

OUTCOMES OF REGULATORY CHANGE IN URBAN MOBILITY: ADJUSTING INSTITUTIONS AND GOVERNANCE

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INTRODUCTION

In the decade or so, many countries started the reform of their legal and organisational frameworks for public transport, aiming to obtain better performances and improve the market shares of these services. Only a few cities succeeded in introducing effective change and overcome barriers to the reform process. Several background studies have exhaustively identified and assessed these barriers for different types of cities, but there is a deficit of analysis on the paths which were followed by those few cities which succeeded in the reform process.

In the background of this wave of reform is the evolution of urban areas that occurred in the last decades and changed patterns of mobility from a radial concentric shape towards a typical interaction spread across peri-urban areas and very often reducing the role of the traditional city centre. Indeed, some authors define the city on basis of a functional community area, representing a self-contained labor and social market area characterized by high frequencies of interaction (Frey and Speare, 1995, pp 139-190).

This new pattern of interactions led the organised mobility services to extend beyond the administrative borders of the city and, consequently, the need to extend the scope of intervention of the mobility authority to all communities with a direct stake in the mobility system became more obvious. This is easier said than done, and in effect only rarely governance institutions have been adjusted to this new systemic dimension of the urban mobility systems.

The rationale behind this problem of extension of the scope of action and influence of the mobility system is relatively easy to understand but raises additional problems between that scope of action and the scope of intervention of the different institutions in charge of the several aspects of the system, such as territorial definition, financial autonomies, etc.

Based on research projects and our personal experience observing and advising on the reform of some of these types of systems we have identified different sets of factors that contribute to form those additional problems (Macário, 2005 and Viegas, 2005). These are related with

institutional development problems, adjustments and strengthening of institutions to face long and short term development goals, which has often been neglected along the years. Urban mobility systems are prone to problems of misfit between institutional design and required geographical powers of intervention and problems of articulation between horizontal specialisation of the different governance areas with impact in urban mobility, meaning complexity of the network of institutions and decision processes.

In this paper we provide the analysis of three different types of solutions which seem to be pioneers in adjusting institutions and governance, these are: the American Metropolitan Planning organizations; the reform of counties in Copenhagen; the associations of municipalities in Portugal and the Law of Consortia in Brazil.

SCOPE OF ACTION AND INFLUENCE OF THE MOBILITY SYSTEM

The pattern of institutional interaction is based on the functionality concept which in turn is related to the territorial dimension, as referred in Macário (2005, pp 5) - defined by economic and social interactions and lying on a concept of continuity of interdependencies, materially represented by the services provided to communities and by their collective interests.

As recognized by (Viegas, 2003) the definition of the contemporary city is ambiguous and complex, the former because it depends on relations of “belonging”, regarding territory, people and even institutions. Complexity in turn, grows from the spread to peri-urban areas which imposes a diversity of spatial relations, with each citizen very often relating with two urban areas or having stronger links to other cities than the ones where she formally (i.e. administratively) has her residence.

The territorial definition of the urban mobility system is indispensable to define the boundaries within which the power of institutions that are in charge of its governance is exercised. But we often observe a mismatch between the spatial insertion of the urban mobility services and the administrative organization of the institutions with responsibilities over the system. In fact this is a major source of underperformance for institutions and systems.

The system boundary is indeed a rather unstable definition, dependent on too many factors, such as: the judgment of the observer on what she takes as being the system; legal and technological competencies that underpin respectively the actors’ territorial and spatial competences (authorities and operators); and the actors’ technical capabilities. Besides, in reality what we have is two sets of decision-makers, one set in the supply side that even where there is a good organizational framework, only rarely addresses the decision at system level; and another one in the demand side which is characterized by hundreds of disorganized decisions.

As noted by (Viegas, 2005, pp 8) transport is one of the policy areas where there is a greater split of competencies across levels of the Administration, and if this decentralization is largely related to the recognition that mobility problems are better identified and dealt with if the decision-maker is closer to the source of problem, there is also a strong motivation in the domain of fiscal responsibility, leading local and regional administrations to take the hard and publicly accountable decisions on the application of public money.

CHANGE IN INSTITUTIONAL SETTINGS

Change is inevitably a difficult undertaking whenever institutions are related to territorial sources and expressions of power. Understanding change is first and foremost a matter of understanding interactions between the entities that form a specific organizational field and its environment. Political networks and communities work on the basis of influence, domination and also a considerable degree of implicit and voluntary trust with unofficial rules of appropriateness. Trusting behaviors can be defined following (Lorenz, 1989, in Gambetta, 1989, pp 194-210) who settled these as a sort of behavior that “consists in action that (1) increases one’s vulnerability to another whose behavior is not under one’s control, and (2) takes place in a situation where the penalty suffered if the trust is abused would lead one to regret the action”.

The observation of institutional behaviour in different sectors of activity led (Macário, 2005a) to ascertain that change is more likely to occur when institutions possess no rules binding their usual behaviour or defining the appropriateness of their behaviour. The “no rules arena”, just like it is often used in the policy participatory processes is a powerful instrument to boost change processes.

A barrier to change is thus something that is causing hindrance, preventing progress or movement. In an evolutionary process barriers exist all the time, they are part of a natural cause-effect dynamics and always represent a negative effect on the evolutionary process where they are present. They can be visible or not limiting the decision maker’s awareness and consequent action. Barriers can also be material or immaterial and within the latter it can still have a visible or hidden representation. Besides, the classification of barriers can not ignore the stage of development of the change process itself. A barrier can be more or less severe depending on the moment in which it is raised and the potential damage (political or otherwise) that can result.

In fact, there is a great diversity of ways to classify the different kinds of barriers. Moreover, within the diverse array of barriers that can be recognised it is possible to verify that they can overlap each other, be inter-related or even nested within each other. From our observation we conclude that barriers can be classified according to their end-object of incidence, that is:

- Resource related: Relates with the lack of financial, material or human resources to implement the change
- Process related: Related with the change process itself, including coalition games between stakeholders
- Framework related: Related with the overall environment where the change process is embedded, including the aspects related with the rules of change, legislation, statute of the actors, etc.

This interpretation seems to be well adjusted to reality if we complement the analysis of barriers by further disaggregating it into consensus building levels, where intervention occurs, taking into account the concept of level of social analysis originally proposed by (Williamson, 2000, pp 608), where each level determines the scope of intervention of the respective actors. This distinction gains importance due to the fact that instruments and measures cannot be freely established within the institutional framework, so the identification of the governance level and scope of intervention are extremely important to enable the correct allocation of measures to overcome barriers. Within this perspective we can observe barriers at the following levels (EC, 2003, MARETOPE, D4, pp 43):

- L1: cultural and social regime: entailing the cultural, ideological, political and social orientations;
- L2: regulatory context: entailing the laws to which the different mobility services and actors are submitted, as defined above;
- L3: regulatory framework: entailing the general rules that are decided for the organisational field of transport, within the scope of the law;
- L4: organisational forms for governance: entailing the choice of organisational form by authorities and operators within the scope of the existing laws and regulations;
- L5: contractual relationships: entailing the choice of incentives (contractual relations) between actors, within the scope of laws, regulations and organisational forms;
- L6: allocation of resources: decisions to be taken concerning conflicting allocation of budget and/or resources within the same institution.

A hierarchy exists between these levels. They are classified with decreasing level of temporal inertia for change to produce effects (e.g. traditions generally have a longer change process than laws, which generally also take longer to change than regulation rules, and so forth until the allocation of resources). Thus, from L1 to L6 each level largely determines the scope and configuration of the next one. Besides, each of the hierarchical levels has a specific context in which not all measures and instruments are equally effective. Consequently, each governance level has a possible set of instruments and each instrument optimises its effectiveness in a certain governance level. Moreover, each barrier level has different degrees of intervention in the decision levels of the system, the higher barrier levels having a stronger presence in the strategic decision levels and the lower ones at the operational level.

The role of each agent is thus dependent and influenced by the level where its intervention takes place, that is to the degrees of freedom to act within the system and to the power that agents have over one another. Consequently the potential to raise barriers is also affected by that delimitation. From our observation of the change cases in urban mobility systems we conclude that the process of raising and overcoming a barrier is bound by three basic elements: actors/institutions; territories and instruments (EC, 2004, TRANSPLUS, D4.2, pp 35).

A barrier is frequently a consequence of an actor's attitude regarding his position in the territory he perceives to be under his area of influence and of the instruments available to develop effective opposition. Like with a boomerang effect, the barrier life cycle gives place to the development of instruments that aim to mitigate the barrier but, as this occurs, a new potential is also raised that another stakeholder group might be affected by the impacts caused by the intervention with the new instrument. To some extent we can then say that there are cascade effects in this evolutionary path.

In the following section we analyse three alternative ways of adjusting institutions and governance, acting on levels L4 and L3 above, that were largely motivated by the existence of resource and process related barriers in the development of the existing traditional organisational settings.

PIONEERS ADJUSTING INSTITUTIONS AND GOVERNANCE

Metropolitan planning organizations¹

In the early 1970's the United States Congress decided that urban areas with more than 50.000 population should require the creation of an entity designated by MPO-Metropolitan Planning Organization, with the aim of ensuring that existing and future expenditures for transportation projects and programs were based on a consistent, continued, cooperative and comprehensive planning process. At the time the main reason for the creation of MPO's were (Plumeau, 2005, pp 4):

- Need for an appropriate allocation of scarce funding resources (federal and others);
- Planning needs to reflect the region's future strategy;
- The understanding that adequate planning requires examination of scenarios of future development of regions and urban areas and respective alternatives for investment; and
- A consensus building organisation like a MPO's can facilitate the collaboration of governments, stakeholders and residents in the planning process

In brief, we can understand that the perception of transaction costs and also opportunity costs, included in the assessment of the alternatives for application of federal transportation funds is sufficiently relevant to motivate metropolitan regionwide planning supported in governmental collaboration and consensus-based decision-making.

However, MPO's are not always lean structures; they often include a wide variety of committees and even professional staff. Their structure is not uniform across the US, but it is common to have their internal structure divided in the following bodies:

- Political Committee, who represents the top-level decision making body and is usually composed by the elected representatives of the local municipalities taking part of the MPO, representatives of transport modes, and representatives of State Agencies;
- Technical Committee, that act mostly as advisors to the political committee
- MPO's professional staff for technical matters mostly related to planning, analysis and follow-up of tasks and projects, although reported experience reveals that most MPO's require also some staff dedicated to the MPO process itself, due to complexity and time-consumption associated to the building consensus process.

All MPO's are governed by federal legislation called "*The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)*". The MPO planning process is a prerequisite to the area receiving federal funds for airport, transit and highway improvements. According to their association there are today 385 MPO's in the United States. The following functions are commonly understood to be the core functions of an MPO (Plumeau, 2005, pp 3):

¹ Largely based on the works and discussions held by the TRB' Metropolitan Planning Organization Committee where the second author is a member.

- Establish a setting: Establish and manage a fair and impartial setting for effective regional decision-making in the metropolitan area;
- Evaluate alternatives: Evaluate transportation alternatives, scaled to the size and complexity of the region, to the nature of its transportation issues, and to the realistically available options
- Maintain a Long-Range Transportation Plan (LRTP): Develop and update a fiscally-constrained long-range transportation plan for the metropolitan area covering a planning horizon of at least 20 years that fosters
 - mobility and access for people and goods
 - efficient system performance and preservation, and
 - quality of life
- Develop a Transportation Improvement Program (TIP): Develop a fiscally-constrained program based on the long-range transportation plan and designed to serve the area's goals, using spending, regulating, operating, management, and financial tools.
- Involve the public: Involve the general public and all the significantly affected sub-groups in the four essential functions listed above

The MPO's have no authority to levy taxes, the funding of operations is supported by a combination of federal, state and local funds. Since 1991, with the Intermodal Surface Transportation Efficiency Act (ISTEA), MPO's gained some prominence as this act provided additional (double) funding to these institutions and enlarged their authority to select projects and other metropolitan initiatives related to public participation.

An innovative aspect of ISTEA has been the introduction of fiscally constrained planning, that is MPO's plans can only contain the ones that are financially feasible taking into account the expected revenues, which is a clear enforcement to the MPO's responsibility for hard decisions on definitions of priorities.

No reports were found on barriers or oppositions to the implementation of these organizations. It is worth noting that they do not overlap competencies with the traditional institutional structure. They cover a missing gap in the institutional coverage of territory by acting exclusively on common interests of the municipalities that form the MPO

THE COPENHAGEN LOCAL GOVERNMENT REFORM²

Last 1st January 2007 the government of Denmark implemented a reform of its jurisdictional organization in order to enable a better answer to the provision of public services. The reform was driven by health concerns but was extended to all public services, transport included. The drafting of the reform was initiated in October 2002, and the last time Denmark implemented a local government reform, before the current one, was in 1970 and for similar motives.

The main elements of the reform were:

- New jurisdictional inner borders of Denmark, including new municipalities;
- New distribution of tasks between institutions;
- New financing and equalization of the system.

² Information on this reform was obtained in local interviews undertaken by the authors to the Copenhagen Municipality, the Danish Ministry of Transport and to Movia Public Transport in May 2007.

To a certain extent it can be said that the current reform prolonged the one undertaken in 1970. Denmark, before 1970, was divided into 86 boroughs and about 1300 parishes within 25 council districts. One of the main reasons for the 1970 reform was the fact that buildings in the borough had come across the boundaries of the neighboring municipalities, causing all sorts of difficulties to public administration. Another aspect was the dimension of the parishes which was often too small to provide services to the citizens and the services had to be performed by elected representatives, with obvious restrictions to local autonomy.

With the 1970 reform the number of counties was reduced to 14 and the municipalities to 275 and this set the foundations for the restructuring of the distribution of tasks and cost burdens between the different levels of governments – state, counties and municipalities, enabling the transfer of tasks to municipalities and counties. Before 1970 local governments were financed by the state through reimbursements, after this reform a good part of the reimbursements were replaced by general state grants, and the financial equalization schemes between rich and poor municipalities developed. With this change a better correlation between competences of decision and financial responsibility of municipalities and counties was achieved. This structure remained until 2007.

In 2002 the government re-initiated the discussion on the structure of the public sector and, in January 2004, the Commission on Administrative Structure concluded that a new reform was required. The driver was the fact that the size of the counties and municipalities was below the threshold dimension for good performance (set around 20.000 inh.). The three main arguments of the Commission were³:

- A major part of the current administrative units are too small considering the performance required by the legislators today;
- In a number of areas it is difficult to ensure a consistent and coordinated effort. The problem is mainly based on the fact that responsibility for some tasks has been divided between several decentralized administrative units. The result is a risk of “grey zones”
- In some areas there are problems due to parallel functions/tasks in several administrative units. This makes it more difficult for the administrative units to coordinate and prioritize task performance and to improve efficiency and quality

After extensive public discussion the decision of undertaking a new reform was adopted with the commitment that no higher taxes or increase in public expenditure would accrue from the reform. So changes were based in the principle that the reform would be neutral when it comes to expenditure and corresponding funds should follow the tasks, wherever change occurs. This imposed a balance on financial burden between authorities taking new tasks and authorities giving up those tasks. The Ministry reports that the reduction of the number of local politicians by itself represents *DKK 365 million per year* as from 2007, with the saving alone being able to *finance interest and payment over five years on loans amounting to approx DKK 1.7 billion (with and interest rate of 3%)*. At this stage the estimation of cost involved in the implementation of the reform are, according to the Ministry, approx 1.2 billion, including DKK 750 million for IT adjustments, approx DKK 175 million for relocations, approx DKK 75 million for employee reorganization and approx DKK 175 million for remuneration of integration committees in 2006. No estimates for the Transport sector alone were available.

³ Recommendation of the Commission on Administrative Structure, Ministry of Interior and Health, Department of Economics, The local government reform

The 2007 reform, continued the work of the 1970 reform, abolished the counties and instead five regions were created. A total of 98 municipalities will replace the previous 271. A recommendation from the parties behind the reform that new municipalities should aim at 30.000 inhabitants and a minimum size of 20.000 inhabitants should be respected. Smaller communities should merge into new, and larger, municipalities, or enter into voluntary binding partnerships (just as the case for Brazil referred in next section).

Municipalities were asked to take decisions on their future and, according to the Ministry, the new map of jurisdiction in Denmark resulted from the following decisions:

- 65 merged municipalities;
- 33 unchanged municipalities. Seven of these with less than 20.000 inh (five of which are islands) and, consequently, they enter into binding partnerships
- 11 municipalities were divided as a result of local referenda

The tasks involved in the local and regional public bus transport will be undertaken by new transport companies established by the regions. Each municipality will participate in a transport company. Transport companies will be responsible for bus transport, fixing fares and ticketing systems, as well as schedules and coordination and planning. The municipalities will also be responsible for local roads (about 8.000 km out of a total of around 10.000 km of former county roads), private railroads and individual transport for disabled. Each transport company has nine members in the executive committee, with the regions appointing two members and the municipalities appointing seven members. The responsibility to establish the transport companies belongs to the Regions. The state will keep the general road network and the state railway. As an example the transport company Movia, responsible for Copenhagen buses and local rails, is owned by 2 regions and 45 municipalities and offers a sales/expenditure ratio of 0,49 on a total yearly expenditure of 461 Million Euro to serve 2.4 million inhabitants.

The equalization scheme reflects a “user-pay” principle and ensures that the same level of service involves the tax percentage regardless of the income of the inhabitants and demographic factors. It is worth referring that the definition and metrics for the level of service for an urban mobility system is far from being stabilized among researchers and practitioners, being one of the areas that deserves research investment in the near future since the last decades provided this type of knowledge mostly on a modal perspective.

At the moment our interviews were made it was still too early to assess potential barriers to the implementation of the reform. We could perceive a sense of general agreement with its content but still too many doubts on the new institutional relations. It is thus a learning process that deserves monitoring and feed-back adjustment.

VOLUNTARY BINDING PARTNERSHIPS OF MUNICIPALITIES: THE CASES OF BRAZIL⁴

In Brazil a new legislation was approved by the President, in early January 2007, to regulate the law of Public Partnerships, that allows the cooperation between Union, States, Municipalities and the Federal District, in the provision of several public services, like health, education, transport, etc. Each consortium can be formed by a minimum of two public entities (federated entities).

⁴ Information based on the authors experience obtained in their extensive field work in both countries

It is a voluntary binding partnerships largely stimulated by successful experiences. Before this legislation came into force there were some experiences with public consortia working only as administrative agreements. The expectation of the federal government which is the promoter of the initiative is to increase the partnerships between small cities to reach minimum critical mass for the development of some services, with special focus on transport and public health, where about 2.000 partnership are already working⁵.

The adoption of these voluntary binding public partnership in Brazil is assumed as a consequence of consensus governance methods promoted by Canada, with whom Brazil has a cooperation agreement for this domain. The Northwest Territories and Nunavut in Canada are taken as benchmark references for these experiences and these are the only two jurisdictions in Canada that operate under the consensus system of government rather than the more common systems of political parties. This consensus governance regime is understood to blend the principles of parliamentary democracy with the Aboriginal values of maximum cooperation, effective use of leadership resources and common accountability (SanJun Kim, 2005, pp 12), although still requiring majority support for approval of measures.

The legislation has had a successful implementation in Brazil and municipalities are rather positive about its potential benefits to overcome some existing bottlenecks. It is of course too soon for conclusions or even assessment but also here, like in the MPO case, this voluntary binding institutional arrangement has no direct competition with the incumbent structure of power at the three government levels. This may well represent a critical factor in a Federation without a clear hierarchy across government levels as it is the case of Brazil where municipalities are Federated bodies on equal standing to the Federated States and to the Federal District.

CONCLUSIONS ON VARIABLE GEOMETRY

With the exception of the MBO, all experiences reported in this paper are still rather young to enable sound conclusions on their benefits and inconveniences, although a trend towards diversified and creative forms of consensus governance across administrative levels seems to be emerging both in the developed and developing world.

It is also possible to advance the preliminary conclusion that voluntary binding agreements of variable geometry entail considerable appeal for politician and local governments, and their acceptability seems to be based on the following attributes:

- Voluntary binding agreements do not require permanent structures with associated powers, so they have a high degree of reversibility and consequently are perceived to have a lower risk of imposing unwanted change;
- These agreements entail power sharing but they do not touch the rigid structure of power, only the one directly related to the initiative, that is the variable one;
- Leadership can be exercised without establishing permanent hierarchies;

For the society is general, these new forms of governance seem to bring also some benefits, such as:

- Accountability is high but rewarding;

⁵ In Brasil there are more than 5.100 municipalities

- Partnership search entails some competitive behaviour towards good performance in public management

Like in any initiative there are also costs to consider, such as:

- Decision-making processes tend to be longer and can generate considerable opportunity costs;
- In situations of lack of consensus the system can be easily blocked since all members of the “consensus assembly” have similar power.
- Voluntary partnership may promote the use of smaller planning units with a consequent loss of synergies.
- Voluntary partnerships may be too fragile, and susceptible to demolition as a consequence of misunderstandings between politicians for some reason unrelated to the matters they address.

BIBLIOGRAPHY

- EC, 2003, MARETOPE, TIS.PT et al., “MARETOPE – Managing and Assessing Regulatory Evolution in Local Public Transport Operations in Europe, Final Report” Fifth Framework Programme, Urban Transport, DG TREN.
- FREY W. H., SPEAR A. Jr. (1995), “Metropolitan areas as functional communities” in Donald C. Dahamann and James D. Fitzimmons (Eds.), “Metropolitan and Non Metropolitan Areas: New approaches to Geographical definition”, Working paper No. 12, Washington, DC: US Bureau of the Census, Population Division.
- GAMBETTA D. (Ed.) (1989), “Trust: Making and Breaking of Cooperative Relations”, Blackwell
- MACÁRIO, 2005b, “Restructuring, regulation and Institutional design: a fitness problem”, in Macário R., Viegas J.M., Hensher D., Competition and Ownership in Land Transport, Proceedings of the 9th Conference, Elsevier
- MACÁRIO R, 2005a, Quality Management in Urban Mobility Systems: an integrated approach”, PhD dissertation, Instituto Superior Técnico, Universidade Técnica de Lisboa.
- PLUMEAU P., 2005, Metropolitan Planning Organizations in the United States: Issues and Challenges, in Macário R., Viegas J.M., Hensher D., Competition and Ownership in Land Transport, Proceedings of the 9th Conference, Elsevier
- SANJUN KIM, 2005, “The reflexive consensus system: a new governance model”, 6th Global Forum on Reinventing Government, Seoul, Korea, 24-27 May 2005
- VIEGAS, J.M., 2005, “Transport and governance: Co-decision and power sharing”, in Macário R., Viegas J.M., Hensher D., Competition and Ownership in Land Transport, Proceedings of the 9th Conference, Elsevier
- VIEGAS. J.M., 2003, “Competition and Regulation in the Transport Sector: a recurrent game and some pending issues”, European Conference of Ministers of Transport, ECMT Symposium, Budapest.