, F., 2004, « Institutions métropolitaines et coordination des politiques publiques : une AQQC des arrangements politico-administratifs d'articulation entre urbanisme et transports en Europe », *Revue Internationale de Politique Comparée*, Vol. 11, n°1, pp. 67-84.

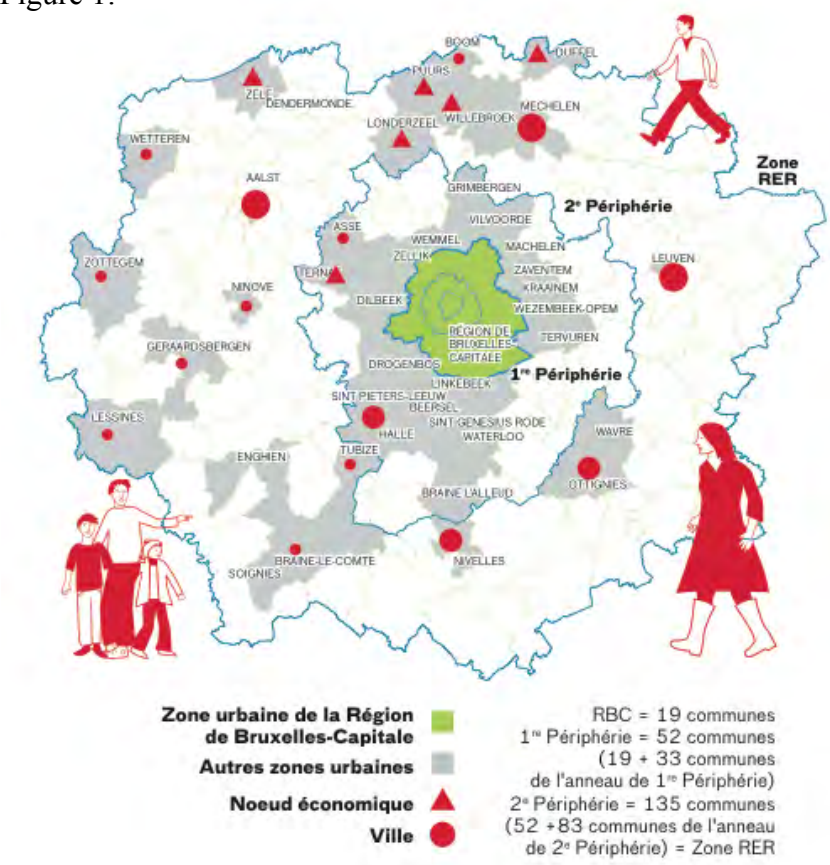
SENECAL, G., BHERER, L. (dir.), 2009, *La métropolisation et ses territoires*, Québec, Presses de l'Université du Québec.

TERRIBILINI, S., VARONE, F., 2004, « Politiques publiques à incidence spatiale et discriminations sociales » in MONTULET, B., KAUFMANN, V. (dir.), *Mobilités, fluidités... libertés ?*, Bruxelles, Publications des Facultés universitaires Saint-Louis, pp. 243-278.

VAN MEERTEN, M., VERBEURGT, G., VAN DER HERTEN, B., *Un tunnel sous Bruxelles. Les 50 ans de la jonction Nord-Midi*, Bruxelles, Editions Racine, 2002.

Annex:

Figure 1:



Source : Etude mobil2015.

# Transport and land-use in Greater Santiago: uncoordinated centralization and market-driven planning.

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## 1. Introduction

In recent years, the Greater Santiago (GS) metropolitan area has suffered two mayor urban planning upheavals, involving its public transport system and the regional land use plan. Considering urban mobility as a complex strategy that involves travel and localization choices of a household, in conditions determined by a changing environment where the transport system evolves and urban space is sprawling, it is clear that these two dimensions are closely related. With this perspective on transport, land use and housing interactions, we analyze the implementation of the Transantiago (TS) public transport reform and the polemic around the approval of the MPRMS-100, the 100th Metropolitan Region's Plan modification. Both processes reveal some distinctive facts about Chilean institutions, notably its strong centralization, uncoordination among different sectors of public action and lack of effective local or civil controls.

The following analysis is based on three sources of information. First, interviews realized in Chile between 2009 and 2011, with civil servants, politicians, urban planning academics and professionals<sup>1</sup> (see annex). Second, scientific literature and data revision, concerning these two specific cases and related disciplines, such as mobility, political science, economics and general statistics. Third, press reviews about these reforms and the public reactions they produced.

In the second part of this article the scientific and local contexts are presented. In the third, the cases of TS and MPRMS-100 are analyzed. In the fourth a hypothesis about whom and what drives public action in urban mobility issues in Chile is developed. We conclude with evolution perspectives of Chilean institutions, notably considering the current situation of civil unrest.

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<sup>1</sup> As requested by some interviewees, individual statements are anonymously cited. Most opinions are implicitly integrated in the text.

## 2. Urban mobility, multilevel institutions and the Chilean context.

### *2.1. Interactions between daily and residential mobility: sprawl and spatial inequalities.*

Urban mobility is a complex process, involving travel and accommodation choices, in different time scales. From a transport perspective, daily mobility allows individuals to reach opportunities in the city, as employment, education, consummation and leisure (Orfeuill, 2008). Considering housing, residential mobility is a long-term households' strategy trying to satisfy their often incompatible needs of living space and daily mobility, as bigger accommodations are easier to acquire in peripheral locations while urban opportunities tend to concentrate (Alonso, 1964). Additional dimensions, such as social mobility, environmental preferences and other factors play a role in these processes, but for the purposes of this article we will focus only on daily and residential mobilities, as these have clear spatial characteristics and therefore should be explicitly considered in territorialized urban policies.

At the metropolitan level, as urban travel speed increases, households are able to move farther away from the centre. Then, residing in low density areas promotes the choice of faster transport modes, thus creating a self-reinforcing mechanism of urban sprawl between residential and daily mobilities (Massot, 2008; Garreton, 2010). At the households' level, income inequalities determine transport and location capacities, so in the GS poor households attain lesser opportunities with higher monetary and temporal efforts<sup>2</sup> (Garreton, 2012). As urban mobility disadvantages tend to multiply social inequalities, the former should also be a primary concern of social policies (Kain, 1968; Maurin, 2004; Orfeuill, 2006). This implies that urban planning should acknowledge the reciprocal effects caused among interventions in diverse sectors, and particularly the interactions that occur between the housing and transport systems (Garreton, 2012). The effects of not doing so can be illustrated by the TS and MPRMS-100 cases, which besides being objectionable policies on their own, are spatially incompatible.

### *2.2. Scale and institutions: diverging objectives and the need for political balancing power.*

In a remarkable analogy about the drivers of public action, William Alonso (1971) proposes a firm-like cost-benefit analysis of cities (Figure 1). Marginal (mC) and mean (MC) costs<sup>3</sup> follow a U-shaped curve, as scale economies are finally overwhelmed by negative agglomeration externalities. Marginal (mP) and mean (MP) productivity<sup>4</sup> are linear, proportional to population. In this schematic representation, three "optimal" situations can be defined:

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<sup>2</sup> Monetary efforts are considered as the share of a household's income that is invested in housing and transport. The temporal effort is the time spent each day on transportation.

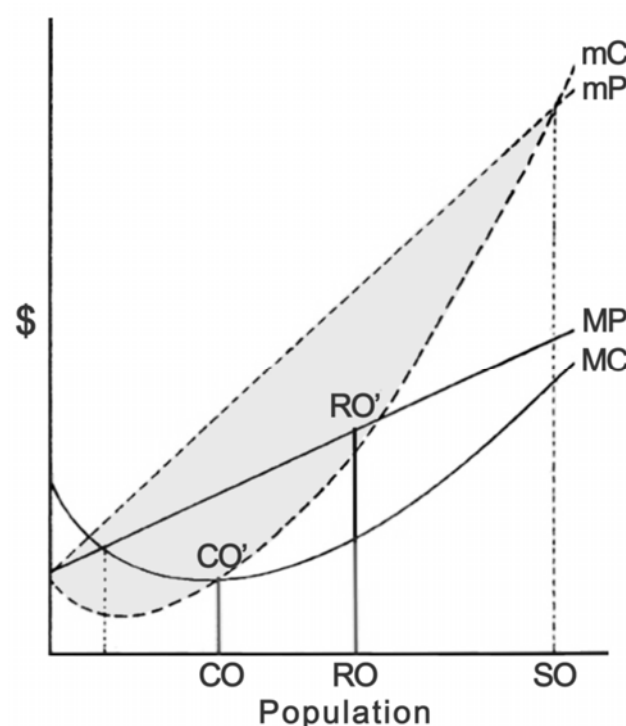
<sup>3</sup> Infrastructures, congestion, pollution, etc.

<sup>4</sup> Anticipating the notion of agglomeration external economies, Alonso assumes increasing returns on urban productivity.



- Minimum environmental costs (CO-CO'), represents the objective of municipality-level governments, aiming to improve life quality while externalizing the negative effects of productive activities towards neighboring territories.
- Maximum mean earnings (RO-RO'), represents the objective of regional-level governments, which have to simultaneously consider environmental costs and productive activities development. Employment sites cannot be too distant from the workforce, so environmental costs must be internalized.
- Maximum total output (shaded mP-mC area), represents the objective of national governments, aiming to maximize the production of urban areas, which are the main contributors to a state's economy.

Figure 1: cost-benefit analysis of urban size.



Source: "The Economics of Urban Size" William Alonso, 1971.

This analysis is an oversimplification, but it illustrates the fact that political interests at different levels can be contradictory. Thus, decentralization responds to the necessity of creating a system with balanced powers capable of negotiating central and local interests, which clearly does not correspond to the Chilean case.

### 2.3. Chilean institutional framework: centralization and contradictory sectoral actions.

Since colonial times Chile has been a strongly centralized country (Boisier, 2000), a characteristic that has been maintained after independency in successive constitutions, from 1833 to 1980. In recent decades, decentralization has been rather a deconcentration process, in which regional institutions become administrative organs of the central government with no political power and no fiscal autonomy (Mardones, 2008). Municipal authorities, centrally designated during the dictatorship, are elected only since 1992, and

considering their huge social responsibilities their budgets are severely limited while local taxes are fixed by national laws. Combined with a strong social segregation, this results in huge budgetary inequalities among municipal institutions (Orellana, 2009). The *Intendente* (*Intendente*) is designated by the president of Chile and in the GS they are changed roughly every nine months; they are the only regional executive authority and they preside the regional council (CORE)<sup>5</sup>.

Considering public spending as a measure of power relations among levels, in 2010 the central government's budgetary execution represented a 21,78% of GDP<sup>6</sup>, while at the municipal level it was of 2,05% of GDP<sup>7</sup>. Regarding public investment in the Metropolitan Region<sup>8</sup>, ministries and their regional secretaries managed 81,8%; 11,0%<sup>9</sup>, also coming from the state, is distributed after public tender towards local projects by the Regional Government (GORE); and only 7,2% comes from the municipal level. In sum, centrally decided public action is not only overwhelming, but it decides most of its investments by independent sectoral mechanisms that can produce contradictory actions. An example is the construction of public housing in peripheral areas, a long term trend driven by budgetary restrictions of the Housing Ministry that do not allow to buy costly centric land; meanwhile the Transport Ministry has realized huge investments in a centrally-oriented public transport system. As a result, poor populations that need efficient public transport become increasingly isolated (Garreton, 2012). The latter, aiming towards a dense city development, is also contradictory with the investments of the Public Works Ministry in urban highways that impel urban sprawl and private vehicle use. The political and budgetary weakness of the GORE prevents it from assuming its official role as intersectoral coordinator. As a senior researcher says "By law, the regional secretary of each ministry has two bosses: the *Intendente* and his Minister. In fact, he only obeys the latter." Moreover, the lack of powerful enough planning units<sup>10</sup> and the allocation of regional investment funds without clear priorities, preclude developing a consistent regional planning strategy.

In sum, public action in Chile is a heterogeneous assembly of unconnected sectoral projects, mainly driven by centralized ministries that follow their own technical criteria, with little consideration about the effects of their own policies on other public institutions' objectives (Garreton, 2012) and no institutions capable of effectively defending local welfare. The cases of TS and the MPRMS-100 are two representative examples of this situation.

<sup>5</sup> The CORE is a semi-democratic organism composed by representatives nominated by communal councilmen. This situation is evolving due to recently approved laws that are not yet applied, as will be discussed in the last part of this article.

<sup>6</sup> Public Treasury report, 2010, <http://www.tesoreria.cl/portal/ofVirtual/aFinanzasPublicas.do>

<sup>7</sup> Compiled data of municipal budgetary execution, SUBDERE, SINIM, <http://www.sinim.gov.cl/>

<sup>8</sup> The GS is in the Metropolitan Region, representing a 90% of its population.

<sup>9</sup> GORE public account, <http://www.intendenciametropolitana.gov.cl/filesapp/CuentaPublica2010.pdf>

<sup>10</sup> Regional strategical planning divisions were created in 2006, but they still lack the resources and authority necessary to play a significant role.

### 3. Case studies

#### 3.1. Transantiago

Before TS, since its deregulation during the dictatorship and even after the progressive re-regulation since 1990, the bus system was operated by 289 independently granted lines that were highly redundant, producing a strong central congestion (Figueroa, 2007; Gomez-Lobo, 2007). The fare system induced a competition for passengers, promoting dangerous driving, and buses were rather old, inadequate, uncomfortable and pollutant. However, frequencies were high, spatial coverage was dense and most itineraries required no transfer.

During Ricardo Lagos' administration (2000-2006) several ambitious planning reforms were initiated, one of which was the Urban Transport Plan for Santiago, which became the institutional framework for the implementation of TS, achieved during Michele Bachelet's government (2006-2010). Maillet (2008) identifies the main motivation behind this project as some statesmen's will of improving international opinion about Chile, presenting its capital as clean and developed rather than invaded by obsolete buses. As reported by several interviewees, a complementary practical objective was developing this reform as an interesting business opportunity, in order to attract foreign investors to operate the transport concessions<sup>11</sup>. This was a political imperative that forced important changes in system requirements and contracts design, impairing service quality and particularly frequencies<sup>12</sup> (Briones, 2009). In order to validate this project to public opinion, but only reformulating international promotion, TS was presented as a solution to the chronic atmospheric pollution, which indeed it helped to solve, and as an important step towards the modernization of the GS. But this system's design and implementation completely disregarded specifically local welfare. Waiting times got longer, transfers multiplied, walking distances increased, information about itineraries was incomprehensible and inaccurate<sup>13</sup>, comfort in buses did not improve and decayed in the metro. As a result, in complete opposition to desired results, important modal shifts towards private vehicle were observed (Yañez, 2010).

We will not analyze here the numerous problems of design and implementation of TS, as done by Figueroa (2007), Gomez-Lobo (2007), Yañez (2010) and Briones (2009). Just to mention the most relevant: network design with excessive transfers and metro dependence, low number of buses and its correlate of lower frequencies, too rigid and long contracts with

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<sup>11</sup> Notably, Jean-Paul Huchon, president of the IdF Region, celebrated the opening by the Transantiago project of huge business opportunities in the GS (La Nacion, 24/09/03, cited in Maillet, 2008). Three of the five main sectors are operated by consortiums with major participation of foreign investors: Alsa (Spain) with Alsacia-Express Futuro (Colombia) in "trunks" 1 and 4, Fanalca (Colombia) in "trunk" 2.

<sup>12</sup> Low frequencies of service imply longer waiting times, increasing users' global cost of travel. This is one of the most important criteria in assessing public transport quality.

<sup>13</sup> A civil servant reported two years after implementation, still in an adjustment phase: "We cannot provide adequate signaling, because bus routes change faster than we can install it." However, this situation still persists.

inadequate controls that incentivized poor service levels<sup>14</sup>, deficient information to users, inadequate GPS-tracking technologies, an abrupt and badly prepared implementation, delays in infrastructure construction and sustained financial deficits of operation. An immediate question is: how could all this go wrong at once?

The answer lies in deficiencies of the institutions that developed the TS (Figueroa, 2007; Briones, 2008). It was initiated by a presidential instruction in 2003, which created a committee composed by the ministers of Public Works, Transports, Housing, the *Intendente* and other centrally-designed authorities. This kind of instruction is not a law and does not have to be ratified by the Congress, but it has the power to launch a major planning reform with no local or civil counterparts. The appearance of intersectoral coordination is unreal, because no mechanism of interaction was defined and each ministry was independently responsible of separate tasks, with their own budgets and schedules<sup>15</sup>. No one was responsible of the reform as a whole. In fact, when chaos was at its peak each sector blamed the others of its own delays (CEI-TS, 2007). With no clear political leadership, the core of the process was managed by two technical groups (Briones, 2008). On the one hand, the business unit of the General Coordination of the TS, which designed the contracts in a rigid way, leaving no range for adjustment in unpredictable conditions. On the other hand, the Inter-Ministerial Transports Secretary, responsible of the system's design, subcontracted this task to the consultants F&C, which had previously worked in this institution. They developed a transport model that produced a series of incongruous results, notably maintaining frequencies while reducing the number of buses. These outputs were needed in order to reconcile two political imperatives: lowering costs and maintaining service quality (Briones, 2008). In sum, two relatively small technical organisms, with no democratic accountability and no external controls, were in charge of designing the economic and operational foundations of a major public transport reform in a metropolis of six-million inhabitants.

Meanwhile, what was the role of the civil society and local authorities? Before TS's implementation, the necessity of this reform was almost consensual. Those who opposed it, mainly the former bus operators, were easily discredited as being selfishly rejecting social progress (Maillet, 2008). After TS implementation, social rejection was widespread; users blocked main streets, critics were ubiquitous and several civil organizations against TS were born. One example is the Users' of TS Committee, with little institutionalization other than a blog and barely capable to mobilize a moderate number of loosely tied supporters. Another is *Arreglar Transantiago*, an internet forum sponsored by a group of politicians, which serves as an informative tool but also as an electoral showcase. These *ad hoc* organizations have no direct influence over policy reforms and little or no funding. Having a higher degree of institutionalization but concerned with public welfare in general, the National Corporation of Consumers and Users has promoted several lawsuits against TS, mainly

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<sup>14</sup> 90% of income was guaranteed by the state, which encouraged cost reduction by limiting the number of vehicles in operation.

<sup>15</sup> This explains why buses started to circulate (Transports) while the segregated corridors were not ready (Public Works) and the stops were unbuilt (Housing).

regarding malfunctions in the payment system. Finally, mayors and other local authorities have made frequent public statements against service deficiencies in their communes, but also with little effect. The main ways of expressing users discomfort have been: inorganic manifestations against the TS as a whole, in the earliest stages of implementation, occupying public spaces and with some violent incidents; periodic manifestations against fare rises, until recently, loosely organized through social networks and alternative medias; and legal proceedings supported by NGOs, concerning administrative deficiencies, but unable to modify service conditions. In sum, even if public rejection was extremely strong after TS' implementation, this has not allowed to create effective civil or local controls and democratic pressure continues to be exerted by indirect mechanisms.

The TS case shows two fundamental problems about Chilean institutions. Firstly, as it was designed and implemented without any mechanisms for democratic control, there is no clear accountability for the consequences this reform had in public welfare. Secondly, local authorities and civil society have practically no means for modifying public policies that directly affect them. The only possibility for the public of exerting some influence over TS's evolution would be an indirect one, by downturns on the president's popularity. But this seems to be a relative effect, as Michelle Bachelet finished its administration with 80% public approval, without clear improvements in TS<sup>16</sup>. However, as the current administration faces high levels of unpopularity, priority for welfare concerns increases and some important advancements are being obtained<sup>17</sup>.

### 3.2. MPRMS-100

Chile's capital region has a long history of metropolitan planning. In 1960 the first inter-communal plan of Santiago was approved, laying the strategic orientations that have since influenced GS development. The current Santiago Metropolitan Region's Plan (PRMS) is in force since 1994 and has been modified many times following a long debate of densification versus extension. In this process, its 100<sup>th</sup> modification, that would allow a 14% increase of GS's urban land (MINVU, 2008, 2010), has been particularly polemic. The PRMS and its modifications are developed by the Metropolitan Region Secretary of the Housing Ministry. Through land use definitions, this plan affects other sectors as transportation and activities distribution, among others. However, as stated by high civil servants and senior researchers, it is a normative instrument limited by the fact that if the allowed land uses are not attractive to private interests, these will not be developed; or if Public Works' budgets are not allocated, expected infrastructures will not be realized. In consequence, the MPRMS-100 was designed under the condition that city expansion had to be a good investment opportunity.

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<sup>16</sup> 36% of Chile's population inhabits the Greater Santiago area.

<sup>17</sup> An important renegotiation of the operators' contracts has been achieved recently, focusing on quality of service improvements and more effective public monitoring instruments. <http://www.elmostrador.cl/ahora/2011/12/20/diez-puntos-claves-contemplan-nuevos-contratos-del-gobierno-con-empresas-del-transantiago/>

The 100<sup>th</sup> modification was presented to the CORE in April 2008; sent to the GS municipalities, other ministries and concerned public organisms in December 2008; revised according to their observations; approved by the Environment Commission in March 2010; and rejected by the CORE in July 2010. After this first long bureaucratic process, two remarkable facts can be observed. First, the MPRMS-100 remained essentially unchanged. Second, it was rejected by the same CORE that had approved its processing. This inconsistency can be understood by the fact that after the last elections Chile had the first right-wing president in twenty years, so most of the regional councilmen found themselves in the opposition. In other words, a decision that affected a metropolitan master plan is mainly explained by national politics.

The official arguments for justifying the MPRMS-100 were easily deconstructed (Trivelli, 2011). The statement that the expansion was necessary in order to provide social housing in accessible sectors, as land in consolidated areas was too expensive for this kind of projects, was particularly criticized. Developing conditions in expansion areas imposed only 8% of social housing<sup>18</sup>, while by current standards peripheral developments must comply with 30%; and the areas to be urbanized are not at all accessible, particularly in public transport. Internal migration trends that tend to depopulate the central communes were passively accepted, without proposing an alternative for metropolitan development as a whole, as was demanded by several centric municipalities<sup>19</sup>. Finally, the leading role assumed by Fernando Echeverría in the MPRMS-100 promotion, being *Intendente* and former president of the most powerful real-estate association in the country, led to strong accusations of conflict of interests, as this urban expansion was an excellent business opportunity for big property developers. These counterarguments were raised in university and public debates, by urban planning academics and by civil organizations, as the *Defendamos la Ciudad* foundation, the *Activa* NGO, the Chilean Association of Patrimonial Neighbourhoods and the Metropolitan Federation of Neighbourhood Councils, who presented several collective lawsuits against the MPRMS-100 to the National General Controller, without clear results. In sum, there has been an extensive and heated debate about this reform, but limited to relatively small academic circles; the strongest opposition to it has surged from NGOs and organizations that reject urban expansion, which have little effective power to stop or modify the bureaucratic process. Public opinion seems evenly divided between the official arguments and their detractors or does not feel deeply concerned about this reform, but no reliable surveys have been conducted on the subject.

Meanwhile, the modification process was pursued, being approved by a large majority in the CORE in March 2011. The MPRMS-100 was still essentially unchanged in its general form (MINVU, 2008, 2010) and the reasons for the regional councilmen's second change of mind are unclear. Finally, it was rejected by the National General Controller in September 2011,

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<sup>18</sup> This rate was negotiated by the concerned municipalities, which did not desire to be overwhelmed with poor populations that are a heavy burden in their budgets. It also favors the profitability of land development.

<sup>19</sup> Pronouncements available at [http://www.seremi13minvu.cl/opensite\\_20080729111003.aspx](http://www.seremi13minvu.cl/opensite_20080729111003.aspx)



arguing technical deficiencies, particularly about the mechanisms to enforce development conditions<sup>20</sup>. This last resolution does not involve any observations to the MPRMS-100 objectives and is unrelated to the lawsuits presented by civil organizations. The indications should be resolved by the Housing Ministry in order to present a new version in an undefined date. A high civil servant has commented that, facing a context of widespread social unrest, the current government is unlikely to pursue this polemical initiative.

In conclusion, after almost four years of bureaucratic formalities, delayed by political conflicts and heated by civil opposition, this mayor planning reform is frozen. It could seem that public opposition has effectively stopped the MPRMS-100, but the only semi-democratic institution able to do this, the CORE, has approved it, and the reasons of the current standby are merely technical details. In other words, under an appearance of participation and public debate consideration, local authorities and civil society have been mostly ignored, the reform is essentially unchanged from its original version and while the city continues to grow, the implementation of adequate regulatory instruments is being delayed by national politics, not by metropolitan concerns.

#### 4. What is it that drives public action in urban mobility issues in Chile?

The TS ministerial committee seemed to provide an intersectoral planning support for this complex public transport reform and allowed to launch the project, but it did not have the capacity to effectively coordinate it, so each sector's agenda was independently pursued and service quality was neglected. In the MPRMS-100 case, the Housing Ministry, the *Intendente* and the land development industry formed a common front to justify the reform, invoking perfunctory arguments about social interest that did not bear up against a deeper analysis and raised suspicions about hidden interests. Both initiatives were ultimately driven by state-level interests, as they aimed to create the conditions for sustained investment attraction, economic development and population growth in Chile's capital. However legitimate, these objectives were pursued in an excessively centralized and uncoordinated way, deeply rooted in Chilean history but imposing macroeconomic objectives with little real considerations towards local welfare. This ignores the advantages that can be obtained by shifting from an urban government strategy towards more participative metropolitan governance (Feiock, 2007). In fact, contemporary urban systems are larger, increasingly complex and need multilevel governing strategies in order to adequately evolve. As shown by the TS and MPRMS-100 cases, state-driven urban planning presents the risk of bypassing democratic controls, as politicians delegate decisions into small technical groups, producing a de facto technocratic domination with no public accountability (Boltansky, 2008). Regional administrators have no autonomy, local authorities have very constrained budgets and civil society has no institutional framework to effectively balance central planning decisions.

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<sup>20</sup> Report available at

<http://www.contraloria.cl/LegisJuri/DictamenesGeneralesMunicipales.nsf/FormImpresionDictamen?OpenForm&UNID=822F109CBB45250B84257906004EF05B>

In order to understand not only who but also what drives planning, the common values that are shared by the political and technocratic elites that effectively govern Chile must be identified (Alpupui, 2011). Since the dictatorship era, free markets have been widely accepted as being always the best option, even to provide social goods, as education and health. Constrained by the 1980 Constitution, public institutions can only intervene in areas neglected by private investors, mainly subsidizing or providing low quality services to the most vulnerable populations. Urban planning is not an exception and even after disastrous experiences as the dismantling of the GS' former state-owned public transport system in the mid-seventies (Figueroa, 2005), the solutions for TS are exclusively focused in improving contractual conditions. Similarly, the main innovation of the MPRMS-100 is to establish a set of conditions that allow internalizing development costs. These are certainly positive changes from a completely deregulated situation, but probably insufficient as private interests are poor providers of key welfare needs (Sen, 2003).

In sum, as in other sectors in Chile, public action in urban mobility issues is driven by the assumption that the best way of development is creating optimal investing conditions in order to impel national economic growth. Welfare considerations are also present, allowing to justify policies to public opinion, but in fact they are rather shallow. This is shown both by the contract design and operation definitions for TS' public tender, and by the negotiation of development conditions in the MPRMS-100, notably the reduction of social housing shares. Finally, the general public is not well informed and seems to have little understanding about metropolitan planning consequences on urban life quality. Other than reacting to direct costs, such as fare rises or frequency drops, there is little involvement in long term issues and no clear opinion about the advantages or risks of urban sprawl.

The negative welfare consequences of this centralized and uncoordinated planning system, without organizational tools or widespread social awareness to create effective civil controls, were immediately evident in the TS case. In the MPRMS-100 case we can only speculate, but if it is implemented in its actual form there are reasons to be pessimistic in terms of urban social and functional cohesion. Driven by TS deficiencies, urban highways construction and rising income, motorization rates are skyrocketing, urban sprawl is unchecked and no social housing is provided in central areas. If transport-land-housing interactions are not explicitly considered in the respective sectoral policies, GS is probably headed to increased levels of segregation and congestion, with vulnerable populations in poorly deserved peripheries and increasing travel distances in a sprawling metropolis where a half of total employment is concentrated in the centre (Garreton, 2012).

#### 5. Conclusion: how could this evolve?

Reforming the Chilean institutional framework is extremely difficult. Key aspects of territorial administrative systems are defined by the Constitution, which is deliberately designed to

impede structural reforms<sup>21</sup>. Moreover, politicians from both sides are reluctant to engage in an effective decentralization process, which could erode their own powers, dependant on a centralized system in which political parties define the candidates that are most certainly elected<sup>22</sup>. This seems to cast a grim shadow on evolution perspectives.

However, two considerations allow being more optimistic. First, centralization could present some opportunities regarding intersectoral coordination. High civil servants evolve in a little world and they know each other fairly well even among different institutions. In the GS, Regional Ministerial Secretaries are located in a small area in central Santiago, some of them even in the same buildings. Moreover, many of them are open-minded about the need of ensuring consistency among different areas of urban planning. As one high civil servant says: “With TS we finally have a transport plan that allows us to align our projects with theirs... but even if we would like to define a consistent strategy we do not have the budget or time to allocate human resources to this task.” In other words, relatively small budgetary allocations to strategic planning units, sustained by adequate institutional regulations, could promote more consistency among different sectors of territorial public action. Second, constitutional rigidities are facing a limit in the widespread social movements that express frustration with an obsolete institutional framework and demand an increased role of the public sector in providing fundamental social goods such as education and health. In a country that is well engaged in a path towards development, public spending is too small, violating Wagner’s law<sup>23</sup>, which results in insufficient welfare systems. Even if it is not the focus of this mobilization, urban planning could profit from the reforms that will eventually be done, mainly by advances in decentralization and the reinforcement of strategic planning capacities. Some laws, already approved but not yet implemented, already point in this direction, as the direct election of the CORE and the devolution of its presidency from the *Intendente* to one of its members<sup>24</sup>; or the progressive reinforcement of the Strategic Planning Division of the Regional Government. Finally, there are also a number of laws<sup>25</sup> which will be effective this year (2012), allowing for a more efficient institutionalization and funding of inter-municipal and civil society associations. All this could lead towards a more adaptable and participative governance system.

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<sup>21</sup> This is a consequence of the binominal electoral system, which artificially keeps a right-left equilibrium in the congress while requiring a two thirds majority in the Congress for any modification at this level.

<sup>22</sup> As stated by senior researchers and politicians.

<sup>23</sup> Wagner’s law states that as societies develop, the share of public spending in GDP should increase, due to social demands for superior goods such as education, health, insurances and economic needs for innovation and infrastructure. Author’s calculations with OCDE data show that Chile is well below average, controlling for national income.

<sup>24</sup> Constitutional reform n°20.390. However, the legislative project for its implementation, presented by Chile’s President in September 12<sup>th</sup> 2011, strongly limits the CORE’s powers, notably for investment decisions. This law is still being debated by the Congress.

<sup>25</sup> Notably two laws, regulating municipal (20.527) and civil organizations (20.500).

Far from inevitable, this kind of evolution is just a possibility among others, so it should be promoted by creating awareness of its benefits. At least, two points can be made. On the one hand, strategic plans for different sectors are being developed in GS, allowing for a better coordination among technical bodies, notably transport, land use and housing. On the other hand, increasing civil involvement in public issues remember us what Alonso showed forty years ago: that in welfare issues, the state must be balanced by local powers.

## References.

- Alonso, W. (1964). *Location and land use: toward a general theory of land rent*. Cambridge, Harvard University Press.
- Alonso, W. (1971). The economics of urban size. *Papers of the Regional Science Association*.
- Boisier, S. (2000). La vocacion regionalista del Gobierno Militar. *EURE*, v. 26, n. 77.
- Boltanski, L. (2008). Institutions et critique sociale. Une approche pragmatique de la domination. *Tracés*, n°HS-8.
- Briones, I. (2009). Transantiago : un problema de informacion. *Estudios Publicos*, n. 116.
- CEI-TS (2007). *Informe de la comision especial investigadora encargada de analizar los errores en el proceso de diseño e implementacion del plan Transantiago*. Report for the Chilean Congress.
- Feiock, R. (2007). Rational Choice and Regional Governance. *Journal of Urban Affairs*, v. 29, n. 1.
- Figuerola, O. (2005). Transporte urbano y globalización. Políticas y efectos en América Latina. *EURE*, v. 31, N. 94.
- Figuerola, O., Orellana, A. (2007). Transantiago: gobernabilidad e institucionalidad. *EURE*, v. 33, n. 100.
- Garreton, M. (2010). Urban Evolution and Spatial Mobility in Chicago and Paris. *WCTR 2010 Selected Proceedings*.
- Garreton, M. (2012, pp). Desigualdad espacial y utilidad social: esfuerzos de movilidad y accesibilidad en el Gran Santiago. *Territorios*.
- Gomez-Lobo, A. (2007). Transantiago: una reforma en panne. *TIPS*, n. 4.
- Kain, J. (1968). Housing Segregation, Negro Employment, and Metropolitan Decentralization. *Quarterly Journal of Economics*, n. 82.
- Orellana, A. (2009). La gobernabilidad metropolitana de Santiago: la dispar relación de poder de los municipios. *EURE*, v. 35, n. 104.
- Orfeuil, JP. (2006). *Déplacements et inégalités : La mobilité comme nouvelle question sociale*. Rapport pour le Centre d'analyse stratégique du Sénat, Paris, 25 Abril 2006.
- Orfeuil, J. P. (2008). *Une approche laïque de la mobilité*, París, Descartes.
- Maillet, A. (2008). La gestación del Transantiago en el discurso público: hacia un análisis de políticas públicas desde la perspectiva cognitivista. *Nuevo Mundo Mundos Nuevos, Coloquios*.
- Mardones, R. (2008). Descentralización: una definición y una evaluación de la agenda legislativa chilena. *EURE*, v. 34, n. 102.

Massot, MH., Orfeuill, JP. (2008). Mobilité résultante et mobilité organisatrice : les paradigmes de la mobilité au service de la compréhension de la ville. In, *La mobilité qui fait la ville*, Collections du CERTU 3, Paris.

Maurin, E. (2004). *Le ghetto français: Enquête sur le séparatisme social*. Seuil, Paris.

MINVU (2008). *Actualización Plan Regulador Metropolitano de Santiago. Memoria Explicativa*. [http://www.seremi13minvu.cl/opensite\\_20080729111003.aspx](http://www.seremi13minvu.cl/opensite_20080729111003.aspx)

MINVU (2010). *Proposicion documento memoria explicativa modificacion plan regulador metropolitano MPRMS 100. Actualizacion areas de extension urbana y reconversion*. [http://www.seremi13minvu.cl/opensite\\_20110103164100.aspx](http://www.seremi13minvu.cl/opensite_20110103164100.aspx)

Sen, A. (2003). *L'Economie est une science morale*. La Découverte, Paris.

Trivelli, P. (2011). La propuesta de modificación del Plan Regulador Metropolitano de Santiago PRMS 100 requiere una justificación más sólida. *EURE*, v. 37, n. 111.

Yañez, M.F., Mansilla, P., Ortuzar, J.D. (2010). The Santiago Panel: measuring the effects of implementing Transantiago. *Transportation*, n. 37.

**Annex.**  
*Table of interviews.*

Name	Position	Institution	Date	Duration
Oscar Figueroa	Professor	Catholic University of Chile	16/12/2009 24/08/2011	1h31min 57min
Gabriela Palma	Chief, Public Transport Services Unit.	Santiago Public Transport Coordination (MTT)	17/12/2009	1h02min
Carolyn Tapia	Engineer, Users Attention and Information Unit	Santiago Public Transport Coordination (MTT)	17/12/2009	48min
Alan Thomas	Chief, Models and Information Division	SECTRA	23/12/2009	1h09min
Ivan Poduje	Professor / Director	Catholic University of Chile / Atisba Urban Planning Consultants	05/01/2010	39min
Arturo Orellana	Professor	Catholic University of Chile	31/08/2011	52min
Daniel Melo	Vicepresident	Socialist Party	14/11/2011	1h34min
Saadi Melo	Mayor	El Bosque Municipality	17/11/2011	54min
Pablo Fuentes	Chief, Regional Planning Department	Metropolitan Region Government	15/11/2011	1h23min
Daniel Jadue	Operations CEO / Candidate for Recoleta commune's mayoralty	PAC Urban Planning Consultants / MAS Party	17/11/2011	34min
Genaro Cuadros	Professor	Diego Portales University	17/11/2011	1h21min
Francisco Baranda	Chief, Urban Planning Department	Metropolitan Regional Secretary of Housing Ministry	18/11/2011	1h43min

**The transposition of a bus lane model and its urban impact.  
The case of the city of Cali in Colombia and the MIO BRT**

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Since the 1980s, the BRT has undergone a process of export/import to several cities in Latin America and Europe. Since its birth in Curitiba, this model has been adjusted to local conditions in its place of destination. In Colombia, it became a full-BRT: the MIO in Cali and the TransMilenio in Bogotá are examples of this type of scheme. With a dedicated heavy infrastructure, buses with high platforms, elevated (90 cm) passenger access points in the middle of the roadway and overhead footbridges, this type of BRT has significantly remodelled the physical space of the roads.

A source of controversy between social stakeholders, the public authorities and international experts, the MIO in Cali was designed with inconsistencies that are reflected in the system's integration into the city. Being interested in the causes of these negative factors, I conducted interviews with practitioners and experts in urban mobility, including amongst others the former mayor of Bogotá, Enrique Peñalosa, an economic sociologist specialising in mobility, an architectural historian, and a MetroCali official. The themes focused on three topics: the urban and social impact of the BRT on the city, what the BRT represents for the municipal authorities and public action in response to mobility problems.

In this paper, the stress will be placed on public policies and the interests underpinning the choice of this transport model, the purpose of which was certainly not to structure the city's urban fabric. Citizen opinion surveys moreover reveal user dissatisfaction with the MOI.<sup>1</sup>

<sup>1</sup> Since 2004, the Calicomovamos organisation has been conducting citizen surveys on subjects such as transport, health and education.  
<http://www.calicomovamos.org.co/calicomovamos/content/view/20/39/>.  
On the quality of life of the citizens:  
<http://www.calicomovamos.org.co/calicomovamos/files/1%20Calidad%20de%20Vida/INFORME%20CALIDAD%20VIDA%202010.pdf>



I will also show how European experiences reveal the potential of the BRT<sup>2</sup>and other transport systems integrated into existing roadways, such as the tram,<sup>3</sup> to regenerate the city, experiences which might be useful to Colombia.

**BRT: export/import of a model**

Curitiba, a city with a population of 2.5 million, has since the 1970s been a pioneer in the introduction of a dedicated lane BRT (Bus Rapid Transit) system. Like all the big cities in Latin America, this Brazilian metropolis has had to deal with demographic problems and issues of urban sprawl, which have led to the establishment of an urban master plan designed to create an interconnected public space.<sup>4</sup>

With the objective of controlling the city’s urban densification, this plan recommended the replacement of the historical radial layout with linear development in which the new road axes (each axis made up of three lanes in each direction) would be designed to accommodate a dedicated bus lane.

The culmination of a long urban planning process, the RIT (*Rede Integrada de Transporte*), based on the technology of articulated and double-articulated buses with dedicated operating lanes and elevated tube-stations, shows that a bus system could structure the city by creating a new way of using urban space.

Inspired but less costly than European rail-based systems, the example of Curitiba’s BRT has, since the 1980s, undergone a process of export/import to several cities in Latin America and Europe. In these cities, the system has been adjusted to suit local physical and morphological conditions.

To illustrate the differences in the installation of the BRT, it is interesting to take two examples of contrasting cities. First, the cities in Latin America, with a “modern” urban layout, like Cali or Bogotá in Colombia. Second, “traditional” European cities, with a dense urban fabric.

Unlike Curitiba, where the BRT was introduced on roads designed to accommodate it, or European cities where the system was adjusted to the existing streets, in the Colombian cities this bus system required a profound transformation of the urban space.

In the absence of other mass transit systems (subway, tramway), the BRT became a full-BRT, with dimensions not always well suited to the width of the lanes. The example of the MIO bus scheme in Cali is an example of this type of system, with a dedicated heavy infrastructure, buses with high platforms, elevated stations (90 cm) in the middle of the roadway and overhead footbridges.

By contrast, in Europe, if we take France as an example, we find cities with surface transport systems like the tram and the BRT, but adapted to the

<sup>2</sup>FINN. B, HEDDEBAUT. O, RABUEL. S, *Bus with a high level of service (BHLS): the European BRT concept*, Transportation Research Board, 2009.

<sup>3</sup> TSIOMIS. Y, ZIEGLER. V. *Anatomie de projets urbains, Bordeaux, Lyon, Rennes, Strasbourg*, éditions de la villette, paris 2007.

<sup>4</sup> The IPPUC (Instituto de Investigación y Planeación Urbana) founded by the urbanist Alfred Agache, is the main body responsible for urban planning in the city.

dimensions of the existing roads and forming part of an integrated public transport system.

The Bordeaux tramway on the banks of the Garonne is an example of this type of system, in which the road can be shared by all users;<sup>5</sup> organised into “strips”,<sup>6</sup> the road space is distributed horizontally to create continuity between the residential structures and the riverbanks.

The TEOR in Rouen and the BusWay in Nantes are a good example of urban layout based on a BRT type system; using dedicated lanes, the French BHNS schemes use buses with low platforms, a technology that applies the concept of permeability characteristic of tram systems.

A comparison of the European and Latin American examples shows the contrast between the spatial permeability and the flexibility of the BHNS and the physical rigidity of the BRT, as well as the direct link between transport methods and road layout. The intermodality found in France and the space dedicated to the BHNS, contrasts with the mono-modality found in Colombia and the remodelling of cities to accommodate the BRT.

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<sup>5</sup> An explanation of how the roadway is divided between transport systems and users can be found in the book on the anatomy of urban projects by Yanis Tsiomis and Volker Ziegler, page 74: “All users (cyclists, rollerbladers, pedestrians, cars, buses, trams), want their share of public space, which therefore tends to become fragmented. In order to have a shared space, in order not to divide up public space to satisfy different needs, the designer must meet with residents and users in order to resolve these potential conflicts.”

<sup>6</sup> As explained in the book on the anatomy of urban projects by Yanis Tsiomis and Volker Ziegler, Michel Corajoud’s approach divides the roadway into strips (between the building frontage and the riverbanks), in the following order: a living space near the buildings containing wide sidewalks and tramlines, an urban boulevard consisting of two roadways and separated by a central reservation with plantings and lateral parking spaces, which provides a buffer space in the traffic flows, a flat area and the riverbank next to the river.

## Cali and the transformation of the street network (20th-21st century)

Until the late 18th century, Cali was a town with a colonial and hence grid-based urban fabric,<sup>7</sup> with narrow streets used by pedestrians and carriages (Victorias). From the 19th century onwards, it began its transformation to “modernity” with the expansion of the street network, with the objective of linking the different parts of the city.

In the early 20th century, the examples adopted for urban development came from Europe. Cali was a town with tree-lined pedestrian promenades, reminiscent of the “alamedas” of 19th century Spanish towns. In 1916, the city acquired a surface rail system for regional connections, and in the same period, inspired by London’s train networks, it inaugurated its tramway, the city’s main transport system. A few years later, the arrival of the car led to the disappearance of the city’s rail systems.<sup>8</sup>

In response to the arrival of the car, it began the process of transforming its mono-centric fabric, resulting in a discontinuous and fragmented urban layout. Cali adopted an urban aesthetic more inspired by North American examples (Los Angeles), with a preference for overhead walkways rather than tree-lined pedestrian boulevards. In keeping with this approach, from the 1970s onwards the city undertook major road infrastructure projects, moving into a phase of “modernisation”.

Cali is a city which bears the mark of accelerated growth, in which the fragmented urban forms reflect a lack of urban planning controls, the power of political interests and the influence of passing fashions. Against this background, it became essential to build a mass transit system which would exploit the city’s strengths and generate a structuring effect.

From this perspective, two possible projects became the focus of public action. Initially, the idea was to renovate the existing railway by introducing a light train systembut this project was aborted. The next option was to build a BRT (Bus Rapid Transit) system, the project that was ultimately chosen.

The idea of using the existing railway lines to install a surface light railway seemed logical, given that this historical axis runs in a straight line connecting the north and south of the city. The main urban mobility players, the architects and urban planners, were strongly in favour of this solution. Located close to the

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<sup>7</sup> In [urbanism](#), a hippodamian or milesian, or chequerboard, or grid, or orthogonal layout is a way of organising the city with straight streets that intersect at right angles, creating square or rectangular blocks.

<sup>8</sup> The railway structure still exists. Trains continue to carry merchandise and are used at weekends for trips to the villages around Cali.

old centre, the light railway could lead to the creation of tree-lined promenades and pedestrian areas, like those found in today’s big European and North American cities.

Drawing inspiration from the Curitiba BRT, however, the political authorities determined to build a BRT in Cali. The MIO (the name given to the BRT in Cali), which began running in 2009, has from the outset been a subject of controversy between the city’s different stakeholders. Unlike the Brazilian system, designed with a master plan that would generate connections within the city, the MIO has, from the start, exhibited inconsistencies between the system and the city’s urban fabric. Likewise, the lack of a SITPC (Integrated Public Transport Scheme) and the proliferation of the car, have made the BRT MIO an ineffective transport system.

Whilst the urban trend today is towards road sharing, a good example of which is found in European and North American cities, in Cali the street fabric remains fragmented and lacks an urban structure, characterised, for example, by the absence of sidewalks, green areas and cycle tracks.

**Controversy surrounding the introduction of the BRT MIO in Cali**

With a population of 3 million, it became essential 30 years ago to build a mass transit system which would exploit the city’s strengths and generate a structuring influence. Against this background, the construction of a BRT became the focus of public policy.

Like the TransMilenio, Cali’s system is the only mass transit network in the city, using the technology of articulated buses running in dedicated lanes. The overhead footbridges and elevated bus stops (every 500 m), are also an integral part of the system. The stations, being located in the middle of the road, can only be accessed via overhead walkways.

Since its introduction in 2009, the system has had a physical and social impact. From a physical point of view, the MIO (Cali BRT) has remodelled the road space, creating a new way of moving around and reading the city. From the social perspective, the system was initially associated with modernity in progress, then subsequently with insecurity and inefficiency.

Citizen surveys conducted since 2005 reflect dissatisfaction with quality of life in the city.<sup>9</sup> Surveys carried out in 2009<sup>10</sup> show the level of discontent regarding the quality of the roads and public transport provision. In them, 45% of the population say that they have seen an improvement in their quality of life with the arrival of the MIO. In 2011, the locals interviewed have a less positive view of urban mobility in the city, 54% of them reporting an increase in travelling time. At the same time, 50% of the people questioned complain of the infrequency of the bus service and overcrowding .<sup>11</sup>

Although the MIO has had operational problems, it is still perceived as having a good image and being associated with “modernity”. This is understandable in a city which had 29 private bus companies<sup>12</sup> and was experiencing a price war or “guerra del centavo”<sup>13</sup> before the introduction of the scheme.

<sup>9</sup>Calicomovamos, firma encuestadora Ipsos – Napoleón Franco, encuesta de percepción ciudadana, 2005 - 2011

<http://www.calicomovamos.org.co/calicomovamos/content/view/17/36/>

<sup>10</sup> Ipsos Napoleón Franco, citizen survey 2009

<http://www.calicomovamos.org.co/calicomovamos/files/ENCUESTAS/IF%20-%20216200%20-%20CCV%202009.pdf>

<sup>11</sup>Calicomovamos, firma encuestadora Ipsos – Napoleón Franco, encuesta de percepción ciudadana, 2011.

<http://www.calicomovamos.org.co/calicomovamos/files/ENCUESTAS/Encuesta%202011/Presentaci%C3%B3n%20Ejecutiva%20Encuesta%20Percepci%C3%B3n%20Cali%202011.pdf>

<sup>12</sup>MOLLER Rolf, *transporte urbano y desarrollo sostenible en América Latina. El ejemplo de Santiago de Cali, Colombia*. Universidad del Valle, 2006.

<sup>13</sup> GONZALES G, Carlos A. *Por la defensa del transporte publico*, Diario El Tiempo, Sección de opinión, 2010.



However, in analysing the MIO, it could be said that its impact so far has not extended beyond the sphere of transport, whereas as stated at the international seminar of urban mobility and good governance held in Peru in 2010,<sup>14</sup> mobility should not be a means but an end.

At this seminar, Ricardo Montezuma (PhD in urbanism and mobility), explained “that we need to move on from the concept of transport – which is about roads and vehicles – to the concept of mobility, which is about relations between human beings and the city. In other words: mobility is about coordinating all the different kinds of flows present in the territory.” He also described what a modern city means for him. On the one hand, he asserted that the true paradigm of modernity involves reclaiming urban public space and humanising the infrastructure. His example of this paradigm was Paris, where many of the city’s streets achieve a good balance between space allotted to transport and space allocated to pedestrians. On the other hand, he deconstructed the mistaken idea that the market has sold us about modernity, that: “cities with fast, wide roads and more bridges, lead to progress.”

The MIO was a target of controversy before and since its introduction. In fact, the decision to create a BRT in Cali was not well received by some of the city’s social stakeholders, who opposed the introduction of this kind of transport system. On the basis of historical and urban research into Cali, architects and urban planners like Benjamin Barney Caldas sought to demonstrate the disadvantages of setting up a full-BRT in Cali.<sup>15</sup>

Since the 2000s, debates between the city’s different protagonists, the media, public agencies, municipal authorities and international experts have centred on the type of mass transit system the city should adopt.

On the one hand, mobility experts like the academic Carlos A. González G.<sup>16</sup> believed that before setting up a mass transit system in the city, a genuine urban mobility plan needed to be developed to structure its chaotic urban fabric. Likewise, a number of architects at the SCA (Colombian Society of Architects) in Cali wanted to form their own opinion of the operational plan for the MIO project, developed by Brazilian experts, but the high price<sup>17</sup> of examining the plan made this unaffordable, which aroused objections, as some felt that these international experts were unfamiliar with Cali’s urban structure.

In addition, a number of the city’s scientific commentators, like Barney, criticised the ignorance of the foreign consultants regarding existing urban plans like the POT (urban master plan), and the various partial plans for its improvement and development. In an article published in the Cali newspaper *El País* in 2004,<sup>18</sup> he explained how most of the members of the board of MetroCali (the company commissioned to build the MIO), the investors, the Brazilian consultants, amongst other figures associated with the BRT in Cali, knew little about the city.

On the other side, public agencies like MetroCali asserted that the BRT project would mark a new era in the history of mobility in the city. In a document published in 2004, MetroCali explained the benefits of the MIO system, including spatial coverage of 97% of the city, which would bring positive structural change to the traditional public travel system. In <sup>19</sup> The Cali scheme was also backed by international bodies like ITDP (Institute for Transportation and Development Policy) and IDB (Inter-American Development Bank), which helped to fund the project and described it as a state-of-the-art and environmentally beneficial transport system.<sup>20</sup>

Finally, citizens were able to follow the controversy generated by the system, through the media. On the one hand, the information came directly from the traditional media headed by entities directly linked with the scheme, but on the other, there were citizen-based methods of communication that proposed a different point of view. In addition, some of the city’s social agencies, a few architects and journalists, expressed their discontent with the policies surrounding the introduction of the MIO.

<sup>14</sup> Seminario Internacional, *Movilidad Urbana y Buen Gobierno: Desafíos Actuales para Lima, Lima*, Perú, 2010

<sup>15</sup> BARNEY CALDAS Benjamin, *trenes y buses articulados*, El País, Cali 25/1/2001

<sup>16</sup> Researchers like Carlos A. Gonzales G. have written articles on the lack of a real mobility plan for the city of Cali. GONZALES G, Carlos A, “*Reflexiones sobre los desafíos de la movilidad en Cali*” *“Santiago de Cali*, julio 2011

<sup>17</sup> For citizens to be able to view the MIO’s operational system, MetroCali said that they had to pay the Brazilian consultants 23,000 dollars, so no citizen was able to look at the plan for the BRT infrastructure in Cali.

<sup>18</sup> BARNEY CALDAS, Benjamín. *Un MIO mas nuestro*, Columna ¿Ciudad? El País, Cali 5/02/2004

<sup>19</sup> Sistema integrado de transporte masivo, nos mueve a un mejor futuro, MetroCali, 2004 [http://www.impacts.org/documents/quito04/CALI\\_1.pdf](http://www.impacts.org/documents/quito04/CALI_1.pdf)

<sup>20</sup> Informe de sostenibilidad del BID, 2010. <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=36195697>

## Controversy around the proposed transport systems

The debates generated by the establishment of the BRT in Cali were based on proposals for concrete projects.

There was the State approved BRT. Like all the BRT systems in Colombia, the MIO would have State aid for its funding and as a result the decisions relating to its introduction would have central government endorsement. MetroCali compared the project and the one already running in the Colombian capital. The company presented the project as being less costly than a subway system or light railway. The BRT scheme would, amongst other things, reduce the space dedicated to the car, combat atmospheric, visual and noise pollution, have a positive impact on the fabric of public space, enhance road safety and prevent congestion. At the same time, this transport system running through the city’s main arteries, would meet the demand of residents living in the local areas.

Moreover, since the introduction of the Medellin subway system in 1995, there had been plans to construct a subway in Cali. This project would be built by MetroCali. However, this transport option had been ruled out, because the Corfivalle finance firm, its partner Schroders and the DNP had decided that the a subway system was too costly.<sup>21</sup> The experts interviewed<sup>22</sup> agreed that a subway scheme was not the best alternative for the Colombian city.<sup>23</sup> However, they acknowledged the positive qualities generated by intermodality in big European cities, where the subway plays an important role.

There was also the Light Railway (TL) project, which had been under consideration since the 1990s. This would be based around the existing but now neglected railway line. This wide, straight, north-south track would be a perfect route for a light railway system. The scheme would be part of a SITPC (Integrated Public Transport System), integrated with bus routes that would provide transversal links. The buses would resemble European BRT systems, situated at the same level as the road, and would stimulate the regeneration of the city’s historic centre. In addition, this proposal was based on historical studies of Cali’s urban structure,<sup>24</sup> which showed the lanes to be sufficiently straight, uniform and wide for the introduction of a surface transport system like the full-BRT.

<sup>21</sup> Also, the choice of a subway system would entail financial costs for the municipality and the country, which would have to borrow from foreign banks.

<sup>22</sup>Experts interviewed: Juan Pablo BOCAREJO SUESCUN(2010-11-26), Jorge ACEVEDO BOHORQUEZ(2010-12-06), Ana Luisa FLECHAS(2010-12-07), Enrique PEÑALOSA (2010-12-09), Rolf MOLLER(2011-02-01), José Oriol COLORADO SANTAMARIA(2011-03-15), Benjamín BARNEY CALDAS(2011-03-25), Cali and Bogotá, 2010-2011.

<sup>23</sup> Subway systems are much more expensive than bus system. In this respect, it would prove more difficult to build a subway system in the city.

<sup>24</sup> VASQUEZ BENITEZ Edgar, *Historia de Cali en el siglo 20. Sociedad, economía, cultura y espacio*, Universidad del Valle, Cali,2001

The architect Barney backed the light railway project. Given the morphological characteristics of Cali, he believed it was possible to transport passengers to the rail corridor by means of appropriate urban interventions on the city centre.<sup>25</sup>

Like the subway system, the light railway project was aborted after a review of the city’s financial resources. In 2002, a study financed by the DNP (National Planning Department) determined that the BRT offered the city more benefits than the light railway.<sup>26</sup>

<sup>25</sup> This corridor formerly leading into the city is now inside it.

<sup>26</sup>¿En qué invierte el Estado Colombiano?, Los grandes proyectos de inversión del Estado Comunitario en 2008, Sistema Integrado de Transporte Masivo para Santiago de Cali – MIO (Masivo Integrado de Occidente), DNP, 2008.

### Impact of the introduction of the BRT in Cali

The introduction of the BRT scheme in Cali represented the hope for citizens of a city structured by its mass transit system. Like the big European cities, Cali would have a tapestry of public spaces, parks and pedestrian promenades. However, the operations carried out were largely limited to the construction of the infrastructure needed to accommodate the articulated buses.

In the light of the above, in an article published in the newspaper *Cali ComoVamos* in 2008,<sup>27</sup> the architect Carlos E. Botero, coordinator of urban studies at the CITCE<sup>28</sup> at Cali’s Del Valle University, highlighted the lack of integration between the road and transport systems, represented by the BRT, and the city’s other structuring features.<sup>29</sup> Similarly, the engineer Ana Luisa Fléchas, Director of the Masters Degree in Urban Studies at University Nacional de Bogotá, an expert in the theory of land use systems, explained in an interview that all the elements in a system are linked, and that they cannot function in isolation.<sup>30</sup>

In a similar vein, there are numerous deficiencies already identified in the TransMilenio,<sup>31</sup> which explain the failings of the system and of its integration into the city. These are primarily linked to structural problems in municipal organisation. Firstly, Cali Municipality considers that MetroCali is the main entity responsible for the additional urban arrangements associated with the BRT. Secondly, this company, responsible for building the system, tried to avoid work that it did not consider essential to the operation of the MIO. This lack of clarity means that the Cali BRT was not designed as an integrated project, but reflects the separate interests of the different entities responsible for its construction.

In order to study the inconsistencies between the MIO and its surrounding space, it is important to analyse its infrastructure: articulated buses with high platforms, 90 cm high elevated bus stops in the middle of the road every 500 m, overhead footbridges, and then its integration into the road space through dedicated corridors.

<sup>27</sup> Propuesta de Artículo de Prensa del Programa Cali Cómo Vamos en asocio con el Arquitecto Carlos E. Botero, Director del CITCE de la Universidad del Valle, El MIO y el espacio publico, 2008.

<sup>28</sup> CITCE: Colectivo de Investigaciones Territorio, Ciudad y Espacio

<sup>29</sup> He referred to Law 388 of 1997 which recommends the existence of six land structuring systems and their convergence in public space.

<sup>30</sup> Private interview of 2010-12-07

<sup>31</sup> In the unofficial TransMilenio page, we find an analysis of the “weaknesses” of the system up to September 2001. Its author is called Juan Andrés León.  
<http://www.angelfire.com/ny5/transmilenio/pages/ProblemInherent.htm>.

### The MIO’s articulated buses

Some academic commentators, like the sociologist and specialist in urban mobility, Rolf Möller, did not agree with the choice of articulated buses with high platforms. In his 2003 doctoral thesis, he explains the advantages of buses with low platforms (less than 20 cm above the platform) compared with the higher alternative. On the basis of his research, he put forward a proposal to Cali municipality’s different institutions, such as the Municipal Urban Planning Department, the Mayoral Department, the Transport Secretariat and MetroCali. His project for the introduction of a low platform bus system in Cali was designed to meet the needs of the city’s most disadvantaged populations, integrating transport with pedestrian and bicycle schemes. He illustrated his proposal with numerous examples of European cities in Germany, Spain, France, Holland, Portugal, Italy...

Möller was critical of the solution that Cali municipality wanted to offer the city, by transposing the TransMilenio from Bogotá. He judged this choice of a mass transit scheme to be a very expensive and mediocre solution,<sup>32</sup> which was ill-suited to conditions in Cali.

### The bus stops and elevated footbridges

High platform buses can only be used from stations with elevated platforms. This rules out the possibility of using the bus service flexibly throughout the city. The choice of this technology has constraints arising from the high costs of the bus stops and their physical impact on the city.

Perceptions of these infrastructures vary between the different social actors and amongst engineers and architects. On the one hand, the engineer Bocarejo justifies the dimensions of the stations through statistics on passenger numbers. On the other hand, the architect Barney believes that the transport system – including bus stops – should reflect the dimensions of the lanes that accommodate it. With regard to the BRT in Cali, he thinks that the stations are too big relative to the scale of the city.

If we analyse “traditional” European cities, we can see a certain type of street organisation in which the buildings (on either side) are the elements that impart order. For this reason, users of the street (pedestrians, bicycles, cars) have the sense of being framed by the adjacent buildings. In Latin America, by contrast, as is the case in Cali, the BRT has reversed the order of the street. The stations, with their middle-of-the-road location, alter the perception for users, so that the city no longer seems to be structured by its architecture.

Similarly, it is difficult for the pedestrians to access the elevated stations in the middle of the road, having to use long footbridges. This way of crossing the road causes difficulties for users. People with reduced mobility, elderly people or

<sup>32</sup> The high platform bus solution apparently cost 300 million dollars. It also meant that the high cost of tickets was not affordable for the city’s most disadvantaged groups.



people with children (pushchairs), cannot access the footbridges, which creates a risk of accidents. Insecurity is also a significant reason for not using the pedestrian bridges, as people are afraid of being robbed. In addition to these problems, the dimensions of these infrastructures dominate the urban landscape, in the attempt to mend the urban split created by the BRT.

As regards the division/split in the roadway created by the BRT, opinions differ. On the one hand, Enrique Peñalosa and the engineers Bocarejo and Bohorquez see this system as a highly flexible method of transport. Comparing TransMilenio with a Metro or a Tramway, Bohorquez emphasises the flexibility of the BRT<sup>33</sup> relative to these other systems. On the other hand, the architect Barney takes a different view of flexibility. For him, it is not just a question of flexibility in the bus lanes. He believes that the BRT lacks transversal flexibility, since its infrastructure divides the city in two.

Finally, it would seem that the choice of this technology only benefits the private companies which manage the articulated bus service, because the costs to the municipality and to citizens become high (construction of elevated stations and overhead walkways).<sup>34</sup> From this perspective, the system can only be profitable at the expense of users, since large numbers of passengers have to be concentrated in the stations.

**Dedicated lanes**

Because the Cali BRT uses dedicated lanes, its integration into the road space has had a negative impact on the city.

Like the TransMilenio, the system needs four dedicated lanes to accommodate the buses, and therefore roads with at least eight lanes. In this respect, this choice for the city of Cali has been fiercely criticised, because of the lack of space to fit so many lanes.

Overall, the city sidewalks are not sufficiently wide, which forces pedestrians to walk on the road. This is true of Carrera Primera, Calle Quince and Calle Quinta. In Calle Quinta, one of the city’s main roads, building four lanes for the articulated buses took up 10.47 metres of the roadway.<sup>35</sup> After the construction of the MIO, the street is 19 m wide (including the sections used for other transport systems and services and the sidewalks), which has resulted in a shortage of space for the city’s pedestrians and its many private vehicles.<sup>36</sup>

<sup>33</sup> The engineer Acevedo Bohorquez explains that buses in the BRT system can move out of their lanes in an emergency and use other roads in the city.

<sup>34</sup> On page 272 of his thesis, Rolf Möller reports information he had received from a manager of one of Cali’s transport companies. In this information, given off the record, he explains the “socialisation of costs” and how private companies receive the most favourable treatment.

<sup>35</sup> El País. Domingo, Junio 10 de 2001, p. 1-14.

<sup>36</sup> Since there is no car use reduction policy, private cars are a big presence in the city. As a result of the lack of space in the streets following the introduction of the dedicated lanes, there are traffic jams throughout the city.

Moreover, the morphology of La Quinta is highly varied. In the south, it is made up of eight lanes, which is enough to accommodate the BRT system and wide sidewalks. In its end part, by contrast, where it reaches the city centre, the road has only six lanes, which means that there is a shortage of sidewalk space. Because of the above characteristics, and because the MIO system was not designed relative to the building facades,<sup>37</sup> the sidewalks are not the same width all along the road, which makes it hard for pedestrians to move around the city

Ultimately, the BRT system in Cali has significantly altered the configuration of the physical space of the street network. Unlike the low platform European buses which reproduce the concept of permeability found in the tramway, the technology of the system introduced in Cali has produced a fragmented city.

<sup>37</sup> In Bogotá, the TransMilenio was designed relative to the building facades, which made it possible to maintain a uniform road width, including sidewalks.

Conclusion

Starting with a description of the BRT bus system and the type of technology used for its introduction in Europe and Latin America, this article has focused on the MIO, a new transport system in the city of Cali in Colombia. This study has explored two aspects of this mass transit system. First, we focused on the urban and social impact of this transport model in the city. Secondly, we showed the nature of the controversy that this system has aroused between the different social actors, between the political authorities, public agencies and the media.

Two forms of the BRT system were identified, and therefore two methods of sharing the roadway. First, we identified the benefits of the low platform buses used in urban areas of the dense European cities. Then we sought to show the disadvantages of the high platform buses established in Latin American cities. To illustrate this thesis, we took the example of the city of Cali, where the poorly integrated introduction of the new bus system generated controversy between the different social stakeholders.

In interviews, people from different multidisciplinary sectors expressed their sometimes opposing opinions of the MIO system. Their views converged on the idea that irresponsible governance was the cause of the mismatches between the system and its surrounding space.

In the controversy, it was apparent that the scientific contributors, including certain architects and urban planners, were critical of the introduction of a full-BRT system in Cali, highlighting the political interests underpinning the choice of the scheme’s technology. They judged the high platform buses to be ill-suited to a city with an urban and landscape environment like that of Cali.

For their part, the technicians from the MetroCali Corporation defended this mode of transport, deeming it to be highly favourable to the regeneration of the city.

Finally, the public agencies responded to the experts’ criticisms by assigning full responsibility for the structure to MetroCali, which claimed to be solely responsible for the technical operation of the buses and bus lanes.

From articles published in independent media and the critical views that emerged from the field study, we were able to ascertain the physical impact of the system on the city. We noted the lack of an urban plan that would integrate the new transport scheme into its environment. Finally, we demonstrated that the full-BRT technology is not appropriate to the urban structure of the city of Cali.

Bibliography

MÖLLER, Rolf. *Una Propuesta de Mejoramiento del Transporte Publico Colectivo en Santiago de Cali*, Casos de Estudio Vol. 3 – No. 1, 2011.

MÖLLER, Rolf. *Transporte urbano y desarrollo sostenible en América Latina. El ejemplo de Santiago de Cali, Colombia*, Universidad del valle, 2006.

MÖLLER, Rolf. *Movilidad de personas, transporte urbano y desarrollo sostenible en Santiago de Cali, Colombia*, Universidad del Valle, Colombia Universidad de Kassel, Alemania, 2003.

BARNEY CALDAS Benjamín. *Por qué mas andenes*, El Pais, Cali, 28-09-2006.

BARNEY CALDAS Benjamín, *trenes y buses articulados*, El Pais, Cali 25/1/2001

BARNEY CALDAS, Benjamín. *Un MIO mas nuestro*, Columna ¿Ciudad? El Pais, Cali 5/02/2004

VASQUEZ BENITEZ Edgar, *Historia de Cali en el siglo 20. Sociedad, economía, cultura y espacio, Universidad del Valle, Cali, 2001*

BOTERO E Carlos. *El M.I.O y el Espacio Público*. Programa Cali Como Vamos, CITCE Universidad del valle, 2008.

GONZALES G, Carlos A. *Por la defensa del transporte publico*, Diario El Tiempo, Sección de opinión, 2010.

GONZALES G, Carlos A. “*Reflexiones sobre los desafíos de la movilidad en Cali*”, Santiago de Cali, julio 2011

Alcaldía Mayor de Bogotá, Secretaria de Transito y Transporte, Plan Maestro de Movilidad para Bogotá (PMM), 2006.

OFFNER, Jean-Marc. « *Les effets structurants » du transport: mythe politique, mystification scientifique*, L’espace géographique, 1993.

MENCKHOFF, Gerhard. *Latin American experience with bus rapid transit*, Institute of Transportation Engineers, Melbourne, Australia, 2005

FINN. B, HEDDEBAUT. O, RABUEL. S, *Bus with a high level of service (BHLS): the European BRT concept*, Transportation Research Board, 2009.

TSIOMIS. Y, ZIEGLER. V. *Anatomie de Projets Urbains, Bordeaux, Lyon, rennes, Strasbourg*, éditions de la Villette, Paris, 2007.

**What is that drives public action on urban mobility issues? /What is it that drives public action on urban mobility issues?**

**The making of movement / La fabrique du mouvement**

**25 and 26 March 2012 – Institut pour la Ville en Mouvement**

**Access to mobility for all and sustainable mobility in the urban policies of the city of Lyon: a race at different speeds**

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Day-to-day mobilities, an issue at the centre of transformations in metropolitan structures and quality of life, are the focus of numerous debates within a perspective of more sustainable urban development (Banister 2006). Mobility is ambivalent and a vector of contradictory values (Ascher 2005). In urban spaces, it plays a key role in commerce and economic life, as well as in the urban and social integration of every individual (Urry 2000, Kaufmann 2002), since movement has become essential for access to most goods, services and social relations. In a society of generalised (Sheller and Urry 2006) or at least increasingly widespread mobility, it has become a new social norm (Orfeuil and Massot 2005). However, with the growing force of sustainable development and climate change priorities, individual motorised mobilities, with their high energy consumption, are a target of heated polemics (Orfeuil 2008), perceived as damaging to the environment on both the local and planetary scale (Dupuy 2006). In consequence, day-to-day mobilities are a vector of potentially contradictory priorities.

On the other side of the Atlantic, this contradiction between the social and environmental issues associated with day-to-day mobilities, but also more broadly with sustainable development, is reflected in controversy around the acknowledgement of environmental inequalities. This controversy has led to the recognition of the principle of environmental justice (Fol and Pflieger 2009). In France, by contrast, the controversy underlying these issues of access to mobility for all and of sustainable mobility arouses little debate, whether at national or local level, with a few rare exceptions.<sup>1</sup>

Nonetheless, the ambivalent nature of mobility and the need to find a balance between mobility needs, on the one hand, and the need to protect the environment and public health, on the other, has been recognised in French law (LAURE 1996, SRU Act 2000), challenging local public action to reconcile the priorities of access to mobility for all with sustainable mobility. The emphasis on reducing the role of the car, advanced as the number one objective of transport policies (LAURE 1996), has become increasingly powerful with the acknowledgement of the importance of cutting greenhouse gas emissions (Grenelle Act 1, 2009), whereas the challenges of access to mobility and to urban resources are less clearly reflected in legislation (Féré 2011). In urban mobility policies, this dual and potentially contradictory demand, to guarantee universal access to mobility and to promote sustainable mobility, is largely neglected whether in transport planning documents (Offner 2006) or in the public debate that precedes the drafting of such documents (Paulhiac 2008).

<sup>1</sup> The political debate on the CEE (energy climate contribution), nicknamed the carbon tax, reported in the press, constitutes an exception during the first decade of the century (Féré 2011).

In this paper, we propose to retrace the history of this controversy surrounding the need to reconcile the objectives of access to mobility for all with sustainable mobility, which has so far been little reflected in urban mobility policies in France. We propose to decode this unstated controversy from the perspective of the compromises made in urban mobility policies between these potentially contradictory priorities, by focusing on the recognition of inequalities in access to mobility.

Drawing on the findings of a doctoral thesis (Féré 2011), we will base our demonstration on the case of Lyon, a French conurbation with more than 1.5 million inhabitants, characterised by a political and technical culture of urban innovation (Jouve and Guéranger 2004). The case studies compare innovative mobility services that take account of the issues of access to mobility in relation to the social dimension of transport policies: aids to mobility in policies to help people rejoin the employment market and Intercompany Transport Plans (PDIE) driven by working-time policy, are compared with social pricing and the improvement of transport provision for neighbourhoods neglected by transport policies. Through a primarily inductive approach, we have studied the implementation of these political initiatives (from the drawing up of action strategies through to their application to the final recipient). The body of data consists of almost 67 semi-directive interviews with people engaged in the implementation process, combined with written sources (administrative documents) and oral sources (nonparticipating observation), based on essentially qualitative methods. As far as possible, we will broaden our analysis to urban mobility policies implemented in France, drawing on the existing literature.

We will begin by showing that *with the emergence on the political agenda of car use reduction objectives, the social dimension of mobility, up to now embodied in a right to transport for all, is moving in the direction of a targeted right to transport and a conditional right to mobility*. We will then go on to show that *the recognition of inequalities in mobility, in the face of competition with environmental and economic priorities, has also become subject to new norms and new taboos, which would appear to be reflected in the implementation process*.

We then formulate the following postulate. *Urban mobility policies are marked by a disconnection between the objectives of access to mobility for all and sustainable mobility, possibly leading to the emergence of multi-speed mobility services in metropolitan urban spaces*.

**The social compromise on urban mobility policy: towards a targeted right to transport and a conditional right to mobility**

In France, since the 1990s and particularly since 2000, the emergence onto the public agenda of environmental priorities and car use reduction objectives has been accompanied by a gradual recognition of inequalities in mobility, both by the transport organising authorities (AOT) responsible for travel policy and also by new agencies from outside the transport sphere. The shift from a universal to a targeted right to transport and the emergence of a conditional right to mobility reflect the social compromise enacted in sustainable mobility policies.

From a universal right to transport to a targeted right to transport

In urban transport policies, the objective of an accessible and equitable city constitutes one of the major focuses of most transport planning documents (ADEME *et al.* 2002). Nonetheless, the solidarity measures implemented by the AOTs focus on transport provision to



disadvantaged Municipal Policy neighbourhoods and on social tariff schemes, remaining faithful therein to the legacy of the 1980s. Transport policies continue to pursue the objectives of *access to the public transport network*, from a perspective of a *right to transport*. Urban public transport systems were relaunched in France in the 1970s to meet the needs of people without cars (Lefèvre and Offner 1990). The first relaunch in the late 1970s was embodied in the recognition of a right to transport for all, combining a principle of *spatial equality* from a universalist perspective, with that of *social equity*<sup>2</sup> in serving a trapped clientele. The slogan was serve every community, so that everyone could have access to public transport, and particular the *captifs*, people trapped within their neighbourhoods, the first target of social pricing measures (Faivre d’Arcier 2010). The shift to mobility policies focusing on the question of modal shift from a sustainable mobility perspective, was accompanied by no corresponding reassessment of this legacy nor of social priorities to take account of new environmental factors (Offner 2006).

However, with the “new social question” (Castel 1995) and the parallel rise to the political agenda of automobile reduction goals in the mid-1990s, the social dimension of transport policies led to a gradual targeting of the “*right to transport*”: the aim was to provide a better response to inequality of resources but also to restrict solidarity measures to those with the greatest need, consonant with the principle of social equity (Borgetto 2010). In France, the social tariff system implemented by the AOTs gradually opened up to new target groups, incorporating means testing and a shift from free travel to tariff reductions (Mignot *et al.* 2001). Originally addressed to trapped populations, social tariffs were gradually extended to vulnerable groups (jobseekers, the homeless) and were now restricted to people of limited means. In 2000, a right to social pricing of at least 50% for people of limited means passed into law in France through the Solidarity and Urban Renewal Act (SRU). Transport provision in disadvantaged areas also improved gradually, through the introduction of high quality bus services or trams. In the Lyon conurbation, the main municipal policy target districts received specific trolley bus or tramway provision, provided for in the Urban Transport plan of 1997.

Although the solidarity measures proposed by the AOTs improved access to the public transport system for targeted groups and zones, transport policies fell far short of resolving the problems of access to urban areas. They excluded all questions on access to the private car, since urban public transport systems had been relaunched to meet the needs of people without cars. Nonetheless, transport provision in low-density areas and outside working hours remained problematic for those without access to a car, since public transport provided access to only some urban resources (Ascher 2005, Orfeuil 2004).

In terms of priorities, it was as if the evolution of the transport networks had resulted in the maintenance of the compromise inherited from the 1982 LOTI (framework legislation on domestic transport). This “*inherited right*” (Scherrer 1999) to transport nevertheless masked *the shift from a right to transport for all to a targeted right to transport* reflecting inequalities in access to mobility. However, the effect of this social compromise was to limit social expenditure in order to reconcile the different requirements laid on the public transport networks, in particular those of sustainable mobility.

#### *Towards a conditional right to mobility*

In parallel, new urban agencies developed aids to mobility or new mobility services to promote access to employment catchment areas, filling the gaps in transport and travel

<sup>2</sup> Equity or “concrete equality” sits more within a framework of “assistential thinking”: “since services are no longer granted to everyone but – via means testing – to just a few” (Borgetto 2010: 11).

policies that essentially focused on central areas (Kaufmann 2003; Offner 2006).

Agencies working in the field of inclusion have been testing integration support measures for excluded populations (Le Breton 2005) since the mid-1990s in the Lyon area. The development of the mobility-integration platform reflects the multiplication of such solutions in urban policies in France.<sup>3</sup> Although they implicitly reflect the disparities in public transport amenities and access within the metropolitan area, these support measures were a response to a handicap: mobility, an obstacle to employment for those excluded from mobility. These initiatives fall within the category of compensatory social policies, based on a principle of equal opportunities<sup>4</sup> calling for positive discrimination (Dubet 2010), in the tradition of inclusion policies in general (Castel 1995). Within the Lyon conurbation, several types of aids to mobility are provided: individual transport provision (cheap scooter and car hire, on-demand transport), individual financial or tariff support, or else support with the acquisition of mobility skills or the removal of the psychological obstacles experienced by some groups. The purpose of these mobility aids is to get individuals on the move, to help them back into work or make them employable (Fol 2009). Starting from specific initiatives for vulnerable individuals, those working in inclusion are trying to grasp mobility problems in all their complexity, taking into account both territorial accessibility associated with the location of employment and with public transport provision, and the skills and resources of individuals, including childcare. Implicitly and without being stated, what is involved is actually the “*motility*” (Kaufmann 2002) of the people concerned, founded in an approach focused on the individual and his or her aspirations.

Since the 2000s, mobility management schemes such as Company Transport Plans (PDE) have also multiplied in France, helping to tackle day-to-day mobility associated with commuting. These initiatives, where public agencies and businesses combine to encourage alternatives to car travel, doubled in number between 2005 and 2009, with almost 1500 schemes identified (Indiggo-Altermodal, ADEME 2009), i.e. almost 5% of French employment. Although PDEs are often a rational instrument for the management of location or production, and many companies are little concerned with the environmental dimension of the approach (Van de Walle, Moati, 2006), some company travel schemes are nevertheless starting to explore the conditions of access to employment zones. This is the case for the Intercompany Travel Schemes (PDIE) running in Lyon since 2006, which have quickly spread to several business zones, where public transport provision is generally poor. Today in 2012, almost 14 PDIEs are in operation, covering almost 400 companies and 20,000 potential employees, essentially in industrial zones and business parks on the outskirts of Lyon. A Travel Scheme in the human services sector is also being trialled for companies in the west of the Lyon conurbation, a low-density residential area with poor public transport provision. Employees in this sector are often part-time female workers, who have a driving licence but no car,<sup>5</sup> and find it hard to move around. In the Lyon conurbation, these non-transport agencies pay special attention to the conditions of access to the city and to resources, constituting the first signs of the recognition of mobility as a “new social question” (Orfeuil 2010) and of “*motility*” (Kaufmann 2002) as a category of action in mobility policies.

Although aids to mobility such as the PDIEs are helping to highlight the existence of “*Cinderella issues*” (Gauthier *et al.* 2008) in Lyon’s travel policies, they are nevertheless hard put to resolve them. Aids to mobility are fragmented, targeted and highly localised. They

<sup>3</sup> DIV, 2009, « Des quartiers vers l’emploi: pour une nouvelle mobilité »

<sup>4</sup> Policies conducted in the name of equal opportunities are also characterised by the fact that they “*take account of actual circumstances and seek to correct the disparities of all kinds that arise from them*” (Borgetto 2010).

<sup>5</sup> Source: EFFIA, *Plan d’actions, Mise en place d’un dispositif collectif de déplacement des salariés des organismes de services à la personne sur les lieux de travail*, 26 janvier 2009.

form a mosaic of measures and ultimately only reach a very small number of people. In 2009, 592 people received mobility support, whereas almost 90,000 are engaged in the integration process. These support schemes are gradually moving away from the needs identified when the system was set up, partly because of financial constraints but also because the agencies involved lack expertise in mobility, to the point that the schemes sometimes miss their target client group. Always reliant on special funding (Le Breton 2005), these initiatives also exist largely outside an institutional framework and are permanently under threat. Access to them is also uncertain for the ultimate beneficiaries, because of the disparate professional practices of the employment and integration agencies responsible for them. Apart from ignorance of the existence of the schemes and their constant vulnerability to financial pressures, it is the current tensions in the world of integration and social policies that are apparent in the professional goals of the mediating agencies, which vary between restoring confidence and instilling responsibility, (Féré 2011), within a context of social policy implementation (Duvoux 2010). As a result, this “*innovative third sector*” (Le Breton 2005) is more innovative in its earmarking of inequalities in access to mobility in urban mobility policies, than in the solutions it proposes. The PDIEs, for their part, offer a plan of action focused more on improving the public transport network, developing car sharing, encouraging the use of bicycles or electric bikes, the establishment of shuttle services, etc. The new mobility services proposed by the PDIEs target the altermobiles, i.e. those who are ready to change their behaviour to adopt alternative modes to the car. Conversely, the social issues, despite the claims of certain companies experiencing recruitment difficulties as a result of access conditions, are left by the wayside.

Governed by the employability of integration client groups or the propensity to altermobility (Vincent 2010) of employees, they have little impact on inequalities of access to mobility. These new mobility services – additions or alternatives to public transport networks ill-adapted to serving low-density areas (Faivre d’Arcier 2008) – are marginal players in the mobility system, like the decentralised services that have emerged alongside the big urban service networks (Coutard 2010). They are an additional element in the nebula of urban policies and city agencies (Claude 2006) that are contributing to the growing multiplicity of mobility policies (Féré 2011).

Against a background of rising environmental pressures, there is greater recognition of the social issues, both from the AOTs and from new agencies outside the transport sphere. However, the compromise that has been reached in mobility policies between the priorities of access to mobility and sustainable mobility is leading in the direction of a targeted right to transport and a conditional right to mobility. As in the sphere of social protection in France, in the field of urban mobility we are seeing the development of a “*assistential component*” (Castel 1995). With the environmental and sustainable mobility issues now high on the political agenda, transport policies have chosen to break with the principle of universality in the development of urban services (Graham, Marvin 2001; Brenner 2002), with a potential risk that mobility services with different speeds will evolve.

## Competition between social and environmental priorities: financial choices and new taboos in urban mobility policies

There is clearly competition between the social dimension of transport policies and environmental and economic priorities, enacted in particular through financial choices but also through the emergence of new standards and new taboos, which clearly reflect the implementation process in mobility policies.

### Financial choices unconducive to solidarity measures

Thus, more than 10 years after the enactment of the Urban Solidarity and Renewal Act (SRU) of 2000, the right to social transport tariffs continues to be poorly applied by the AOTs in France (CERTU 2011). In 2008, only 38 networks were applying the law by offering a reduction to recipients of the CMUC (universal sickness benefit) of at least 50%,<sup>6</sup> and in the big cities, only the Paris and Lyon networks, respectively since 2004 and 2005. It was only in 2009 that the Grenoble network voted for means tested progressive social tariffs as required under the SRU, even though it is considered to be “*a social network*” (Maksim 2011). Despite these improvements, although they reach a large proportion of their clients, social tariffs always miss part of their target population, given the complexity of the conditions for accessing the benefits (Le Breton 2005 ; Féré 2011).

In the Lyon conurbation, the withdrawal of State funding from TCSP (exclusive right of way public transport) at the beginning of the 2000s also delayed measures intended to promote access to transport for people of limited means or to improve services in Municipal Policy target areas. The tramline linking the Minguettes district in Vénissieux, made notorious by the urban riots in the hot summer of 1981 (Bachmann, Le Guennec 1991), to the Part-Dieu business Centre, was split into two phases, initially linking this sensitive area to Lyon’s 8th arrondissement. The application of social tariffs under the SRU Act of 2000, with the vote to open up social pricing to recipients of universal sickness benefit (CMUC), was also postponed for two years, finally being implemented in 2005 when the tariff system was overhauled. The CMUC actually serves to make the existing tariff system more complex, since questions of access to the rights are mostly neglected in the establishment of social tariffs and their implementation strategy. The choice of this criterion reflects a managerial and financial compromise, which relates to the need for the AOT to be able to control resources easily and restrict costs. The financial issue is effectively a big one: the number of potential beneficiaries varies between 100,000 and 250,000 people (i.e. 20% of the population of the Lyon conurbation) depending on the scenarios tested. Moreover, the *social question* has still not been taken on board by Lyon’s AOT. There is no public communication on social tariffs aimed at all users: the T4 tramline serves the Minguettes district without saying so, with no reference in the station map (Féré 2011).

These contortions might seem harmless, if the delays were not the result of choices in favour of other users or territorial projects, which contribute to the attractiveness of the public transport network and the economic and residential appeal of the Lyon conurbation. The social dimension therefore seems to be far from the concerns and strategic priorities of the AOTs, which are now more focused on recapturing city centres through iconic urban projects in which public transport projects represent a positive externality and a signal to private investors (Verhage, Linossier 2010).

### New mobility services increasingly governed by environmental priorities

In addition, environmental priorities are tending to overshadow social objectives, becoming

<sup>6</sup> Source: GART 2008. 8 networks also apply it, offering free travel across the whole network.



more and more unquestionably dominant, in relation both to the necessity of evaluation and to potential sources of funding, not to mention the influence of militant pressure groups.

In Lyon, it is clear that the PDIEs take little account of target groups with specific mobility problems, in particular women and the vulnerable. The primary objective of action plans is to generate a modal shift. As a result, they target car drivers, or indeed groups that might be receptive to new, innovative practices (bicycles, electric bicycles, home deliveries, etc.). Conversely, they take little account of the needs of populations that might experience mobility difficulties and have no access to the car. The PDIEs are far from avatars of employer-transport, which was used more by women than men, and more by industrial and clerical employees than by executives (Gérardin 1981). The requirement to assess these schemes, driven by ADEME (French Environment and Energy Management Agency) and Lyon Urban District, undoubtedly contributes to the “*environmental forcing*” (Emilianoff 2005) of the process, through the need to demonstrate economies in terms of CO<sub>2</sub> kilometres.

The mobility support schemes are also subject to the demand for more sustainable mobility and the pressure for the use of alternative modes is increasingly powerful. Car ownership is the *sine qua non* of possible solutions to employment access. Yet it tends to be less and less formulated as such, given the shift in transport policy towards a reduction in car dependency since the 1990s. More sustainable solutions such as electric scooters, electric bicycles or pedal bikes are increasingly being pushed, contributing to the introduction of new behavioural standards associated with travel distance and ignoring factors associated with the mobility of vulnerable individuals (Le Breton 2005). The argument of sustainability comes to the fore in debates during the financial scheduling of action plans and can prove conflictual. In Lyon, for example, when the Urban District was promoting the acquisition of electric bicycles with a financial incentive of a maximum of €250 on the purchase price (without means testing), driving licence funding was withdrawn from the action plan of the Sector Travel Plan in the human services sector.

These mobility measures are also a vector of new mobility standards (“get on your bike”), as well as new travel standards (for distances of less than 3 km, people should cycle or walk). In the PDIEs, new standards are emerging on travel distance, in particular in the assessment phase which translates the potential for modal shift into demands for more sustainable mobility: for local journeys, the emphasis should be on walking; for short journeys, bicycles or electric bicycles; and for longer journeys, the priority goes to public transport or car sharing. The question of access to car use is not raised by the public transport agencies, is less frequently formulated as such by the integration agencies, and in the PDIEs, funding is refused for measures that favour the private car. Yet car use is still the social norm (Orfeuil 2004), not to say the most effective solution for reducing inequalities in mobility (Caubel 2006), even if there is a tendency for the aspiration to car ownership to be replaced by other objects of desire.

## Conclusion

This paper describes the history of a controversy that is never stated, between the priorities of access to mobility for all and those of sustainable mobility. With the rising predominance of environmental preoccupations, transport policies have played the game of “*passing on the heritage*” (Scherrer 1999) of the right to transport for all, whilst restricting the social question to access to public transport. In parallel, agencies outside the transport sphere are taking on the issues of urban mobility, by providing mobility support for jobseekers or else new mobility services aimed at businesses and their employees, contributing to the recognition of mobility as a “new social issue” (Orfeuil 2010) and helping to turn “motility” (Kaufmann 2002) into a category of action in urban policies.

However, the social compromise that has been reached between the priorities of access to mobility and sustainable mobility is leading to the emergence of a targeted right to transport and a conditional right to mobility, a new “assistential” (Castel 1995) component of sustainable mobility policies. With environmental and sustainable mobility issues increasingly high on the political agenda, transport policies have chosen to break with the principle of universality in the development of urban services (Graham, Marvin 2001; Brenner 2002), with the potential risk of multi-speed mobility services and a “*splintering urbanism*” (Graham, Marvin 2001).

Indeed, the growing force of environmental priorities is leading to delays in the implementation of these social measures, but also to the emergence of new norms and new taboos, which would appear to be reflected in the process of implementation. The urban strategy with regard to mobility is dominated by two key priorities – the city’s economic appeal and exemplary responses to sustainable development – whilst social issues play a Cinderella role in urban policies (Boino 2009, Dormois 2008). The interpretation of the notion of “motility” in public action would also seem to constitute a vector of new standards. The tendency is for the car as icon (Urry 2000) to become a new taboo in urban mobility policies, whereas new fetish objects are emerging, like the tramway in the 1990s, or more recently the electric bicycle, the new must-have accessory of sustainable mobility.

## Bibliography

ADEME, CERTU, GART, 2002, *Bilan des PDU de 1996 à 2001*, Lyon, CERTU.

ADEME, Indiggo Altermodal, 2009, *Enseignements du bilan national et réflexions sur les potentialités de développement des PDE*, Journée d’étude nationale sur les nouveaux services à la mobilité, Paris, 23 septembre 2010.

Ascher 2005, Allemand S., Ascher F., Lévy J-P., 2005, *Les sens du mouvement*, Paris, Belin.

Banister D., 2006, *Unsustainable transport: city transport in the 21st Century*, London, Routledge.

Boino P. (dir.), 2009, *Lyon, la production de la ville*, Marseille, La Parenthèse.

Borgetto M., 2010, « Sur quels principes bâtir une politique sociale? Petit inventaire des choix possibles », *Informations sociales*, CNAF, 1/157, p. 10-16.

Brenner N., 2004, *New state spaces*, Oxford, Oxford University Press.

Caubel D., 2006, *Politique de transports et accès à la ville pour tous? Une méthode d’évaluation appliquée à l’agglomération lyonnaise*, Thèse de doctorat en sciences économiques, économie des transports, Laboratoire d’Economie des Transports, Université Lyon 2.

Castel R., 1995, *La métamorphose de la question sociale: chronique du salariat*, Paris, Fayard.

CERTU, 2011, *La tarification sociale dans les réseaux de transports collectifs urbains de province. Un éclairage sur une réalité difficile à saisir*, Mobilité et transports fiche n°22.

Claude V., 2006, *Faire la Ville, les métiers de l’urbanisme au XXe siècle*, Marseille, Parenthèses.

Coutard O., 2010, « Services urbains: la fin des grands réseaux? », in Coutard O., Lévy J- P., *Ecologies urbaines*, Paris, Economica.

Dormois R., « Les coalitions dans l’analyse des politiques urbaines post-keynésiennes », *Métropoles* [En ligne], 4 | 2008. URL: <http://metropoles.revues.org/3122>

Dubé F., 2010, *Egalité des places et des chances, Repenser la justice sociale*, Paris, Seuil.



Dupuy G., 1999, *La dépendance automobile*, Paris, Anthropos-Economica.

Duvoux N., 2009, *L'autonomie des assistés, Sociologie des politiques d'insertion*, Paris, PUF.

Emelianoff C., 2005, «Les agendas 21 locaux: quels apports sous quelles latitudes?», Développement durable et territoires [En ligne], Dossier 4: La ville et l'enjeu du Développement Durable, URL: <http://developpementdurable.revues.org/532>

Faivre d'Arcier B., 2008, « Le mobility management: vers une gestion individualisée de la demande? », in Chalas Y., Paulhiac F., (dir.), *La mobilité qui fait la ville*, Lyon, CERTU, p.216-245.

Faivre d'Arcier B., 2010, «La situation financière des transports publics est-elle « durable »? », *Les cahiers scientifiques du transport*, n°58, p. 3-28.

Féré C., 2011, *Concilier accès à la mobilité pour tous et mobilité durable. La prise en compte des inégalités d'accès à la mobilité dans les politiques urbaines de l'agglomération lyonnaise*, thèse de doctorat en urbanisme et aménagement, Université Lyon 2.

Fol S., 2009, *La mobilité des pauvres, pratiques d'habitants et politiques publiques*, Paris, Belin.

Fol S., Pflieger G., 2009, « La justice environnementale aux Etats-Unis: construction et usages d'une catégorie d'analyse et d'une catégorie d'action », *Justice Spatiale/Spatial Justice*, n°2, p. 166-168

Gauthier M., Paulhiac F., 2008, *Développement urbain durable, débat public et urbanisme à Grenoble, Lyon et Montréal*, Rapport PUCA, Montréal, Université de Montréal.

Gérardin B., 1981, *Le transport-employeur*, Paris, Economica.

Graham S., Marvin S., 2003, *Splintering urbanism*, Aldershot, Ashgate.

Guéranger D., Jouve B., 2004, « De l'urbanisme à la maïeutique: permanence et recomposition des politiques urbaines à Lyon », in Jouve B., Lefèvre C., *Horizons métropolitains. Politiques et projets urbains en Europe*, Lausanne, Presses Polytechniques et Universitaires Romandes, p. 207-237.

Kaufmann V., 2002, *Rethinking mobility*, Burlington, Ashgate.

Kaufmann V., 2004, « Indispensable et indésirable: les paradoxes de l'automobile en ville », in Allemand S., Ascher. S., Lévy J.P., *Les sens du mouvement*, Paris, Belin.

Le Breton E., 2005, *Bouger pour s'en sortir, Mobilité quotidienne et intégration sociale*, Paris, Armand Colin.

Lefèvre C., Offner J-M., 1990, *Les transports urbains en question*, Paris, Celse.

Maksim H., 2011, *Potentiels de mobilité et inégalités sociales: la matérialisation des politiques publiques dans quatre agglomérations en Suisse et en France*, Thèse, Lausanne, Ecole Polytechnique Fédérale de Lausanne.

Mignot D., Harzo C., Rosales-Montano S., 2001, *Mobilité et grande pauvreté*, Lyon, Agence d'Urbanisme pour le développement de l'agglomération lyonnaise, Laboratoire d'Economie des Transports, Observatoire Social de Lyon.

Offner J.-M., 2006, *Les plans de Déplacements Urbains*, Paris, La Documentation française.

Orfeuill J.-P., 2004, *Transports, pauvretés, exclusions*, La Tour d'Aigues, éditions de l'Aube.

Orfeuill J.-P., 2008, *Une approche laïque de la mobilité*, Paris, Descartes.

Orfeuill J.-P., 2010, « La mobilité, nouvelle question sociale? », Sociologies [En ligne], Dossiers, Frontières sociales, frontières culturelles, frontières techniques. URL: <http://sociologies.revues.org/index3321.html>

Paulhiac F., 2008, « Le débat public, facteur de cohérence de l'action collective urbaine? L'exemple des Plans de déplacements urbains en France », in Gauthier M., Gariépy M.,

Trépanier M-O. (dir.), *Le renouveau de la planification territoriale: débats publics, projets urbains et développement durable*, Montréal, Presses Universitaires de Montréal.

Scherrer F., 1999, *Tentative de dévoilement d'une ville invisible, techniques, territoires et temporalités de l'action urbaine*, HDR, Université Lyon 2.

Sheller M., Urry J., 2000, « The City and the Car », *International Journal of Urban and Regional Research*, Vol. 24/4, p. 737-757.

Sheller M., Urry J., 2006, « The new mobilities paradigm », *Environment and Planning*, Vol. 38, p. 207-226.

Van de Walle I., Moati P., 2006, « Les conditions d'implication des entreprises en faveur d'une mobilité (domicile-travail) durable », in Bonnet M., Aubertel P. (dir.), *La ville aux limites de la mobilité*, Paris, PUF, p. 271-278.

Verhage R., Linossier R., 2009, « La co-production public/privé des projets urbains », in Boïno P. (dir.), *Lyon, la production de la ville*, Marseille, La Parenthèse, p. 144-171.

Vincent S., 2008, *Les « altermobilités »: analyse sociologique d'usages de déplacements alternatifs à la voiture individuelle. Des pratiques en émergence?*, Thèse de sociologie, Université Paris-Descartes.

# Santiago de Chile’s streets: between Transantiago and local demands

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## Abstract

In 2007 Santiago de Chile’s public transport was replaced by *Transantiago*; which purpose was to improve people’s trip conditions and the anachronistic image projected by the previous system. However, the new system did not work properly and created a deep political and social crisis.

One of the main reasons behind *Transantiago*’s failure was the lack of specialized infrastructures (exclusive corridors). Nevertheless, when the State attempted to build the missing infrastructure, it had to face citizen’s opposition; generating conflicts where people’s demands invalidated State’s arguments, leaving streets without changes and *Transantiago* without its necessary infrastructure.

To explore the background behind this conflict, the present paper explores the following question: How did the conflicts between Central State and citizenship prevent the construction of specialized public transport infrastructures in Santiago de Chile?

To explore this question, the paper is divided in two parts. The first part, analyzes the original conflict (*Matta* avenue), showing how local communities confronted the Central State and stopped the construction of an exclusive corridor. While the second part, explores recent conflicts, which involves an innovative citizenship, with new demands, and a defeated State, unable to negotiate and communicate its ideas.

*Keywords: streets, public transport infrastructures, citizen conflicts*

## Introduction

The past two decades represent a complete transformation on Latin American’s public transport systems; through modernizing plans, Latin American states tried to reorganize their chaotic and insecure systems. Chile, aligned with the rest of the region, also designed new plans, the most relevant, for its largest and capital city: Santiago.

The main objective of this plan was to regain Central State’s public transport responsibilities, left for the past three decades, in private hands (Figueroa, 2005). This plan was a response to the privatization process, with almost 3.868 businessman in charge (Díaz, Gómez-Lobo & Velasco, 2004), which culminated into a chaotic and insecure system; incompatible with Chile’s economic progress image (Maillet, 2008).

As a solution to the inconsistency between Chilean economic progress and the anachronistic image projected by Santiago, president Lagos’ government (2002) planned a revolutionary change for its public transport system: ***Transantiago***. The new system would improve Santiago’s image, through the incorporation of new buses, technologies and infrastructures, and would be fully implemented by 2005. However, several problems and political disagreements modified the original idea and delayed its implementation until the next government (2007, Bachelet), but its implementation, instead of creating a revolutionary change, generated a deep political and social crisis.

Since the day of *Transantiago*’s implementation (February 27<sup>th</sup>) Santiago’s inhabitants faced unpredictable frequencies, network gaps, slow trips, long waiting time at bus-stops (Witter, 2010). According to newspapers, users waited more than forty minutes or walk more than five kilometers to get an empty bus (Ovalle et al., 2007), once they got into it; they were crowded and trips were extremely slow compared to previous system. For example, before *Transantiago* a fourteen kilometers trip took 55 minutes, since *Transantiago*, the same trip was 35 minutes longer (Poblete et al., 2007).

Pelayo (2007) indicated that *Transantiago* became a source of stress and psychological problems to Santiago’s inhabitants, humiliating people (Rivera, 2008) and treating them as animals (Forray & Figueroa, et al., 2011), even more, some virtual sites and blogs used cows and sardines as analogies to people’s trips conditions<sup>1</sup>. Consequently, several surveys pointed the new system as one of the main concerns of Santiago’s residents. People felt *Transantiago* damaged their life, so it quickly became into an unpopular brand (Escobar, 2007): everything related to it was perceived as bad.

Trying to revert the complicated scenario, Bachelet’s government launched a set of solutions; some of them improvised (like “*zonas pagas*”, a system where people pay at the bus stops before riding the bus) meanwhile others were long term solutions (exclusive corridors). However, most of the proposed solutions, although they tried to improve the system, generated new conflicts.

<sup>1</sup> Some examples can be seen on blogs or discussion forums; Biglieri, H. (2008, January 16). Me Ganó el Transantiago. [Blog entry]. Retrieved from <http://vivenciaschile.blogspot.com/2008/01/me-gano-el-transantiago.html> & Chuqui (2007, February 28). Re: Transantiago bate record de INDIGNIDAD [Online community]. Retrieved from <http://www.atinachile.cl/content/view/22447/Transantiago-bate-record-de-INDIGNIDAD.html>

As an example, people slowly vandalized “*Zonas pagas*” and even destroyed some of them, as they occupied public space and obstructed pedestrian routes. Although, most of the damage received by *zonas pagas* was isolated and unorganized, it meant an increasing over government expenses.

Long term solutions faced a different situation. In these cases, people did not express their dissatisfaction with isolated acts, like vandalism, on the contrary, organized citizens confronted central authorities, stopped projects and created a complex scenario which left long term solutions trapped between social demands and State needs.

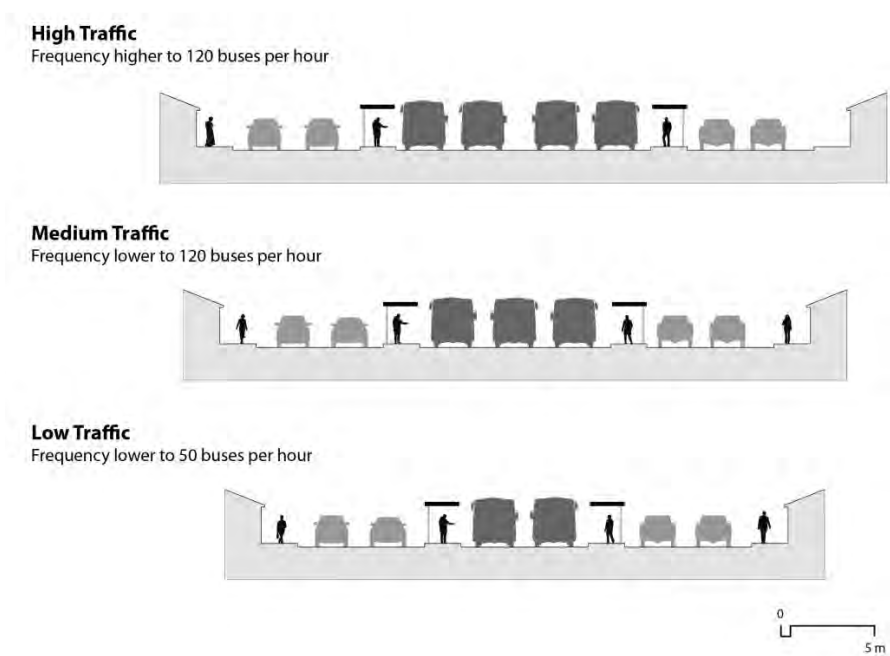
The original sin

Studies and investigations (Briones, 2009, Covarrubias, 2007, Comisión Investigadora Especial, 2007) point several mistakes made by the people who designed and implemented *Transantiago*. Most of these studies indicate the lack of specialized infrastructure for public transport as the “original sin”: buses got stuck in the middle of the city and trips turned to be slow and uncomfortable (Ovalle, 2007).

Originally, central authorities called “exclusive corridors” to specialized public transport infrastructures. Which consisted in streets with lateral lanes, dedicated to private transport, and central lanes, exclusively for public transport buses (fig. 1). They would apply that simple, and generic, scheme in every street of Santiago.

More in detail, all *Transantiago*’s exclusive corridors would have four lanes for private transport (two by side) and four, three or even two for public transport, depending on buses traffic (high, medium or low, fig. 1). Bus stops would be located between public and private lanes, communicated by sidewalks with pedestrian crossing located more than fifty meters away.

Fig. 1: basic exclusive corridor scheme and corridor types.

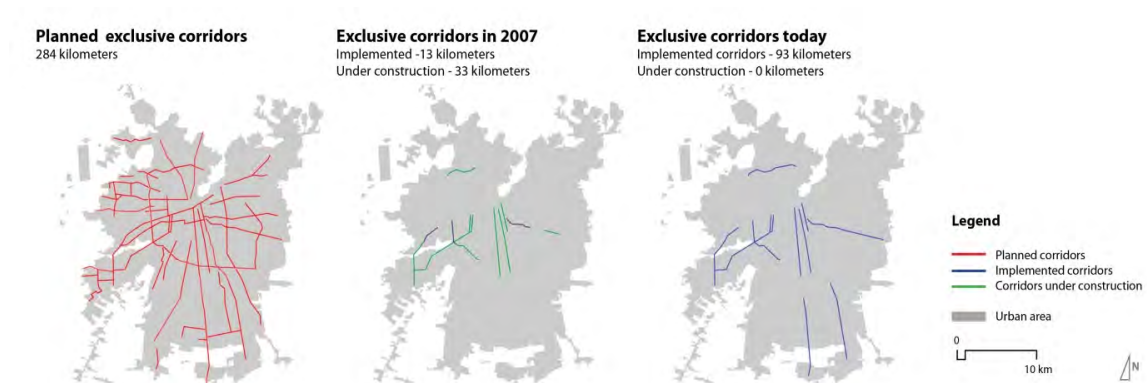


Source: personal elaboration based on Cerda (2008).

However, exclusive corridors worked well only in theory, central authorities ignored subjects related to urban morphology, local activities and local communities daily routines. Consequently, those omissions prevented the implementation of an extensive exclusive corridors network.

Lagos’ government designed *Transantiago* to work with 284 kilometers of exclusive corridors (Comisión Investigadora Especial, 2007), but in its implementation there were only 13 kilometers of finished corridors and other 33 kilometers under construction (Transporte de Santiago, 2010). The lack of investment in exclusive corridors (US\$ 350 million) contrast with other infrastructures developed during the same period; in fact, highways received more than US\$1.700 million and subways US\$2.200 million (Instituto Libertad y Desarrollo, 2007).

Fig. 2: from left to right, exclusive corridors planned, implemented in February 2007, implemented today.



Source: personal elaboration based on Comisión Investigadora Especial (2007) and Transporte de Santiago (2010).



Additionally, lack of investment reveals strong disagreements inside Chilean State. For example, two exclusive corridors, *José Joaquín Pérez* and *Gran Avenida*, had objections even before central authorities studied and revealed them to the public opinion. According to Public Works and Transport Minister (Jaime Estévez), both exclusive corridors, would destroy its territories urban life, since there was not enough space and expropriations would be necessary (Comisión Investigadora Especial, 2007).

Expropriation process would demolish schools, health centers and traditional stores, considered an “urban crime” (Comisión Investigadora Especial, 2007, p. 194) that would damage people’s daily life. After months of discussion, politicians that were against corridors demitted to their charges, leaving both projects abandoned.

In conclusion, government only built corridors that crossed industrial or peripheral areas which had enough space, allowing them to avoid community and political interests. However, in 2007 Bachelet’s government tried to build a corridor over one of the main city’s streets (*Matta Avenue*), similar to the streets with political disagreements, *Matta* avenue was an intersection of multiple community interests and did not have enough space to build an exclusive corridor; discussions developed inside central State now became public.

### Understanding *Matta Avenue*

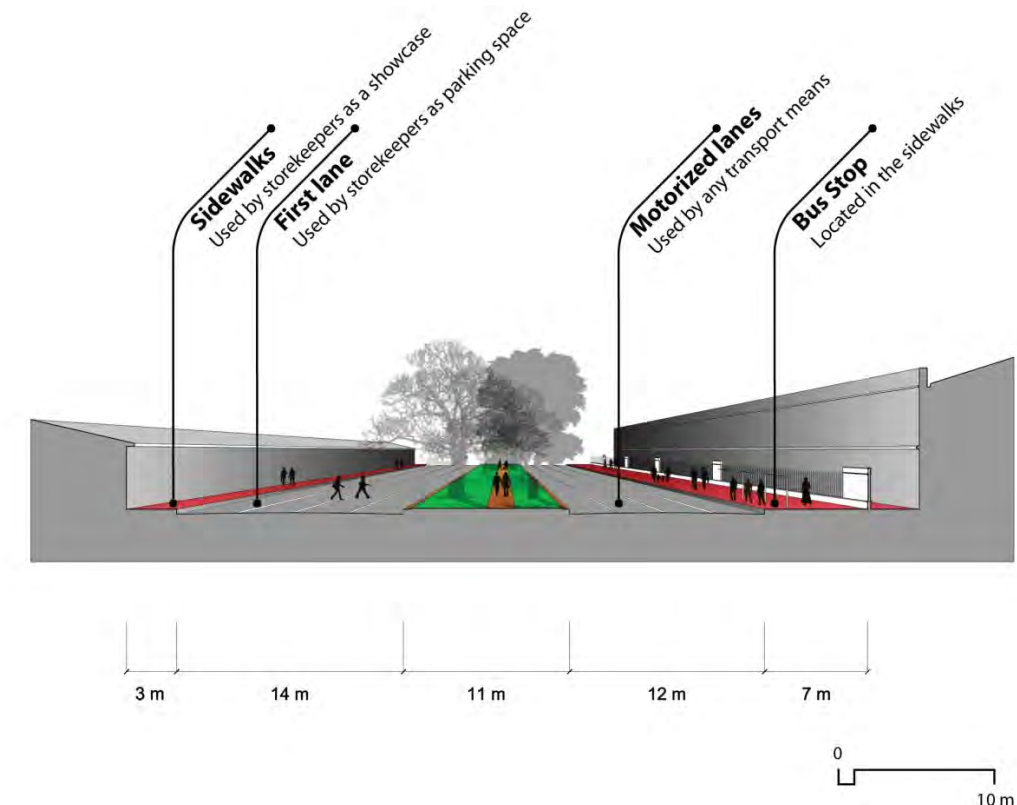
*Matta* avenue is a street located near to Santiago’s historic center, was part of a project executed in the second half of the IX century (1972, *Camino de Cintura*). Inspired by Haussmann’s Paris, *Matta* Avenue has a relevant wide (40-50 meters) and continuous facade. Besides, as an historical street, has patrimonial buildings, like churches, schools and houses, and ancient institutions, like religious orders.

Originally, *Matta* Avenue crossed low income areas (Fuster, 2011), nowadays narrow streets, located close to the avenue and small lots property structure reveal some of this heritage. As a result, *Matta* Avenue does not have relevant real-estate developments; thereby large areas of the street still preserve its IX century image.

Car introduction segregated *Matta* Avenue’s space. Today the street includes eight motorized lanes, which are not exclusive for a specific means of transport, hence buses or cars can flow by any available lane. Bus stops located on sidewalks, reduce pedestrian space and between motorized lanes there is a small park (5-12 meters) with large trees and green grass.

In terms of urban activities, *Matta* is a commercial street with specialized business. It is a location of traditional furniture and ironmonger's stores, which use all the available space for their business (fig. 3). Thus, they use sidewalks as showcases for pedestrians and first car lane as parking space for them and their clients.

**Fig. 3:** use of *Matta* avenue’s space.



Source: personal elaboration, based on Cáceres, R. & Guerrero, S. (2011). *Matta-Irarázaval*. Santiago: Workshop “Las Calles de Santiago”, PUC.

All these special characteristics never converged into an organization that would protect them until the exclusive corridor’s announcement. That event triggered a violent citizen reaction whose “flag of war” was the defense of *Matta* Avenue’s traditional life.

### The “perfect storm”: lack of information and *Transantiago*’s negative brand

In March of 2007, government in power announced a set of emergency measures to control *Transantiago*’s crisis. The set included the construction of eight transit preferential streets (approximately 50 kilometers) whose role would be to increase bus speed. *Matta* Avenue was part of this group and the central stretch of a major east-west corridor. However, against all predictions, the government found an immediate community response, even when it promoted this corridor as one of the main solutions to the crisis.

Furniture storekeepers led community’s response towards government’s decision, they demanded to stop the project because it would damage their businesses, but before examining their arguments, it is interesting to analyze the timeline behind storekeepers’ reaction (fig. 4).

Fig. 4: timeline of *Matta* avenue conflict.



Source: personal elaboration, based on newspapers review between 2007 and 2008.

Corridor's announcement was in March 10<sup>th</sup>, in August 13<sup>th</sup> central authorities revealed the design to local communities, and first delay on the final decision was in September 5<sup>th</sup>. From this accelerated process, is possible to deduce that storekeepers had not enough time to analyze the project, negotiate and see its problems or benefits. Hence, storekeepers' reaction was not against the corridor itself, but as an automatic response against *Transantiago*'s brand and lack of information.

As previously mentioned, *Transantiago* quickly became into a synonymous of problems. Therefore, when people had to face works related to the system, they automatically associate them to crisis and wrong decisions. Later, they translated this negative image into vehement reactions, contrasting with other public transport works, especially with Santiago's subway image.

Metro usually takes three or four years on its construction, but never meets protests. Citizens always accept construction problems because they think on later benefits: Metro will improve accessibly, will bring people to their business, will increase properties price, among others positive effects. They even shut their stores and live next to "giant hole" for a determined amount of time.

The absence of problems in Metro constructions reveals a long-term campaign, more than thirty years, to promote Santiago's subway as an ideal transport system. In opposition, *Transantiago* was promoted only two months before the day of implementation, insufficient time to create a positive brand, like Santiago's subway, and more insufficient considering *Transantiago*'s catastrophic beginning.

On other hand, lack of information has its origin in Chilean State, which usually works with closed doors when it has to deal with transport infrastructures. It tries to avoid citizenship to reduce investors' risks (Estache & de Rus, 2002).

Nevertheless, Chilean State stance differs with its own laws and institutional procedures, which establish several ways to inform people, but most of them only work on initial stages and are just "recommendations" (Poduje, 2008): projects can include people or not depending of developers "good intentions". Apparently, those processes are just a legal obligation, configuring a scenario where people get information through press, "informers" or when building machines arrive to their neighborhoods.

For example, at the middle of 1990 decade, a person who worked inside the government informed to local communities about a new highway (*Costanera Norte*). Through the informant, citizens "discovered" a highway project which would break their neighborhood in two, therefore they protested and complicated the first government's attempt to award the highway to international investors (Sepúlveda & Monceau, 1998).

Later, in a second government attempt, people generated alternative proposals to the invasive highway and finally, after four years of fight, the government changed the original project and paid more than US\$320 millions to private investors due to delays and redesign (Ducci, 2004).

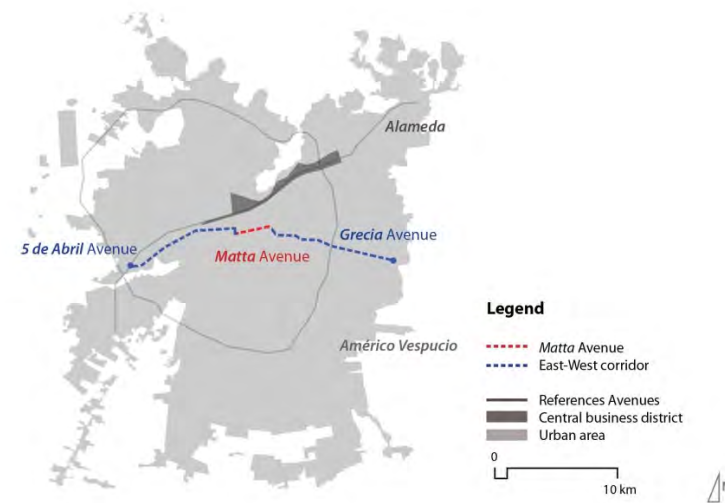
It is possible to see a similar situation at *Las Rejas Norte* street. This street has an historical expropriation line which allows the expansion of its wide up to 34 meters, but, in 2005 local government informed to communities about a new expropriation line that would allow *Las Rejas* to achieve 40 meters wide; later, in 2006, citizens saw several central government workers measuring new expropriation lines. With both antecedents, local communities reacted violently, demanded central State and paralyzed ta possible project (Coordinadora No a la Expropiación, 2006).

Coming back to the case, *Matta* Avenue did not have big investors involved, as in highways, but Chilean State acted the same way: never informed citizens about the design process and they only knew about the corridor's project details through: first, written press, second, rumors and, third, government authorities.

#### ***Shopkeepers' demands versus State's needs***

*Matta*'s exclusive corridor would give continuity to another previously constructed (*Grecia* Avenue), creating an east-west corridor, which, according to central authorities, would boost up bus speed and would reduce trips' timing (fig. 5).

**Fig. 5:** location of Matta avenue corridor.



Source: personal elaboration.

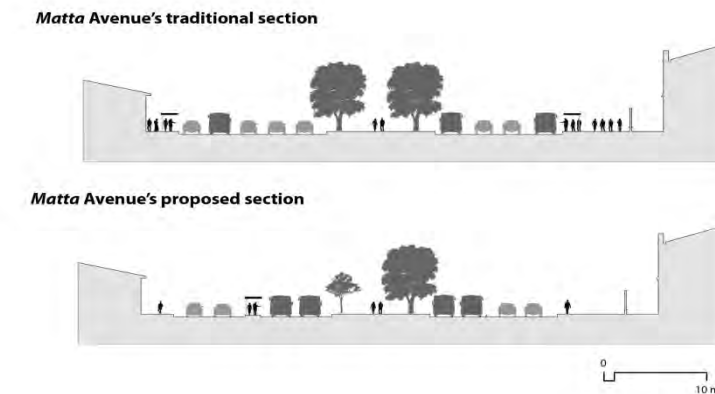
Central authorities appealed to arguments related to the whole system to promote *Matta's* corridor, they even cited numbers to emphasize its need. For example: through *Matta* avenue circulates 90-95 buses per hour, while *Transantiago's* standards demand an exclusive corridor with 70 or more buses per hour, *Matta* avenue's bus speed is 11 km./hr., contrasting with the ideal speed of 23 km./hr. (Aguirre, 2007). But, those arguments were insufficient; Santiago's residents were incredulous, due to *Transantiago* crisis.

The lack of citizenship attention and distrusting environment facilitated the rising of local opposition, therefore a highly specialized group (furniture storekeepers) led the demand to preserve *Matta* Avenue. "Their businesses health" was the main argument used against the exclusive corridor:

*"With the building of this corridor [inhabitants surroundings] will lose green areas and storekeepers will decrease their profits, as public transport would not pass contiguous to their shops"* (Cooperativa, 2007).

However, behind this central idea lies an explicit criticism to the corridor's design. In fact, *Matta* Avenue's exclusive corridor would reorganize the street's space with a generic design: buses would flow through the middle lanes and cars would occupy lanes located on the edge (fig. 6). This way, bus stops would be located at the middle of *Matta* Avenue instead of the traditional sidewalks.

**Fig. 6:** current and proposed section of *Matta* Avenue.



Source: personal elaboration.

With the new design, storekeepers argued, pedestrian would move in central bus stops and would not have the necessity to use sidewalks. As a consequence, they would lose potential clients; since pedestrians would not be able see their products, located on the sidewalks. Along with it, the new design would eliminate the space used as parking lots, clients would not have space to park and buy products, and storekeepers would not have space to park their cars and move their goods. Therefore, storekeepers did not protest against the corridor itself, they protested against a design imposed by central authorities which would interfere, and modify, their daily routines.

In contrast with storekeepers demands, which articulated their protest over the proposed design, local residents demands considered essential the protection of whole *Matta's* image, specially its central park. Although exclusive corridor would reduce the park's wide, it did not eliminate it, but residents did not want changes in its traditional image:

*"It is not that we do not want an improvement on the avenue, but [we] do not want the removal of central park, because it means less green areas"* (Cooperativa, 2007).

Additionally, lack of information allowed the articulation of demands based on fears, including the defense of the street's value as a job source. Inhabitants of surrounding areas argued that *Matta's* corridor would expropriate buildings and would eliminate their jobs. However, the exclusive corridor considered only three expropriations:

*"According to the main fear of inhabitants and storekeepers, Trincado [National director of Housing and Urbanism Ministry] explains -although-expropriation of lots is contemplated, this would affect only three properties"* (La Nación, 2008a).

This last statement illustrates the environment of distrust derived from *Transantiago's* implementation; people feared situations that were not even considered in the streets' design.



Apparently, central authorities were incapable to rebuild confidences and communicate their ideas, hence real corridor impacts remained into unknown dimensions for most of the people.

After five months, the conflict ended when authorities cancelled the project and announced: “this year [central government] will improve the road’s surface, because it was a President compromise. Maybe, *Transantiago* generates some needs, but [we] established with the community, to remain the central park the way it is” (Chávez, 2008). With this declaration, central State promised to improve the quality of central park, sidewalks, road surfaces and resigned to build an exclusive corridor.

Nonetheless, the same declaration rejected *Transantiago* and considered it as generator of “minor needs”. Therefore, if *Transantiago* was a minor problem: Why did the government spend resources designing a useless corridor and fought for it for almost five months?; Where those declarations only an excuse to end the conflict and stay in good terms with local communities? Was the government’s insistence an attempt to build something fast and visible to improve its damaged image?

No matter which is the answer, *Matta Avenue*’s conflict froze a possible exclusive corridor and established a precedent for citizenship. Thus, future conflicts will share similar timelines, citizenship reactions after confusing announcements, followed by State’s resignations and no relevant changes on streets.

Diversification on people’s demands

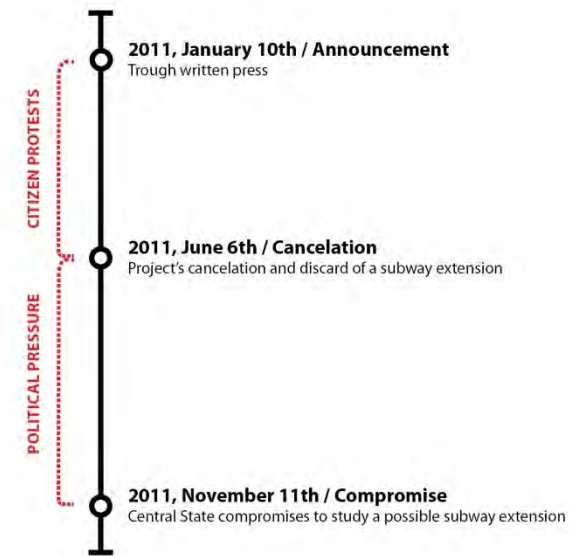
Between 2007 and 2011, central authorities announced new corridors at least three times (Cerde, 2007; Molina, 2009; Gobierno de Chile, 2011) in every case they used *Matta* avenue’s strategy, that is, a strategy anchored in arguments related to the functioning of the whole system (bus speeds, millions of inhabitants, among others). Although central authorities’ arguments did not show innovations, people’s demands, originated from the defense of their daily lives, exhibit multiple changes, involving new actors and demands.

New actors

Through virtual social networks, current demands involve major communities and not only highly specialized groups, like furniture storekeepers. Additionally, local authorities, indifferent on *Matta* avenue’s conflict, now use *Transantiago* exclusive corridors’ conflict as a mean to get popularity and new transport infrastructures. Hence, local authorities do not start conflicts, they join demands after citizens achieve public exposition. That situation can be seen in one particular Santiago avenue: *Gran Avenida*.

*Gran Avenida*, a north-south axis, is an historical and controversial street. Before *Transantiago* (1997-1998) one modernizing project failed due to local oppositions, during *Transantiago*’s era, at least three projects had the same fate, one by central authorities disagreements and two by local opposition. However, the last attempt to build a corridor over this avenue (2010-2011) was a long discussion which had citizens and local authorities involved (fig. 7).

Fig. 7: timeline of *Gran Avenida*’s conflict.

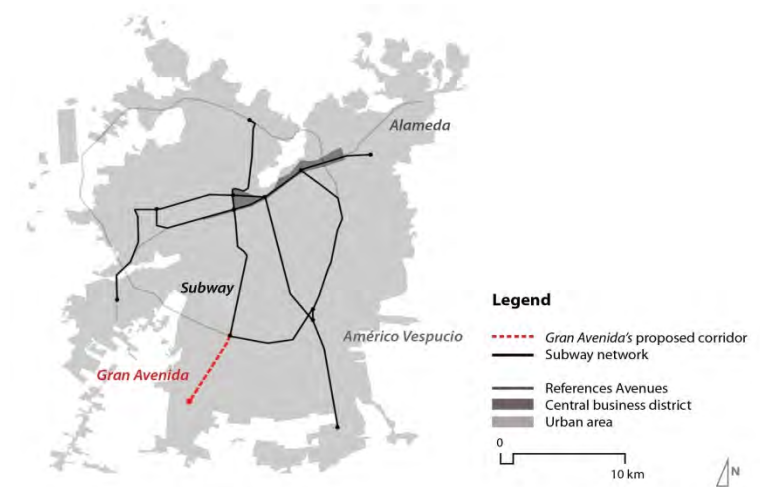


Source: personal elaboration, based on newspapers review between 2007 and 2011.

An automatic response from local communities followed *Gran Avenida* exclusive corridor’s announcement, they considered it invasive and destructive, because it would destroy trees, which are part of the history and the daily landscape of local communities. After citizenship consolidated its demand, through write press and social networks, local authorities added their own.

They considered the exclusive corridor useless because it did not resolve the real problems of the area; according to local authorities, it was a short term solution. Instead of the exclusive corridor, they recommend to extend a subway line, which ends at the beginning of the project, approximately eight kilometers under *Gran Avenida* (fig. 8). According to them, Santiago’s subway is an ideal infrastructure which would not destroy trees, would give accessibility and would boost soil prices, only positive effects. In some way, the State was paying the “monster” created by its own.

Fig. 8: *Gran Avenida* exclusive corridor.



Source: personal elaboration.

Congressman Iván Moreira indicated: “[central authorities] cannot execute this project, it will eliminate trees and generate thousands of unemployed. The real solution to improve the connectivity of thousands of people, who use public transport here, is to build Metro [Subway] to San Bernardo” (Emol, 2011).

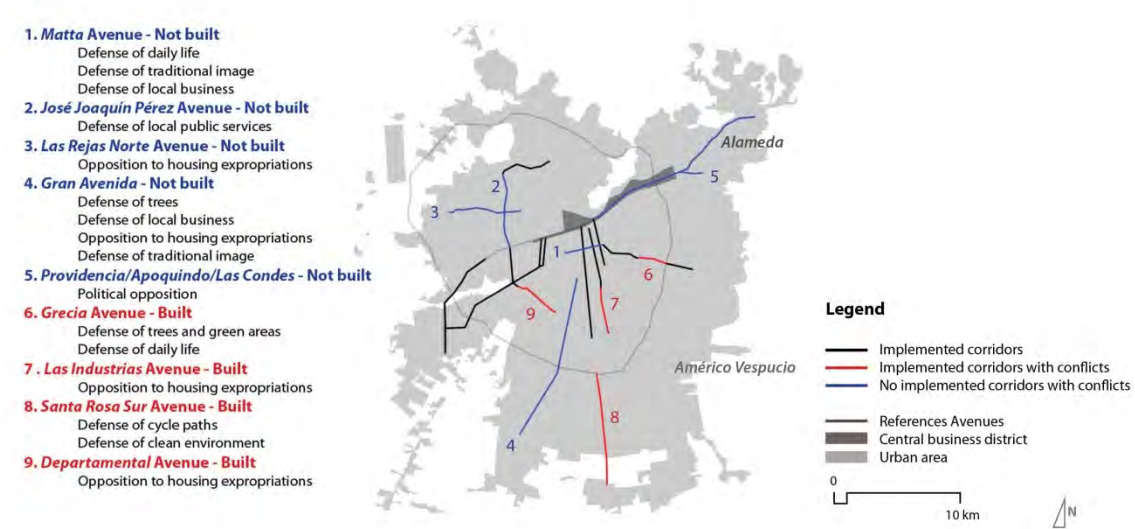
Although, initially local authorities’ demand passed unnoticed, and did not go beyond posters placed through *Gran Avenida*. Later, when the corridor was canceled, they continued with their demands and aroused support from legislative politicians (Cerdeña, 2011). After months of continuous pressure, a complicated central State compromised to study a subway extension under *Gran Avenida* (La Segunda, 2011).

In few words, local politicians took advantage of central State incapacity to manage conflicts related to *Transantiago* and created a necessity through citizens demands.

**New demands**

New actors added new complexity to initial conflicts, but citizenship also gave new approaches, including subjects related to specialized groups, public services, exclusive corridors design, public spaces, green areas and trees, among others (fig. 9). Although all of them have interest, the defense over green areas is especially attractive because, in those cases, citizens initial demand evolved and expressed what kind of city they want to live. Two conflicts express the defense of green areas; *Grecia Avenue* and *Gran Avenida* again.

**Fig. 9:** citizens demands diversification.



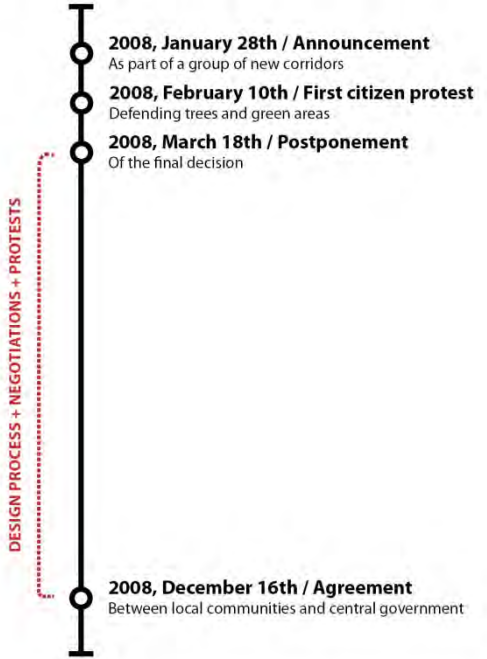
Source: Personal elaboration, based on newspapers review between 2007 and 2011.

In the case of *Grecia Avenue*, the exclusive corridor would cut a line of trees located in the middle of the avenue (717 trees). Citizenship, and local governments, demanded central authorities to keep the trees and green areas, on the contrary, they would not let the corridor’s construction take place,

they even threatened authorities to chain themselves to the trees (La Nación, 2008b). However, the defense over trees triggered a major demand, where local communities considered the corridor as a segregation symbol (Municipalidad de Ñuñoa, 2008b).

Finally, central authorities built *Grecia Avenue*’s exclusive corridor only after compromising on keeping trees and, even more, adding new green areas to their neighbors (Municipalidad de Ñuñoa, 2008a). Considering different demands, the pattern repeats: the announcement, community defense, State resignation and new compromises (fig. 10).

**Fig. 10:** timeline of *Grecia avenue*’s conflict.



Source: personal elaboration, based on newspapers review between 2007 and 2008.

On the other hand, local communities in *Gran Avenida* also demanded trees preservation, but, in this case, trees constitute daily and historical landscape.

*Gran Avenida*’s trees are the vestiges of an ancient forest (planted at the beginning of the XX century) which gives the name to the district where communities in conflict live: “*El Bosque*” (literally, “The Forest”). Ironically *El Bosque* is one of Santiago’s districts with less green areas (1,8 square meters per inhabitant). Although citizen’s initial demand started with the defense of trees, later, they complemented their demand with the negative effect that the construction of an exclusive corridor would have in their neighborhoods.

Marco Guerrero, a social organization’s representative (“*Gran Avenida se defiende*”), stated: “community had manifested against the project and [we] considered it as a city de-humanization. [The project] destroys sub-centers, all urban culture, 200 oriental plane trees and our neighborhood integration” (Valencia, 2011).



Another representative (Homero Vásquez) complements this idea: “*if an exclusive corridor is built, this traditional area will be deeply modified. Schools, health centers, stores and others will remain behind fences, if they not disappear with the expropriation process, suffering a slow agony by the inaccessibility and neighbored division*” (Concha, 2011).

However, the conflict over *Gran Avenida* showed more innovations: it was the first street defended with arguments based on references to another street. They took other corridor (*Santa Rosa*), built without significant inconvenient, as a possible result. Thereby, they presented *Santa Rosa* as a street destroyed by *Transantiago*’s corridor. According to them, exclusive corridor eliminated all the commercial stores and the intense urban life of Santa Rosa:

“*[The exclusive corridor] gives the possibility to expropriate 40 to 45 meters, while the widest part of Gran Avenida measures 30 meters, all of this, to establish an exclusive corridor. Then, it will happen the same as in Santa Rosa [street], where there were not only commercial stores lost, but residences and historic school of the area*” (Confedech, 2008)

The problem with this statement is that, in fact, Santa Rosa never had commercial stores or an intense urban life. Hence, what happened with the vision of local communities that used Santa Rosa as an example? Citizen’s opinion transformed *Transantiago* into a myth.

People converted *Transantiago*’s implementation, conflicts and daily experiences, first, into a generalized rejection against all works related to the system (earlier conflicts, like *Matta*) and, second, into an idealization of streets conditions before *Transantiago*’s implementation (later conflicts, like *Grecia* and *Gran Avenida*). According to public opinion: *Transantiago* destroyed the city.

## Conclusions

Nowadays, Santiago has 93 kilometers of exclusive corridors (Transporte de Santiago, 2010), but all of them are located in peripheral or industrial areas, again, and are incomplete. It is usual to see exclusive corridors that suddenly disappear, going from eight lanes to four or two, generating bottle necks that make buses lose an important amount of the time won in the exclusive corridors. That inconsistency reveals that, even in the cases where central authorities achieve to build an exclusive corridor, there is no benefit: trips are still slow.

### *Conflicts between metropolitan and daily life needs*

The reasons behind discontinuity in corridors are always the same. Similar to the cases previously mentioned, conflicts between the State, which tries to improve an inefficient system, and local communities, that do not want abrupt changes in their lifestyles. In all cases local communities have imposed their demands and achieve victories.

Communities’ victory have multiple edges, but according to the processes previously observed and described, it is possible to conclude that citizen’s demands easily get support from politicians and communities; since their demands’ central argument is the disruption of their daily life, a simple and

understandable idea, also are a problem originated by *Transantiago*, a common enemy of all Santiago’s residents. On the contrary, State arguments are hard to comprehend for common people, because they use metropolitan arguments, which are far away from daily concerns, defending a system highly unpopular and, still, associated to bad decisions.

It is still curious, that with all those negative antecedents Central State is not able to innovate, either on streets design or new transport modes. In fact, while other countries combine uses or give preference to public transport systems through regulation, Chilean central authorities keep on trying to segregate all modes of transport, creating dead streets without activities (fig. 11). A similar situation exhibits public transport modes, the State puts all of its efforts in the subway system, promoting it as the only system that really works in Santiago (Nahuelhual, 2011), keeping another less expensive and invasive alternatives (trams for example) away from public discussion.

**Fig. 11:** Santa Rosa exclusive corridor.



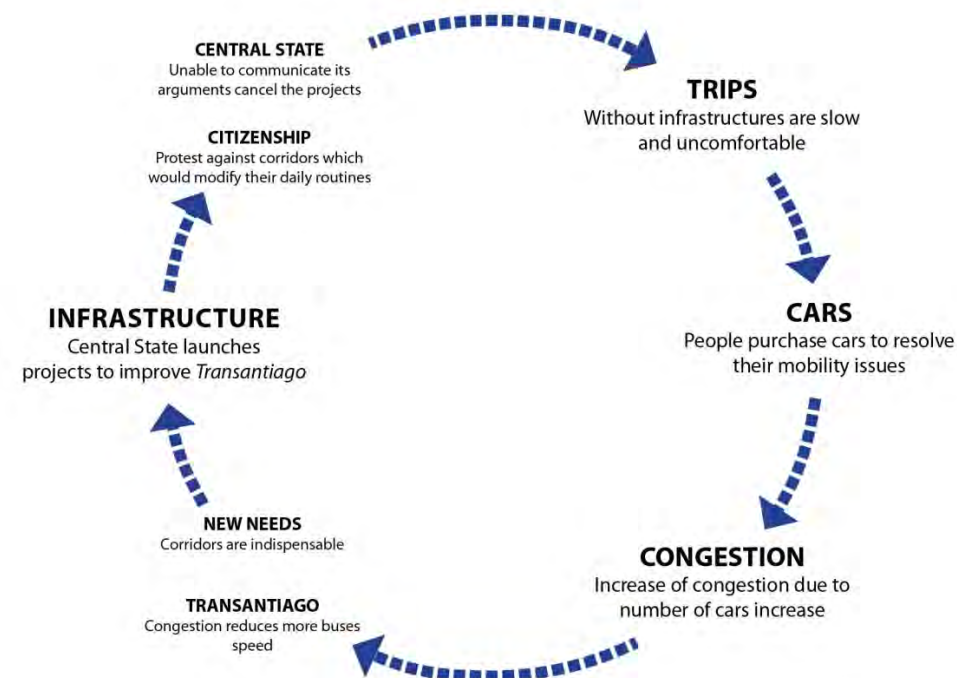
Source: Aburman, N. & Acevedo, I. (2011). *Santa Rosa*. Santiago: Workshop “Las Calles de Santiago”, PUC.

In terms of participation, central authorities present innovations. Thereby, in September of 2010 they implemented a pilot to incorporate citizen’s opinion over an exclusive corridor (Dorsal Avenue, Valencia, 2010). In this case, citizens could vote between three designs, but still as an imposed design with, more or less, the same scheme that central authorities tried to implement before.

The problem with this rigid scheme, is that it always finds trouble over its implementation phases, condition that has paralyzed the most relevant streets of Santiago. Consequently, *Transantiago*, which also present administration problems, continues offering slow and uncomfortable trips, and pushes people to purchase cars to resolve their mobility issues. Thus, *Transantiago* creates a “wicked circle”: central authorities are unable to consolidate *Transantiago*’s infrastructure, *Transantiago* provides a low quality service, people get a car, cars congest city’s streets, with congestion and without specialized infrastructure *Transantiago*’s trips are even slower (fig. 12).



Fig. 12: *Transantiago*'s wicked circle.



Source: personal elaboration.

Apparently, the key to implement the necessary infrastructure for Transantiago, is to include communities' daily concerns in the State's arguments and in the corridor's design. In a contrary case, local communities will always find a way to generate a simple, but rational, argument, arouse support and stop the projects, freezing the city and preventing, in some cases, its natural evolution.

## Bibliographical references

1. Aguirre, M. (2007, April 5th). *Vía exclusiva de Avenida Matta se aplaza hasta 2008*. El Mercurio, p 18.
2. Biglieri, H. (2008, January 16th). *Me Ganó el Transantiago*. [Blog entry]. Retrieved from <http://vivenciaschile.blogspot.com/2008/01/me-gano-el-transantiago.html>
3. Briones, I. (2007). *Transantiago: un problema de información*. Santiago, Chile: CEP.
4. Cerda, R. (2007, March 11th). *23 nuevas propuestas: medidas que buscan agilizar el Transantiago*. El Mercurio.
5. Cerda, R. (2008, August 11<sup>th</sup>). *Transantiago sumará a fin de año seis nuevos corredores*. El Mercurio
6. Cerda, R. (2011, June 23th). *Desechado corredor de buses por Gran Avenida*. La Tercera.
7. Chávez, R. (2008, January 12th). *Autoridades no intervendrán bandejón de Av. Matta*. El Mercurio.
8. Chuqui (2007, February 28). Re: *Transantiago bate record de INDIGNIDAD* [Online community]. Retrieved from <http://www.atinachile.cl/content/view/22447/Transantiago-bate-record-de-INDIGNIDAD.html>
9. Concha, G. (2011, January 21th). *Gran Avenida: vecinos en alerta por proyecto de vías segregadas*. La Nación.
10. Coordinadora No a la Expropiación (2006). *Quiénes Somos*. Retrieved in 2001, October 10th, from web of Coordinadora No a la Expropiación: <http://www.noalaexpropiacion.unlugar.com/QUIENES%20SOMOS.html>
11. Covarrubias, A. (2007). *¿Cuáles son los principales errores del sistema?*. Santiago, Chile: Libertad y Desarrollo.
12. Comisión Especial Investigadora (2007). *Informe de la comisión especial encargada de analizar los errores en el proceso de diseño e implementación del plan Transantiago*. Vaparaíso, Chile: Congreso Nacional. Retrieved from [http://ciperchile.cl/wp-content/uploads/Reporte\\_Transantiago.pdf](http://ciperchile.cl/wp-content/uploads/Reporte_Transantiago.pdf).
13. Confedech (2008, November 5th). *Comerciantes de Gran Avenida en zapato chino*. Confedech.
14. Cooperativa (2007, August 13th). *Vecinos de avenida Matta rechazan corredor exclusivo para Transantiago*. Cooperativa.cl
15. Díaz, G. & Velasco, A. (2004). *Micros en Santiago: de enemigo público a servicio público*. Santiago, Chile: CEP.
16. Ducci, M. (2004). *Las batallas urbanas de principios del tercer milenio*. En De Mattos, C., Ducci, M., Rodríguez, A. & Yáñez, G. (eds.), *Santiago en la Globalización ¿una nueva ciudad?* (pp. 137-166). Santiago, Chile: Ediciones Sur.
17. Emol (2011, May 7th). *Parlamentarios rechazan corredor en Gran Avenida y piden extender Metro hasta San Bernardo*. Emol.
18. Escobar, F. (2007, October 11) . *Transantiago es la marca más desgastada de Chile y Bomberos se alza como la más valiosa*. El Mercurio.
19. Figueroa, O. (2005). Transporte urbano y globalización. Políticas y efectos en América Latina. *Eure*, 31 (94), 41-53. Retrieved from <http://www.scielo.cl/pdf/eure/v31n94/art03.pdf>.
20. Forray, R., Figueroa, O., Rasse, A., Figueroa, C., Contreras, Y., Hidalgo, R., Cortés, A. & Landon, P. (2011). *Transantiago: Convergencias y divergencias entre la vocación de servicio público y la racionalidad técnico-económica del sistema*. Retrieved in 2011, September 20, from [http://movemaking.com/t516a/index.php?option=com\\_content&view=article&id=630:transantiago&catid=156:221-global-analysis-of-all-observed-processes&Itemid=681&showall=1](http://movemaking.com/t516a/index.php?option=com_content&view=article&id=630:transantiago&catid=156:221-global-analysis-of-all-observed-processes&Itemid=681&showall=1).

21. Fuster, N. (2011). El desarrollo del modelo europeo de medicina urbana en Chile: la medicalización del espacio popular de Santiago durante la intendencia de Benjamín Vicuña Mackenna. *TRIM*, 3, 119-132. Retrieved from [http://www5.uva.es/trim/TRIM/TRIM3\\_files/Fuster.pdf](http://www5.uva.es/trim/TRIM/TRIM3_files/Fuster.pdf).
22. Gobierno de Chile (2011). *Ministro Errázuriz anuncia construcción de 67 km de corredores Transantiago con inversión de \$281 mil millones 2011-2015*. Retrieved in 2011, October 15, from web of Chilean Government: <http://www.gob.cl/informa/2011/02/10/ministro-errazuriz-anuncia-construccion-de-67-km-de-corredores-transantiago-con-inversion-de-281-mil.htm>
23. Instituto Libertad y Desarrollo (2007). El problema de fondo del Transantiago. *Temas públicos*, 852. Retrieved from [http://164.77.202.58/lyd/controls/neochannels/neo\\_ch3819/deploy/tp-852-el%20problema%20de%20fondo%20del%20transantiago-28-12-2007.pdf](http://164.77.202.58/lyd/controls/neochannels/neo_ch3819/deploy/tp-852-el%20problema%20de%20fondo%20del%20transantiago-28-12-2007.pdf)
24. La Nación (2008a, January 10th). *Vecinos ponen en jaque remodelación de Avenida Matta*. La Nación.
25. La Nación (2008b, February 21th). *Suspenden hasta marzo tala de árboles en Corredor Grecia*. La Nación.
26. La Segunda (2011, October 11th). *Ministerio de Transportes estudiará factibilidad de extender Metro hasta San Bernardo*. La Segunda Online.
27. Maillet, A. (2008). La gestación del Transantiago en el discurso público: hacia un análisis desde la perspectiva cognitivista. *Nuevo Mundo Mundos Nuevos*, Coloquios. Retrieved from <http://nuevomundo.revues.org/10932>
28. Molina, P. (2009, January 9). *A 2014 habrá 225 kilómetros de corredores para buses*. El Mercurio.
29. Municipalidad de Ñuñoa (2008a, December). *Municipio y vecinos lograron salvar los 600 árboles de Av. Grecia*. El Ñuñoíno, p. 6-9.
30. Municipalidad de Ñuñoa (2008b, April). *Ñuñoa gana nueva batalla para salvar los árboles de Av. Grecia e impedir la construcción de una vía segregada*. El Ñuñoíno, p. 8-9.
31. Nahuelhual, J. (2011, December 8th). *El Metro se consolida como eje estructural del transporte público y busca duplicar red en 20 años*. La Tercera, Negocios, p. 8-9.
32. Ovalle, M., Fuentes, F. & Rivera, A. (2007, March 2th). *Transantiago: gobierno pide estudio para intervenir empresas por fallas de servicio*. La Tercera, p. 20-21.
33. Ovalle. M. (2007, September 26th). *Buses circulan con velocidades promedio de hasta 9 km/h en calles*. La Tercera, p. 18.
34. Pelayo, M. (2007). Transantiago y su impacto: Transporte público y sus repercusiones en la salud. *Ciencia & Trabajo*, 88-92.
35. Poblete, C., Muñoz, S. & Aguirre, M. (2007, February 23th). *Aglomeraciones, largas esperas y tomas de buses marcaron jornada de ayer del sistema*. La Tercera, p. 14-15.
36. Poduje, I. (2008). *Participación ciudadana en proyectos de infraestructura y planes reguladores*. Santiago, Chile: Pontificia Universidad Católica de Chile. Retrieved from <http://146.155.209.184/vinculos/documentos/12293587414770.pdf>
37. Rivera, C. (2008). *Transantiago, humillación y negocio*. Santiago, Chile: Ayún. Retrieved from <http://es.scribd.com/doc/43936628/Transantiago-Humillacion-y-Negocios>.
38. Sepúlveda, C. & Monceau, M. (1998). Caso Proyecto Costanera Norte: El comportamiento del SEIA ante una comunidad que se toma la participación en serio. *Ambiente y Desarrollo*, 14 (3), 23-33. Retrieved from [http://200.75.6.169/RAD/1998/3\\_Sepulveda.pdf](http://200.75.6.169/RAD/1998/3_Sepulveda.pdf).
39. Transporte público de Santiago (2010). *Corredores de Transporte público*. Retrieved in 2011, October 20, from web of Transantiago: <http://transportedesantiago.cl/INFRAESTRUCTURA/PARADAS/index.htm>.
40. Valencia, M. (2011, January 8th). *Proyecto de corredor en Gran Avenida recibe críticas por tala de árboles y expropiaciones*. La Tercera, p. 79.
41. Valencia, M. (2010, September 25th). *Recoleta votará hoy por el diseño de nuevo corredor del Transantiago*. La Tercera p. 76.
42. Witter, R. (2007). *Public urban transport, travel behavior and social exclusion. The case of Santiago de Chile*. Paper presented in 12<sup>th</sup> WCTR, Lisbon, Portugal.

## Social unacceptability of urban road pricing: Manchester, the toll and the democracy

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### Abstract

This paper analyses the vast controversy aroused by the Greater Manchester project to implement a congestion charge. Between 2005 and 2008, a plan had progressively emerged to build the biggest worldwide urban road pricing scheme constituted by a double ring, the larger one along the M60 orbital motorway, which meant a 128 km<sup>2</sup> tolled area. This very unpopular device was expected to finance part of a £3 billion massive investment plan for public transport: the “Metrolink Big Bang expansion”. Finally, a local referendum irreversibly erased this program. Nonetheless, the debates and the failure’s analysis show us how citizens-motorists refuse to be reduced only to their economic agent status. It demonstrates, if necessary, the public unacceptability of a traffic regulation policy strictly based on price and market tools. Moreover, this peculiar case forces us to criticize the “package strategy” which consists in linking investments-carrot with toll-stick. Is a carrot big enough to justify stick use? Is a stick strong enough to harvest tons of carrots? It also enlightens on the complicated trade-off process between a central government, local representatives and their citizens/voters. The Britain specific institutional architecture lets us see how local representatives are unable to solve the double bind which they are facing: central government urging them to introduce a travel demand management scheme and citizens absolutely refusing it. It seems then impossible to implement an urban road pricing scheme in a democratic way.

To depict this localized public issue, we employed the particularly fitted methodology developed by Bruno Latour with his students and known as *socio-technical controversy analysis*. It consists in identifying the key actors, their arguments, in mapping their network and document their dynamics with timeline, board, map... It supposes to consider a controversy in action as a hot topic, an uncompleted process full of uncertainties. That’s what we made here, monitoring the controversy since the year 2007 and visiting Manchester in March 2009. We collected more than 500 articles of the local newspaper *Manchester Evening News*. We realized several website network maps, a semantic content analysis, an interactive time-line and an automated word cloud. We also interviewed three key participants in a more conventional comprehensive approach.

The present article summarizes and translates a chapter of a PhD thesis entitled *Car attachment tested. Study of devices to detach motorists and to recompose mobilities*, in which urban road pricing is conceived as an economic barrier aiming to detach motorists from their cars by increasing the price of driving in cities. “*They have to pay more to be impeded in their driving habits*” can be a good script to express this device’s intention. It is subtended by a behavior’s price elasticity hypothesis, itself implying a narrow definition of motorists as pure *homo economicus*. Manchester controversy suggests that they are probably more than that. Governing a republic of drivers is surely more complicated than a mere definition of the fair price.

**Keywords: Congestion charge – Controversy – package strategy – motorized citizen**

## Introduction

In this paper, I am trying to translate and sum up a chapter of my thesis (Fouillé, 2010)<sup>1</sup>. The chapter which will interest us here is dedicated to urban road pricing as a possible tool to reduce car use on a metropolitan area. When I firstly took attention to the Mancunian project in 2007, I was looking for a planned device which I could investigate in the process of its uncertain realization. Thus, at the beginning of the project, I was, as an “actor himself” can be, totally unaware of its final result. Moreover, I can easily recognize that, during a long time, I was convinced of its success. It’s very important that the analyst of a controversy shares this uncomfortable and fascinating situation with all the participants he is observing, to understand the permanent inflexion possibility of the debate in a direction or another, to feel the ground instability, to be able to map the fault lines and the landslide, and to localize the earthquake epicenter when it occurs.

To keep myself informed of the controversy development, I regularly visited the *Manchester Evening News* website. With the “*congestion charg\**” request to its search engine<sup>2</sup>, I collected more than 500 articles dealing directly with the project and the opinion debate it provoked. The project was in fact older than my interest for it, but the website was a good tracks keeper. I’m very grateful to this local newspaper which made half the job for me. The remaining part, mine, consisted in reading all this corpus of articles, in cleaning its parasites and summarizing their contents. I also tried to analyse their word composition using different software, but Modalisa as Reseaulu failed to preserve the meaning, with their word cutting machinery. So I finally sum up this huge amount of information with my lonely brain. It’s not as vigorous or mathematical as an automatic treatment, but it has the precious advantage to save the global meaning of the texts. Craftsmen methods do not necessary do a bad work, and surely not more than an apprentice software user does...

All this bibliographic research can’t be sufficient to understand such a controversial project. A sociologist must meet human beings in flesh and blood. That is the reason why a research travel in Manchester was programmed for spring 2009. At the time of its planning, my forecast was that it should be the good time, just before the beginning of the toll infrastructure construction. Finally, it was three month after the referendum, which de-realized the project and buried it irreversibly. My Mancunian journey, programmed as a socio-technical survey observing the implementation of a device (electronic toll gantries all around the city), was finally more like a police survey asking the question: “who/what killed the congestion charge scheme?” No matter, Latour’s Aramis (1996) [1993] is one of my favorite books and failures are often more instructive than a shining, and then also blinding, victory (winners have the annoying habit to rewrite the story to take advantage of). What lessons could be learnt from Challenger if it hasn’t exploded (Vaughan, 1997)? Fortunately, our case study is less tragic, and no human life is at stake.

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<sup>1</sup> To read an extended and French version of this text, see <http://tel.archives-ouvertes.fr/docs/00/56/04/16/PDF/thesefinale.pdf> pp. 129-151

<sup>2</sup> This work can always be realized using this URL [http://menmedia.co.uk/manchestereveningnews/search/?searchterm=congestion+charg\\*&submit=Go&publication\\_id=1001](http://menmedia.co.uk/manchestereveningnews/search/?searchterm=congestion+charg*&submit=Go&publication_id=1001)

Thus, I visited Manchester for a month to interview three key participants in the controversy (a leader of the popular opposition movement and two supporters: an environmental activist and a project manager of both Manchester City Council and Greater Manchester) and to become immersed in the peculiar spirit of the city<sup>3</sup>.

In this paper I will develop what can henceforth be named a conventional *socio-technical controversy analysis*<sup>4</sup> of the Manchester congestion charge scheme. First, I will present the context and list the actors involved, classified by type and opinion. Secondly, I will map the exchanged arguments and make a sort of rhetoric synthesis. After this flat and two dimensional presentations, I will try to ad a time dimension. This reintroduction of temporality with timeline and chronology will show the controversial dynamics, and doing so, considerably complicate the story. In fact, nothing is steady during such a debate, both arguments and personal opinions can be revised or straightened at any time, in reaction of an opponent campaign or a new poll published in the local newspaper. But it’s impossible here to develop in depth analysis of all dimensions of this controversy, and we have to stay schematic and brief. After this controversy presentation, we will conclude by discussing in further detail two notions: the package strategy and the motorized citizen.

## Mancunian context: the Metrolink, a too expensive streetcar desire

Manchester, the greatest industrial city in 1835, is largely characterized by red bricks buildings darkened with dust of coal smoke since Engels. Its fast and unplanned urbanization makes it one of the first polycentric metropolis. During this industrial development, an impressive network of channels, railways and streetcar was built to rely this urban archipelago made of factories, cotton mills, warehouses, coal mines, working class terraced houses...

With the deindustrialization process of the XXth century, this urban framework largely restructured itself around automobility and roads. The subsequent human settlement evolution is typical of a massive suburbanization trend: between 1930 and 1970 the core area (Salford and Manchester) saw its population divided by two, while the metropolitan population remained quite constant (around 2,7 million). During this period, a vast network of motorways was built: notably the orbital motorway (M60) and the urban elevated road, known as the Mancunian Way, which are the acme of this era. This car-centered development combined with a tradition of laissez-faire urbanization (Manchester capitalism) drive the city to an ever more congested road system.

After a long period of decline, the city has known a real regeneration for the last decades which is visible with the brand new buildings. In 1992, a first light-rail line was opened. Named Metrolink, the Mancunian tram network seems undersized confronted to the multi-

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<sup>3</sup> I’m very grateful to Albena Yaneva and all the team of its laboratory (Manchester Architecture Research Centre) to have welcomed me in excellent conditions at the University of Manchester in March, 2009.

<sup>4</sup> This method was developed by Bruno Latour with his students at the Paris School of Mines, then at Sciences Po. The EU funded research program MACOSPOL (Mapping Controversies on Science for Politics <http://www.macospol.com/>) is dedicated to improve the methods and its tools. For a detailed understanding of this type of analysis, read Venturini (2010).



millionaire local population. Nevertheless Metrolink has the merit to exist and local representatives share the ambition to complete this existing network with additional lines.

We have to inform the reader about the specific British context. Since 1986, two important laws have profoundly weakened local authorities concerning public transport management and planning: the deregulation of the sector (Transport Act 1985) and the abolishment of metropolitan county councils (Local Government Act 1985). Unlike many other countries in Europe, the United Kingdom taxation system is very centralized. A large part of local governments funding is transiting via Westminster treasury. In these conditions, and assuming that tramway building is expensive and that local authorities in Britain have very narrow investment capacities, they have then to beg the central government to obtain money for infrastructure projects. It's here that our story begins.

## Project : the Big Bang and the Berlin wall

In March 2000, the Deputy Chief Minister John Prescott announced a state subsidy of £289M for the Metrolink Big Bang expansion. In July 2003, the Transport Secretary Alistair Darling removed the subsidy because of the costs' inflation. In December 2004, he made a U-turn and announced that the money was finally still available, but that it would be at this time not sufficient to finance the whole project. He proposed two ways: to retrofit the project (the small Bang, two tramlines and not three) or the application to a new governmental funding: the Transport Innovation Fund. To simplify, we can say that the government promised a lot of money to local authority proposing travel demand management measures, in other words, congestion charge implementation and not voluntary behavior change (Taylor, 2007). *"We've made it clear to local authorities that they need to consider the option of congestion charging – but it's not necessarily the right solution in every place."*<sup>5</sup> London was opening (or more precisely closing) its central tolled area and the Department for Transport (DfT) was pushing toward experimentations and pilot schemes for a future satellite-based national pay-as-you-drive scheme.

This movement was consistent with the epoch. There was a political quasi-consensus around the urge to implement road pricing, a concept largely accepted by many economists and a large share of academic mainstream. The road building era was over, it was time to rationalize the use of existing infrastructures, using price regulation.

At first, local representatives (principally Labour) tried to bargain with central government (Labour too, Blair and then Brown government) to obtain guarantees, such as the transport investment before the toll implementation. Local representatives were quite skeptical and their attitude was like a poker player who is "checking", because it's free to pursue the game. As Roger Jones, chairman of GMPTA and the first line councilor on this file, said *"I am not an enthusiast of congestion charging and we have always said we need to improve public transport first. But we are here to find out more about it, because we do need to work with the government in future. We want to see Metrolink expanding even further - and if the government play ball on that, we may have to look at congestion charging."*<sup>6</sup>.

During this period (until 2005), opposition was latent and the debate was strictly between local representatives and central government. The controversy really began with the

emergence of local representatives support and an opposition in reaction to their plan: a double ring of toll charging peak hour only against £2,5 billion of governmental grants and loans dedicated to a massive investment plan in public transport<sup>7</sup>.

The opponent architecture was formed around three main actors: Graham Stringer, Peel Holdings and Manchester Against Road Tolls (MART). The first seems like the enemy within. He was the former Manchester Council Leader, a Labour MP for Blackley, member of the Transport Commission of the Parliament. The second is one of the biggest capitalist group in Manchester (the Manchester Ship Canal, the Trafford centre, the MediaCityUK, Salford Quays) and the North-West (Liverpool port and airport). The third is a small activist casually-founded association. Its founders were previously members of ABD (Association of British Drivers) and NAAT (National Association Against Tolls).

This heterogeneous coalition seems a perfect hybrid shaped to ruin a project: an insider political spokesperson (a Tory<sup>8</sup> or a Lib-Dem was directly suspected of electioneering<sup>9</sup>, but Stringer is a Labour), a powerful private sector entity (able to pay for polls, advertisement campaign, and a leading affluence over the business community) and normal citizen non suspect of conflict of interest. The controversy really begins with the foundation of this heterogeneous coalition opposed to a majority of local representatives actively backing the project at this time.

At the end of the controversy, we can establish the following board where different kinds of actors are classified per categories and respectively to their opinion toward the scheme. Bold symbols highlight the names of consortia. During the referendum process, United City and Clean Air Now merged in **Yes Campaign**, while GMMG and MART rallied around **Stopthecharge**. Basically, referendum simplified the controversy to a yes-no question, and so pushed toward the frontal opposition between two camps.

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<sup>7</sup> The plan is clearly described by the 2<sup>nd</sup> document of the information pack (AGMA, GMPTA, 2008) available at:

[http://www.manchester.gov.uk/egov\\_downloads/Contents\\_1\\_.pdf](http://www.manchester.gov.uk/egov_downloads/Contents_1_.pdf). It's interesting to notice that the description of the congestion charge scheme is the last chapter of this document (pp.65-79).

<sup>8</sup> As Susan Williams (the conservative Trafford Council Leader) which was a major opponent, but a suspicious one.

<sup>9</sup> "But Roger Jones, chairman of the Greater Manchester Passenger Transport Authority rejected the allegation and accused the rebels of electioneering.", "Council in C-charge revolt", *Manchester Evening News*, 16/04/2007

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<sup>5</sup> "Darling's public transport hope", *Manchester Evening News*, 24/12/2004

<sup>6</sup> "Pay-as-you-drive pledge" *Manchester Evening News*, 13/05/2006

	PROS	CONS
National representatives	Gordon Brown (Prime Minister), Alistair Darling, Douglas Alexander, Ruth Kelly, Geoff Hoon (Transport Secretary) <b>all Labour</b>	John Leech, George Osbourne, Theresa Villier, David Cameron, William Hague <b>all Conservatives</b>
Local representatives	Roger Jones, Richard Leese, Howard Bernstein, Peter Smith (Labour)	Graham Stringer (Labour), Susan Williams, Matt Collidge (Tory), Peter Franzen (CAP)
Academics	Pr. David Begg, Pr. Stephen Glaister (Imperial College London)	
Enterprises and business community	First, Stagecoach, TUC, Co-op Estate, Work Foundation, House of Frazer, Confederation of British Industries <b>UNITED CITY</b>	Peel Holdings, Kellogg's, Unilever, Harvey Nichols, Forum for Privete Business, Federation of Small Business, Institute of Directors, National Haulage Association, <b>GREATER MANCHESTER MOMENTUM GROUP (GMMG)</b>
Associations	Friends of the Earth, Greenpeace, several cydists and environmental associations <b>CLEAN AIR NOW (CAN)</b>	National Alliance Against Toll, Association of British Drivers, <b>MANCHESTER AGAINST ROAD TOLL (MART)</b>
Celebrities	Sr Alex Ferguson (Manchester United's coach)	John Wilkinson (Salford Reds' president), Quentin Wilson (TV presenter and motoring expert)

Table 1: typology of involved actors

Exchanged arguments: Is congestion such an issue?

The controversy is a multileveled one as the tree scheme hereunder is showing us by linking the main arguments to each other. In the same way that the number of protagonists involved in the controversy increases when this one is growing in intensity, the exchanged arguments are diversifying themselves. It's also difficult to present a motionless and stabilized shape of the argument because the protagonists are permanently borrowing arguments, answering to opponents and sometimes evolving in their own position. However, facing the incapacity to present here the dynamics of discussion, we present the following illustrations which simplify the discussion to allow the reader a global understanding.

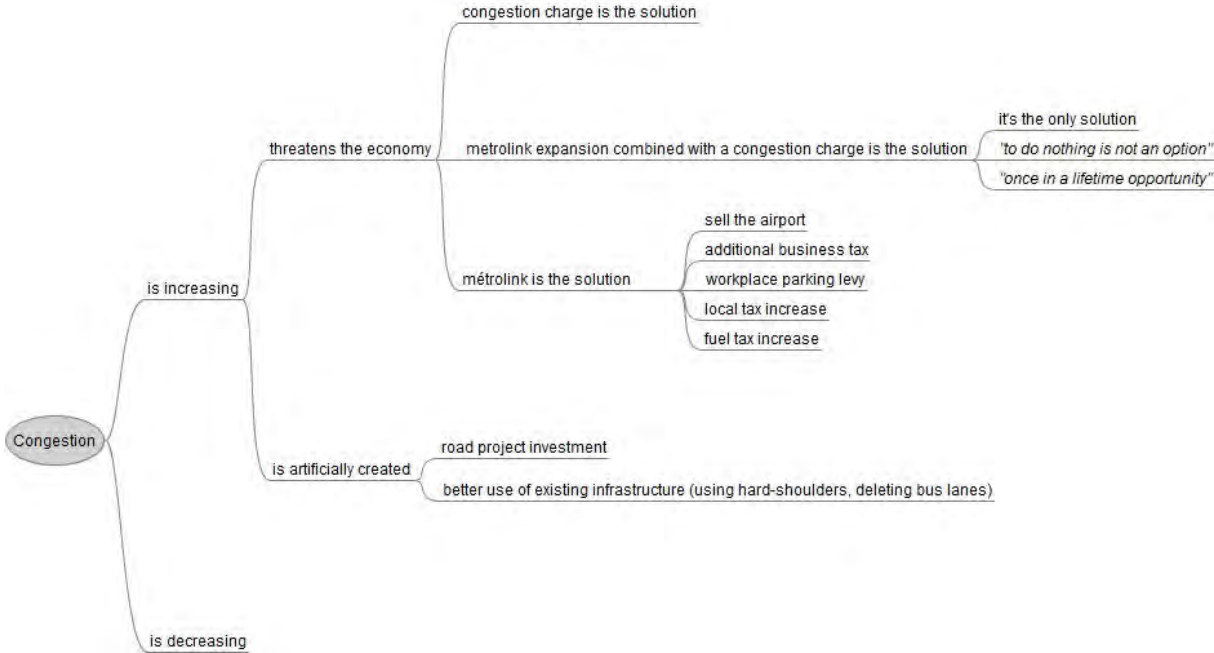


Figure 1: Logical tree of the arguments

Each of these arguments is supported by publications, reports, opinion polls which strengthen the argument's weight, sometimes with a numeric help. In the *Manchester Evening News* columns we located 59 documents which supported alternatively the thesis of some and the others. These publications aroused numerous interpretations, sometimes contradictory (in particular the opinion polls). They were criticized about method and (loss of) representativeness considerations, when they compromised the argument of a protagonist.

We will focus here at the first rank of the debate (Is congestion increasing?) to illustrate the fact that at each level of discussion, nothing was definitely stabilized or taken for granted. We notice that not less than seven publications give evidence that the congestion increases, while four assert that it falls<sup>10</sup>. In fact all these figures are probably exact, but according to the considered period, according to the schedule and the concerned roads, according to the index taken into account, the result differs considerably and is sometime misleading. It shows how much the choice of the employed methodology is an eminently political decision. Assessment's tools choice is a political matter as such. In fact, the duration of the controversy played a nasty trick on the elected representatives. At first, the traffic and the congestion were quickly growing and any forecast then consisted in prolonging the curve with a constant guiding coefficient. But as everywhere in Europe, the curve knew a break coinciding with the increase of oil prices in 2006-2007, then with the financial crisis which strongly slowed down the economic activity, with for repercussion a traffic decline. This situation questioned the merits of the first axiom supporting the project: "congestion is increasing ". Moreover the financial crisis invalidated simultaneously the second axiom because it became a more important threat for the economy than was congestion. If

<sup>10</sup> For instance "Congestion growing at twice national rate", *Manchester Evening News*, 10/09/2007  
"Survey claims less congestion", *Manchester Evening News*, 27/09/2007  
"Driven off the road?", *Manchester Evening News*, 18/06/2008  
"Traffic levels NOT soaring" , *Manchester Evening News*, 17/07/2008

congestion threatened the creation of 30 000 jobs over ten years, the financial crisis probably destroyed the same quantity in two years.

As the tree scheme is showing, to agree about the congestion’s increasing argument is a necessary but insufficient prerequisite to support the plan. And at each level of the tree, disagreement is possible. One can easily consider that the threat for the economy is higher with a congestion charge (the *ghost town* effect and the *stealth tax* for private sector) than with more congested roads.

The war of words expressed itself also through the wording and the vocabulary. Rapidly, the anti-argument de-build the pro-argument, by speaking about supplementary costs for business, “stealth tax” for commuters, downtown shopping area becoming a “ghost-town”, building an “*electronic Berlin wall*” around the city<sup>11</sup>, putting the poorest drivers out of the road. When the project supporters were speaking about the Big Bang for public transport, of opportunities for Manchester or of money for Metrolink, the opponents were speaking about the *toll*, wording which is negatively connoted. Their opinion can be summed up in this sentence: “*OK for the public transport investment, but not against a congestion charge.*”

Chronology

The chronology of the controversy can schematically be divided in seven parts as the timeline above is illustrating.

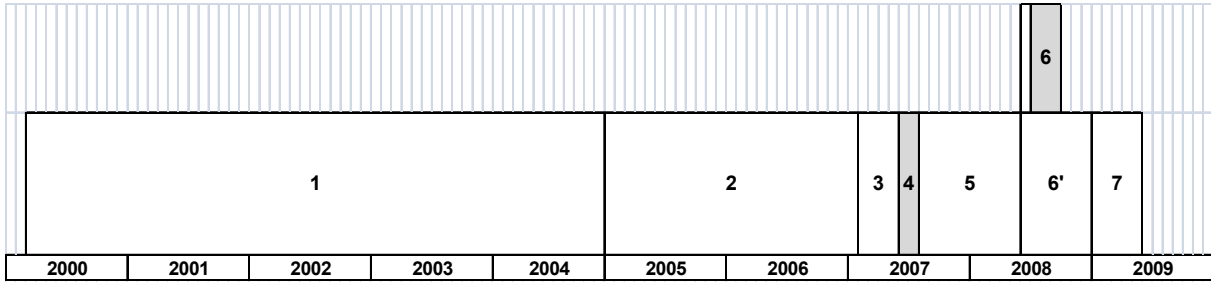


Figure 2: Controversy’s timeline<sup>12</sup>

- 1: Funding the Metrolink** from 22/03/2000 to 17/12/2004 Discussion between central government and local authority about metrolink’s funding
- 2: TIF bid decision** from 17/12/2004 to 27/01/2007 Local discussion (beginning of the controversy) about the interest to become applicant to TIF
- 3: Outlining of TIF project** from 27/01/2007 to 25/05/2007 Reflection around the TIF file content
- 4: First public consultation** from 25/05/2007 to 27/07/2007 Presentation of the scheme principles to the public
- 5: Application to the TIF** from 27/07/2007 to 9/06/2008 Local representatives were waiting for the government agreement. Governmental decision-making lasted approximately a year.
- 6: Scheme presentation and second public consultation** from 09/06/2008 to 10/10/2008 Presentation of an in depth description of the scheme. This while is the tipping point of the controversy. Indeed, local authorities finally decide to organize a referendum.
- 6’: Referendum** from 25/06/2008 to 11/12/2008 Campaign and referendum.

<sup>11</sup> Spokesman Sean Corker said: “Congestion charging will create an *electronic Berlin Wall* around Manchester and the M60 will become a barrier that will keep people in and money out.”, “C-charge: ‘A wall around the city’”, *Manchester Evening News*, 25/06/2007

<sup>12</sup> This timeline must be confronted with two others (annex 1) which counted the numbers of related articles and comments on the Manchester Evening news website.

7: Is there a plan B? from 11/12/2008 to 13/05/2009 How to escape the dead-end situation ?

This chronology expresses an acceleration of the controversy. Each step is shorter than the previous one, excepted the fifth (a year of waiting for the government response to the TIF application). To illustrate the intensification of the controversy we realize the following graphic based on the 488 more relevant articles collected. It shows the number of comments posted by readers in reaction to an article publication, considering its date. This figure permits a global view of the major events of the controversy.

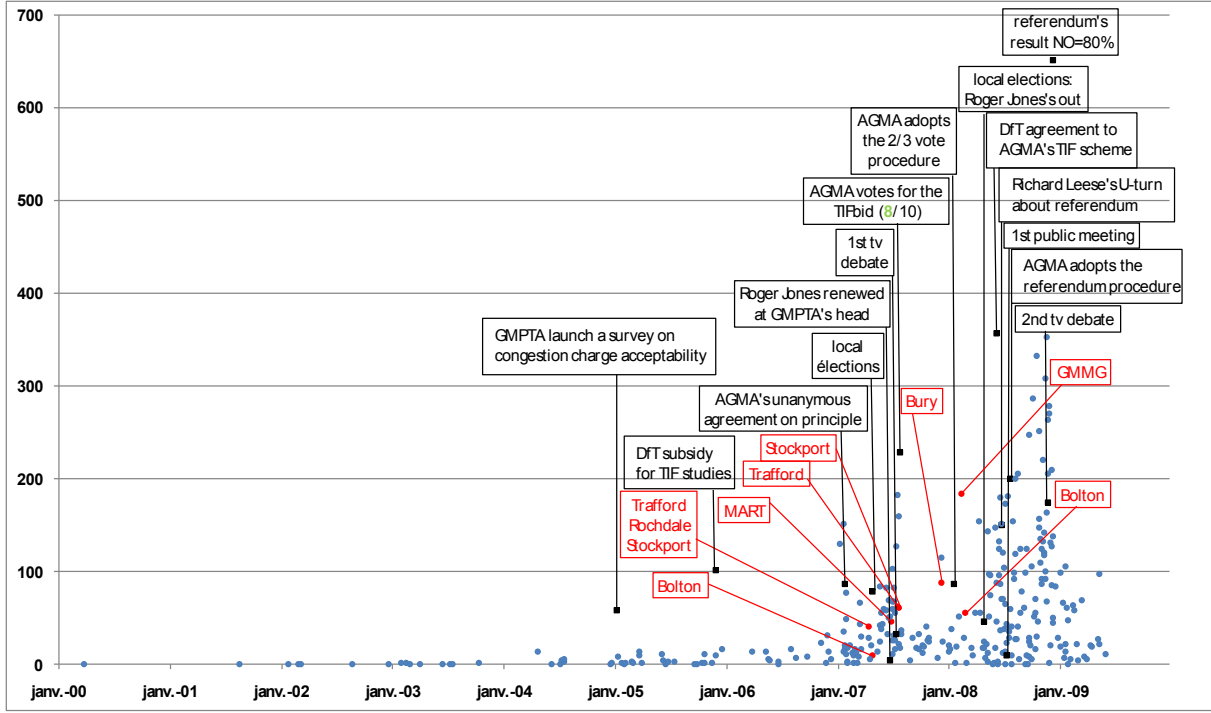


Figure 3: Number of comments posted after an article publication per day of publication (if several articles are published the same day, all their comments are added up) Sample = 488 articles

In black are described the major steps punctuating the project’s life on a factual basis: (local elections, government decisions, local authorities’ decisions). The red events are showing attacks against the plan, such as the opposition of some boroughs members of Greater Manchester (Trafford and Stockport were spearhead of the rebellion, but Rochdale, Bury and Bolton were more hesitating) or the creation of opposed organization (MART, GMMG)<sup>13</sup>

After this brief presentation of the controversy - its context, its participants, its arguments and its chronology – we can henceforth conclude by discussing two notions that are emerging from our observations: the package strategy and the motorized citizen. We believe that they are, at least partly, explaining the social unacceptability of road pricing, phenomenon regularly noticed by the literature (Derycke, 1997; CERTU, 2007).

Package strategy: linking carrot and stick.

Which donkey could reclaim stick blow in order to obtain more carrots? A true carrot and stick policy relies on a Pavlovian conception of collective action: reward for the good reaction, punishment for the bad one. This reward/punishment process generates a

<sup>13</sup> To see a more attractive and browsing timeline of the controversy: <http://www.dipity.com/timeline/Manchester-Congestion-Charge/> (my production) or [http://www.dipity.com/sarahhartley/Congestion\\_Charging/](http://www.dipity.com/sarahhartley/Congestion_Charging/) edited by Sarah Hartley a *Manchester Evening News* journalist.



behavioral shift in a given way. But what happens if you submit the reward giving to the punishment mechanism? It's a non-lethal version of the classic rat trap: to eat a bit of cheese implies a blow on your head. Citizens are not rats, they are suspicious about the trap likelihood (they often fall in it in the past and sometime conceive it), they smell the trick. “- *a Big Bang Metrolink expansion versus a Congestion Charge? - No, thanks, I prefer stay stuck in the traffic jam*” or in an overcrowded, late and old double-decker bus. *Status quo* seems a far more comfortable strategy than to dare the devil.

We're going quite far away with our use of metaphors, but if we look at the content of the controversy, we can see how the actors themselves are speaking about the package strategy. The word “package” was used only by the scheme supporters. Opponents were speaking more frequently of “*bullying and bribing*”, “*blackmailing*” or “*strings attached*”. The string is the fundamental part of a trap, but it has to remain invisible to operate. When the string becomes visible, the trap is detected and then inefficient.

At the beginning of our controversy, the first government subsidy to Metrolink was presented as without “*no strings attached*”<sup>14</sup>. The infrastructure project was considered by the Department for Transport as a good one, justifying as such the central state's funding. But after its deletion, the second state subsidy was clearly a counterpart for something else.

Another very important expression in this debate was “a price worth paying”. Is congestion charge a price worth paying for a massive investment plan in public transport? The toll is presented as the price to pay to obtain the public transport improvement. “*Road toll the price for tram extension?*”<sup>15</sup> “*Drivers' fee 'the price of Big Bang'*”<sup>16</sup>. “*Is Metrolink a price worth paying?*”<sup>17</sup>. “*C-charge 'still too high a cost'*”<sup>18</sup>. “*Congestion charges 'will pay for buses'*”<sup>19</sup>. Congestion charge is a counterpart, not a positive device, worthy in itself. At the end of the bargaining process between local representatives and DfT, the deal resulted in the package. Local representatives' Big Bang Project (plus BRT lines, smart card, yellow school buses...) + central government's congestion charge = the Mancunian package. The package constitutes the biggest project ever: £3 billion for public transport and the widest tolled area around the world.

We can interpret the package strategy in two different ways, depending on the credulity of local representatives. If they were sincerely convinced that this deal was an opportunity for their city, they were sick with the *tabula rasa* policy trope “the bigger the better”: the will to change everything at the same time, the all or nothing binary logic. If they were not totally believing that congestion charge was a good thing for Manchester and they were just looking for a means to pay the Metrolink bill, we can then consider that they were acting in a Machiavellian way “The bigger the lie, the more people will believe it”.

<sup>14</sup> The Deputy Prime Minister said there were **no strings attached** to the government money and it would be up to local councils to decide if they wanted to enhance the funds in three or four years, with workplace car park and congestion charging. “£289m for Metrolink 'Big Bang'” *Manchester Evening News*, 22/03/2000.

<sup>15</sup> “Road toll the price for tram extension?”, *Manchester Evening News*, 31/01/2005

<sup>16</sup> “Drivers' fee 'the price of Big Bang'”, *Manchester Evening News*, 21/08/2006

<sup>17</sup> “*The key question in the debate is whether people accept being charged to drive is a price worth paying for the expansion of the Metrolink tram system.*” “Is Metrolink a price worth paying?”, *Manchester Evening News*, 21/03/2007.

<sup>18</sup> “C-charge 'still too high a cost'”, *Manchester Evening News*, 21/05/2007

<sup>19</sup> “Congestion charges 'will pay for buses'”, *Manchester Evening News*, 31/05/2007

The question is what was the justification for what? Was congestion charging a means or an end? Sometimes congestion charge scheme seems a means to obtain public transport improvement, sometimes it seems that transport investment is only a gift to permit toll public acceptance. If you believe the former you're backing the scheme, if you believe the latter you're fighting against. The two are equally righteous, in a package logic the two parts are inseparable, as Geoff Hoon, the new Transport secretary, leaves to understand: “*If the people of Manchester rejected a congestion charge scheme, the £3bn transport scheme would collapse*”<sup>20</sup>

## To dissolve the road parliament in a republic of drivers: an electoral suicide

Why is it socially so unacceptable to implement a congestion charge? With a democratic vote, it seems impossible to obtain a popular agreement on such an issue. The historian Cotton Seiler's book, *Republic of drivers* (2008), gives us a great contribution to understand this phenomenon. Based on an American-centered cultural analysis, it is easily transferable to every “Americanized” and motorized countries. Cotton Seiler remarkably describes a twentieth century movement to rebuild/reprogram the subjectivity toward self-determination, but a governable one. He shows us the making process of a free consumer, voter and driver, insisting on the latter.

“*The legitimacy of modern liberal societies depends to a large degree on their capacity not merely to tolerate but to enable performances of self-determination in all those individuals identified as citizens. It is imperative that those citizens be described as moving and choosing agents, not automatons or “subjects” of a dictatorial power. For this reason the state and other hegemonic institutions must provide occasions and spaces for the symbolic and spectacular performance of individual will and choice – such as voting, consumption, and mobility, all practices that are unlikely to transform established arrangements of power.*” (Seiler, 2008, pp.130-131)

The driver is the analogue of voter and consumer in a liberal democracy. It is a constructed self shaped by history, ideology, society, technology to fit to an appeal to live free and to express this freedom in his everyday life. That's why it seems unlikely that such a citizen, at the end of the process, could vote to express its will to pay more to drive. It's like asking a consumer if he's willing to pay more for the same product (Hirschman, 1970) or asking a citizen if he wants to reduce his freedom of movement, of speech or of vote.

The “freeway decision”, understood as the political choice to guaranty free use of roads for every citizens/motorists, is a promise on which one cannot come back without contesting some other crucial democratic principles such as freedom or equality. It seems to be irreversible. In Manchester, as in Edinburgh a few years before, citizens are well-mannered ones and they are reacting as good drivers have to. The pro-charge camp asserted “*only one out of ten will pay*”<sup>21</sup>, but eight out of ten expressed their opposition in the referendum. Maybe a traffic analysis is able to prove the former proportion, but the political test firmly established the latter. Drivers are not strictly separate individuals insulated in their steel cage. Every citizen is potentially a driver, if not in practice, at least in mind. That's why electors constitute

<sup>20</sup> “Hoon's road plan praise”, *Manchester Evening News*, 13/11/2008

<sup>21</sup> « C-charge: Only 10% will pay », *Manchester Evening News*, 11/08/2008

a vast majority (a community of concern) each time they have to protect their fundamentals rights. As a MART leader claimed during an interview “*you may start off by saying « Oh well you aren’t going to pay this tax. Only that guy over there or that woman over there is gone to pay them. » but I can’t trust you because you are the robber baron. I know you’re asking permission from me to start robbing that person from over there, I can’t have the silent belief that you will be robbing him and you will not be robbing me. But what do I know is that once you used to robbing him then you’re getting to want to rob me, so I will say if you give me the choice « No, maybe you shouldn’t rob him, if I think that’s going to encourage you to rob me ».* And that is certainly the nature of Congestion Charge: once you start charging certain drivers on certain road at certain times, it will have to spread to more roads, more drivers and more times...”. This assertion seems quite the opposite of the famous pastor Niemöller quotation, which one could be adapted here as “Then they came for the peak hour motorists, and I didn’t speak because I wasn’t a peak hour motorist.”. This testimony and the verdict of the referendum tend to firmly establish a strong solidarity link between each motorized citizens, and potentially motorized citizens, in the community: “When they came for the motorists, I speak loudly, because I was a motorized citizen in mind”.

## References

AGMA, GMPTA (2008), Greater Manchester’s Future Transport, Why the Transport Innovation Fund ? Information pack document n°1, Manchester  
[http://www.manchester.gov.uk/egov\\_downloads/Background\\_1\\_.pdf](http://www.manchester.gov.uk/egov_downloads/Background_1_.pdf)

AGMA, GMPTA (2008), Greater Manchester’s Future Transport, What the Transport Innovation Fund Package includes, Information pack document n°2, Manchester  
[http://www.manchester.gov.uk/egov\\_downloads/Contents\\_1\\_.pdf](http://www.manchester.gov.uk/egov_downloads/Contents_1_.pdf)

AGMA, GMPTA (2008), Greater Manchester’s Future Transport, How will the Transport Innovation Fund investment be realised? Information pack document n°3, Manchester  
[http://www.manchester.gov.uk/egov\\_downloads/Delivery\\_1\\_.pdf](http://www.manchester.gov.uk/egov_downloads/Delivery_1_.pdf)

CERTU, (2007) [2001] *Urban road pricing: the question of social acceptability*, CERTU, Lyon  
<http://www.curacaoproject.eu/documents/acceptability-road-pricing-CERTU.pdf>

Dericke Pierre-Henri (1997), *Le péage urbain. Histoire, Analyse, Politiques*, Economica, Paris

Fouillé Laurent (2010), *Car attachment tested. Study of devices to detach motorists and to recompose mobilities*, PhD directed by Pr. Boullier, Université Rennes 2, Rennes

Hirschman Albert O (1970), *Exit, Voice and Loyalty. Responses to Decline in Firms, Organizations, and States*, Harvard University Press, Cambridge Mass.

Latour Bruno (1996) [1993], *Aramis or the love of technology*, Harvard University Press, Cambridge Mass.

Seiler Cotton (2008), *Republic of drivers. A cultural history of automobility in America*, University of Chicago Press, Chicago, Illinois

Taylor Michael A. P. (2007), " Voluntary Travel Behavior Change Programs in Australia: The Carrot Rather Than the Stick in Travel Demand Management ", *International Journal of Sustainable Transportation*, 1:3, 173-192

Venturini Tommaso (2010), " Diving in magma: how to investigate controversies with Actor-Network Theory ", *Public Understanding of Science*, Vol. 19, N° 3, 258-273.

## Glossary

**AGMA** Association of Greater Manchester Authorities

**DfT** Department for Transport

**GMMG** Greater Manchester Momentum Group

**GMPTA** Greater Manchester Public Transport Authority

**MART** Manchester Against Road Tolls

**TIF** Transport Innovation Fund

**Understanding public policy on car mobility  
and the challenges of contesting it :  
A case study in the Netherlands.**

**Communication for the conference “The Making of Movement”  
Institut pour la ville en mouvement. Paris, March 2012**

Eight hundred new kilometres of highways are planned in the most urbanised region of the Netherlands, the Randstad (MVV 2011). The new highways are presented as a necessity in the Netherlands, the country of the bicycle. Even many of the activists contesting particular routes bend to this inevitability. How should we understand this? The historians Mom and Filarski (2008) and van der Vinne (2010) have offered historical analyses of debates and policies on car mobility in the Netherlands and have come up with two particular findings. The first one concerns the role of the government on the growth of cars and its capacity to intervene. The second one concerns the opposition to new car infrastructure and the spatiality involved in the policies constraining car use. Starting with this historical stand-point, the communication aims at better understanding a current conflict around new planned car infrastructures in the Netherlands, in the Rotterdam-The Hague area. The first question is whether the trends identified by the historians still hold today. The second if they help us understand the current policy choices and the challenges of contesting them. This case is studied through the conceptual lens of the politics of mobility, which aims at understanding the discourses, concrete conflicts and historical trends which support specific policy choices in the field of mobility.

The conceptual framework is first presented, as well as the methodology and the data used. Then, after having presented the historical findings, I will present the current policy discourses and policy practices around mobility. The final part of the communication concerns the counter-discourses against car infrastructures and the coalitions of actors promoting them.

**The politics of mobility and auto-mobility**

The perspective of an ever-increasing use of cars has been adopted as an “inevitability hypothesis ” by many policy-makers and academics (Vuchic 1999, Henderson 2009: 148). A presumed love affair with the car is often presented as an argument for this (Henderson 2004, 2006, 2009). In contrast, some social scientists and historians are proposing to study in more depth the culture, practices and discourses supporting mobility by cars (Conley and McLaren 2009, Urry 2004, Vigar 2002). The objective is to de-essentialize this love affair with cars in “probing deeper into the discourse and motivations of stakeholders in debates over automobility and urban space and to consider how mobility is not just movement but also an extension of ideologies and normative values about how the city should be configured and by whom”(Henderson 2009:149). It is also not only attributable to ideologies, or to the influence of the car lobby and car industry. Also concerned are concrete political conflicts, institutions and embedded social relations which favour certain choices versus others, and in which history (and phenomenon of path-dependency) count (Conley et al. 2009). Within this politics of

mobility, the evolution in the models and objectives of transportation planning and engineering (for example from a model of “predict and provide” to one of “predict and prevent”) are also of great importance, although this expertise is more and more contested by the affected publics and stakeholders (Vigar 2002, Wiel 2005, Mom and Filarski 2008). Opposition arise especially when new car infrastructures is on the agenda (McFarlane and Rutherford 2008, Mom and Filarski 2008, Altshuler and Luberoff 2003, Wall 1999).

Jensen and Richardson (2004) and Hajer and Versteeg (2005) have studied the politics of mobility in Europe through the study of policy discourses. Considering as discourses the plans and ideals which concern mobility does not mean that they have no material implications. The social construction of discourses refer to the process through which certain elements are emphasized in the explanation of phenomena, and in the justification and appraisal of certain solutions (Laclau and Mouffe 1995, Jensen and Richardson 2004).<sup>1</sup> Here, the policy discourses were also not studied only in the language of plans and arguments, but also through their institutionalization in practices, budgets, indicators. The degree at which there is a correspondence between ideals set up in opening statements of documents and their operationalization is in itself telling much on the power of a discourse (Hajer 1995, 2005, Jensen and Richardson 2004).

But the language itself is of interest in policy discourses, as well as in discourses from social activists. Specific stories or narratives can 'do things', they can persuade, rally, facilitate collective action, whether it be by the power or effectiveness of their message or their fuzziness making different interpretations possible (Hajer 2005, Hajer and Versteeg 2005). The language component of the discourse analysis thus carries concrete implications for the building of coalitions : "finding the appropriate story line becomes an important form of agency" (Hajer 1995 : 56, 2005). The discursive contributions of each actor is to be understood within a specific discursive field, in which one's narrative may have more resonance depending of its correspondence with the context and the ideas in vogue (Snow 2007).

To study this politics of mobility, discourse analysis was conducted with an attention to the position of each actor in relation to each other. In the interviews, information was gathered on the formal vs. informal partnerships an actor is ready to enter. The willingness of an actor to publicize its affiliation with certain actors may affect her/his adhesion to a discourse, depending on who is promoting it.

The policy discourses were documented through interviews with public and civic actors, the analysis of written policy documents and plans, and the study of recorded debates where different actors have to confront their points of views (parliamentary debates and civic or public events). The counter-discourses and the dynamics between actors promoting them were documented through the analysis of written plans, internet pages and documents, direct observation of civic events and meetings, and interviews.

**I. Two historical trends**

<sup>1</sup> As Laclau and Mouffe (1985: 108) argue : "The fact that every object is constituted as an object of discourse has nothing to do with whether there is a world external to thought, or with the realism/idealism opposition. An earthquake or the falling of a brick is an event that certainly exists, in the sense that it occurs here and now, independently of my will. But whether their specificity as objects is constructed in terms of ‘natural phenomena’ or ‘expressions of the wrath of God’, depends on the structuring of a discursive field."



How has the State intervened in the past on the use of cars, and how is this intervention presented by historians (Mom and Filarski 2008, van der Vinn 2010)? There have been since the 1970s debates and discussions over the role of the national government to restrain car mobility. These debates have gone in cycles of ups and downs. Years of serious discussions and plans on how to control car growth (in the 1970s, end of 1980s, mid-2000) were followed by years of opposition to such measures, phenomenon which Dijk (1990) has in another context called the “societal pendulum” in the Dutch politics. Also, while ambitious plans were proposed and even, in certain cases, their principle adopted, the concrete measures did not follow the intentions, whether it be for priority given to investment in public transit, tight regulation over the construction of new highways, or the implementation of a pricing system for highways (van der Vinne 2010: 196-197). In sum, there has always been strongly polarised opinions on the regulation of car use, and conflicting interests within the government (even within the Ministry from Infrastructure), and outside of it (Mom and Filarski 2008: 393-4). Pressures came from an infrastructure lobby (idem: 381), the ANWB (organization representing car drivers), economically-lead coalitions, as well as nature and environmental organizations.

Mom and Filarski (2008: 393-394 (on the specific term compromise)) and Van der Vinn (2010: 117-210) have concluded that there has been for decades a “half-hearted compromise” in the Netherlands of supporting both car infrastructures and public transportation, to let individuals the liberty to choose. The policy compromise concerned also the promise to eventually control car growth in pricing the highway network, while in the meantime widening and extending it. For the historians, this compromise has overall favoured the development of car infrastructures and the growth of car use (idem)<sup>2</sup>. In the end, thus, the national government has encouraged car increase in diverse ways, while there was a recurrent narrative that it was in-thinkable and unrealistic to reduce car use, because of the ever-increasing demand for mobility. There was thus a theoretical compromise at the national level which in the end was favourable to the growth of mobility by cars.

The same can not be said at the scale of municipalities. The contestation movement to new highways and to increased space devoted to cars, stronger in the 1970s and to a lesser extent in the 1990s, was the most successful at the local level (Mom and Filarski 362-365). The local bylaws gave activists a tool to contest the construction of highways in their local environment, often to preserve natural areas (idem: 364-365, which is no more possible). In many cases also, the local elected officials refused new highways and were open to local measures to constrain car use. Already in the 1970s were parking meters installed in inner-cities to limit the amount of cars. Introducing parking fees in inner cities was technically, and possibly politically, easier to implement than a pricing system for highways, although this last measure was just as much discussed (van der Vinne : 180-182). Parking places has been particularly reduced and highly priced in Amsterdam, with important effects on reducing car circulation (Lemmers 1995). Traffic calming measures and infrastructures to promote walking and cycling in inner cities and in “woonerven” has also limited the use of cars in cities, and form a special characteristic of the mobility system of the Netherlands (Mom and Filarski :397, Bertolini and LeClerc 2003).

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<sup>2</sup> It is not that the government has been inactive in organising and steering the mobility system. Mom and Filarski argue that if the national government has not in the end acted to concretely counter the development of car use and car culture in the Netherlands, it has steered the development of the railway, inland navigation and “mainports” facilities (Schiphol and Rotterdam port) (395-396), allowing railway and inland navigation to subsist even with the boom of cars (which has not been the case in the Unites States, for example); even if those two infrastructures' network are not now in a state to truly be competitive with the road network.

But these measures did not come by themselves. The environmental and anti-car movements of the 1960s culminated and concentrated in the largest cities in the 1970s. There came large opposition to the “modernization of cities” by the widening of streets and boulevards, and the destruction of old neighbourhoods to make room for mobility (Mom and Filarski: 362, Mamadouh 1994, Rooijendijk 2005), which lead to streets' occupations and civic unrest, episodes of the so-called urban crisis (examples being in the Amsterdame Nieumarkt and the Rotterdam Oude Westen) (idem). In parallel, activists and new political parties were proposing alternatives within cities : car-free city centers, public bicycles, public cars (witte fietsen and Wit-Kar) and residential neighbourhoods secured from traffic.

It is worthy of notice that the local level of government, the municipalities, ended up putting much more constraints on car use, with the success of contentious action, than the national government. There is thus at stake an issue of scale, certain scales of public action making possibly certain changes more politically feasible than other scales, depending on the forces in presence. Also, the local conflicts concerned foremost the sharing of space, which the activists showed by occupying specific places : streets or a nature area threatened. This use of place can give the movement visibility, help garner adherents, or constitute a larger political support. The role of place and scale in the historical contestation of cars in the Netherlands thus appears important.

On the one side, thus, there has been in the Netherlands a national compromise of financing both car and public transit infrastructures. In practice this has lead to the further development of highways. On the other side, there were more policies in the municipalities which concretely limited the use of cars. These were especially advocated to protect specific places and through the occupation of specific places. The present-day policy-discourses in the infrastructure conflict in the Rotterdam-The Hague area will be considered in the light of these two historical trends.

## **II. Current policy-discourses and their operationalization**

Key discursive elements are mentioned a lot in the numerous planning documents, policy texts and projects descriptions, as well as in interviews and in parliamentary debates and civic events. When those different data sources are crossed, there appears three (related) key nodes in the policy discourses : the fight against congestion, the indicators and budgets for accessibility and the concept of robustness. The question here is whether or not they carry the 'half-hearthed compromise' of incensing both car and public transit, while in the end favouring the former.

Congestion and the criterion for accessibility : still a “compromise” favourable to cars  
“How to keep Nederland moving” : this is the question posed in introductory paragraphs of the Nota Mobiliteit (2004), the Mobiliteit Aanpack (2008), as well as in recent programs of the National government (2011). The problematic of congestion has grown steadily in the decade, not only in numbers but also in the public attention given to it. Congestion has been linked particularly to economic performance (OECD 2007, 2010, MVW 2007), and to the quality of life of citizens (84% of the Dutch population would experience personally congestion as a problem (SCP 2010 : 244), the Dutch being part of the Europeans spending more time each day in traffic jams (OECD 2010).

Public action to fight congestion in the last years in the Netherlands have been structured around three pillars of public action : “bouwen/benutten/beprijze”, which is to build new roads, use the existent infrastructure to its maximum, and prize its use. The objective of those three pillars was to anticipate

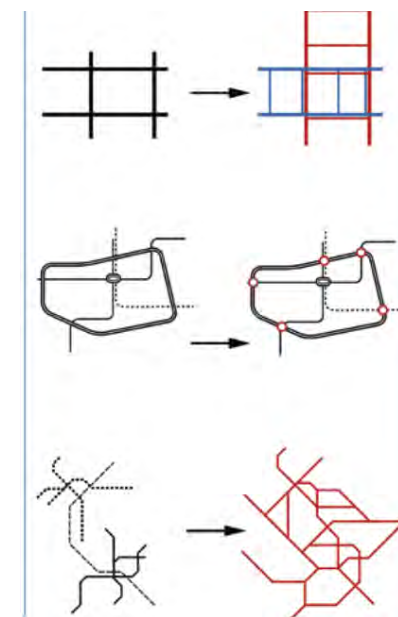
the expected growth in car use in at the same time building new roads, making the network more efficient and pricing it. The current cabinet put aside the component of a pricing system, being fundamentally against it. A pricing system for highways is still a very sensitive proposal because of arguments of equity from the ANWB (why should some pay more than others for mobility) and privacy (since a sophisticated pricing system may involve tracking the use of the road network by individual cars) (van Lint and Marchau 2011, van der Vinne 2010). The high levels of congestion, which in previous cabinets has been an argument to organize a pricing system, is now even more the argument for the development of new roads, to solve key “bottle necks” (like in the beginning of the 2000s, reflecting the political pendulum). Investment in public transit is not presented as a solution for road congestion. As a matter of fact, public transit in cities is far in the priorities : being both disadvantaged by severe budget cuts from the national government and a lack of clear indicators. The cabinet has announced in the winter its intention to cut 120 millions in the annual budget given to the three largest cities (Amsterdam, Rotterdam, The Hague) for public transit.

Those budget cuts are quite surprising taken that “accessibility” is one of the four core values of the national planning document (Ontwerp Structuur Visie) (alongside competitive position, security and quality of life). But a review of the indicators given to measure accessibility in the last 30 years in the Netherlands show how differently accessibility can be defined (KIM 2011). In the Randstad, it has been particularly focused, in the last decade, on solving the problematic of road congestion, which threatened “accessibility”. Indicators have focused on the time of travel and on its reliability (KIM 2011). Excesses in terms of times in congestion and in delays of arrival to destination should justify interventions from the state- with new or modified infrastructures. This means that the current situation is measured, but also the future state of affairs is modalized to prevent future unacceptable levels of congestion in segments of the road network. According to the report from the Knowledge Institute on Mobility Policy (2011) however, these indicators have not been organised to compare the performance of different modes, and alternative modes to the car have seldom received quantified indicators to guide action (KIM 2011). In the Rotterdam city-region for example, this means that an assessment of unacceptable reliability or time of travel because of “bottle-necks” leads to road intervention and is separated from the planning of public transit. Also, expected excessive times of travels in 2020-2030 lead to new highway segments (RVP 2009, NWO 2011). But the same assessment of current accessibility deficit by public transit, to Rotterdam South for example, will not lead to the expected investment because of recent budget cuts in public transportation from the government. With the budget cuts, not only the extra metro and tram projects are put aside, but also, according to a report of the Ministry from Infrastructure and the Environment from spring 2011, half of the bus lines were expected to be cancelled to meet the budget reduction. This means important reduction in the accessibility of certain neighbourhoods and destinations by public transit.

Robustness : also a bias for cars

With a particular focus on the reliability of the transport network, a third party proposed the concept of “robustness”, which turned out to be much appropriated by governmental authorities at all levels. The ANWB has developed this concept of robustness with a firm of engineers (TNO)(2008). The ANWB is the association representing car riders in the Netherlands, offering services of emergency reparations and towing, but also promoting tourism and recreative amenities within the country. Part of the organization works on public affairs, and give their positions on plans from the government which could affect their membership.

The basic idea of “robustness” is that the transport network should be able to cope with accidents and weather - so that such events do not block the entire system in traffic jams (ANWB 2008, 2011, MVV 2008). A robust transport network is like a fork : it should include alternative parallel routes to every segment, making a congested segment much less problematic for the whole network.



**Figure 1. The 3 principles of robustness illustrated.**  
*Masterplan Rotterdam Vooruit (2009)*

This principle of robustness has become a catch word for public and civic actors, while it does not mean the same thing for everybody. The concept is in theory open to an inter-modality perspective. The City-region Rotterdam for example, has operationalized it in her mobility plan (co-written with province and national government) with 3 principles : 1- a robust road network, with parallel potential routes (and a good combination of the highest and lower road network), 2- an inter-modal network with an effective set of transfer-points from the road to the public transit (Park&Ride installations) and 3- a fine-grained metropolitan public transit system, making possible to get to your destination efficiently from the transfer node (RVP 2009). As we will say later however, only the robust road network receives priority.

The first document the ANWB had published on robustness concerned exclusively the robustness of the road network, while being open to its inter-modal potential. Three years later, the ANWB presented a Park and Ride Vision to complement the robust road network (2011). They also denounced the budget cuts in public transit, arguing that car riders were also users of public transit, and that an efficient public transportation system with efficient Park and Ride installations is important in terms of robustness (2011b). But

the concept of robustness was developed with such precision and concrete applications on the road network that it came to be associated exclusively with it, and carry a bias for the road network. Public and civic actors interviewed all referred to robustness in terms of the need for new parallel road segments.

Those two propositions, the indicators of accessibility and the vision of robustness, could in theory lead to as much investments in public transportation, bicycles and inter-modality (such as park and ride) infrastructures than in car infrastructures; and they are presented as such in the opening statements of documents. In reality, however, it is only the car network which has been favoured, with particular budget cuts and governance practices supporting it to the detriment of other modes. For certain actors, this is related to the fact that modal transfer is taboo in the Netherlands (PvDA 2011, in a parliamentary debate). This is linked to the idea of a choice, while the emphasis on transfer from the car to other modes is associated with constraints. Taken together, those inter-twined discourses and practices make the idea of constructing no more highways appear very radical, as we will see in the following section.

### III. The conflict in the Rotterdam-The Hague area – counter-discourses on mobility; use of scale and place

Several so called “missing segments” are planned in the road network of the Rotterdam- The Hague



area, to respond to the accessibility criterion stated above. The first one, which has already passed the last official step of potential contestation and will start shortly to be built, is the A4 between Rotterdam and Delft, which has been planned (and opposed) for decades. The other segments are part of what opponents consider to be a future second ring around Rotterdam. The projects now on the agenda consist of a new junction between the A13-A16, in the North-East of Rotterdam, and a new connection between the two shores of the river Nieuwe Maas, on which the port of Rotterdam is situated (in grey on the map of Figure 2, below). For this last infrastructure, the Nieuwe Westelijk Oeververbinding (NWO), the national government presented two options of which one was to be chosen, the Orange (closer to the ocean) or the Blankenburg tunnel (closer to Rotterdam, between Maasluis and Vlaardingen). Within each option, the government also proposed 3 or 4 potential routes, which they submitted to stakeholders and the local population. The participatory process on the A4 was also framed in terms of highway alternatives : the construction of the A4 or the widening of the A13 were considered to solve the congestion problem between Rotterdam and The Hague. In practice however, both projects are thought to eventually go through. The same goes for the NWO, for which the Rotterdam Port Authority also eventually wants both the Orange and the Blankenburg connection.

Whether or not this presentation of several different alternatives for the same road project is meant to divide the opponents, it certainly does have some of this effect in practice. The majority of the groups opposing those new highway segments were fighting particularly against one of the potential route proposed, to protect local well-being or a nearby nature area. They often saw the other groups fighting against the other potential route as a problematic stakeholder. An environmental organization has been trying in the last year to bring those efforts under a common banner for a Green Metropolis, arguing for no new highways but an integrated public transport solution for the interconnected city-regions of Rotterdam and The Hague. We will consider this alternative project in more depth.

#### “Construct with us a Green Metropolis” . The plan from Milieudefensie

Milieudefensie is a national environmental organization – Friends of the Earth Netherlands – which often gets involved with local groups to protect particular landscapes or nature areas, or to oppose new infrastructures which are considered detrimental for the environment. The group often has as a strategy to identify an iconic place around which the campaign is organised and around which supporters are gathered. In the Green Metropolis plan however, a new approach was chosen, in focusing on a larger territory instead. The group argues that the metropolitan scale of Rotterdam and The Hague, two cities 30 kilometres away from each other, allows to think of a set of integrated alternatives to the new highway segments proposed.

**Figure 2. Representation of the missing segments in the highway network which are planned to be built in the following years (in red). (In dotted yellow : expected in the future) Map done by the environmental organization Milieudefensie as part of its campaign Green Metropolis (2011).**



Framing their plan in the language of the national planning documents, they propose strategies on the three pillars of intervention presented above: building, pricing and benutten (efficient use). The building part does not consist in any new road, but in public transit and cycling infrastructures. They propose eight projects of which the majority are or have been in the plans of public authorities, but receive now little or no priority (especially with the last budget cuts). In terms of using the transport network more efficiently, they present the ideas of Het Nieuwe Werken, which favour more flexible work schedule and location for employees, with the objective of thereby reducing or spreading the traffic better throughout the day (and thus reducing traffic jams). Finally, Milieudefensie advocates for the introduction of a pricing system for the most congested segments of the network, as well as for all freight transport. In the context where the national authorities do not go through with pricing the road network, Milieudefensie proposes to set up a regional pricing system (for which the Rotterdam Port Authority has said to be in favour of). The effects of the plan from Milieudefensie were also calculated by two external consulting firms (Goudappel Coffeng en CE Delft ) which used the model from the City-region of Rotterdam to measure 1- the effects of a congestion charge (and Het Nieuwe Werken) on the traffic jams in the Rotterdam-The Hague area, 2- the costs of the measures proposed and 3- the effects of their plan on air quality and CO2 emissions. According to those calculations, their plan reduces congestion 40% more than the highway plans from the cabinet, reduces CO2 emissions and improves air quality.



**Figure 3. Illustration of the package of alternatives proposed in the plan Green Metropolis from Milieudefensie : public transit infrastructures (trams, more train) and cycling infrastructures.**



While the Green Metropolis plan from Milieudefensie focuses on mobility solutions, the actors which take part and support their campaign do not necessarily focus on such change in mobility. Many groups were created to protect a place, whether it be their neighbourhood or a natural/open space, against destruction, pollution and noise brought about by a new highway segment : the A13-A16 segment which intersects a regional park and the river Rotte (as well as rich suburban communities), or the Blankenburg option of the NWO which go under the river Nieuwe Maas but come out of the ground in the open area of Midden-Delfland. The planned spoiling of these “places” triggered the involvement and mobilization of many. The primacy of place as a motivation for mobilization brings a specific type of abstraction from activists (Harvey 1997). Their frame of mobilization concerns the protection of the quality and of the viability of place. It does not, however, concern per se the question of choices in infrastructures, mobility or modes of transportation. It does not include a positioning against the growth in the use of cars; which is the starting point of the Green Metropolis proposition. While the mobility alternatives offer solutions to those groups, the mobilization has not concerned so much those solutions, but much more the protection of place, as we will see below.

In the context of high congestion, there is also much incredulity in front of a plan which excludes the construction of new highway, even by activists. In this sense, the discourse on robustness is very strong and much cited : since parallel segments need to be layed down as alternative route in the case of accidents or traffic jams, then the idea of constructing no more highways at all in the area appears radical, especially with the belief that car mobility will be ever-increasing. Certain activists argue that looking at the metropolitan scale allows at least to choose the right and less damageable spot to built the necessary highway segment. Especially because the membership of many nature and local groups include many car drivers. This is true for the group Natural monuments, which is an organization with more than 750 000 members devoted to the protection and management of natural reserves. In addition

to their membership, nature groups also have other social affiliations and partnerships which makes more fragile or difficult their adherence to the Green Metropolis plan for no new highway. The Rotterdam Port Authority has for example donated part of its property in the sea and on land to nature-groups to create new nature reserves (in exchange of further growth). The Rotterdam Port Authority is a key actor in the metropolitan region militating for new transport connections, especially the NWO. Groups do not want to threaten this relationship, which puts a certain limit to their positioning against highways and which frames the necessity of new road segments. On the other side, this relationship also gives nature groups the possibility of discussing with the Port Authority to reduce their ambitions for new car infrastructures.

While the campaign from Milieudefensie is going on with the support and participation of local groups and nature organizations, there are other actors active in the field of mobility. In the same period, in the spring 2011, the ANWB publishes its report on a Park and Ride vision to complement a robust road network. The Rotterdam Port Authority also announces to be in favour of a regional congestion charge in the region. The public transportation lobby and unions are also busy manifesting against the large cuts in the budgets of public transit for the largest cities. But these actions happen in parallel, and the different actors are not publicly partners of the Green Metropolis plan from Milieudefensie. Campaign leaders from Milieudefensie think that for the ANWB, for example, it would be politically risky to be associated to their group, which is associated to a leftist and green side of the political spectrum. Even the large cycling union Fietsersbond do not want to be associated with the environmental lobby of Milieudefensie, in order to stay a-political and to avoid to be perceived as radicals.

### **The mobilization against the Blankenburgtunnel : using place and scale**

While Milieudefensie is trying to bring together all groups mobilized against specific highways routes, the mobilizations against specific segments receive more attention by the press and more receptivity by the government. This is particularly the case for the campaign against the Blankenburgtunnel, which runs parallel to the Green Metropolis campaign. The Blankenburgtunnel is one of the two options proposed by the national government to connect the two shores of the river Nieuwe Maas (the project NWO), occupied by the Port of Rotterdam. The other option is the Orange tunnel, close to the ocean. The NWO is meant to reduce the pressure on the Benelux tunnel which in 2020-2030 is expected to be stock in congestion. Nature Monuments and local groups have launched their own petition against the Blankenburgtunnel, which has lead to 33 460 signatures (in comparison to the 7564 by Milieudefensie for their larger plan of mobility alternatives). Many have gotten involved to protect what they consider the last open and recreative space in the busy region of Rotterdam- The Hague. The local groups also have a historic of mobilization in this area, with the Volksbos (a little forest planted by residents) planted by the locals to protect the area in 1992. Also, while Milieudefensie is associated to a particular political spectrum, the range of opponents to the Blankenburgtunnel is politically more vast : nature, protection of cultural heritage and farms in Midden-Delfland, for which the political base of many political parties feel concerned.

The use of “place” in discourses and against the Blankenburgtunnel is thus very strong. Groups talk of the Berge Bos (A13-A16 junction) as the lung of Rotterdam. Midden-Delfland is even more precious : it is the lung of the South of the Randstad (polluted by the Port), it contains its agricultural heritage and it is especially its “Green Heart”.<sup>3</sup> “Place” is also used physically : elected officials are invited to visit

<sup>3</sup> Much of the Dutch planning doctrine since the 1960s has been focused on controlling urban growth to

and bike in the area, manifestations are organized within Midden-Delfland. This focus on place gives more weight to a logic of showing the consequences of new car infrastructures, to then oppose those consequences.

The Green Metropolis plan from Milieudefensie offered in parallel a set of solutions at a higher scale, a metropolitan scale. But their plan turned out to be considered more radical than the movements to protect specific places. Nevertheless, their proposition of scaling-up the debate did not stay totally unheard. The opposition to the Blankenburgtunnel received un-expected support by certain actors arguing for another vision on robustness, which also argued for scaling up the issue.

This comes from the fact that the necessary intervention to create a “more robust system” depend in part on the size of the network considered : it depends on the scale considered in the analysis. The road project NWO, either the Blankenburg or the Orange tunnel, is meant to resolve the expected problems in the Benelux tunnel in offering a parallel route. But both options offer parallel routes, one closer to Rotterdam and the other closer to the ocean and the Hague. The city-region of Rotterdam has documented since 2009 its preference for the Blankenburgtunnel with an objective of fluidity and robustness in the Rotterdam road network (RVP 2009). The scale privileged is for them the Rotterdam city-region. The advisor of the national government on infrastructure, however, has recently argued in parliament for a robust network at the scale of the South Randstad, which means the area including Rotterdam and The Hague (like Milieudefensie was proposing). At this scale they argued, the Orange tunnel makes more sense, since it strengthens the relation between the green port (concentration of green houses and industries of food processing, in the south of The Hague) and the Rotterdam port, and it avoids bringing all the circulation within Rotterdam. In the same vein, the ANWB also argued recently for the Orange tunnel. They argue that at the national scale, the Orange tunnel offers a better robustness if coupled with a widening of the route linking the future Orange Tunnel with The Hague (see map). The ANWB also argues that the recreative value of Midden-Delfland is important to put in the balance.

In sum, the opposition to the Blankenburgtunnel has received wider support than the package of alternative mobility solutions from Milieudefensie, who opposed new highways. The preservation of specific places – mostly Midden-Delfland- is very important. Also important is the “re-scaling” of the debate. The re-scaling narrative which Milieudefensie promoted did not go through – a metropolitan planning of mobility can avoid any new highway. But the higher re-scaling did have impact for the protection of Midden-Delfland with the re-scaling of the notion of robustness.

The debates and arguments are not over. The Ministry of Infrastructure has recently announced her preference for the Blankenburgtunnel, decision which was immediately contested (by civic actors and all other political parties), triggering one full day of parliamentary debate in December 2011 and another planned in January 2012.

## Conclusion

protect the Green Heart of the Randstad (Faludi 1994, Faludi and van der Valk 1994, Zonneveld and Hajer 2000). This Green Heart is formed of green/open areas in the center of the urbanized ring of the largest Dutch cities (the Randstad, which means ring city). Activists mobilizing against the Blankenburgtunnel have been using this imaginary to attest of the importance of Miden-Delfland, a part of the Green Hearth of the Randstad, and for them the Green Hearth of the southern Randstad.

Why is the national government now such a fervent of building new highways to improve “accessibility”? The answer can go much farther than the political orientations of this cabinet. While we may be in a phase of the “political pendulum” (Dijkink) at the national level where putting constraints on car mobility is unthinkable, the recent Dutch history show a much longer ambiguity in the policies on this matter. The historians Mom and Filarski (2008) and van der Vinne (2010) have documented a “half-hearted compromise” of promoting both car infrastructures and public transit, which has in fact delayed constraints on car use and further encouraged the development of car infrastructures. In contrast, concrete policies (parking meters, city-centers without cars, traffic calming, cycling infrastructures) have been adopted in cities, thanks in part to social movements and the involvement of residents and local elites.

Can those trends still apply to the current situation? In this communication, key policy discourses at the national and city-regional level have been looked at. The indicators of accessibility and the notion of robustness were particularly considered since they are used extensively to justify new car infrastructures in the Rotterdam-The Hague area. The analysis has shown an abstract ambition of considering several modes of mobility, but which is concretely focused and operationalized on the highway network. National budget decisions even show a worsening in the offer of public transit for future years. The first historical trend, that the abstract political compromise of encouraging both car and public transit infrastructures in fact encourages car mobility, thus holds.

This historical policy trend is visible even in the attitudes and beliefs of actors contesting the infrastructure choices from the national government. The idea that an alternative package of mobility solutions at the metropolitan scale could be a real replacement to any new highway in the area appears radical, even for the majority of residents and nature-groups involved to protect specific places against a highway segment.

But like in previous decades, the protection of specific places (natural or open areas especially) are strong arguments against a new car infrastructure. If this emphasis on place in the movements of opposition is still true, the local scale does not seem to have the same meaning it had in previous decades. Municipalities are not any more seen as the most innovative and promising tier of government to constrain car use and offer alternatives. In the debate around the NWO (Blankenburg tunnel), the focus of the public authorities on the city of Rotterdam and its ring was contested. A metropolitan scale including Rotterdam and The Hague was proposed instead, while the ANWB keeps favouring a national scale.

In relation to the specific policy discourses (particularly robustness), the analysis shows how much they can lead to different interpretations, depending on the spatiality considered. Transport engineers have traditionally little considered the integration of infrastructures in space. The integration of land use with transport planning is still scarce and difficult to achieve (Te Brömmelstroet and Bertolini 2009), and the spatiality of the transport planning models and concepts is not much developed (Wiel 2005, Heeres et al. 2010). The impact of this on the larger politics of mobility (for example, how it plays in for a bias for car infrastructures, or how it affects the actors contesting this bias), seems to offer interesting avenues of research.

Finally, the Dutch case on debated car infrastructures show that there are historical constraints and path-dependent discourses in this policy field, as well as a present-day context where the social position



and power of actors affect their ability to propose or re-interpret discourses to shift the direction of public action.

## References

- Altshuler, A, et D Luberoff. 2003. *Mega-projects: The Changing Politics of Urban Public Investment*. Brookings Institution Press.
- ANWB. 2011a. P+R Plus (reistijden onder controle). <http://www.anwb.nl/verkeer/nieuws-en-tips/archief/nederland/2011/mei/PenR-Plus-Reistijden-onder-controle.html>.
- . 2011b. Hoe krijgen we onze reistijden onder controle? Slimme wegen naar de toekomst. .
- . 2011c. ANWB voorstander Oranjetunnel. décembre 6. <http://www.anwb.nl/verkeer/nieuws-en-tips/archief/nederland/2011/december/Oververbinding-Nieuwe-Waterweg.html>.
- ANWB and TNO. 2008. Slimme wegen naar de toekomst.
- Bertolini, Luca, et Frank le Clercq. 2003. “Urban development without more mobility by car? Lessons from Amsterdam, a multimodal urban region”. *Environment and Planning A* 35 (4): 575 – 589.
- Blankenburgtunnel Nee Internet. Houd Midden-Delfland groen. <http://www.blankenburgtunnelnee.nl/>.
- College van Rijksadviseurs. 2011. Rondetafelgesprek over de Nieuwe westelijke oeververbinding.
- Conley, Jim, et Arlene Tigar McLaren. 2009. *Car Troubles*. Critical Studies of Automobility and Auto-Mobility. Ashgate.
- Debat Tweede Kamer. Nieuwe westelijk oeververbinding. Publitiek. <http://publitiek.nl/zoek?q=Nieuwe+westelijk+oeververbinding>.
- Dijkink, Gertjan. 1990. *Beleidenissen*. Politieke en ambtelijke cultuur in Nederland. 1965-1990. STYX Publications.
- Goud Appel Coffing. 2011. *Beprijzingsscenario's Rotterdamse regio*. Verkenning verkeerskundige effecten beprijzingsscenario's.
- GroenLinks Rotterdam. 2011. GroenLinks wil debat over innovatieve filebestrijding. <http://rotterdam.groenlinks.nl/node/68113>.
- Hajer, Maarten, and Wytske Versteeg. 2005. “Performing governance through networks”. *European Political Science* 4 (3) (September): 340-347. doi:10.1057/palgrave.eps.2210034.
- Hajer, Marteen. 2005. Coalitions, Practices, and Meaning in Environmental Politics: From Acid Rain to BSE. Dans *Discourse Theory in European Politics Identity, Policy and Governance*, 297-315. Palgrave MacMillan.
- Hajer, Marteen A. 1995. *The Politics of Environmental Discourse*. Ecological Modernization and the Policy Press. Oxford University Press.
- Harvey, David. 1997. *Justice, Nature and the Geography of Difference*. Blackwell Publishers.
- Henderson, Jason. 2004. “The Politics of Mobility and Business Elites in Atlanta, Georgia”. *Urban Geography* 25 (3): 193–216.
- . 2006. “Secessionist Automobility: Racism, Anti-Urbanism, and the Politics of Automobility in Atlanta, Georgia”. *International Journal of Urban and Regional Research* 30 (2) (juin 1): 293-307.
- . 2009. *The Politics of Mobility: De-essentializing Automobility and Contesting Urban Space*. Dans *Car Troubles*. Critical Studies of Automobility and Auto-mobility, éd par. Jim Conley et Arlene Tigar McLaren, 147-164. Ashgate.
- Heeres, Niels, Taede Tillema, and Jos Arts. 2010. “From line towards area-oriented approaches in road infrastructure planning: a historical analysis and international perspective.” In *24th AESOP Annual Conference*, Finland.
- Jensen, Ole B. and Tim Richardson. 2004. *Making European Space : Mobility, Power and Territorial Identity*. Routledge.
- (KIM) Kennis Instituut voor Mobiliteitbeleid. 2010. *Mobiliteitsbalans 2010 | Rapport | Rijksoverheid.nl*. October. <http://www.rijksoverheid.nl/documenten-en-publicaties/rapporten/2010/10/26/mobiliteitsbalans-2010.html>.
- Lemmers, Leo. 1995. “How Amsterdam plans to reduce car traffic”. *World Transport Policy and Practice* 1 (1): 25-28.
- van Lint, Hans, and Vincent Marchau. 2011. *De file dat ben je zelf*. Delt: Publikatieburo Bouwkunde.
- Mamadouh, Virginie. 1994. *Mouvements de résistance et projets de ville : Amsterdam*. Dans *Penser la ville de demain*. Qu'est-ce qui institue la ville?, Ed. Cynthia Ghorra-Gobin, 153-159. L'Harmattan.
- McFarlane, Colin and Jonathan Rutherford. 2008. “Political Infrastructures: Governing and Experiencing the Fabric of the City”. *International Journal of Urban and Regional Research* 32 (2) (juin 1): 363-374.
- Milieudefensie. 2011a. Factsheet Toelichting op doorrekeningen voor “Bouwen aan een Groene Metropool”.
- . 2011b. *Bouwen aan een groene metropool : een duurzaam mobiliteitsplan voor de regio Rotterdam-Den Haag*. Ministerie van Infrastructuur en Milieu.
- (MIM) Ministerie van Infrastructuur en Milieu. 2011a. *Notitie Bestuurlijk Proces Verkenning Nieuwe Westelijke Oeververbinding*.
- 2011b. *Notitie Reikwijdte en Detailniveau Nieuwe Westelijke Oeververbinding*. January 12.
- . 2011c. *NMCA weganalyse*.
- 2011d. *Ontwerp Structuurvisie Infrastructuur en Ruimte NL*.
- . 2011e. *Afspraken over het programma Beter Benutten in het Bestuurlijk overleg MIRT*, najaar 2011. December 1.
- (MVW) Minister van Verkeer en Waterstaat Nederland. 2004. *Nota Mobiliteit*.
- . 2007. *Eindrapportage landelijke markt- en capaciteitsanalyse wegen*.
- . 2008. *Mobiliteits Aanpak*. Vlot en veilig van deur tot deur.
- Mom, G., et R. Filaski. 2008. *Van transport naar mobiliteit, De mobiliteitsexplosie, 1895 – 2005*. Walburg Pers.
- NWO Projectorganisatie. 2011. *Samenvattende notitie Conceptresultaten onderzoeken Nieuwe Westelijk Oeververbinding*. October 14.
- OECD. 2007. *OECD Territorial reviews : Randstad Holland, the Netherlands*.
- . 2010. *Economic Survey of the Netherlands 2010*. [http://www.oecd.org/document/56/0,3746,en\\_2649\\_34569\\_45424120\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/56/0,3746,en_2649_34569_45424120_1_1_1_1,00.html).
- Orfeuill, Jean Pierre. 2002. “L'automobile et la ville : raisonner la cohabitation ?” *Economie & Humanisme* (359).
- Richardson, Tim, and Ole B. Jensen. 2003. “Linking Discourse and Space: Towards a Cultural Sociology of Space in Analysing Spatial Policy Discourses”. *Urban Stud* 40 (1): 7-22.
- Rooijendijk, Cordula. 2005. *That city is mine! : urban ideal images in public debates and city plans, Amsterdam & Rotterdam 1945-1995*. Amsterdam: Vossiuspers.
- (RVP) Rotterdam Vooruit Projectorganisatie. 2009. *Masterplan Rotterdam Vooruit*.
- SCP. *Sociaal en Cultureel Planbureau*. 2011. *De sociale staat van Nederland 2011*.
- Simmel, Georg. 1955. *Conflict & The Web of Group-Affiliations*. The Free Press.
- Snelder, Maaïke. 2010. *Designing Robust Road Networks A general design method applied to the Netherlands*.
- Snow, David A. 2007. *Framing Processes, Ideology, and Discursive Fields*. Dans *The Blackwell Companion to Social Movements*, 380-412.
- StadsRegio Rotterdam. 2010a. *Programma's & projecten - stadsregio Rotterdam*. Regionaal Strategische Agenda. <http://www.stadsregio.info/#pagina=3290>.



- . 2010b. OV-infrastructuurprojecten - Regionaal Strategische Agenda.  
<http://www.stadsregio.info/#pagina=2671>.
- . 2011. Regionale uitvoeringsagenda Verkeer en Vervoer 2011-2015. Concept voor inspraak. August 31.
- Te Brömmelstroet, Marco, and Luca Bertolini. 2009. “Integrating land use and transport knowledge in strategy-making”. *Transportation* 37 (1): 85-104.
- Tweede Kamer. 2011. Dertigledendebat over de gevolgen van de voorgenomen bezuinigingen op het openbaar vervoer in de drie grote steden - Debat gemist - Tweede Kamer der Staten-Generaal. June 23. <http://debatgemist.tweedekamer.nl/Player/?mid=710>.
- . Begroting Infrastructuur en Milieu - Debat gemist - Tweede Kamer der Staten-Generaal. <http://debatgemist.tweedekamer.nl/Player/?mid=950>.
- Tweede Kamer der Staten-Generaal. 2011. Rondetafelgesprek Nieuwe Westelijk Oeververbinding. September 29.  
[http://www.tweedekamer.nl/vergaderingen/commissievergaderingen/volgende\\_weken/details.jsp?parlisnummer=2011A03227&dayofweek=Donderdag&his=](http://www.tweedekamer.nl/vergaderingen/commissievergaderingen/volgende_weken/details.jsp?parlisnummer=2011A03227&dayofweek=Donderdag&his=).
- Urry, John. 2004. “The “System” of Automobility”. *Theory Culture Society* 21 (4-5) (october 1): 25-39.
- van der Vinne. 2010. *De autoproblematiek in Nederland*. Uitgeverij M.G.S. Siemes.
- van Lint, Hans, et Vincent Marchau. 2011. *De file dat ben je zelf*. Delt: Publikatieburo Bouwkunde.
- Vuchic, Vukan R. 1999. *Transportation for livable cities*. Canadian Center for Urban Policy Research.
- Wall, Derek. 1999. *Earth First! and the Anti-roads movement*. Routledge.
- Wiel, M. 2005. *Ville et mobilité : un couple infernal?* Éditions de l’Aube.

## International Conference City on the Move Institute

“The making of movement. What is it that  
drives public action on urban mobility  
issues?”

Paris, spring 2012  
Clémence Montagne<sup>1</sup>

**“The controversy surrounding the plan to redevelop the banks of the Sabarmati River. Political, social and environmental background to the opposition to a major transport infrastructure modernisation project in Ahmedabad (Gujarat, India).”**

Keywords: Major project – Gujarat – Modernisation – Transport Infrastructures – Urban Policies – India

Emerging countries are experiencing a sharp increase in the number of urban renewal and city development projects. India is a singular case of densely populated emerging countries under a democratic regime, facing growing social inequalities within cities of multi-million populations amidst striking urban poverty. In 2004-2005, in order to counter a negative image of poor infrastructure provision in Indian cities, the federal government voted for a number of urban strategic planning policies. These plans include transport infrastructures to enhance traffic flows and improve public service. The overlap between the administrative and political dimensions means that States have a responsibility in the implementation of these regeneration projects, to which certain municipalities responded within six months with development proposals. The transformation of the landscape and of social practices sometimes gives rise to political opposition or movements of social resistance.

In Gujarat, politicians in the government and municipality have initiated numerous renewal projects, significant amongst them the redevelopment of the banks of the Sabarmati. The aim of this project is to reconnect the two sides of the river within the city of Ahmedabad, notably by proposing the construction of two two-way urban expressways on artificial banks. Originally planned in 1966, this huge project underwent numerous changes between 1970 and 2000. Following community riots in February 2002, the project once again became a central priority for the government of Gujarat, Ahmedabad municipality and a series of government agencies responsible for urban development (AUDA, GIDB, GIDC). This decision followed a political and technocratic assessment to address the social challenges and manage community responses. The end goal is to make Ahmedabad an international city, similar in its urban model to Dubai or Singapore.

Headed by a company called the Environmental Planning Collaborative, managed by well-known local architects (Bimal Patel) and politicians (the State Chief Minister, Narendra Modi), this project elicited two types of opposition: first from certain architects and urban planners in Ahmedabad and Paris, promulgating a culturalist transformation of the project, and second from activists and intellectuals involved in helping the relocated populations and defending their “right to the city”. Political circumstances in Gujarat are such that there was no possibility for social participation in the design of the regeneration project or for the negotiation of alternatives.

The aim of this article is to retrace the history of the controversy with reference to the social and environmental costs of the project to redevelop the banks of the Sabarmati River, in a local context characterised by a low level of involvement by urban planners and activists.

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## Introduction

What is it that drives the approach of the public authorities in India to urban issues? What is it that motivates and influences public action on urban mobility issues? We have chosen to answer this question through the example of an intra-urban road infrastructure project designed to underpin urban renewal in Ahmedabad. Ahmedabad is not exceptional in the landscape of Indian cities: it is undergoing intense and rapid urban development driven by powerful political forces operating in the upper echelons of the State of Gujarat and the municipality.

How is this urban renewal project described? Why reuse the banks of the Sabarmati River to support transport infrastructures? Which groups oppose the plans and what are their motives?

Our aim in this article, apart from describing the urban project within its context, is to analyse the current opposing the public authorities in their implementation of the riverbank regeneration project.<sup>2</sup> After describing the political, social and urban context of Ahmedabad, we will present the project in its historical dimension before concluding with a thematic study of the conflicts and social movements mobilised against this project.

## Momentum towards “international city” status

### Emergence of transport infrastructure development policies

At the end of the 1990s, urban infrastructures and their redevelopment became a main concern of decision-makers and officials responsible for town planning in India. At the end of the 1990s, the Hindu nationalist party (BJP) in power in Delhi promised to build an impressive system of four lane motorways linking the country’s great metropolises – the “*Golden Quadrilateral*”. Implementation of this ambitious inter-urban infrastructure programme coincided with the implementation of a number of intraurban projects.

Since 2004, a new legislative framework (the 74th Amendment to the Constitution in 1992 introduced decentralisation and released local authorities from federal government control) and new Indian urban policies (National Urban Policy, 2005; National Urban Transport Policy, 2005; National Urban Vendor Policy 2009-2010) voted in by the federal parliament, gave new impetus to big-city transformation. They were the culmination of a change in the approach of the city’s political decision-makers. This turning point was greatly influenced by the new economic geography and its reports, which analysed the dysfunctions of Indian cities in terms of infrastructure and services, to optimise their role as drivers of growth: “*It is widely acknowledged that a major block to India’s economic growth is an overstretched and unmodernised infrastructure: this can only be remedied by the state, given that there can be no immediate return on investment*” (Shurmer-Smith, 2000:27). Infrastructure has apparently always been perceived as the “weak point” of national economic development. However, municipalities and regional governments now had the political and financial resources to respond to these deficiencies and the desire to generate economic benefits (Kennedy and Zérah, 2011, Ruet and Tawa-Lama Rewal, 2009).

In order to counter the negative image of poor infrastructure provision in the Indian city, the Indian federal government created an urban infrastructure investment fund, the JnNURM, capable of bearing up to 30% of the cost of approved projects.

<sup>2</sup> We conducted a field survey with the social stakeholders (Beena Jadav, ActionAid). Participation in a workshop provided the opportunity for a brief observation of how architecture students responded to the new project at the international Sabarmati workshop 2009-2010 organised by Professor Chhaya and Ar. Kohn with residents displaced by the modernisation of the bankside areas.

Inter-urban mobility was needed to promote fast and comfortable car travel. Connections between Ahmedabad, Delhi and Mumbai via the NH8 motorway were provided by improving the network of road bridges at the entrance to the city (CTM layout in the south-east, Chankheda in the north-east, widening of the Sarkhej-Gandhinagar western bypass), conducted by the Ahmedabad Urban Development Authority (the AUDA dual carriageway Ring Road, 60 metres wide and 76 km long).

The overlap between the administrative and political dimensions means that States have a responsibility in the implementation of these regeneration projects, to which certain municipalities responded within six months with development proposals.

## Transforming a regional city into an “international metropolis”

### The dysfunctions of a city

Ahmedabad is the economic capital of the State of Gujarat and, according to a 2011 census, had a population of some 4 million in an urban area of 500 km<sup>2</sup>. Located in north-eastern India, it is part of the industrial corridor (textiles, petrochemicals) lying between Mumbai and Surat (Figure 1).

Figure 1: Situation of Gujarat and Ahmedabad (Google Earth, 2011)



Gujarat, “one of the richest States in the Indian Union” (Shurmer-Smith, 2000: 150) is not a State where economic growth has really led to an improvement in the living conditions of the population as a whole. Studies on the effects of the globalisation of trade and of economic liberalisation policies have shown that only a tiny proportion of the inhabitants of Ahmedabad have benefited from development. For example, surveys on the poorest urban populations have concluded that their economic and social vulnerability increased with economic deregulation and the destruction of the social and industrial relations fabric (Bremann and Shah, 2004). Moreover, the



"The controversy surrounding the plan to redevelop the banks of the Sabarmati River. Political, social and environmental background to the opposition to a major transport infrastructure modernisation project "

desire of the public authorities in Ahmedabad and Gujarat to integrate more closely with global networks in order to make it a "*globalizing metropolis*" has not resulted in the emergence of an equitable social model (Kundu and Mahadevia, 2003). The report produced by I. Hirway and D. Mahadevia under the aegis of the United Nations Development Program describes a State that is presiding over the impoverishment of huge segments of the urban population (2004). This research has shown that economic growth exacerbates social and urban fragmentation. These analyses constitute the theoretical framework for our description and explanation of the conflict surrounding the plan to redevelop the banks of the Sabarmati River in Ahmedabad.

The 2001 earthquake<sup>3</sup> and the sudden upsurge of violence between Muslim communities and Hindu nationalist factions in 2002<sup>4</sup> – provoked by the burning of trains carrying Hindu pilgrims returning from Ayodhya – left their mark, notably as a result of their exploitation by politicians. The Delhi Supreme Court took a long time to rule on the responsibility of certain powerful political figures in Gujarat and senior members of the extremist RSS faction, part of the BJP that had been in power since 1995. For many analysts, there is no doubt about the responsibility of the police corps and political officials at municipal and State level.<sup>5</sup>

#### Re-establishment of authority by the politicians

Immediately following the riots, the state-controlled Gujarat Industrial Development Corporation submitted a report to the State Chief Minister quantifying the economic damages and financial losses to the city of Ahmedabad. In order to restore the city's image, the Chief Minister has initiated numerous urban regeneration projects accompanied by high profile annual events – "*Vibrant Gujarat*" – since 2003.

In 2004-2005, the strategic *City Development Plan* drew up an urban analysis and selected a number of needed urban projects, notably the construction of a "*modern and innovative public transport system*" (2005). The inventory of urban deficiencies and dysfunctions notably emphasises road mobility and Ahmedabad's competitive advantage over Bangalore or Mumbai based on its regular street network and a radial structure. Ahmedabad's primary consulting body, the CEPT, also proposed the establishment of a *City Mobility Plan* (2005) which already included the goal of an expressway on the banks of the Sabarmati River. Of the 700,000 vehicles counted (Road and Transportation Office, 2004), more than 70% were two-wheelers. Nevertheless, the CMP concludes that "*the high density and rapid growth of vehicle numbers has significantly affected traffic conditions*". The number of cars per head of population in Ahmedabad is similar to that of Delhi (280 per 1000 inhabitants according to the Minister of Road and Transportation, 2003).<sup>6</sup>

Large-scale urban projects are key markers in the city of Ahmedabad's urban modernisation plans. The municipality's main urban development focus is primarily on road infrastructures which, by increasing asphalt coverage, aim to reduce dust levels and traffic

<sup>3</sup> For a description of the damage and an explanation of the political and social situation after the earthquake, we refer you to Howard Spodek's article "Crises and Responses, Ahmedabad", 2001, *Economic and Political Weekly*, pp 1627-1638.

<sup>4</sup> For a description of the "*slaughters*" or the "*riots*" [depending on the authors], see Arundhati Roy's article on "Democracy" in her book *The Algebra of Infinite Justice* (2001). Darshini Mahadevia explains the consequences of the riots in terms of increasingly extreme social and religious fragmentation in Ahmedabad in *Inside Transforming Urban Asia* (2003). The French anthropologist, Jackie Assayag, comments that "*The pogroms of Ahmedabad in Gujarat, in February 2002, constitute a turning point in the moral economy of the relations between Hindus and Muslims: this murderous insanity was sanctioned by both the regional political authorities [Gujarat] and the central authorities of the Union*", in *L'Inde désorientée. La Mondialisation vue d'ailleurs*, Paris, Editions Odile Jacob

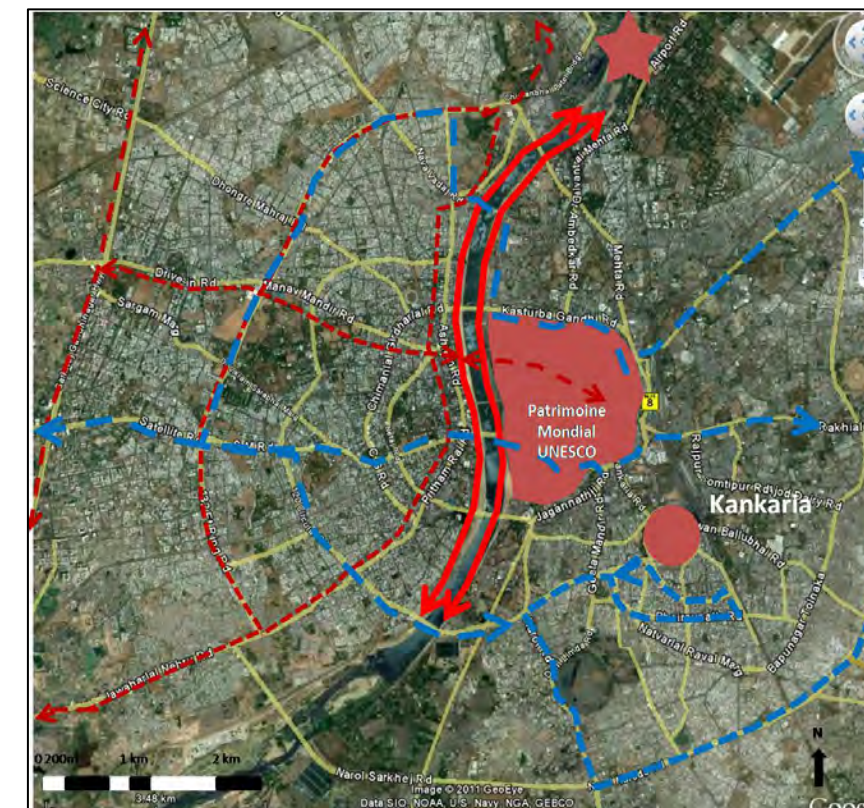
<sup>5</sup> See amongst others Jaffrelot, Assayag, Breman, Mahadevia, Chandhoke

<sup>6</sup> For comparison, the figure for the metropolis of Karnataka Bangalore is also 27%, whereas Mumbai, which has an efficient public transport network, records only 10 vehicles per 1000 people.

"The controversy surrounding the plan to redevelop the banks of the Sabarmati River. Political, social and environmental background to the opposition to a major transport infrastructure modernisation project "

congestion in Ahmedabad. The third major objective is to reduce the number of slums (:182) (Figure 2).

Figure 2: Urban projects initiated by the City Development Plan



Virtually all (more than 85%) of the provisional municipal budget for funding the project (i.e. 40% of the total) is allocated to building car infrastructures (€168 million for bridges and road bridges, 86 million for the construction of a section of the Sarkhaj-Gandhinagar orbital road), whereas the public transport plans account for only 14% (€82 million).<sup>7</sup> The cost of channelling the river is estimated at €200 million. This project is financed by the public urban development institutions on the grounds of its social and environmental benefits, and accounts for 86% of social infrastructure spending between 2006 and 2012.

The project for a dedicated bus lane (the Janmarg) (Montagne and Chemla, awaiting publication) and for urban regeneration along the Sabarmati River by the River Front Development Company Limited, represent the implementation of regional and national policies. Nonetheless, the political and regulatory impetus delivered by the strategic planning documents and the development of urban projects, has not resulted in implementation.

<sup>7</sup> In comparison, the plan for an automatic subway system between Gandhinagar and Ahmedabad represents an investment of €650 million.



## History of a controversy

### The slow progress of the Sabarmati riverbank redevelopment project

The initial plan was drawn up in 1966 by the architect and urban planner Bernard Kohn to make the river *"beautiful, attractive and useful"*. This architect, who was involved in the setting up of the architecture school and had close relations with certain Gujarati industrialists, proposed a development of the riverbanks similar to that undertaken in Paris (interview with Navdeep Mathur, 2010). The goal was to make the banks accessible to all the inhabitants by introducing recreational and sporting functions. Despite a few projects incorporating these ideas in the 1970s and 1980s, the city did not have the resources to implement B. Kohn's idea.

The riverfront therefore retained its status as a public area accessible to those who needed it, not only for their day-to-day work, i.e. street sellers, laundries working for the surrounding hotels, day workers, but also as a place to live. The two main economic activities remained the *dhobi* (laundries) along with market gardening in certain places, but the area was above all a place for meetings and informal trade, such as the flower market, the flea market or the Sunday markets (Figure 3).

Figure 3: The banks of the Sabarmati in Ahmedabad through the lens of Henri Cartier-Bresson



In 1997, the municipality of Ahmedabad, then governed by a political majority headed by the BJP, set up the Sabarmati River Front Development Corporation Ltd (SRFDCL), a company (Special Purpose Vehicle) run by men close to the Chief Minister of the State of Gujarat, Narendra Modi. This company was responsible for financing and commercialising the project and commissioned the Environmental Planning Collaborative (EPC)<sup>8</sup> to draw up a preliminary plan. Compared with previous plans to develop the banks of the Sabarmati (1966, 1979), the May 1998 version proposed an initial extension to the regeneration and reclamation of the riverbanks focusing on the development of two road infrastructures on a 6 km stretch of the banks.

The goals advanced by the political and technical officials responsible for the urban project were firstly protection of the urban environment – through the reorganisation of the sewage outlets into the river – then the relocation of the residents of the local slums to better housing protected from the seasonal river floods, and finally the adoption of a long neglected area by all the inhabitants of Ahmedabad. The continuous supply of the urban canal by the influx of water from the Narmada<sup>9</sup> would transform a naturally temporary river into a rectilinear urban lake. The creation of this permanent lake was purported to give Ahmedabad a new image.<sup>10</sup> According to the official line,<sup>11</sup> the riverbank development project was made up of *"several initiatives intended to resolve local social and environmental problems"*. It would *"give Sabarmati back to the residents of Ahmedabad"*.<sup>12</sup>

Between 2000 and 2001, the first master plan was promulgated by the Chairman of the Management Committee, representing SRFDCL to the ruling assembly of the municipality of Ahmedabad, after organising workshops to pool ideas about the urban plans for the Sabarmati riverbanks. The presence of the Franco-American architect Bernard Kohn at the workshops was evidence of his involvement and of the recycling of some of the ideas from the 1966 plans by Bimal Patel, EPC's lead architect. At that time, the project was presented at sessions attended by representatives of major institutions and industrial concerns, and some of the big NGOs, such as SEWA. It was in 2003 that the Chief Minister of the State officially instituted work on the project, but the channelling of the riverbanks actually began in 2005.

### Unexpected transformation of the project

In 2007, the project changed in nature and in scale. Bimal Patel, the architect and planner heading the Environment Planning Collaborative, propose a doubling of the redevelopment area to cover a stretch of more than 20 km along the river. To justify the transformation of the riverbank redevelopment project, the official line shifted to a new rhetoric on the urban enhancement of the image of Ahmedabad. The argument no longer focused on the urban environment and the enhancement of public space, but shifted to the renewal of the image of the city. The river became the *"city's central energy corridor"*, cleared of waste (in principle). Informal activities (commercial or residential) tolerated in the initial plans were no longer compatible with the urban regeneration project.

<sup>8</sup> EPC is a local not-for-profit urban development and planning body headed by Bimal Patel.

<sup>9</sup> The construction of the canal and of the water retention barges generated numerous publications and the emergence of social movements opposing the displacement of populations as a result of the development. See *In the Belly of the River* by Amita Baviskar. According to Shalini Randeria, India is the country that has seen the largest level of population displacement to make way for development (conference December 12, 2009, CEPT – International Workshop).

<sup>10</sup> *"Protect the city from flooding"*

<sup>11</sup> An article published in DNA in 2009 even bore the title "Riverfront – a social uplift project"

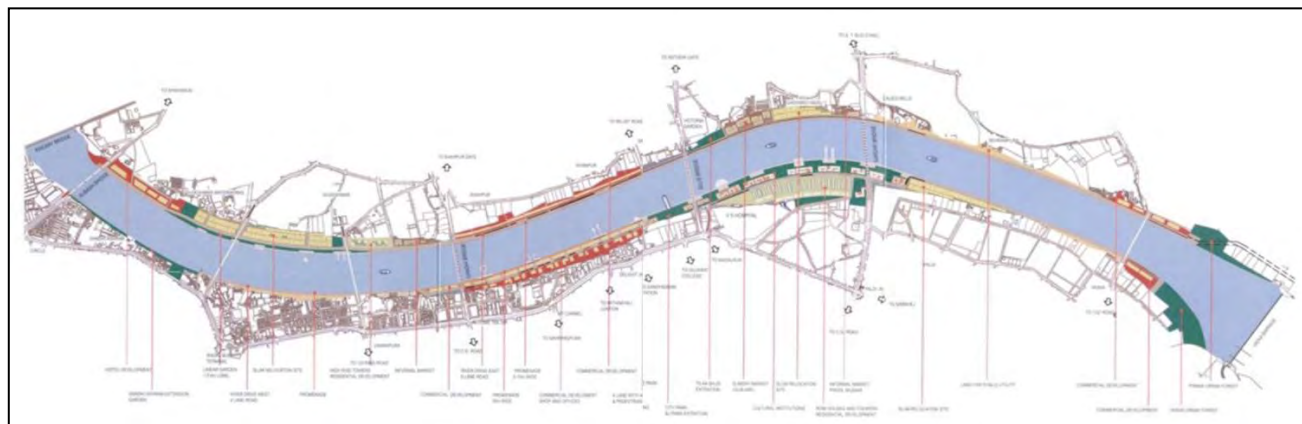
<sup>12</sup> "The Sabarmati Riverfront Development project will give Sabarmati back to the residents of Ahmedabad" <http://www.vibrantgujarat.com/> and <http://vibgujarat.gudcltd.com/VibrantgujaratUrbanSummitIntro.htm>



“The controversy surrounding the plan to redevelop the banks of the Sabarmati River. Political, social and environmental background to the opposition to a major transport infrastructure modernisation project “

The creation of new plots covering a stretch of more than 20 km at the heart of the city created an opportunity for massive involvement by private investors and real estate developers in the objective of remodelling the Ahmedabad cityscape. The urban plan was now based on the development of two major road axes along the riverbanks, which would firstly provide greater connectivity for the car-owning social class and secondly make it impossible for the populations displaced on public interest grounds to contest it (Figure 4)

Figure 4: The Master Plan proposed in 2009 by EPC (SRDFCL, 2009)



The justification advanced by the directors of the SRDFCL for the new infrastructures was the connection between “the waterfront” and “the city” (official communiqué by Ahmedabad municipality). The two roads are 11 km long and 30 m wide on the east bank and 24 m wide on the west bank. In all, the new land-use plan encompasses more than 46 ha of land dedicated to transport, 28% of the area reclaimed by channelling the river (N. Rana, May 2010).<sup>13</sup> The construction of two transport infrastructures could only link the city and the waterfront if the former users of the riverbanks were expelled. The price of “reconnection” with the river was the neutralisation of public use and the appropriation of the new spaces by cars. The plan was to restrict traffic to fast vehicles, with no vehicle mix. The accesses to the riverside expressways would be upstream and downstream of the city, with no access within the city. Moreover, the need for a new road infrastructure in Ahmedabad was not justified by a sudden explosion in car traffic – car acquisition had been limited by a series of tax measures – or by an analysis of urban traffic and mobility. Most of the vehicles operating in the streets of Ahmedabad were two-wheelers, representing almost 3/4 of vehicles legally registered with the municipal bureau. Although average travel speed in the city was slow (24 km/h) according to the traffic surveys conducted by the CEPT in 2005 for the preparation of the planning and urban transport documents, the fact is that an overwhelming proportion of travel demand is orientated East-West and not North-South.

As regards funding of the project, private investors were expected to contribute more than 60%, the remaining third being financed from funds set aside by the Ministry of Urban Development for urban regeneration and subsidies by the State of Gujarat. In 2006, the expected development cost was set at €110 million, rising in 2010 to €240 million with the expansion of the project. The first phase focused on the construction of the network of sewers linked to the Vasna and Pirana sewage treatment works, the river channel and a wall 20 cm thick and 3 metres high. It was completed in 2008 for a cost of €42 million.

<sup>13</sup> May 16, 2010, Niyati Rana in [http://www.dnaindia.com/india/report\\_a-walkers-paradise-soon-in-ahmedabad\\_1383650](http://www.dnaindia.com/india/report_a-walkers-paradise-soon-in-ahmedabad_1383650)

“The controversy surrounding the plan to redevelop the banks of the Sabarmati River. Political, social and environmental background to the opposition to a major transport infrastructure modernisation project “

The social justification of the SRDFCL project was the introduction of public spaces and gardens, the construction of housing and public amenities and the development of commercial activities where “citizens will be able to enjoy long walks along the river”. The aim of the project was to enhance the urban landscape in the heart of the city, by erecting high-rise buildings along the river banks on the developed land. “New plots have been divided up for use by the social and cultural elite” (Desai, 2006:5). The urban promenade along the riverbanks was intended for recreational use by city residents (jogging), whose safety would be protected by security personnel posted on the bridges with the power to report anyone threatening the quality of the river (DNA, 2011).<sup>14</sup>

Figure 5: Artist’s impression of the project and the new image of Ahmedabad city centre (SRDFCL,



The justification for the changes to the project was the need for it to be self-funding through the sale of the reclaimed riverbank plots by the Municipality to property developers. Almost 23 ha, more than 15% of the reclaimed land was to be sold at auction in order to cover the development costs, gauged at €200 million (Rana in DNA, 2010).<sup>15</sup> The 2009 master plan thus includes plots dedicated to luxury residences and high added-value recreational and cultural facilities. This project was the first experiment in “the use of public-private partnerships for the development and enhancement of roads and parks” (Desai, 2006:6). Various public presentations about the project were therefore shown at municipal events, such as the urban summit for international investors in Gujarat in 2007. The inhabitants of Ahmedabad were still unaware of the potential buyers of the land and the nature of the project. The immediate consequences of the project were the systematic removal of street sellers from the markets on the east bank and the riverbank neighbourhoods.

## Opposition to population displacements by social activists

The channelling of the river, the preparation of land for the building of road infrastructures and the construction of two new bridges required the relocation of more than 20,000 families. Official utterances spoke of improving living conditions through the “rejuvenation of the adjacent

<sup>14</sup> Nov 6, 2011, Jitendra Dave in [http://www.dnaindia.com/india/report\\_sabarmati-walkway-to-open-with-kankaria-carnival-in-december\\_1608310](http://www.dnaindia.com/india/report_sabarmati-walkway-to-open-with-kankaria-carnival-in-december_1608310)

<sup>15</sup> [http://www.dnaindia.com/india/report\\_riverfront-gets-a-bonanza-from-gujarat-civic-body\\_1401003](http://www.dnaindia.com/india/report_riverfront-gets-a-bonanza-from-gujarat-civic-body_1401003)

“The controversy surrounding the plan to redevelop the banks of the Sabarmati River. Political, social and environmental background to the opposition to a major transport infrastructure modernisation project “

*city districts”* in order to achieve a city without slums (CDP, 2006).<sup>16</sup> In conditions like those of Ahmedabad, where almost 40% of the inhabitants live in slums, the forced relocation of informal neighbourhoods and their populations can only lead to further geographical and social exclusion by increasing spatial segregation and denying their right to the opportunity to live in the city.

“The controversy surrounding the plan to redevelop the banks of the Sabarmati River. Political, social and environmental background to the opposition to a major transport infrastructure modernisation project “

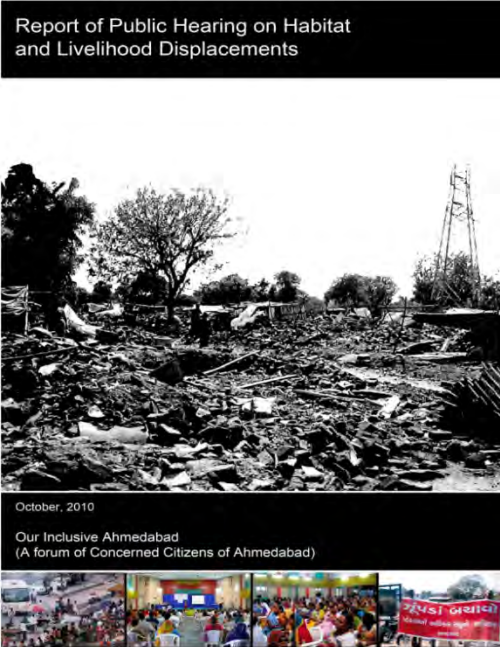
**The removal of undesirable populations**

The creation of new urban spaces entailed the departure of undesirable populations, those living in the riverbank slums demolished during the channelling of the river and the ground work for the transport infrastructure.

This led to the formation of social movements opposing the project, consisting of a few NGOs, a handful of institutions, think tanks, multicultural associations and action groups. The Sabarmati Nagrik Adhikar Manch (SNAM) is the strongest organisation, working in partnership with the NGO Self-Employed Women’s Association (SEWA), Ahmedabad Women’s Action Group (AWAG) and the local branch of the international NGO Action Aid. These grassroots movements are organising meetings, forums and events, drawing on the expertise of the CEPT’s Center for Urban Equity, the Mahatma Labour Institute and and the Indian Institute of Management’s urban governance research group.

These diverse groups have cooperated to hold a variety of workshops, conferences and social forums. In October 2010, “Our Inclusive Ahmedabad” provided a forum for the expelled residents to make their voices heard. It was a public and formal reflection of the spontaneous opposition to the planned demolition of the informal markets and the unofficial pockets of housing situated along the banks. All the speeches and contributions were transcribed in a published a document (Figure 6).

**Figure 6: Front page of the published report of the social forum of October 2010**



In the speeches and during field visits with Bheena Jadav, a social worker with Action Aid Gujarat, we gained some understanding of the political motives behind the project and the eviction processes practised by the police. For example, the building of the Pirana bridge led to the exodus of more than 500 families, roughly 3000 people who had been settled in Khodyar Nagar since the 1970s (which legally guaranteed them the right to stay). Their removal was justified by compulsory purchase to make way for transport modernisation, and the rehousing and compensation conditions were relaxed on public interest grounds. Many did not receive the financial compensation (€100) and were not allocated the promised 20m² of land. Some were able to move to municipal land on the outskirts of the village of Narol, 15 km from Ahmedabad.

<sup>16</sup>“*Rejuvenating inner city neighborhoods adjacent to the riverfront project*”.



"The controversy surrounding the plan to redevelop the banks of the Sabarmati River. Political, social and environmental background to the opposition to a major transport infrastructure modernisation project "

Illaben Pathak, Director of the Ahmedabad Women's Action group, claims that the evicted families "*have become impoverished*". The planned construction of the transport infrastructures led to the removal of more than 20,000 families and impacted on almost 50,000 families living in the urban area. Most of them experienced a dramatic deterioration in their social and economic living conditions as a result of relocation a long way out of the city, which had been the source of their livelihoods (Desai, 2010).

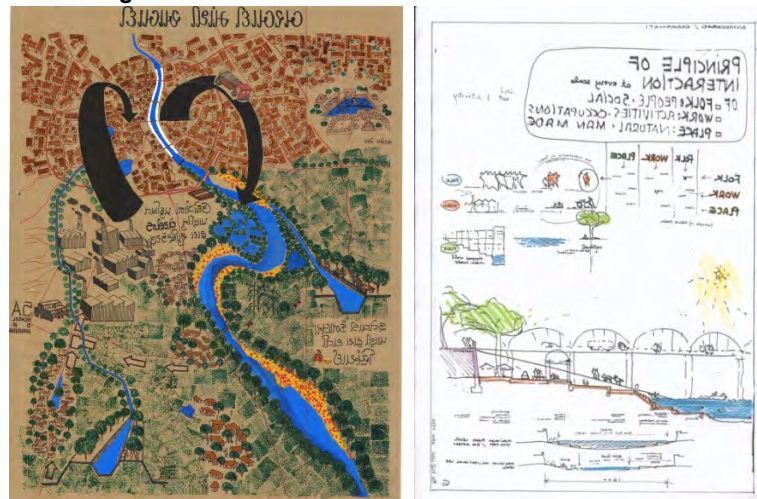
Social action groups and activists have so far failed to mitigate the project or initiate discussions with the political and administrative authorities, whether municipal or regional. Nonetheless, the willingness to make the evictions a topic of debate constitutes a political counterweight to the authoritarian exercise of regional and municipal government in the implementation of urban projects. The fact that the Master Plan is not in the public domain means that it is impossible to prepare for future developments. Nonetheless, the reclaimed land auctions should be accessible to the public.

### Reactions and alternatives to the project by architects and town planners

Since 2008, there has been frequent mention, notably during the conferences and seminars of the Sabarmati River International Workshop, of the lack of democratic consensus around the regeneration goals and the modernisation of the riverbanks. Two reactions are particularly noteworthy: that of Bernard Kohn, designer of the first project in 1966, who describes the latest version of the Master Plan presented at the Gujarat Exhibition (2007) as "*abject*"<sup>17</sup> and that of Prof. Chhaya, Director of the CEPT's School of Architecture.

Most of the architects involved in the social movement opposing the channelling project and the redevelopment of the riverbanks are concerned about the unexpected changes. The Director of the Ahmedabad School of Architecture even comments that "*the emphasis placed by the government of Gujarat on transforming Ahmedabad into an international city has betrayed the Gujarati spirit associated with modernisation. The visual simplicity [of this master plan] conceals all sorts of disorders*" (Chhaya in *Our Inclusive Ahmedabad*, 2010). He rejects the benefits of the two urban expressways running along the Sabarmati, demonstrating that they do not reflect the day-to-day mobility needs of the inhabitants of Ahmedabad. The drawing showing a map of Ahmedabad explains the environmental and social consequences of the canal project and the plan to reclaim new riverside land (Figure 7).

Figure 7: Rendering of the Sabarmati interactive and international workshops 2008-2009

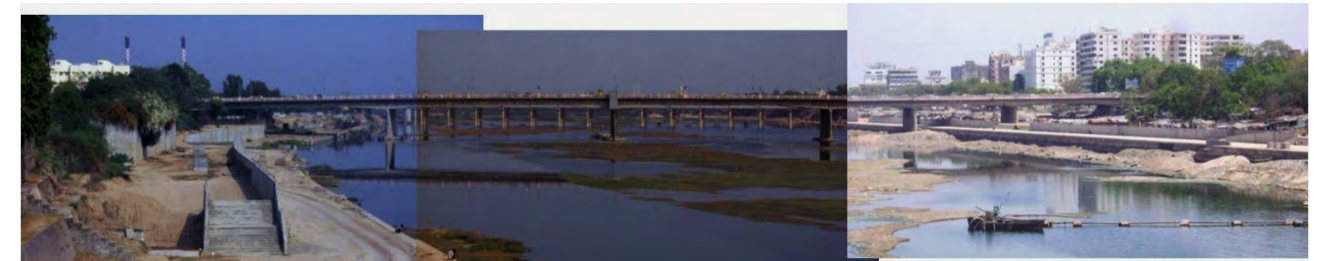


<sup>17</sup> B. Kohn at the conference "Cept – Sabarmati International Workshop 9 December 2009" describes urban planning, urban development as "*a new business*"

"The controversy surrounding the plan to redevelop the banks of the Sabarmati River. Political, social and environmental background to the opposition to a major transport infrastructure modernisation project "

Most of the architects and urban planners at CEPT denounce a project that promotes the image of an international city but is inappropriate to the local and regional context of Ahmedabad. At Vastu Shilpa, an urban research institute, P. Chaudhuri shows that an urban regeneration project could have been proposed without channelling the river and without distorting the singular urban character of the Gujarati capital (Plan 8).<sup>18</sup>

Figure 8: The new landscape of Ahmedabad along the Sabarmati (CM, May 2010)



### Lack of consensus and discussion by an authoritarian government

Navdeep Mathur described the project as a "*deception*" during the "Our Inclusive Ahmedabad" forum (October 2010). Indeed, the sudden and unexpected changes to the project, the evictions of the population and the lack of participation by the inhabitants in defining the goals and methods, has led to a movement of opposition to the project.

This project has not really been discussed in the public arena (D'Costa in Mahadevia and Kundu, 2002, Noorani, 2002) since the handful of workshops in 2001-2002. At that time, Renu Desai observed a certain infatuation with the project on the part of the Ahmedabad middle classes, who saw in it the opportunity to "*restore the confidence of investors*", to "*bring Ahmedabad back into the community of international cities*" after the dramas following the earthquake and community riots (2006:6). The sudden transformation of the project in 2007 attracted no opposition outside academic urban planning circles, social activists and the displaced populations.

The lack of communication by the responsible institutions about the riverbank regeneration project together with the lack of transparency about the purpose of the project aroused criticism from Navdeep Mathur, who condemned the project as "*deliberately obscure in order to deceive the people of the city*". Instead of a project designed to resolve social and environmental problems (official message), Navdeep Mathur denounces the sale of public property by the State in order to serve the interests of a minority of citizens capable of buying an apartment in the new, high-status residential complexes or of travelling by car.

An associate member of the Indian Institute of Management's Study Group on public systems and urban governance, he is organising research seminars on the impact of modernisation projects on the economic fabric. On the urban planning side, Darshini Mahadevia and Ghansyam Shah are mobilising intellectuals of Ahmedabad around a plan for an inclusive city and denouncing the eviction of the inhabitants and informal traders from the banks of the Sabarmati River. The Director of the Centre for Behavioural Sciences, Prasad Chacko, describes the project as a "*violation of the river*". For Navdeep Mathur, the channelling of the river and the construction of expressways is an example of State neoliberalism depriving an undesirable section of the population not only of the political economy of access to land (here the illegal but legitimate

<sup>18</sup> *Re-structuring the Development along a non-Perennial River, Case: Sabarmati River, Ahmedabad*, dissertation selected by MIT for the "Archiprix 2011", awarded to the 24 best urban projects from architecture schools by the Vienna Academy of Arts (Austria). P. Choudhuri describes the bridges of Ahmedabad as "*a focus of intense activities*", legitimising the vibrancy of the informal markets and the presence of precarious housing along the riverbanks. In order to revitalise the waterfronts and the building density, he develops flood management and wastewater treatment solutions.



"The controversy surrounding the plan to redevelop the banks of the Sabarmati River. Political, social and environmental background to the opposition to a major transport infrastructure modernisation project "

occupation of public urban property) and the right to the city of poor and vulnerable communities, but also of the symbolic economy of the representation of diverse social groups within the city.

The political scientists, architects, planners and sociologists spearheading the opposition to the Sabarmati project are organising workshops, such as the two international "Sabarmati" workshops at the 2008 and 2009 CEPT Workshop or more recently in the forum on "Our Inclusive Ahmedabad" in March 2011 in Ahmedabad. Nonetheless, no further discussions had taken place between the SRDFCL, EPC, the municipality and the action groups.

Figure 9: A high-profile project embodied by the Chief Minister of the State



Within the context of India's cities, the major problem is land ownership, which gives the municipality little room for manoeuvre.<sup>19</sup> This argument, advanced by Bimal Patel, architect of the riverbank regeneration project, described as "Ahmedabad Municipality's Expert", purports to explain some of the reasons legitimising the municipality's action in its governing role.

It disguises the municipality's real motivation, working with and on behalf of the interests of the State of Gujarat to acquire public urban land for resale. This privatisation of public property is strongly criticised by many urban planners, such as Eric Denis, Tridib Banerjee and Renu Desai. For example, E. Denis identifies the takeover of land management by state-controlled bodies and urban development, industrial and infrastructure agencies, as an outsourcing of land ownership (2011): "The parastatal land development agencies are aligning their strategies and practices with regional industrial and investment policies and cultivate a coalition of interest with private groups in the spirit of aggressively pursuing economic growth. They strive to facilitate investors' access to land in a context of inter-state and inter-city competition."

## Conclusion

Ahmedabad aspires to the status of an "international city". Following the repeated and well argued mobilisation of different groups of local stakeholders – NGO Action Aid and SEWA, and institutions such as the Center for Urban Equity and IIM-A Public System Group – the municipality has been obliged to announce changes to several aspects of the Master Plan. However, no public presentation or public meeting has been proposed by the municipality, by the public company SRDFCL or by Environment Planning Collaborative. In fact, the real motives are the municipality's desire to take control of public property of potential value in the major riverside area for the benefit of certain urban social groups.

<sup>19</sup> As underlined in Bimal Patel's paper to the committee for the support of populations displaced by infrastructure projects.

"The controversy surrounding the plan to redevelop the banks of the Sabarmati River. Political, social and environmental background to the opposition to a major transport infrastructure modernisation project "

In the political context of Ahmedabad, the public action by the municipality and the State of Gujarat is driven by a wish to modernise the economic capital quickly in order to accelerate its inclusion in the globalisation process. However, this strong drive by the political decision-makers is motivated by a particular concern for certain of the city's social and ethnic groups (the upper middle class). The reasons behind public action on infrastructure development do not therefore seem to be solely motivated by a desire to resolve the problems of intraurban congestion and traffic flow. The political, social and economic context of Ahmedabad suggests that the plan to build two expressways along the river banks arises more from the desire to "clear the city of its slums" (CDP, 2005:132) and to create a rejuvenated, modern inner-city district which will be inaccessible to the previous populations.

The transport infrastructures are the most visible, obvious and striking aspect of the regeneration of a city. Their modernisation is an immediate response to congestion and therefore to the enhancement of mobility and greater accessibility. Ahmedabad, like other regional and national Indian cities, is engaged in an ambitious programme to modernise Urban public transport infrastructures, notably through new transport systems and new urban road networks. The construction of numerous roads and engineering structures has become a symbol of strong economic growth. In the regeneration of India's cities, growing emphasis is placed on the need for mobility, in particular car mobility, to support growing demand. Official reports note the crucial need to provide new transport infrastructures (Mohan, 2009)<sup>20</sup> to meet middle-class demand for car travel (Assayag, 2009) (Ruet, 2009).<sup>21</sup> The main proposal is to turn the riverbanks into a twelve lane expressway on the east bank, on a similar model to Highway 1 which runs along the River Hudson in New York City, paired with an eight lane expressway on the east bank.

## References

- Action Aid Gujarat, 2009, *Housing right/Human Right Reathan Adhikar Manch*, New Delhi, Action Aid India
- AMC, 2004, *Ahmedabad City Development Plan*, Ahmedabad, AMC pp 180
- Chaudhuri, A., 2007, "Sabarmati: creating a new divide ?", *Economic and Political Weekly*, 42 (8),
- Choudhuri, P., 2009, *Re-structuring the Development along a non-Perennial River, Case: Sabarmati River, Ahmedabad*, Master of Architecture – Urban Design Thesis, Center for Environmental and Planning Technology, Ahmedabad, Gujarat, India
- D'Monte, D., 2011, "Sabarmati Sorrow", *Frontline*, 28 (02), 15 Janvier
- Denis, E., 2011, "La financiarisation du foncier observée à partir des métropoles égyptiennes et indiennes", *Revue Tiers Monde*, 206 (2)
- Desai, R., 2006, "Uneasy Negotiations: Urban Redevelopment, Neoliberal Globalization and Hindu Nationalist Politics in Ahmedabad", India, Working Paper extract from PhD Thesis from Berkeley University, Ahmedabad
- Desai, R., 2009, "Producing Uncertainty: A Study of the Politics of Slum Resettlement under the Sabarmati Riverfront Development Project", Papier présenté au Séminaire sur la Gouvernance Urbaine and les Déplacements de populations urbaines causés par le développement, Indian Institute of Management, Ahmedabad
- Desai, R., 2011, "Hindutva Politics and Urban Space in Ahmedabad", in N. Al Sayyad, *The Fundamentalist City*, pp99- 124

<sup>20</sup> Dinesh Mohan is the Design and Editorial Director of the 2009 report on the "Cities of Asia" for UN-Habitat.

<sup>21</sup> Indian Institute of Management and Indian Institute of Technology

"The controversy surrounding the plan to redevelop the banks of the Sabarmati River. Political, social and environmental background to the opposition to a major transport infrastructure modernisation project "

Environmental Planning Collaborative, 1998, *Proposal for Sabarmati Riverfront Development Ahmedabad*, SRFDCL, Ahmedabad

Hesselberg, J., 2002, *Issues in Urbanization, Study of Ahmedabad City*, 1<sup>st</sup> edition, Jaipur, Rawat Publication, pp224

Hirway, I., and D., Mahadevia, 2005, *Gujarat Human Development Report 2004*, Ahmedabad, Mahatma Gandhi Labour Institute

Kundu, A., and D., Mahadevia, 2002, "Globalisation, Poverty and Vulnerability" in *Poverty and vulnerability in a Globalising Metropolis: Ahmedabad*, edited by D. Mahadevia and A. Kundu, Delhi, Manak Publishers

Mahadevia, D., 2002, "Communal Space over Life Space – Saga of Increasing Vulnerability in Ahmedabad", *Economic and Political Weekly*, 37, (48), 30 novembre

Ministry of Urban Development, 2005, *National Urban Transport Policy*, New Delhi, Ministry of Urban Development, Government of India

Noorani, AG., 2002, "Narendra Modi's Directive to the Press", *Economic and Political Weekly*, 37 (23)

Our Inclusive Ahmedabad, 2010, *Report of Public hearing on habitat and livelihood displacements*, Ahmedabad, Our Inclusive Ahmedabad – Center for Urban Equity – Public System Group (IIM-A)

Rajagopal, A., 2010, "Special Political Zones: urban planning, spatial segregation and the infrastructure of violence in Ahmedabad", *South Asian History and Culture*, 1(4), pp 529-556

Roy, A., 2001, *The Algebra of Infinite Justice*, 1ère édition, Delhi, Penguin

Ruet,J., and S., Tawa Lama-Rewal, *Governing India's Metropolis, Cities and the Urban Imperative*, New Delhi, Routledge, pp315

Shurmer-Smith, P., 2000, *India: Globalization and Change*, London, Arnold

Spodek, H., 2001, "Crisis and Response Ahmedabad 2000", *Economic and Political Weekly*, 36 (19)

World Bank, 2002, *Cities on the Move*, Washington DC, World Bank Press

<b>Introduction .....</b>	<b>2</b>
<b>Momentum towards "international city" status .....</b>	<b>2</b>
Emergence of transport infrastructure development policies .....	2
Transforming a regional city into an "international metropolis" .....	3
The dysfunctions of a city .....	3
Re-establishment of authority by the politicians.....	4
History of a controversy .....	6
The slow progress of the Sabarmati riverbank redevelopment project.....	6
Unexpected transformation of the project .....	7
<b>Opposition to population displacements by social activists .....</b>	<b>9</b>
<b>Conclusion.....</b>	<b>14</b>
<b>References .....</b>	<b>15</b>

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## MOVING A CAPITAL CITY TO IMPROVE TRANSPORT CONDITIONS?

### THE CASE OF JAKARTA

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### 1. Introduction

50 years ago, in the end of 1950, Sukarno, the first President of Republic of Indonesia, had a concept of the moving of capital city (Jakarta) to Borneo island. What was the reason? In this period, with huge area of Indonesia, the President wanted the capital city to be located in the middle of this country. Borneo island represents one of areas that is located in the middle of Indonesia and it can be reached easily from all of Indonesian sides. However, this idea of moving of capital city remained a concept for a longtime.

Today, Jakarta is totally different compared to 50 years ago. Economic development that is concentrated in Java island and especially in Jakarta produces radical change of this city. On the economic side, Gross Domestic Regional Product (GDRP) of Jakarta and its agglomeration was around 22% of national GDP in 2002. In demographic side, the total population of Jakarta was 2,7 million in 1960 and 7,8 million (4,1% of Indonesian population) in 2000, or during 40 years, there is an increasing of around 200%.

The rapid growth of economy and population implies an important number of trips. According to *The Study on Integrated Transportation Master Plan for Jabodetabek* (SITRAM) project in 2000, there were around 34 million trips/day in Jakarta's agglomeration with 18 million trips/day for only Jakarta. The most shocking result from this project was that Jakarta will be totally saturated by 2014 if there is no significant improvement on transport infrastructure. Apparently, this prediction of SITRAM happened quicker than predicted. The culmination was in 2010, serious traffic congestion in Jakarta generated people's anger, including the President Susilo Bambang Yudhoyono (SBY). People's activity disturbed by traffic congestion make the President propose three solutions for the capital city.

Who is Susilo Bambang Yudhoyono (SBY)? He is the sixth President of Republic of Indonesia. His carrier in military was very successful. Before his retreat in military, the fourth President of Republic of Indonesia, Abdurrahman Wahid, appointed him to be Minister of Energy in 1999. SBY was born in Pacitan in Province of East Java.

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The three solutions proposed by the President for traffic improvement are: 1) The moving of the capital and center of government in new area, 2) The only moving of center of government in new area and third option, improving of transport infrastructure in consistent way. According to Mr. President, one of three solutions has to be realized rapidly in order to avoid the collapse of the capital because of traffic congestion. Unfortunately, traffic congestion is the only reason behind the President’s solution. He didn’t speak about equitable development in others areas of Indonesia. When we speak about the President’s solution, we can’t forget the local authority of Jakarta. What we mean is the relationship between the President and the Mayor of Jakarta. Sometimes, a decision is related to “proximity” of power. In this case, there isn’t a conflict. The Mayor of Jakarta is near to the power because they are in the same political machine.

In this article, we would like to show actual situation of the President’s proposition. Why did Mr. President have to propose these solutions by himself (was there any break within the government)? Who is supporting and not supporting these solutions (Political party, academician etc)? Where are we? What is the role of media within the debate? And finally the author will give his opinion concerning these propositions.

2. Evolution of transport policy in Jakarta

Historically Jakarta had a heritage of good public transport infrastructure from the colonial government of Netherland. From colonial period to the years of 60, tramway was comfortable and rapid public transport and became a backbone of passenger trip in Jakarta.

However, from time to time this transport mode disappeared from Jakarta. According to this condition, we can see that the policy of transport infrastructure development of Jakarta changed. If the orientation of development is still in public transport corridor, tramway operation isn’t surely deleted. Tramway infrastructure had been changed massively with road network construction. There is no more tramway in Indonesia. “Suharto’s regime was an era where it began anti public policy. Automotive industry took a lot of facilities from government. On the contrary, there was no more attention in public transport development. That’s why there is a degradation in rail network performance” (Hendardi, Director of SETARA Institute, January 2011).

Waterways mode was a very important goods transport mode in Jakarta. Ciliwung river splitting Jakarta plays an important role in waterways mode. During colonial period, this river had played an important role for international commerce. However in the middle of 20<sup>th</sup> century, it started a degradation in this river (sedimentation, occupancy of residence in river side, industrial and household waste) and this condition caused commercial activity stopped. Agriculture product from neighborhood cities, that was normally delivered by Ciliwung river, has now to be delivered by road transport mode.

Until the middle of 70, Jakarta developed without a good planning. Many urban roads were constructed. The first toll road was constructed in 1978. It connects Jakarta and Bogor (city in the south of Jakarta). The existence of this toll road gives important benefit for the operator. This experience made the government build another toll road. Since this time, Jakarta is surrounded

by toll road; west segment toll road (middle 1980), east and central segment (in the beginning of 1990) as well as a widening of east and west segment (middle 1990). We call “surrounded” by toll road because there is already central toll road (inner) that serves city center of Jakarta and there will be another toll road project that surrounds Jakarta from outer side called Jakarta Outer Ring Road (JORR) project.



Toll road network in Jakarta<sup>2</sup>

The operator of toll road in Indonesia is government enterprise, called PT. Jasa Marga. So the benefit of toll road operation will go to income of government. The growth of traffic is around 4% per year.

Table 1 - Traffic of inner toll road in Jakarta

Year	Vehicle/day
2007	495 729
2008	477 997
2009	495 208
2010	515 811

Source: jasmarga, 2011

Every 2 years, toll road tariff in Indonesia increases around 10-11%. This increase is based on road law number 38-2004 and related to maintenance cost and inflation. However, the increase of tariff is always refused by non-profit institution consumer called YLKI. This institution says that it doesn’t make sense to increase toll tariff while there is always a congestion in toll road. In Indonesia, toll road is only dedicated to car passenger and heavy weight vehicle.

<sup>2</sup> [http:// griyaidaman.net/?p=127](http://griyaidaman.net/?p=127)

As regards public transport supply, since 1976 the government has already operated commuter train that serves eastern line (Jakarta – Bekasi), southern line (Jakarta – Bogor) and western line (Jakarta – Tangerang). However, the commuter train service has gradually degraded. For instance a lack of fleet, low frequency, signal damage etc.

Finally road network development is hampered by land allowance and ratio between road length and area wide in Jakarta is only 3-4%. This ratio is far from ideal condition which is 10-15% (Transportation framework of Jakarta 2004). While every year, private vehicle growth rate increases by around 10%. The disproportion between road development and private vehicle growth is one of traffic congestion factors in Jakarta.

Since 1990, residential and employment area have been developed in beltway zone (neighborhood cities of Jakarta). This development was also supported by road infrastructure construction. This situation produces serious traffic congestion not only in city center but also in other areas of Jakarta.

In 2004, there was a project of monorail (sky train for serving city center of Jakarta). In the beginning, there were 2 lines of monorail which will have been constructed. By the time, this project stopped due to financial difficulty of private investor. Local government of Jakarta couldn't take over this project. If you come to Jakarta, you will see abandoned monorail construction.



Abandoned monorail construction<sup>3</sup>

In the same year, local government of Jakarta started to construct bus way system, called TRANSJAKARTA. This system is adopted from TRANSMILLENIO in Colombia. Until 2010, there were already 10 lines of Transjakarta with route length around 120 km. Every day there are around 250 000 passengers in the transjakarta. In 2004, the number of passengers was around 15 000 000 passengers. In 2009, the number of passengers was increasing around 500% compared to 2004. However the bus way service is not better from time to time. Bus way route that occupies almost a half of existing road produces serious traffic congestion. Finally, many car and motorcycle drivers enter bus way route in order to move faster.

<sup>3</sup> <http://megapolitan.kompas.com/read/2011/03/22/19090837/Monorel.Terbengkalai.Swasta.Disalahkan>



Respected Transjakarta bus way<sup>4</sup>



Unrespected Transjakarta bus way<sup>5</sup>

Until now, bus way route protection is not easy task for local government of Jakarta. Transjakarta bus way serves only the city center and its service is not integrated yet with another public transport mode to others neighborhood cities. Transfer of car and motorcycle users to bus way is not significant yet. Bus way passenger is usually from another public transport mode that was removed due to superimposing route. According to Fauzi Bowo as the Mayor of Jakarta, protection of bus way route is necessary to increase the number of passengers.

In the future, there will be a project of metro (subway) in Jakarta. It serves southern part of Jakarta. The budget is from a cooperation between central government and local authority of Jakarta. The construction will be expectedly began in 2012.

In this table 2 below, we present modal split in Jakarta for the purpose of trip to work. In general, non-motorized transport (walking and bicycle) is the most important transport mode. The utilization of public transport is in the second place. Car and motorcycle are enough comparable. If we take into account modal split according to income category, we will see the importance of car in high income level. In the middle income category, the utilization of public transport is the highest and non-motorized is slightly smaller than public transport. Non-motorized utilization is dominant in low income level.

Table 2 – Modal split for trip to work purpose

<sup>4</sup> <http://matanews.com/2009/12/24/busway-buka-rute-wisata/>

<sup>5</sup> <http://vilesdotcom.blogspot.com/2011/04/super-busway.html>



Income category	All mode	Car	Motor cycle	Public transport	Non-motorized
All income	100%	11,9%	11,7%	34,8%	41,6%
High income	100%	43%	11%	28%	18%
Middle Income	100%	12%	16%	38%	34%
Low Income	100%	3%	8%	34%	55%

Source: SITRAM, 2002; recalculated by author

However, there is a significant change of modal split in recent situation. Motor cycle seems to be more important than 10 years ago.

From a brief history of transport system above, we can say that before 2000, it is clear that transport policy in Jakarta tends to develop road transport system more than to improve public transport infrastructure.

3. Decentralization

Since Suharto’s presidential regime being failed in 1998, Indonesia becomes an open country. People can speak freely and they are not afraid to be put in the jail if they criticize the government. Mass-media can communicate its news without government pressure.

This freedom affects also government system. In 1999, the government produced a law of decentralization which essentially gave more authority to local government.

One of the authorities is in transportation sector. Many tasks of Ministry of Transportation have been transferred to local government. Main task of Ministry of Transportation especially Directorate General of Land Transport is producing transportation law and regulation that can become a law guide in local level.

In reality we can’t see at the good result yet. Even though local government has more authority in human resource development, human resource in transportation sector is not good. According to Land Transport Education Center studies in 2004, there was only 20% competent human resource in transportation sector.

This condition affects transportation sector development in Jakarta. With the growth of important trip number that has to be solved by innovation in transportation sector, a lack of competent human resource slows up the improvement of transportation system in Jakarta.

4. Stake holders in Jakarta’s transportation system

Transportation sector in Indonesia is managed at two levels. Ministry of Transportation, Ministry of Public Work and Police Department are for national level and local government is for local level.

After having executed decentralization, the main task of Ministry of Transportation and Ministry of Public Work is limited to produce transportation regulation for local level guide and only executes transportation project in national level. The responsible institution of transportation system in Jakarta is only local government. However if we talk about Jakarta, we can’t forget its neighborhood cities such as Bogor, Tangerang, Bekasi, because there is a significant number of trip from these cities. According to SITRAM result, from 1985 to 2002, the trip number from these cities to Jakarta was increasing around 10 times.

With many local governments involved in transportation system of Jakarta’s agglomeration, it is very difficult to meet one vision in good transportation management. This obstacle could be one of reasons why the president take by himself the solution of transportation problems in Jakarta.

5. Lesson learned from another country

Malaysia

The separation between capital of country (capital of economy) and the center of government is already taken in another country. Malaysia is one of countries that has experience in this concept. One of reasons why Malaysia tried to move the center of government from Kuala Lumpur is due to congestion.

Putrajaya is a planned city, located 25 km south of Kuala Lumpur, that serves as the federal administrative center of Malaysia. The seat of government was shifted in 1999 from Kuala Lumpur to Putrajaya, due to the overcrowding and congestion in the Kuala Lumpur areas. Nevertheless, Kuala Lumpur remains Malaysia's national capital, as the seat of parliament, as well as the country's commercial and financial center.

The asian financial crisis of 1997/1998 had somewhat slowed the development of Putrajaya. In 1999, 300 staff members of the Prime Minister's office moved to Putrajaya and the remaining government servants moved in 2005.

However Kuala Lumpur’s traffic problem still exists. Between 1985 and 1997, the modal share of public transport decreased from 34,3 percent to 19,7 percent. This represents a major shift away from public transport and in particular bus transport, which is partly attributable to higher personal affluence leading to an increase in car ownership and also to deficiencies in the bus services. The increasing reliance on private transportation, in particular private cars, has created considerable pressure on the road network which has contributed to the problems of traffic congestion.



After the creation of Putrajaya, modal share of public transport in Kuala Lumpur was around 14,9 percent in 2005. This percentage reveals that private vehicle utilization is still high and it produces more congestion in Kuala Lumpur.

## 6. The moving of capital and center of government

The most extreme solution proposed by the President of Republic of Indonesia is to move the capital and center of government to a new area. This solution is not easy to be executed because it relates to significant budget and activity moving to new area. This solution becomes a debate in many levels of citizens.

In Jakarta, there are 2 types of government employee. The first type is government employee for central level working in each ministry. The number of this type is around 900 000 persons. The second type is government employee for local authority of Jakarta. There are around 90 000 persons that work in local authority. So if we move all ministries to another region, there are at least 900 000 persons who have to be moved (10% of total Jakarta's population in 2010).

We try to collect some opinions from many elements concerning the moving of capital and center of government:

### 6.1. Political party

In presidential election 2009, Susilo Bambang Yudhoyono and Budiono (Vice President) took a victory with around 60% votes. This is the 2<sup>nd</sup> period of SBY's government. Before this victory 2009, SBY with democratic party took the victory of presidential election in 2004. Even though he won with a significant vote, SBY seems not to be self confidence for filling the government with his person. The President demanded the opposition political party to join in his cabinet. Only one major opposition political party didn't join in the government, called PDI-P. Some intermediate parties didn't also join the cabinet.

#### *GOLKAR political party*

GOLKAR is one of the biggest political parties in Indonesia. GOLKAR, as a famous political machine, contributed to Suharto's era during 32 years. In SBY's government period, this party joins to cabinet. Even though they are in the cabinet, we can see that they (in legislative power) often criticize the policy of government.

The Secretary General of GOLKAR, Idrus Marham originates from Sulawesi island, thought that it is not the right moment to move both capital of country and center of government. According to him, the moving of capital is not easy and simple. The problem is that management of country is in the government. Wherever there is a government, people will try to approach it. Idrus said that it is better to separate capital of country and center of government like some examples from another country. For instance in Malaysia, Kuala Lumpur is still the capital of country (center of economy) but the center of government located in Putrajaya.

#### *GERINDRA political party*

The political party of "Gerakan Indonesia Raya" (GERINDRA) supported the moving of capital from Jakarta. Ahmad Muzani originates from Java island, as the Secretary General of Gerindra, said that region which is appropriate for new capital is in Borneo island. Concept of capital moving is from Sukarno's period, however there is no realization until now. If the capital of country moves to Borneo island, there will be distribution of development in Indonesia.

### 6.2. The Mayor of Jakarta

Fauzi Bowo, as the Mayor of Jakarta, thought that the moving of capital to another region will not solve rapidly many problems in Jakarta such as serious traffic congestion and flood, but these problems will still happen in this city. Moreover, many problems in Jakarta can be solved by not only local government of Jakarta but also central government as well as neighborhood cities of Jakarta.

### 6.3. Academician

In this section, we present opinion from seven academicians concerning the concept of capital moving. Seven academicians are expert in Indonesian urban studies. Six academicians agreed with the concept of capital moving. Only one doesn't agree with this concept.

Marco Kusumawijaya as director of Rujak Center for Urban Studies can't accept the concept of capital moving. He said that the problems of Jakarta such as serious traffic congestion and flood can be solved with a lower cost than the capital moving. Jakarta is not more dense than Tokyo, however this Capital of Japan succeeds to manage its traffic.

We conclude others opinions from 6 academicians as below:

- Adrinof Chaniago (University of Indonesia): social inequality is quite high in Jakarta and it can probably produce social chaos as in 1998.
- Yayat Supriyatna (University of Trisakti): Jakarta is not prepared as center of economy and government. Ideally, the population of Jakarta is not more than 5 million peoples.
- Haryo Winarso (Institute Technology of Bandung): the capital moving is not only related to congestion but also others reasons such as the important number of populations etc.
- Sonny Harry Harmadi (University of Indonesia): the population density in Jakarta is already high. It needs to distribute the population in others regions.
- Tata Mutasya: Indonesian development is certainly concentrated in Java island especially in Jakarta.
- Jehansyah Siregar (Institute Technology of Bandung): he said about economical advantage if the capital is moved to another region.

From several opinions above, there are important points that have to be given attention. In point of view of political party: the moving of center of government will be prioritized. The capital of country (capital of economy) remains in Jakarta. In point of view of local government: capital of

country and center of government are not necessary yet to be moved. Almost all academicians of urban studies agreed with the moving of capital. The problem of Jakarta such as serious traffic congestion has to be solved by intervention of central government. Why do central government has to help local authority of Jakarta? It relates well to the weaknesses of local authority. For instance, the construction of mass rapid transit (subway) needs expensive cost. Local authority can't provide this cost by itself. So the central government has to participate in this budgeting. Furthermore, coordination is a essential tool in enhancing transport system performance in Jakarta. We explain a little bit "coordination" in this section below.

## **7. The improvement of transport infrastructure without the moving of capital**

In order to execute the President's option: transport infrastructure improvement in a consistent way, Budiono as the Vice President with another related institution has produced 17 steps for solving transport problem in Jakarta. Budiono is famous economist in Indonesia. His career is began from lecturer in University of Gajah Mada, Yogyakarta. Since 1998, he has joined to the cabinet. Before Vice President, he worked as State Minister of Planning and National Development, Minister of Finance, Coordinating Minister for the Economy as well as Governor of Bank Indonesia.

One of 17 steps is creating "super body" institution in transport sector. As there is a difficulty to make coordination between local government in Jakarta's agglomeration and the ministry in central level, it is necessary to create a "super body" institution that can coordinate all levels of government. This "super body" is needed in order to run well realization of transport infrastructure. So transportation demand that grows rapidly can be accommodated by acceleration of transport infrastructure development.

The creation of "super body" institution in transport sector for Jakarta's agglomeration is expectedly completed by the end of 2011. This "super body" will have authority over the Mayor of Jakarta and its agglomeration. So, there will be one decision maker for managing transport policy in Jakarta's agglomeration.

## **8. Where are we?**

### **8.1. The moving of capital**

Until now, there is no concrete progression concerning the concept of capital moving. Velix Wanggai, as specialized staff of President for development and decentralization, who is appointed by the President for analyzing the concept of capital moving didn't give explanation yet about the progression. He said that analysis of capital moving needs 2 years to be finished (until the end of 2012) before the decision taken.

According to Velix Wanggai, there are 12 cities candidate for new capital or center of government. They are distributed in Java, Borneo, Sulawesi and Papua island. However, there isn't a decision yet where the new capital will be established.

## **8.2. The improvement of transport infrastructure without capital moving**

In June 2011, seven months after the creation of 17 steps for solving transport problem in Jakarta, Kuntoro Mangkusubroto as Head of the President's unit of work for controlling development gave negative judgment related to the result of these steps. He thought, some of these steps are already executed in unplanned manner. However, in general the project of 17 steps is not executed yet. For example, realization of double-double track for rail network in eastern Jakarta.

Others steps are: realization of electronic road pricing (ERP), protection of bus way route from another traffic, on-street parking management, improvement of road quality, construction of another bus way route, standardization of gas price for public transport (done), restructuring of small bus route, optimization of commuter train, law enforcement of illegal public transport, acceleration of subway construction, revision of transportation master plan, creation of "super body" institution for transport sector, acceleration of inner circle rail network construction, construction of 6 segments of toll road in city center, and construction of park and ride facility near train station.

## **9. Role of mass-media in the middle of debate**

The mass media plays an important role in distributing information. "Pro and contra" related to moving of capital became a headline in the end of 2010. Aburizal Bakrie, the Head of Golkar political party is a success entrepreneur in many sectors. One of his sectors is media business in national level. Even though opposition political party can use this concept of capital moving to attack the president's policy by unfair information in their media network, opposition political party didn't do that. Almost all medias give neutral information. People become more intelligent in addressing the moving of capital because they can get good quality of information especially opinion from some experts.

Others businesses of Aburizal Bakrie are in energy, telecommunication and infrastructure. In infrastructure domain, his group get a contract to construct one segment of toll road (Trans Java). In 2007, Forbes magazine chose Aburizal Bakrie as the richest people in Indonesia.

## **10. The opinion of author**

Many stakeholders in government level and academicians gave already opinion in the concept of capital moving. Moreover, there are also some politicians contributed in the debate of capital moving. In general all of them agreed with the capital moving but the preparation has to be fixed as well as possible.

Personally, the author agrees with the moving of capital. However there are some steps which have to be prepared in order to get a success without forgetting roots of all problems in Jakarta.

The concept of capital moving is caused by a serious traffic congestion in Jakarta. SITRAM prediction (2002) revealed that Jakarta will be totally saturated in 2014 if there is no revolution in transport infrastructure and land use planning. However, the culmination point of traffic

congestion was in 2010. This situation happened 4 years more rapid than SITRAM prediction. It means that local government of Jakarta and another institution can't provide yet transport infrastructure which well supports mobility of inhabitants in Jakarta's agglomeration.

Regarding the proposition of President, author offers 2 solutions in short and medium term. Short term solution has to be realized before the next election of President in 2014. This solution is to accelerate the realization of 17 steps for solving transport problem in Jakarta. With this solution, the author is convinced that serious traffic congestion in Jakarta can be gradually reduced, so it can improve mobility of inhabitants and goods.

High urbanization rate in Jakarta each year reveals that Jakarta is a prosperous economic center for its inhabitants. This condition relates to concentration of economic activity and central government in Jakarta. In order to reduce high urbanization rate and distribute development in all over Indonesia, the author agrees with the concept of capital moving. Jakarta remains capital of Indonesia (center of economy) but center of government has to be localized in another region.

The center of government moving is a medium term solution. Planning of center of government moving has to be well prepared and decided before the election of President in 2014. So the next elected President will directly execute center of government moving to another region.

The only center of government moving will absorb less budget than the moving of both capital of country and center of government. It will be better that the budget of capital and center of government moving is allocated to develop undeveloped region or to increase the budget of education.

In realizing 2 solutions above, the government of Indonesia will take 2 important advantages. Firstly, in improving transport accessibility in Jakarta, we hope that it can increase the productivity of this region. Economic activity is directly proportional with transport accessibility. Secondly, the target of equitable development can be implementable by moving of center of government. With over time, the moving of center of government can generate economic activity in new center of government.

## References

Antaraneews.com, 31 July 2010, Pemindahan Ibukota Atasi Kesenjangan (*The moving of capital overcome disparity*) available in <http://www.antaranews.com/berita/214289/pemindahan-ibukota-atasi-kesenjangan>

Bataviase.co.id, 3 August 2010, Fauzi Pindahkan Ibu Kota Tak Selesaikan Masalah (*Fauzi : The capital moving don't solve the problem*), available in <http://bataviase.co.id/node/323239>

Ho Chin Siong, 2006, Putrajaya –Administrative Centre of Malaysia -Planning Concept and Implementation-, paper presented at Sustainable urban development and Governance conference at SungKyunKwan University Seoul, South Korea, November.

Kaltimpost.co.id, 17 September 2010, SBY Semakin Seriusi Pindah Ibu Kota (*The President of Indonesia , Susilo Bambang Yudhoyono (SBY) deeps the moving of capital*), available in <http://www.kaltimpost.co.id/index.php?mib=berita.detail&id=73417>

Kompas.com, 22 Maret 2011, Monorel terbengkalai, swasta disalahkan (*Monorail abandoned, private sector accused*), available in <http://megapolitan.kompas.com/read/2011/03/22/19090837/Monorel.Terbengkalai.Swasta.Disalahkan>

Kuala Lumpur Structure Plan 2020, available in: <http://www.dbkl.gov.my/pskl2020/english/transportation/index.htm>

Local government of Jakarta, 2004, Pola Transportasi Makro (*The framework of macro transportation*).

Maidin, S and Mohamad, J, 2011, Re-Thinking Urbanism for Kuala Lumpur Conurbation: Live Work and Travel Easily, Proceedings REAL CORP 2011 Tagungsband

Pacific Consultants International et Almec Corporation, 2002, The Study On Integrated Transportation Master Plan For Jabodetabek (SITRAM) Phase II.

Suaramerdeka.com, 5 Agustus 2010, Pemindahan Ibu Kota Tak Selesaikan Masalah Jakarta (*The moving of capital doesn't solve Jakarta's problem*), available in <http://suaramerdeka.com/v1/index.php/read/cetak/2010/08/05/119374/Pemindahan-Ibu-Kota-Tak-Selesaikan-Masalah-Jakarta>

Vivanews.com, 26 July 2010, Gerindra: Kalimantan Ideal untuk Ibukota (*Gerindra political party: Borneo Island will be ideal Capital*), available in <http://us.politik.vivanews.com/news/read/166872-gerindra--kalimantan-ideal-untuk-ibukota>

Vivanews.com, 26 July 2010, Golkar: Belum Saatnya Ibukota di Kalimantan (*Golkar political party: It is not the right moment to move the Capital*), available in <http://us.politik.vivanews.com/news/read/166833-sekjen-golkar--belum-saatnya-ibukota-pindah>

Vivanews.com, 11 December 2010, Istana: Riset Pemindahan Ibukota Dua Tahun (*The research of capital moving takes 2 years*), available in <http://us.politik.vivanews.com/news/read/193278-istana--riset-pemindahan-ibukota-dua-tahun>

Vivanews.com, 5 August 2010, Pendapat Tujuh Pakar Soal Pemindahan Ibukota (*The opinion of seven academicians of urban studies*), available in <http://us.politik.vivanews.com/news/read/169177-pendapat-tujuh-pakar-soal-pemindahan-ibukota>



Colloque international "La fabrique du mouvement", Paris, 26-27 Mars 2012

Vivanews.com, 17 October 2010, PKS Tolak Pemindahan Ibukota (*PKS political party refuses the moving of Capital*), available in <http://us.politik.vivanews.com/news/read/183330-pks-tolak-pemindahan-ibu-kota>

Vivanews.com, 11 December 2010, Staf Presiden: Ada 12 Calon Ibukota Baru (*The President's specialized staff: there are 12 regions for new Capital*), available in <http://us.politik.vivanews.com/news/read/193251-12-calon-ibukota-pengganti-jakarta>

Vivanews.com, 16 October 2010, Sutiyoso: Solusi Macet Bukan Pindah Ibukota (*The solution of congestion is not to move the Capital*), available in <http://us.metro.vivanews.com/news/read/183234-atasi-macet-bukan-dengan-pindah-ibukota>

The making of movement. What is it that drives public action on urban mobility issues?

## Draft Paper

**Getting ecology on the move. The controversies at the outset of the Vélib project.**

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## Introduction

Sustainable city, new technologies, new mobility, public and individual transport. These, amongst others, are the terms usually used to refer to the worldwide spread of public bicycle schemes (PBS). Appreciated for their environmentally friendly character, these systems have become a must for cities wishing to join what is called “green culture”. They now exist in more than 110 cities around the world (Vienna, Berlin, Brussels, Seville, Dublin, Barcelona, Paris, Rome, Rio de Janeiro, etc.). Buenos Aires and London were the last cities to set up a programme of this type, the latter having adopted the *London Cycle Hire* system, and projects of the same ilk are on their way in cities like New York and Sydney. The multinationals JCDecaux and Clear Channel, experts in street furniture, dominate the PBS market around the world, having professionalised the operation and maintenance of these types of systems. These technologies are based on the principle of fixed docking stations scattered around the city, where users can pick up or drop off the bicycles using a smart membership card, which is either rechargeable or linked to their bank account.

Of the different PBS systems around the world, the Vélib' scheme, inaugurated in the city of Paris in 2007, is the world's best-known public bicycle programme. Managed by the multinational JCDecaux, the scheme is the biggest in existence, with 1800 docking stations and more than 20,600 bicycles. The envy of the world, every year Paris City Hall receives delegations from different countries seeking to study the operation of this large-scale infrastructure. The scheme has been successfully extended to certain areas in the outskirts of the city (Plaine Commune, Créteil, Cergy Pontoise), and it employs more than 400 technicians and service personnel. According to surveys conducted in 2009, satisfaction with the scheme stands at 96%, 46% of users claim to use their cars less frequently, and 18% say that because of Vélib' they have gone places where they had never been before!<sup>1</sup>

## How should one approach the study of public bicycle infrastructures?

Whilst recent studies on urban infrastructures offer diverse perspectives and vary in their approach depending on whether their source discipline is urbanism, history or sociology, in general terms it is possible to distinguish two *styles* in the way infrastructures and urban technologies are tackled.

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<sup>1</sup> Official document of the City of Paris, “Vélib' Un système de transport révolutionnaire à Paris” 2009.

On the one hand, largely amongst authors inspired by STS (Science & Technology Studies), we find a series of texts that primarily explore the political aspects of urban infrastructures (Graham and Marvin, 2003; Coutard, Hanley and Zimmeman 2005; Farias and Bender, 2009). In order to go beyond the naive idea that the development of urban infrastructures is autonomous and independent of external influences, these approaches tend to highlight the political factors inherent in these technologies, criticising a “depoliticised” approach to urban systems, in which they are perceived as purely technical productions. We could, for example, cite work by Aibar and Bijker (1997) on the role of political standards and values in the design and construction of the Cerdà Plan for the Ensanche district in Barcelona; and also Richardson and Jensen’s study (2008), which shows how the design of the *Bangkok Sky Train* not only facilitated mobility for an elite, but also exacerbated spatial segregation within the city.

But there is no doubt that the most important work in this line is that of Graham and Marvin, *Placing Splintering Urbanism* (2003), in which the authors analyse, from a multidisciplinary and geographically multi-locational perspective, the manner in which infrastructures can aggravate existing inequalities. They postulate that poverty should no longer be envisaged purely in material terms, but also in terms of connections, since access to mobility is not equitably distributed between social groups (Graham and Marvin, 2001: 288). They therefore concentrate their attention on the main planners behind the new urban infrastructures and their impacts on territorial segmentation, based on the assumption of ever-increasing involvement by the private sector in urban decisions. Following on from the pioneering research of Langdon Winner (1985) on the political effects of technologies, their book postulates that modern urban infrastructures are more and more closely linked with “neoliberal” political criteria relating to the way the city is governed and managed (Graham and Marvin, 2001: 96).

We find a second way of looking at urban infrastructures in what is called the *mobility turn*, a term that encompasses a diversity of studies putting forward the idea that we are entering an era of generalised mobility. Notions such as a *new mobilities paradigm* (Sheller & Urry, 2000), *mobility environments*, *hypermobility*, etc., have become standard terms in contemporary social sciences and prove particularly appealing at in an era that is witnessing the globalisation of certain mobility infrastructures, as is the case with public bicycle schemes.

Motivated by a serious belief in the need to go beyond *static* analyses (Urry 2000), these works seek to understand the type of realities arising from the interaction with the new urban infrastructures. The compilation assembled by Sheller and Urry, *Mobile Technologies of the City* (2006), provides an example of this type of approach. Taking instances of technologies from different cities (Hong Kong, Vienna, Paris, etc.), the authors state that they are interested in an empirical exploration of Zygmunt Bauman’s concept of *liquid modernity*, by observing the way in which mobile technologies overlap with the daily lives of individuals (Sheller and Urry, 2006: 3)

It is also possible to situate the work of Georges Amar (2010) in this perspective, where he states his agreement with this paradigm of mobility, based on the “mobile, multimodal and communicating individual, jointly conceiving and producing his own mobility”

(Amar, 2010: 17). The author refers to the Vélib’ system as an example of a technology conceived within this new paradigm, which tests the autonomy and urban competence of users and makes the body the primary mobility resource (Amar, 2010: 179). He believes that we are confronted by the immediacy of the paradigm of *homo mobilis*, for whom mobility is no longer understood as the sum of journeys effected (a quantitative reference), but is conceived in terms of the creation of links (a qualitative reference).

On the other hand, one of the greatest critics of the modern city, Marc Augé, dedicated one of his recent works (*Homage to the bicycle*, 2007) to a description of the Vélib’ operation in Paris, pointing out the transformations it is bringing about in the life of the city. In his pursuit of the benefits of identifying the new practices associated with the new mobile infrastructures, the ethnologist states that – against the background of the grey and noisy urbanism that threatens to reduce the territory of Paris to a mere facade, a gigantic setting for tourists – the new public bicycle system represents a chance to recapture the free experience of the city and to restore the “natural” appearance it demands.

*I pedal, therefore I am.* With this paraphrase of the Cartesian *cogito ergo sum*, Augé seeks to show that travelling by bicycle is much more than a purely functional and utilitarian act: it is, above all, a way of life. The rebirth of the bicycle in modern cities, the author tells us, reconnects us with our childhood, with our first tottering pratfalls on this technology. For Augé, cycling ushers in a different approach to urban environment: it enables us to link points and places that other methods of transport cannot connect. That is why he asserts that this object reveals a poetic geography. The figure of the Parisian “stroller” can be reborn, but now through the use of the bicycle made possible by the Vélib’ scheme: users of this system realise that the city is made to be contemplated directly “without the mediation of camera or video” (Augé, 2007:54).

It is interesting to note that Marc Augé is known for his thesis on the invasion of what he calls the *non-place* (1992), spaces where anonymity, frigidity and functionality merge to produce territories devoid of identity or memory, places of users and consumers in transit: hotels, supermarkets, motorways, airports, car parks, amusement parks, etc. This thesis on the disappearance of the city, which struck a chord all over the world, seems to be invalidated by his shift towards the *mobility turn*, or at least called into question in his *Homage to the bicycle*, with the thousands of bicycles introduced by the Vélib’ operation affording me possibility of the reconstruction of *places*.

So, how do you start the infrastructure of a PBS system? The aim of this paper is to provide a narrative of the origins of the development of the Vélib’ transport infrastructure, through the description of a specific moment in the “career” of the Vélib’ programme: the controversies associated with the economic/urban model, controversies which emerged at the moment of conception of the project, mainly between members of the Green party and the promoters of the Vélib’. How was the Vélib’ project born? Was it really rolled out in the name of “sustainable development”? Was it welcomed by environmental groups as a chance to bring Paris into the so-called “green culture” and to promote an “alternative” urban development?

These are some of the questions that we wish to develop in this paper. But rather than employing

some of the approaches mentioned above as an explanatory model to understand the PBS programme in Paris, our objective is to show how many of these debates in the academic literature have come to the fore in the controversies associated with the project, deployed implicitly or explicitly by the actors engaged in the debates.

We will show that the points of view underlying the conflict at the outset of the system were, indirectly, constructed and nourished by these two ways of describing urban technology. In other words, by reconstructing the factors involved in the controversy, we will show the efforts made by the ecologists (and their sympathisers) to *politicise* the new transport technology and the categories associated with it (“mobility”, “sustainable city”), in response to a process that we could describe as *depoliticisation* pursued by the project’s promoters.

Drawing on a controversy studies perspective (Latour 1989; Lemieux 2005, Barthes, 2010; Remy 2010), our research describes the systems of justification and the discursive operations deployed in the conception and approval of the new programme, in order to show how the genesis of Vélib’ was marked by the question of the political status of urban technology. In other words, the hypothesis advanced here is that the interpretive battles concerning the description and meaning of the new urban infrastructure project played a fundamental role in the definition and demarcation of the new technology, and the stabilisation of the project is the outcome of work by its promoters to make the new technology an object essential and necessary to the urban development of Paris. Our empirical work is based on interviews and archive analysis, and it includes the viewpoints of journalists and specialists involved in describing and publicising the controversy.

### **Lyon: the first *bikolution* and a textbook case for Paris**

“Thousands of self-service bicycles, freedom! Bikes everywhere, bikes for everyone!” “This was the sales pitch with which the Mayor of Paris City inaugurated the world’s largest public bicycle scheme (PBS) on July 15, 2007, known by the name Velib’. It was a big day not just for the City of Paris, but also for the company JCDecaux, the scheme’s operator, because it was one of the highest profile urban projects of recent years. After six months of intense work installing the docking stations, users had access to a new transport system. But how did the necessity of creating the world’s biggest public bicycle network take hold? In other words, how was the urgent need for a PBS technology in Paris forged?

The plan to set up a public bicycle system in Paris and at the end of 2005, following the huge success of “Vélo’V” in Lyon, the first large-scale PBS scheme in France. Set up in 2005 by the firm JCDecaux, with a contract linking the public bicycle service with advertising, the system had gained extraordinary popularity in its first year of operation, with more than 4 million rentals. As a result, Lyon moved from being a city little-known for cycling, to one universally envied for its new urban bicycle scheme, a sign of modernity and an icon of sustainable development. In a story in the newspaper *Libération*, a journalist said of the new system that “[it] doesn’t change your life. But [it] changes a city”, and that the new transport technology had achieved “phenomenal success, which neither the politicians, nor Jean-Claude Decaux had expected”.<sup>2</sup>

At the inauguration of Vélo’V in Lyon, Jean-Charles Decaux, Chairman of JCDecaux,

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<sup>2</sup> “Vélo’V has transformed Lyon, despite scepticism”, *Libération*, (14/07/2007)

declared: “*in offering Cyclocity to Greater Lyon, making it the urban community with the largest number of self-service bicycles in the world, we have invented a new concept*”.<sup>3</sup> It is this new concept that apparently triggered a “*A fit of jealousy*” in the Mayor of Paris Bertrand Delanoë.<sup>4</sup>

Indeed, the Paris authorities at the time were watching this experiment with the greatest interest, since the example of Vélo’V demonstrated not only the possibility of a large-scale PBS project, but also that such a scheme would be opportune in terms of the city’s image. This is how it was explained by one of the people involved in the project: “*I would say that the city of Lyon showed that it was possible to do something very spectacular and very convincing on the subject. We need to wait for Lyon to show that something big and attractive could be done, that it could be a big success, and then, there has always been great rivalry between France’s two biggest cities.*”<sup>5</sup>

However, for Bertrand Delanoë it was not enough to copy the Lyon model: “*Because Paris is unique, we had to create a street object that would reflect its uniqueness*”.<sup>6</sup> With this aspiration, Paris began its research and exploration into the development of a similar system: “*A superior system had to be created in Paris, and although Lyon had a scheme with the same features, Delanoë decided to develop a project specially designed for Paris.*”<sup>7</sup>

The scheme had to be up and running before the municipal elections in March 2008. Bertrand Delanoë gave Denis Baupin, the Green assistant mayor for transport during the preparation of the Vélib’ project, the task of studying the matter; he appointed Céline Lepault operational manager of the project, who worked closely closely with her two assistants Didier Couval and Matthieu Fierling to establish the first prospective study on this type of PBS system in Europe: “*I was asked to carry out research on self-service bicycle schemes in Europe’s cities. Mathieu and I went to Lyon in summer 2005. We then went to Berlin to look at the Call a Bike scheme, which was a total failure*”.<sup>8</sup>

So the Mayor of Paris was interested in the Vélo’V scheme from the outset, not only because of its good operating results, but also because of the attractive contractual arrangements for financing the new technology. The Lyon authorities had decided to issue a “*performance-based call for tenders for the combined provision and operation of bus shelters, urban information signage and a bicycle fleet*”.<sup>9</sup> The rest is history: the PBS contract was awarded to the multinational JCDecaux – beating its deadly rival Clear Channel – thereby confirming the French company’s domination in the PBS field. Two years later, the same urban and economic model that had seduced the politicians of Lyon was introduced in Paris, and JCDecaux went on to install its technology in Brussels (Villo!), Dublin (Dublinbikes), Seville (Sevici) and

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<sup>3</sup> JCDecaux Lyon External Communication, “Cyclocity, du mobilier urbain à la mobilité urbaine”

<sup>4</sup> Interview with Isabelle Lesens, responsible for the “National bicycle policy” programme in the office of Michel Barnier, Minister of the Environment (30/04/2010)

<sup>5</sup> Interview with Didier Couval, head of the bicycle-rollerblade programme at the City of Paris when the Vélib’ project was developed (17/02/2010)

<sup>6</sup> Press release, Central Information and Communication Department, City of Paris, 2007

<sup>7</sup> Interview with a Vélib’ Operations Manager (18/09/2010)

<sup>8</sup> Interview with Didier Couval, head of the bicycle-rollerblade programme at the City of Paris when the Vélib’ project was developed (17/02/2010)

<sup>9</sup> Study of the location of public bicycle docking stations, Atelier Parisien d’Urbanisme, 2006 Report.



Luxembourg (Veloh).

*First steps in the development of the Vélib’ project*

After establishing an initial overview of the reality of PBS systems in Europe, the City of Paris moved into a second development and realisation phase, commissioning experts at the Atelier Parisien d’Urbanisme (APUR) to produce a technical study on systems of this kind. This body conducted detailed research on the PBS system in Lyon (still the most detailed study of its kind), analysing features such as the type of contract agreed with JCDecaux, the operational systems, the target population, the technical characteristics of the scheme, etc. But probably the most important work done by the APUR was to draw up a proposal on the number of PBS docking stations required to meet demand in Paris. One of the fundamental conditions for the success of the programme was to draw on precise and comprehensive knowledge of the city of Paris, in order to determine potential demand for the new scheme and to define the docking station network needed to cover the territory. As the Director of APUR at the time, Baptise Vaquin, recalls: *“Building a successful scheme was not easy, since in order to operate a public transport system efficiently, we had to be very familiar with the characteristics of the territory to ensure that users would find a bicycle when they needed it and and then be able to find a place to leave it when the need was over.”*<sup>10</sup>

The “lab” work by the APUR experts, which would give the Mayor of Paris the information he needed to launch the call for tenders subsequently won by JCDecaux, allowed the city to begin publicising the idea of the new public transport infrastructure. This shifting of the project to APUR – marking the moment when the ideas on the new transport system took on a certain scientific “texture” – was key to the consolidation of the project after it entered the public arena. Once on the “laboratory bench”, something previously received as extremely big and elusive (the city of Paris) could become visible and a topic of discussion. It is this shift in scale that took the project forward, but above all prepared the ground for presenting the project to the public, which as yet had no real awareness of what it was about.

The multitude of maps established by the APUR not only quantified the urban reality, but also and above all played a central narrative role in defining the identity of the participants, the margins for manoeuvre and the location of the entities involved. Indeed, this process of “stage setting” and explanation by the experts from the urban design agency began the demarcation of the specific places where, politically and geographically, the movement of the objects and persons that would make the Vélib’ programme possible would take place.<sup>11</sup>

Thanks to the sociological, urban and technical groundwork done by APUR, the City of Paris found itself in a position to launch the call for tenders using the so-called “competitive dialogue” procedure. This contractual system provided a mechanism for negotiation between the public client and the shortlisted candidates, in this case JCDecaux and Clear Channel. Initially, the mayoral departments simply formulated their needs in a “functional programme” based on APUR’s specifications, but the definition of the target scheme and the

<sup>10</sup> Interview with Baptiste Vaquin, former director of APUR (5/10/2010)

<sup>11</sup> The role of the maps and plans produced by APUR is not analysed here, although it is important to point out that APUR’s work brought new controversies into the project regarding the location of the docking stations, in other words new kinds of controversial issues regarding the transport infrastructure.

technical characteristics of the bicycles developed during discussions with the private sector bidders.

**Controversy surrounding the political status of the new public bicycle infrastructure**

On Sunday, July 15, 2007, the Socialist Mayor of Paris Bertrand Delanoë inaugurated the world’s largest public bicycle system, christened Vélib’, and in front of an audience impatient to start using this new transport technology, he handed over a Vélib’ bicycle to the first subscriber to the scheme. Surrounded by officials of the City de Paris and in the presence of Jean-Claude Decaux, founder of the company that bears his name, the Mayor stressed in his speech *“that Vélib’ was above all a response to a public health issue and and would help to improve the quality of the air and to protect our natural heritage”*.<sup>12</sup>

The strength of the Vélib’ scheme and the “bikes for advertising” model offered by JCDecaux precisely matched the assumption implicit in Bertrand Delanoë’s speech: the bicycle brings us closer to the sustainable city. An assumption moreover fully shared by Marc Augé, when he asserts that *“the bicycle thus becomes a symbol of a green future for the city of tomorrow and of an urban utopia that would reconcile society with itself”* (Augé 2008: 41). Indeed, the attraction of this scheme lay in the *services* that it could render to the population and the city in general: providing an “ecological” transport infrastructure which places the bicycle as a method of travel at the heart of its operation. This notion is there in the campaigns laying the groundwork for the launch of the new system: *“This accessible service will lead to a genuine transformation in travel practices in Paris. It will help to reduce pollution and users to keep fit!”*<sup>13</sup> The technology was presented at the time as a *“new concept of sustainable mobility”* which promises to *“develop a modern and comfortable route to quality of life in the city”*.<sup>14</sup>

However, the “environmental theme” is not only present in the utterances of the City of Paris, but also in all the descriptions and qualities that the company attributes to its technology: *“JCDecaux has developed Cyclocity around a simple concept: reconciling mobility, security, freedom and ecology within an urban area. Cyclocity constitutes an additional public transport service. An alternative to the car, it offers citydwellers self-service “cycle” docking stations spread around the city, operating 24 hours a day. With Cyclocity, JCDecaux has become a genuine partner, helping cities to implement their sustainable development policies”*.<sup>15</sup> The assumption behind this scheme is clear: the massive expansion in bicycle use facilitated by the introduction of these infrastructures can be a key factor in tackling the environmental crisis and improving quality of life in the big cities.<sup>16</sup>

*The bicycle as an instrument of exclusion and the privatisation of public space*

<sup>12</sup> [NouvelObs.com](http://www.nouvelobs.com), 23/06/08, “Bertrand Delanoë has inaugurated the Vélib’ scheme”

<sup>13</sup> Press release, Central Information and Communication Department, City of Paris, 2007.

<sup>14</sup> PowerPoint presentation with the “Project Objectives”, “City of Paris “Velib’ A revolutionary transport system in Paris”, Patrick Lefèbre, Scientific and technical advisor to the City of Paris. Ville de Paris.

<sup>15</sup> Description of the “Cyclocity” system, a subsidiary of JCDecaux: <http://www.jcdecaux.com/fr/Developpement-durable/Entreprise-citoyenne/Mobilite-durable>.

<sup>16</sup> In the same vein, a specialist in “green mobility” claims that “a significant level of bicycle journeys is an essential ingredient of sustainable mobility, and hence of a ‘sustainable cities’” (Pressicaud, 2009:68).

But how do we explain the fact that at the very moment when the mayor was making his inaugural speech for the Vélib' scheme in the name of sustainable development, celebrating a nonpolluting method of transport, organised environmental groups were brandishing Green flags and and boycotting the ceremony, attacking the nature of the project? How to explain the fact that a so-called "ecological infrastructure" described by its designers as promoting "sustainable mobility" faced major resistance from Green party sympathisers, to the point that these groups had to be "*kept away from the inauguration ceremony by the police*".<sup>17</sup>

Whilst ecological movements and cyclists' associations around the world have constantly heralded cycling as a solution to the problems of modern cities, the introduction of the PBS system in Paris has been called into question from the outset by a large proportion of the Green party and its sympathisers. Although the strategies deployed to question and cast doubt on the City of Paris's new urban project are based on different arguments, it can be stated that the general framework of the controversy relates primarily to the private sector impetus behind this new urban technology. For the Greens, the Vélib' was the reflection of a major political change, associated with the rampant privatisation of urban services in France. According to one member of the party, outsourcing the public bicycle service to JCDecaux is a sign of the lack of imagination on the part of the public authorities, which promotes the involvement of the private sector in the planning of the city: "*It's a problem in France, we are incapable of providing public service, inventing new public services, because it requires imagination, investment. So when someone comes and says that there is a new need, for example sustainable development, it is the private sector that provides the solution. It is like with crèches, all the new crèches being set up are private.*"<sup>18</sup>

For the ecologists and their sympathisers, the PBS technology promoted by the City of Paris and JCDecaux is a symbol of the new forms of neoliberal governance, where cities are managed as if they were companies, and rather than meeting the needs of citizens, the goal is to satisfy the criteria of economic competitiveness. "*Delanoë does not come from the alternative left, this is not the dissident, the anticapitalist left. He is a capitalist like the others, he is not against capitalism. When he could have opted for a public system, he took the decision to join forces with the private sector, ignoring the public interest of citizens and putting his faith in the market.*"<sup>19</sup>

For the ecologists, therefore, the bicycle was seen as a publicity tool lurking behind the slogan of "sustainable development", since it simply represents the subordination of public authority to the power of the big transnationals. So it could be said that for the ecologists the implementation of the PBS infrastructure in Paris was not inherently a bad thing, but the political factors underpinning it were. In the terms of Graham and Marvin (2003), the introduction of this technology was, for the Greens, the reflection of a "neoliberal urbanism", characterised by the outsourcing of the provision of public services to private companies: "*the PBS system paired with advertising is the most recent example of a more general phenomenon of public projects financed by advertising sponsorship: the restoration of historical monuments, teaching packs in schools, etc. Now is the time to draw attention to the*

<sup>17</sup> "Bertrand Delanoë has inaugurated the Vélib' system", [NouvelObs.com](http://NouvelObs.com) (23/06/08).

<sup>18</sup> Interview with Charlotte Nenner, former Green municipal council member.

<sup>19</sup> Interview with Antoine Debievre, Assistant head of the Communication Department of Transilien SNCF, a sympathiser with the green movement.

*excesses of such a system of funding, otherwise tomorrow advertisers will be offering to finance swimming pools, libraries, even schools or hospitals.*"<sup>20</sup>

In the same vein on the overlap between the public and private spheres, Green party members criticised the procedure used to decide on the new technology. This problem was no longer only about the option of hitching a PBS scheme to a private advertising contract, but also the procedure by which the specifications of the system and the conditions of the contract were established. As previously mentioned, the City of Paris had decided to employ the system of "competitive dialogue". According to those in charge of the project, this was a crucial procedure prior to the award of the contract, because the Municipality did not have all the technical know-how needed to design the new system.<sup>21</sup> Thus, according to Patrick Lefèvre, involving the private bidders (JCDecaux and Clear Channel) in the drafting of the "technical specifications" resulted in a procedure that enabled the City of Paris to set the optimum technical characteristics for the new scheme. For example, in an initial version of the technical requirements for the new system, the City of Paris had not thought about the equipment for the braking, protection, anti-theft, lighting and stand systems, and it was the proposals put forward by JCDecaux that resulted in the fact of being included in the "technical specifications" incorporated into the eventual tender documents.

Nevertheless, the use of the "competitive dialogue" procedure was seen by certain Green politicians as "undemocratic": "*All the technical choices were decided between the municipality and the private bidders, except that elected representatives, politicians and citizens were entirely excluded. There was nothing more to be said, because everything had already been said before, that is why I say that there was a problem of a democratic nature.*"<sup>22</sup> Conversely, for the public administration, the "competitive dialogue" was vital to designing the optimum technology, as P. Lefèvre explains: "*As a result of this procedure, we ended up with the service we now have, and we couldn't take the risk of launching ourselves into an innovation that we were unfamiliar with, and that is why the work with the operators was essential.*" For their part, some members of ecologist groups felt that this process excluded citizens and local mayors from the development of the scheme, which made certain technical and political options irreversible: "*The problem is that when a contract is negotiated with this procedure, matters are decided and there is nothing that can be done afterwards, I mean that if you want [to remove an advertisement], it can't be done. I have already tried. I wanted to remove one that was opposite a school, and it raised all sorts of problems, and I was told: "The contract said 100 hoardings, so find me another location.*"<sup>23</sup>

### ***The bicycle as the vector of the advertising contract***

In speaking of the "ecological" qualities of the new infrastructure at the inaugural ceremony for Vélib', Bertrand Delanoë stressed another factor that caused controversy regarding the nature of the system: Vélib' was designed "*in such a way that it would cost Parisians nothing,*

<sup>20</sup> Nicolas, Laure, Legal adviser to the RAP (Resistance to Advertising Aggression), "Problems associated with the linking of public bicycles with the advertising market", 9/04/2007

<sup>21</sup> Interview with Patrick Lefèvre, Scientific and technical advisor to the City of Paris (07/05/2010).

<sup>22</sup> Interview with Charlotte Nenner, elected Green representative on the municipal council.

<sup>23</sup> Interview with Charlotte Nenner, former Green Municipal Council member.



and would even bring in at least €3 million a year”.

But before the triumphal arrival of Vélib’ in the streets of Paris, the public bicycle project had to be submitted to the courts, involving lawyers and sums amounting to millions of euros. In February 2006, the most ferocious war ever witnessed in the history of a PBS contract took place between the two specialist outdoor advertising multinationals: the French company JCDecaux and the US corporation Clear Channel. The long-standing holder of the urban advertising contract with the City of Paris happened to be JCDecaux, and the company therefore pulled out all the stops to maintain its position in the capital. The potential benefits from winning this contract were particularly juicy. To begin with, Bertrand Delanoë, the Mayor of Paris, was planning to develop the world’s largest public bicycle scheme. In addition, there was the fact that the French capital has the biggest advertising market in Europe and is the world’s premier tourist destination. In consequence, for the competing firms, winning the Parisian contract obviously meant acquiring a gigantic showcase to promote their expertise. After a ferocious legal battle before the administrative court of Paris, and the cancellation of the first call for tenders (in which the contract had been awarded to Clear Channel) for technical reasons, the world’s biggest public bicycle scheme was finally awarded to the JCDecaux Group.

This story, which might seem anecdotal, reflects a situation that has been extensively called into question. The efforts of Green Party militants focused in particular on the argument that this new technology would not benefit the public but economic power interests, and in particular an infrastructure designed to support the development of the city’s advertising market. *“The City of Paris fell under the advertising spell of JCDecaux, because they turned up and said ‘gentlemen, this bicycle service is not going to cost a penny’, but in reality we are paying for it with the money that the municipality no longer receives for advertising. It is the same thing that was done 30 years ago with street furniture, they said ‘I’ll sort it out, but it’s not going to cost a thing, I’ll sort it, I’ll do the maintenance, I’ll get in the world’s best designers and so let me run all the street furniture for you’. They got their way, when in fact it was public space and it should have been a public service.”*<sup>24</sup>

The Greens tried to show the population the real face of the system: on the grounds of environmental benefit and atmospheric pollution, what was being promoted was a bigger role for the private sector in public space. For them, describing the PBS project as promoting a “sustainable city” was to fall into JCDecaux’ advertising trap, since according to the same person interviewed, the company’s main goal was *“to keep a grip on the Paris advertising market, not to extend use of the bicycle. Their aim was to improve their image, because in Paris the image of JCDecaux was really very poor. They had to hold onto their market, it’s a big market and in addition it is an international showcase, in other words it means that Decaux can go to Singapore, to Milan, everywhere, and say ‘look, I’ve got Paris’. And for the Mayor of Paris, it was about having a bicycle policy, which is very fashionable at the moment.”*<sup>25</sup> According to the Greens, thanks to the high media profile of the public bicycle service, JCDecaux managed to increase its advertising market in Paris and in the rest of the world, and in the process polish their corporate image.

The Greens perceive the bicycle as an alternative method of transport, and therefore it could not

<sup>24</sup> Interview with Charlotte Nenner, former Green Municipal Council member.

<sup>25</sup> Ibid.

be associated with any other private interest. The topic of advertising in public spaces had been high on the party’s political agenda well before the existence of the Vélib’ project. The party was fighting for a reduction in the visual pollution generated by advertising. Certain members of the Greens, with the RAP (Resistance to Aggressive Advertising) collective, had even done research with sociologists, showing that “every day, every person in Paris is exposed to more than 700 advertising messages”, and that policies therefore needed to be developed to combat this “publicity harassment” to which people are involuntarily exposed.<sup>26</sup>

For these groups, therefore, this whole struggle was emasculated by the municipality’s new contract linking the PBS with advertising. The Greens had already criticised the Vélo’V in Lyon on the grounds that *“unfortunately, the success of the operation goes hand-in-hand with visual pollution and aggressive advertising”*, and in consequence they saw the reproduction of the same approach in Paris as a retrograde step: *“linking advertising and bicycles raises an issue of principle, since it results in a public service dependent on advertising revenues”*.<sup>27</sup> Once again, the question posed here is not that of the benefits of the PBS system, but of the ideology it embodies and the “impacts” that the operation can generate.

At the time of the renewal of the contract with JCDecaux on a “bicycles for advertising” basis, an agreement was reached to reduce the total area of advertising by 20%, which was seen as a big advance by certain members of the Greens. However, the expected anti-advertising policy *“was offset by a new technology, because the impression was that there would be less advertising, except that now it rotates, there are scrolling advertisements, which use more energy”*.<sup>28</sup> With the result that for the Greens, the bicycle was being used as an innovative strategy to increase the advertising stock, *“and now, the number of advertisements is increasing because they can show four ads on a single panel, and they will also be illuminated at night”*.<sup>29</sup>

The battle by the Greens denouncing the new transport technology on the grounds that it promoted advertising, found echoes in various critical media articles. The spirit of these critiques is well reflected in the analysis by a journalist on the CarFree France website, a site that supports alternative travel methods: *“industrial advertising firms like Decaux quickly understood that it was enough to surf the green wave of sustainable development in order to further flood cities with advertising to encourage excessive consumption, on the basis of an economic model that has nothing to do with the environment or sustainable development.”*<sup>30</sup>

### ***“Encouraging greener mobility in the streets”***

In the same inaugural speech on Sunday, July 15, 2007, mayor Delanoë explained: *“we have all seen it, as mayors of big cities, when it comes to transport, demand follows supply. Increase the supply of alternative transport and citizens use it.”*

<sup>26</sup> Ibid.

<sup>27</sup> Speech by Charlotte Nenner, Green representative on Paris Municipal Council, Sessions of February 12 and 13, 2004.

<sup>28</sup> Interview with Jean Paul Maurel, Deputy Mayor (member of the Greens) of the 2<sup>nd</sup> arrondissement in Paris.

<sup>29</sup> Interview with Charlotte Nenner, former Green member of the Municipal Council.

<sup>30</sup> CarFree France: <http://carfree.free.fr/index.php/a-propos/>, 19/07/2009, Marcel Robert, “The Business Model of the advertising bicycle: dosh, exploitation and and mental pollution”.



Indeed, one of the hypotheses put forward by the promoters of the new transport technology was that the practicality of the scheme would considerably augment bicycle use, opening the way to more sustainable mobility and a more sustainable city. In Europe, Paris' reputation in cycling circles was pretty bad (only 2% of journeys by bicycle in the French capital, compared with 28% in Copenhagen, for example), and it was therefore an important topic on the city's urban agenda. That is why the ecologists and the cycling associations had been working for years for policies that would favour bicycle use, calling for improvements in urban layout (good-quality cycle parking, cycle tracks, etc.) which would stimulate cycling.

And then the cycling associations and greens suddenly saw the arrival of a transport infrastructure project that would introduce a fleet of more than 20,000 bicycles and 18,010 stations, which would resolve the problem of parking and the fear of theft through a technology that offered the chance of "freedom to cycle". In fact, the infrastructure provided by JCDecaux was not only positioned as a clean and environmentally sustainable technology, but was also described as technically the most efficient option to "encourage green mobility in the streets" and "to promote the bicycle as an alternative method of transport in the city."<sup>31</sup> The problems identified by cycling movements and ecologists in encouraging bicycle use in the city were resolved by the operation of the new system: *"The bicycle is associated with numerous constraints (maintenance, fear of theft, etc.). With Vélib', the operator deals with all that, so there is nothing to do. It was also about developing what might be called an "individual public" mode of transport, at modest cost. We wanted to show that cycling in the city is possible.*"<sup>32</sup>

In the same optimistic spirit about the new technology, an urban sociologist, wondering about the "genuine transformation" wrought by Vélib', maintains that the scheme has not only persuaded numerous Parisians to dig their "old boneshaker out of the shed", but that it also constitutes "a factor of social cohesion", because the bicycle "is accessible to a wide range of people, young or old, rich or poor", and "because the cyclist is directly accessible to other people. He is not enclosed in a metal carcass, sheltered behind his windscreen, cut off from the world".<sup>33</sup>

It is interesting to note that we see here two assumptions underpinning the project. On the one hand, the promoters of the new infrastructure assumed that there would be a "snowball effect". As Matthieu Fierling maintained, *"we expect more than 200,000 bicycle trips after the system is fully in place. We think that this project will have an impact on lifestyles, in particular on the way people get around. With this 24-hour service, people will no longer have to worry, for example, about the last train."*<sup>34</sup> In addition, the arguments deployed by certain Greens and opponents of the Vélib' claimed that the new infrastructure did not represent a genuine pro-bicycle policy, but that it was an electoral strategy by Bertrand Delanoë in the run-up to the March 2008 municipal elections. *"It should be remembered that Delanoë comes from the advertising world, it's a world he knows well. So a big company like JCDecaux, with lots of money, with high-level specialists and technicians, comes to him with a proposal for a*

<sup>31</sup> PowerPoint presentation with the "Project Objectives", "City of Paris "Vélib' A revolutionary transport system in Paris", Patrick Lefèvre, Scientific and technical advisor to the City of Paris.

<sup>32</sup> Libération, 15/07/2007, Interview with Matthieu Fierling, Deputy Mayor and Project Head at Paris City Hall, "Showing that cycling in the city is possible".

<sup>33</sup> *Sciences Humaines* (n° 188, 2007) interview with the sociologist Yankel Fijalkow.

<sup>34</sup> Ibid.

*high profile, feelgood project, which will cast him in a good light and polish his image. Moreover, a politician does nothing for nothing, a politician will do anything to be re-elected. Normally, politicians don't earn much money, but they are re-elected. So you have to look at the political purpose [of Vélib']".*<sup>35</sup> From the same perspective, the editor of the newspaper *Libération*, Laurent Joffrin, asked the following question: *"Could the Vélib' that now crisscrosses the streets of Paris also lead to the Elysée?"*<sup>36</sup>

Another argument was that the electoral use of the bicycle had obliged the authorities to move fast, without establishing the conditions needed for the genuine development of bicycle use. *"I have the impression that if this project had not had the political and media implications it did, things would have happened differently, and that is why I said at that time that Vélib' should not be mistaken for a genuine bicycle policy".*<sup>37</sup> Despite these criticisms, the transport infrastructure provided by JCDecaux, fitted with leading edge technology, offered clear benefits in terms of availability, maintenance, inventory management... which made the system a genuine alternative to the car. This is how it was presented by the City of Paris, and this factor was central for the system's designers: *"Each docking station offers 24-hour a day self-service; the user simply inserts a subscription (or payment) card in the interactive terminal, which immediately releases a bicycle from the docking point. The bicycle can be returned at any time to any docking station in the capital."*<sup>38</sup>

The success of Vélo'V in Lyon supported the assumption that the PBS infrastructure in itself would generate a change in people's behaviour in the city. There would no longer be a need to rely on urban planners to bring about changes in the city and in urban practices; simply introducing the new technology would bring about the changes spontaneously: *"We had observed that in big cities where such a scheme had been introduced, the number of cycle trips had increased (by 80% in Lyon, for example). Many people joined the system and prompted others to use their own bicycles. We realise that the more cyclists there are, the more car drivers adjust their behaviour accordingly. We hope that this will prove true in Paris."*<sup>39</sup> This sequence of cause and effect was precisely what the project's opponents sought to question, arguing that the correlation between the introduction of a PBS system and improvements in the cycle infrastructures, was not apparent in cities where this technology had developed.

### Neutralisation of green objections: the triumph of PBS as an ecological public service

The efforts to discredit the "public service", "ecological" and "pro-bike" status of the new transport infrastructure were not enough to counter the process of justification and technical development that led, on July 15, 2007, to the launch of one of the biggest urban operations in recent years. The very day of the inaugural ceremony of the Vélib' programme, membership of the

<sup>35</sup> Interview with Antoine Debievre, Deputy Head of Communication for Transilien SNCF, sympathiser with the green movement.

<sup>36</sup> Libération, 29/08/2007, "In the race"

<sup>37</sup> Interview with Isabelle Lesens, in charge of the "National Bicycle Policy" programme in the office of Michel Barnier, Minister of the Environment (30/04/2010)

<sup>38</sup> Description of the "Cyclocity" system, subsidiary of JCDecaux: <http://www.jcdecaux.com/fr/Innovation-Design/Cyclocity-R>

<sup>39</sup> Libération, 15/07/2007, Deputy Mayor and Project Head at Paris City Hall, "Showing that cycling in the city is possible".

new scheme was already significant, with 13 million subscribers, which constituted a victory for Denis Baupin, Deputy Mayor for transport at the time: *“It’s more than we imagined, it clearly shows that there was genuine demand.”*<sup>40</sup> The promoters of the new technology had successfully shown that they were right that the new PBS system would be embraced by the public, because it was a technology that reflected the needs of users and of the city. The creation of this demand, or “market”, was hyped by the supporters of the innovation even before it came into operation, in comments such as the one below: *“I think it’s a good idea. I travel on foot or by Metro every day. I think it’s stupid to travel by car. But I will use Vélib’, for sure! The good thing is that you can drop the bike off anywhere. I have seen posters for construction pretty much everywhere and I’m looking forward to seeing the docking stations in place.”*<sup>41</sup> If the success of new technologies can be measured by the benefits they provide, this one would seem to have been acknowledged even before anyone sat on a saddle. In a way, the supporters of the Vélib’ programme had succeeded in countering the theory of technological determinism deployed by their opponents, by showing the extent of demand for the system and for the new practices that the transport technology would prompt.

But how did the project manage to convince its naysayers and progress through to implementation? In other words, how do we explain the fact that on the day of the inauguration, Mayor Delanoë faced so few demonstrators objecting to the new programme? It finally proved that, despite the criticism and opposition led by the Greens and their allies, this group eventually voted in favour of the Vélib’ in the Paris Council. The correlations and assumptions claimed for the project (public bicycle system = sustainable mobility = sustainable city) were so well embedded by the project’s promoters that the ecologists had no choice but to give their consent to the new urban technology. As Charlotte Nenner, Green MP and one of the most ardent critics of the project explains: *“I always abstained, but in the end my objection was not to the bicycles, I am a cyclist and I have always supported an ambitious cycle policy, but I didn’t want it to be done in this way, not with this economic model behind it. That is why I didn’t vote, either against or in favour.”* In fact, in the Green group, Charlotte Nenner’s was the only abstention and the other members approved the new system.

According to Jacques Boutault, Green member for Paris’ 2<sup>nd</sup> arrondissement, his party found itself in an extremely tricky and ambivalent situation with regard to the PBS scheme, which ultimately led him to support the project. For him, it was not possible to continue denouncing the new infrastructure without undermining his group’s reputation in the eyes of public opinion: *“Public opinion would not have understood if [we had] rejected the Vélib’ project. Historically, we had been the supporters of bicycle use in the city, so the political cost to us would have been too great if we had voted against a project that purported to encourage more green mobility in the streets.”*<sup>42</sup> For the citizens in general, it was easier to understand the criticisms directed at the project by a few right-wing district mayors – on the grounds that it was an electoral strategy by the Socialist mayor Bertrand Delanoë – than to understand a rejection by the Greens, the traditional proponents of the bicycle as an ecological method of transport in the city.

<sup>40</sup> “Bertrand Delanoë has inaugurated the Vélib’ system “, [NouvelObs.com](http://NouvelObs.com) (23/06/08)

<sup>41</sup> Press Release, Central Information and Communication Department, City of Paris, 2007.

<sup>42</sup> Interview with Jacques Boutault, Mayor of the 2<sup>nd</sup> arrondissement, 6/04/ 2010.

If, in order to gain acceptance, technical choices have to pass the test of public debate (Barthe 2005), it is certain that the Vélib’ project succeeded in this, through a discourse that neutralised its biggest opponents, the Greens. As we have tried to show in this paper, it was no easy task, because it was not only a question of beating the Greens on their own ground (sustainable development, bicycles, etc.), but also of defending the partnership with JCDecaux, the world’s leading multinational in the street furniture sector.

Finally, as one subscriber to the system from the outset suggests, the denunciation of the “ideology” behind the new infrastructure became irrelevant in comparison with the advantages and public benefits of the transport technology: *“For me, the great benefit of the system is that you don’t own the bike, you can forget about the problems of ownership, having to look after your bike and maintain it, having a place to keep it. I really couldn’t give a damn about the fact that JCDecaux is involved and all that, I say that it’s the results that count. As a user, I believe that a good system is one that works, and for once I find that advertising can do something for users, and I think that that’s great.”*<sup>43</sup>

## Conclusion

So let us take a step back. The first public bicycle initiative emerged in the 1960s, in Amsterdam, headed by the “provos” student movement which provided bicycles for the public scattered around different parts of the city, with no docking stations or regulatory standards. Contemporaries of the situationist group in Paris and strongly influenced by the ideas of Herbert Marcuse and his critique of capitalism, this movement launched the so-called *White Plans*, which were Dada inspired public initiatives focusing on the promotion of alternative ways of living. The most famous of the White plans was the *White Bikes* initiative, seen as the final solution to “the terrorist traffic of a motorised minority” (Voeten, 1990). The aim of the plan was to drive cars, and their associated environmental damage, out of the city, and to replace them with bicycles that would be supplied free. This was how the first public bicycle concept was born: through an anti-establishment initiative against the use of the individual private car and an alternative proposal for the organisation of urban life (Benjamin Shepard, L. M. Pd & Stephen Duncombe, 2008). However, after a short period of operation, the project was quickly banned by the police as an incitement to theft.

The utopian and dissident project failed at the first attempt. However, the idea was not dead, and currently this planet friendly concept is experiencing a revival under the management of big multinational companies with expertise in operating public bicycle infrastructures. Today, the PBS represents an immense, sophisticated and competitive market, involving multinational companies, specialist consultants, regional governments, technicians and thousands of users. From their beginnings as a rebellious and isolated idea, public bicycles have become a transnational system of production, transport and signification.

The Greens, it might be said, tried to position themselves within the libertarian spirit of the *white bikes*, bicycles that move around free of any political or economic “interest.”. However, it is

<sup>43</sup> Interview with a Vélib’ user, 19/02/2010.



JCDecaux and the City of Paris which have ultimately come to best represent this libertarian spirit, through a technology called Vélib', for "vélo" (bicycle) and "libre" (free), "liberty" or "liberation".<sup>44</sup>

The history of the controversies we have just analysed illustrates the capacity of JCDecaux to hijack the ecological critique, and of its powerful capacity to persuade, and the popularity that the project achieved through a hard-won process of justification. We have seen how the criticisms of the "capitalistic" or "unsustainable" nature of the Vélib' operation were neutralised through the promotion of the "ecological" and "sustainable" character of the new technology. The association between bicycles and the sustainable city fostered by the project was too strong to be broken down by the ecologists. In order to rally public opinion against the implementation of the new transport project, they would have had to deconstruct this correlation between cycle and sustainable city, which entailed a huge apparatus of argument that ultimately failed. In a way, the Vélib' system achieved a happy outcome through this effort to describe and *translate* the "sustainable city", by bringing into being an infrastructure that constitutes the visible embodiment (thousands of bicycles scattered around the city for one Euro per thirty minutes) of the dream of sustainable urban development for the City of Paris. The efforts invested to *politicise* the new technology (by attacking the description of Vélib' as a public service) were not sufficiently well resourced to undermine all the descriptions and projections on which the megaproject was founded. The great mobilising force of the system was not simply about the capacity of its creators to absorb aspirations that enjoy a high level of public acceptability but, more radically, but about bringing the "green discourse" into the institutional and professional fold.

Let us, however, return to our original question: how does one approach the study of public bicycle infrastructures? In a way, this controversy puts to the test two visions of mobile infrastructures that we find in the specialist literature: one which draws attention to the political and social dimensions of the conception of certain types of urban infrastructures; and the other which looks at the new skills and social interactions generated by these technological systems. The aim here is not so much to determine which approach triumphed, but the forms of social embodiment tested in this literature in the course of the controversy. In other words, this conflict provides an opportunity to observe the "social life" of ideas and concepts relating to urban infrastructures, showing how the actors involved in the debate *translated* these positions to explain and justify their positions. Indeed, much of the controversy analysed here is about the different ways the Vélib' system was described, showing that the *interpretive flexibility* (Pinch and Bijker, 1984) through which the new technology passed finally stabilised through the establishment of the PBS artefact as a public service. However, it can be maintained that the multiple descriptive practices to which the new PBS technology was exposed should be viewed in terms of their constitutive or performative character (Mondada 2000), in the sense that they have helped to configure and make intelligible what Paris-Vélib' is.

Moreover, the controversy around Vélib' illustrates the way in which the categories of "ecological technology" or "sustainable city" have been redefined through a process of

<sup>44</sup> It is interesting to note that one of the aspects that Augé stresses in his *Homage to the bicycle* is the name given to the new infrastructure, which "effectively gives users a certain freedom".

negotiation/standardisation conducted by the actors themselves involved in the debate. The definition of the "sustainable city" propounded by the ecologists has ultimately given way to that put forward by the private company and the City of Paris. In a way, this controversy shows us that the category of the "sustainable city" is not a stable field, pre-existing the actors on the stage, but that its – provisional – standardisation required arenas of conflict and explanation that brought the viewpoints in question into the light. As certain authors have pointed out (Latour, 1989; Callon, Lascoumes & Barthe, 2001), the moments of effervescence generated by the controversies provide particular opportunities to examine the way in which the actors cast doubt on and negotiate certain apparently established notions in the public arena. Thus, the process of debate aroused by the Vélib' project enables us to observe the method of demarcation of the practices and descriptions that make the new infrastructure possible; and more widely, we can observe that the realisation of the Vélib' project was not the natural and necessary outcome of a technological innovation, but the result of a more complex process, in which the debate surrounding the political status of the technology played a central role in the direction and configuration of the system.

Ultimately, this leads us to wonder about the utility of the *mobility turn* in studying the PBS infrastructures. On the basis of the case analysed here, we can conclude that, without a certain methodological rigour, its application to these technologies can prove deceptive. The first risk is that of becoming an advocate of these PBS programmes (homage to the bicycle, to the new mobility, to the renaissance of urban practices, etc.), without exploring the descriptive practices and debates that make them possible. It sometimes seems that the *mobility turn* assumes that the capacity for mobility is a "given", in other words, a skill assigned by nature to people or cities. From this perspective, in the case of a public bicycle system, infrastructures are merely a vector or intermediary, and *homo mobilis* (Amar, 2010) a pre-existing figure inherent to the mobile society. On the opposite side, in a symmetrical position, we find the implicit risk of extreme sociology, which takes for granted the existence of "mobile cultural contexts" or a "sustainable city" in which individuals take their place, and of explaining the new infrastructures on the basis of these. Adopting a "sociology of mobility" as a premiss presents the risk of reducing the understanding of these new infrastructures to nothing more than indeterminate urban flows, specific to cities on the move, without considering the concrete mechanisms and discourses that generate this mobility. This could be the trap into which "culturalist" analyses fall, like those of M. Augé described above, which, through fear of being accused of "fetishism" or "materialism", tend to exacerbate assessments that are more "sexy" in terms of reappropriation, imagination, sensory spaces, neglecting questions of knowledge, technologies and controversies, which come together to make this mobility infrastructure a reality.

## Bibliography

Abeillé, A (2007). *Dictionnaire du Vélib'*. Panama, Paris.

Akrich, M (1994). "Comment sortir de la dichotomie technique/société. Présentation des diverses sociologies de la technique", In Latour, B et Lemonnier, P., ed, De la préhistoire aux missiles balistiques : l'intelligence sociale des techniques, Paris, La Découverte, pp.105-131.

Amar, G (2010). *Homo Mobilis. Le nouvel âge de la mobilité. floges de la reliance*. Paris:



Editions Fyp.

Augé, M (1992). *Non-Lieux. Introduction à une anthropologie de la surmodernité*. Paris: Le Seuil.

Augé, M (2008). *floge de la bicyclette*. Paris : Payot Rivages.

Barthe ,Y(2005) . “Discuter des choix techniques”, Projet, n°284, p. 80-84.

Barthe, Y (2010). “Cause politique et “politique des causes “La mobilisation des vétérans des essais nucléaires français”, Politix, Volume 23 - n° 91/2010, p. 77-102

Beroud B (2007). “Vélo’v® : un service de mobilité de personnes à transférer ?” Mémoire Recherche, Université Lumière Lyon 2, Faculté de Sciences économiques et de Gestion

Damien de B et Lemieux C (2005), “Le scandale comme épreuve”, Politix, XVIII, 71, p. 9- 38.

Bertonili, L and Dijst M (2003). “Mobility Environments and Network Cities”. Journal of Urban Design, no 8 (1), pp. 27-43.

Callon, M.; Law, J.; Urry, J (2004). “Absent presence: localities, globalities and methods”. Special issue of Environment and Planning D, no. 22 (1) págs. 3 -190.

Callon M, Lascoumes, P, Barthe, Y. (2001). *Agir dans un monde incertain. Essai sur la démocratie technique*. Paris: Le Seuil.

Callon, M (1987). “Society in the Making: The Study of Technology as a Tool for Sociological Analysis”, in Wiebe Bijker, Thomas Hughes y Trevor Pinch (eds.), The Social Construction of Technological Systems. New Directions in the Sociology and History of Technology, Cambridge (MA): MIT Press, pp. 83-103.

Coutard, O Hanley, R.E. and Zimmerman, E. (eds.) (2005).Sustaining Urban Networks: The Social Diffusion of Large Technical Systems. London: Routledge.

Coutard, O and Guy, S (2007). “STS and the City: Politics and Practices of Hope”, Science, Technology and Human Values, Vol. 32, pp. 713-734, November.

Cresswell T (2004). “Justice Sociale et Droit à la Mobilité” in Les Sens du Mouvement. Dir. S Allemand, F Ascher et J Levy (Belin: Paris) pp 143-156.

Farias, I and Bender (eds.) (2009) *Urban Assemblages How Actor-Network Theory Changes Urban Studies*, Routledge, UK.

IDEA (2007) *Guía metodológica para la implementación de sistemas de bicicletas pæblicas en España*, Madrid, España.

Graham S; Marvin, S(2003). *Splintering urbanism: networked infrastructures, technological mobilities and the urban condition*. London: Routledge.

Latour B(1989). *La science en action*. Paris : La Découverte.

Lemieux C (2007). “En quoi sert l’analyse des controverses ?”, Mil neuf cent 2007/1, N° 25, p. 191-212.

Marié M., Gariépy M. (dir.) (1997) *Ces réseaux qui nous gouvernent ?* Paris, L’Harmattan.

Mondada L (2000), *Décrire la ville. La construction des savoirs urbains dans l’interaction et dans le texte*, Paris, Anthropos.

Pinch, T., y Bijker, W (1984), “The Social Construction of Facts and Artefacts: Or How the Sociology of Science and the Sociology of Technology Might Benefit Each Other”, in W. Bijker, T. P. Hughes and T. Pinch (eds.), The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology, Cambridge (MA): MIT Press, pp. 17-50.

Pressicaud, N (2009).*Le vélo à la reconquête des villes. Bréviaire de vélorution tranquille*, L’Harmattan, 2009, p. 68.

Remy, C (2010). “Qui est le plus humain ? La disponibilité des corps de l’homme et de l’animal pour la transplantation d’organes”, Politix, Volume 23 -n° 90/2010, p. 47-69

Richardson T and Jensen Ole B (2008). “How MobilitySystems Produce Inequality: Making Mobile Subject Types on the Bangkok Sky TrainBuilt Environment, 34(2):218-231.

Sassen, S (1999). *La ciudad global*. Nueva York, Londres, Tokio, Buenos Aires: Eudeba.

Urry, J (2000), *Sociology beyond Societies: Mobilities for the Twenty-First Century*.London: Routledge.

Voeten, T (1900). “The true story of the Dutch Provos”, in High Times, (<http://www.ardjoena.nl/Sixties/index.html?P60-07.html>)

Winner, L (1985). “Do artefacts have politics?” in The Social Shaping of Technology: How the Refrigerator got its Hum., edited by D. Mackenzie et J. Wajcman, Milton Keynes : Open University.

## Young Researcher Prize

Here is a list of the contributions selected from the 30 proposals received:

**Zoi Christoforou**, PhD in transport studies at the National School of Civil Engineering in Paris, Deputy Academic Director of the “City, Environment, Transportation” Department

**Ludivine Damay,**  
postdoctoral researcher at the  
University Faculties of Saint-  
Louis-Bruxelles

**Matias Garreton**, doctoral researcher at Paris-East University

**Mélanie Jaj Gheiman,**  
doctoral researcher in urban  
planning in Strasbourg

**Cécile Fere**, PhD in geography, urban planning and development at University Lyon 2 and in a planning office in Lyon

**Cristian Figueroa**, doctoral researcher in architecture at the Pontifical University of Santiago de Chile

**Laurent Fouillé,**  
postdoctoral researcher at the  
Nantes School of Mines

**Sophie Leblanc-Van Neste**, doctoral researcher at INRS-UCS University in Montréal

**Clémence Montagne,**  
doctoral researcher in urban  
geography at Sorbonne University

**Hananto Prakoso,**  
specialist at the Ministry of  
Transport in Indonesia and  
doctoral research at Paris-East  
University

**Martin Tironi**, doctoral researcher at the Centre for the Sociology of Innovation, Paris School of Mines

Scientific committee  
of the conference

Scientific Director:

**Jean-Pierre Orfeuil,**  
Professor at the Paris Institute of  
Urban Planning (Paris-East  
University Créteil), Chairman of  
the City on the Move Institute's  
(IVM) Science and Strategy  
Council, member of the Scientific  
Committee of La Fabrique de la  
Cité

**Mireille Apel-Muller**, Chief Executive of the City on the Move Institute (IVM)

**Isabel Arteaga**, architect,  
Professor at University los Andes  
in Bogotá, member of the IVM  
Chair-Latin America

**Juan Pablo Bocarejo,**  
engineer, Professor at University  
los Andes in Bogotá, member of  
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**Andres Borthagaray,**  
head of IVM-Latin America

**Jean-François Doulet,**  
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Lecturer at the Paris Institute of  
Urban Planning (University  
Paris-East Créteil)

**Frédéric De Coninck,**  
sociologist at the ENPC (National  
School of Civil Engineering) and  
Director of Paris-East University's  
Urban Futures Excellence  
Laboratory

**Mathieu Flonneau,**  
historian at University Paris I,  
Chairman of the research group  
P2M, “Past-Present-Mobility”

**Rosanna Forray**, architect and urban planner, Professor at the Faculty of Architecture, Design and Urban Studies at the Catholic University of Chile and at the Faculty of Architecture, Architectural Engineering and Urban Planning (LOCI) at the Catholic University of Louvain.

**Pierre Lannoy**, sociologist,  
Professor at the METICES Urban  
Research Centre at the Free  
University of Brussels

**Isabelle Laudier**, Head of the Caisse des Dépôts et Consignations Research Institute, Paris

**LIU Jian**, architect and urbanist, Professor at the Tsinghua University School of Architecture in Beijing and member of the IVM-China academic chair

**Fernando Lozada Islas,**  
Professor at Ciudad Juarez  
University in Mexico

**Carles Llop**, architect,  
Professor and Director of the  
Department of Urban Design at  
Universitat Politècnica de  
Catalunya, Barcelona

**Nathalie Martin-Sorville**,  
Director of La Fabrique de la Cité  
**Alain Meyere**, Director of the  
Mobility & Transport Department  
at the Ile-de-France Institute of  
Development and Urban Planning

**PAN Haixiao**, Professor of Transportation Planning and engineer at Tongji University, Shanghai, and Director of IVM-China

**Gaëlle Rony**, Project Manager, PhD in Social Sciences at the Catholic University of Louvain

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