THE URBAN MOBILITY SYSTEM AND ITS PUBLIC TRANSPORT LAYER AS CORE ELEMENTS OF COMPETITIVE, SUSTAINABLE AND PLEASANT CITIES

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Objectives of this Paper

- Two key objectives:
  - to **highlight the role** of the Urban Mobility System in general, and of Public Transport in particular,
    - for the ***competitiveness, quality of life and sustainability*** of European large cities, and for their evolution in a path of significant ***reduction of GHG emissions***;
  - to present in a structured way some of the **conditions necessary for that role to be played** with high levels of efficiency and political accountability

THE ECONOMIC BENEFITS OF TRANSPORT

The Economic Benefits of Transport
The general picture (I)

- Appraisal of specific projects mostly done through Cost-benefit Analysis (CBA)
  - Application virtually impossible in a "All-or-nothing" version
  - Increasingly compulsory application in large public projects
  - Some recognised weaknesses (no regard for distribution, asymmetry or strategic impacts, forced monetisation)
  - Frequently complemented by Multi-criteria Analysis (MCA)
- Most frequent benefits of Public Transport projects
  - In CBA: Time savings and productivity gains; environmental relief; release of public space from cars to other uses
  - In MCA: Social Inclusion, amenity of urban space, safety, public health
  - Option Value often ignored

The Economic Benefits of Transport
The general picture (II)

- Wider Benefits of Transport projects:
  - gains in productivity also deriving from ***"density of interaction"***, leading to innovation, specialization and trade under increased competitive pressure
  - Higher efficiency from better fit between job requirements and workers' skills
- Urban Competitiveness
  - Outcome of urban competitiveness has two closely linked dimensions: the development of business productivity, and the development of human capital
  - Employment density is a strong factor for higher productivity
  - ***Combining population size, employment density and short commuting times is only possible with good public transport***

The Economic Benefits of Transport

Ex-Post Evaluation and lessons from that exercise

- Significant errors both in ***demand forecasting*** and in ***construction cost estimation*** in transport-related public works projects
- Two major recommendations emerge:
  - adoption of a benchmarking or ***"reference class" approach***, developed to compensate the cognitive bias in human forecast
  - ***institutional reforms*** that favour transparency of procedures, and independent peer review of results
- Appraisal exercises have the major benefit of screening the bad projects, leaving a relatively small pool of good projects in the short list, open for political choice after discussion with stakeholders
  - ***Strong emphasis on transparency and accountability, not only on maximum efficiency***

The Economic Benefits of Transport

Public Transport in a period of Economic Crisis

- Urban Public Transport provides value to society and to the economy in multiple ways
  - ***providing mobility*** to those who have lost their jobs and or seen their revenues severely reduced, and can no longer afford the costs of their own mobility by private car
  - as a ***quick job activator***, both for the maintenance or upgrade of infrastructure and for more intensive operation.
    - In both cases, the density of employment is high, across a rather large spectrum of professional skills, and the positive effects can be felt quite quickly

The Economic Benefits of Transport
The Challenge of Climate Change

- The level of reduction of GHG to reach the targets set by the EU and by several national Governments cannot be reached by technological progress on vehicles and fuels, unless we accept significant reductions of GDP levels
  - The alternative is to adopt ***new mobility patterns*** so that we can get higher productivity of mobility (more Euros per pax.km or per ton.km) and / or lower emissions per unit of mobility
    - higher use of rail as well as of road modes with higher load factors
- The new choices must be presented as a ***"double second-best"***, for the citizen and for society, requiring
  - ***market segmentation***, for better fit between requirement and service
  - ***significant quality boost on the traditional PT services*** through
    - systematic deployment of consumer-oriented IT based services
    - innovative services, possibly with intermediate modes, filling the size gap between private cars (or taxis) and standard buses

The Economic Benefits of Transport Synthesis

- What is at stake is not the value of a good urban mobility system (UMS), or of its public transport component, but rather a small set of other (related) questions
  - ***The Configuration Question:*** What changes would be desirable to the UMS to improve the overall quality of life, competitiveness, social cohesion and sustainability of the city?
  - ***The Financing Question:*** What is the most fair and efficient way to split the costs of the UMS and its Public Transport component across the various segments of society, and particularly what fraction should be supported by public funds?
  - ***The Institutional Question:*** What is the institutional design that seems to be most effective to provide good answers to the two previous questions?

EXTRACTING THE FULL VALUE FROM THE URBAN MOBILITY SYSTEM

The Configuration Question (I)
Transport Plans and Emerging Changes

- Answering the configuration question is the typical mission of "Transport Plans" (under this or similar names), which have been produced for most midsize and large cities for at least some 40 years
  - Unfortunately, the production of these Plans (and the subsequent deployment on the real world) is still suffering from low levels of innovation in what concerns Public Transport
- In urban mobility ***two directions of change*** are most visible:
  - an ***increasing proportion of trips is of a voluntary nature*** (i.e., not work or school related), with a growing dispersion of origins and destinations
  - an increasing proportion of people is having ***different mobility requirements across the days of the week***, as they engage in voluntary activities on a non daily basis

The Configuration Question (II)
Responses to Emerging Changes

- To address these challenges, two major responses are needed:
  - Public Transport tariffs (transport titles) should easily accommodate the notion of **Modal Alternation**;
  - ***New types of services*** should be allowed for introduction in the market, exploring the possibilities of market segmentation, making strong use of ICT oriented towards the client
- Adaptation to the evolving mobility requirements of society can only be produced by ***less regulated environments***, and it should be possible to have configurations for the Public Transport subset of the UMS in which
  - one part is very stable and defined from the top (i.e. the Authority)
  - and another part is generated at the bottom (transport operators and other service providers)

The Configuration Question (III)
Strategic Guidance, Goals, Indicators

- Dynamic adaptability of the configuration without ***strategic guidance*** is a dangerous practice. And for a strategic guidance to emerge, ***clarity of purpose*** is essential
  - The policy process has to start with a clear definition of the ***Strategic (Quality) Goals for the UMS***, preferably adopting a relatively small set of KPIs (Key Performance Indicators) and their target values at the future reference date
    - Equity concerns across geographical space and across modes
    - Sustainability concerns addressing not only direct environmental impacts but also land use patterns
  - For the main components of the "Transport Plan" identify their contribution to each of the strategic quality goals, through their marginal contribution for improvement of the relevant KPIs.
- In parallel, ***evolution towards a regulatory framework that stimulates modal alternation and innovation in public transport services***
- ***Monitoring and publication of its results***, for discussion with stakeholders and readjustment of plans

The Financing Question (I)
Prices and Subsidies

- ***Double role of prices*** (tariffs) must be clear :
  - they pay for the mobilization of resources, allowing the replenishment of the supply side;
  - they are a potent driver of consumers' choices, allowing the managers of the UMS to influence the level of demand across the various components of the system.
    - There are price thresholds above which some persons will not be able to access those services
- In general, there is ***no need to subsidize many of the clients of Public Transport***, although it is essential that ***no one is deprived of mobility because of inability to pay***.
  - Apply principles of vertical equity (***subsidize those who need it***) instead of adopting a general tariff subsidy through the operators.
  - That general subsidy is not only ***unfair*** (loading the taxpayer without a real need for that on the part of many of the beneficiaries), it also ***promotes inefficiency*** of the operators.

The Financing Question (II)
Direct subsidies and Concessionary Fares

- To ensure greater fairness and efficiency (and also fiscal responsibility), it is important that ***the subsidy to those in need is supported by the budgets of the various existing social protection agencies*** and becomes part of their support of dignified living conditions of their beneficiaries
  - This will of course require a revision of the budgets and funding bases of those social protection agencies
- Great differences in targets of ***concessionary fares*** across EMTA
  - an apparent ***result of ad-hoc procedures*** occasionally repeated in each city
  - Also no ***clear principles about compensation*** of these discounts
  - There would be ***great value from a concerted reflection of the EMTA members***, leading to propositions to their political leaders with at least some form of commonality of principles

The Financing Question (III)
Cost Coverage of UMS

- ***The Urban Mobility System should be able to move towards full coverage of its operational costs, plus those associated with its external impacts***
  - Growing competition for public funds from other sectors with less ability to provide a similar level of cost coverage, namely pensions and health care in an ageing society, plus education of increasing sophistication levels in a knowledge society
- ***Multiple steps needed*** to get there
  - Higher efficiency of operators, by changing subsidy process and by promoting segmentation
  - In many cities, higher ticket prices
  - Contributions from indirect beneficiaries (businesses, land owners / tenants, car drivers)

The Financing Question (IV)
Indirect Beneficiaries / Investments

- Better charge businesses according to their floor space than to the number of employees
- Charges on private cars serve a double purpose:
  - provide a layer of funding to the UMS in general (alongside the contributions from other indirect beneficiaries and from the travellers in public transport)
  - influence travellers' choices, as they reflect value for drivers who accept to pay
- Charges on access by private car to different urban areas should be different according to the quality of service provided by public transport to those areas
- Charging land owners / tenants should be done over time and not only on transaction
- Contribution of national (regional) budgets for investment possibly needed but only on condition of demonstration of financially balanced operations

The Institutional Question (I) Quality Target Levels

- If the UMS has an important role to play in the Quality of Urban Life and in the Competitiveness of the city, then the ***UMS itself must be of good quality***
  - the ***quality objective must be present throughout the system***, although inevitably the level of quality will not be the same across space and modes in a given conurbation
  - ***Market shares are not the key performance indicators***, but just intermediate indicators, as the goals (and so the targets) must be related to quality of life, economic efficiency, sustainability, and social inclusion
- What level of quality is targeted and what level of speed in the transition are aimed at will ***depend on the level of ambition for this sector and on the resources that can be made available for that***

The Institutional Question (II)
Strategic Command, Tactical Consistency

- A ***strong and wise Strategic Command of this system*** is required, so that the adaptations are well incorporated into a baseline trajectory towards the established quality targets
  - ***provided by a political organ***, singular or collective depending on the prevailing local and regional power solutions in each country, preferably representing the whole mobility conurbation
- ***At the Tactical (or planning) level, a single agency must be in charge of all transport modes in the mobility conurbation***
  - carrying out planning and oversight with technical competence and firmness in action
  - while ensuring transparency and fairness in treating the legitimate interests of multiple public agencies and private parties
- The size and complexity of the system will certainly imply some fragmentation of responsibilities closer to the operational level

Conclusions (I)

- The Urban Mobility System is a critical contributor to quality of life and competitiveness of European cities, and must offer ***high levels of quality in all its modes***;
- Effective mobilization of the energy and skills of all members of society requires that ***good mobility solutions are available to all population segments and urban areas***
- As daily mobility requisites vary, so should ***it be easy to vary the solutions adopted: Modal Alternation*** is a powerful concept but its application still faces many barriers

Conclusions (II)

- The complexity of these systems and the permanent evolution of lifestyles can only be adequately addressed under a ***governance framework which provides Clarity of Purpose and Strategic Guidance***
- ***A single agency should be in charge of the tactical (planning) decision level for all issues in the mobility conurbation, with strong links to land use decisions***
- ***Innovation in mobility services*** is very important for better adaptation to evolving requisites, and is ***preferably brought up by private companies***, transport operators or not.
  - It is the role of public agencies in general and of this planning agency to favour the emergence of such innovations and their integration with the previously existing supply forms

Conclusions (III)

- A ***sound Financing framework*** must be defined and accepted for the Urban Mobility System, promoting its evolution to the desired configuration
  - Recognizing that ***the financing issue must be addressed globally for the Urban Mobility System, and not separately by mode***
  - In general, the Urban Mobility System must be able to ***reach full coverage of its operating costs (including maintenance)***
  - ***Contributions of indirect beneficiaries*** (businesses, car drivers, land owners / tenants) must be included in the equation
  - ***Subsidies must be awarded to only those people who need them, through the budgets of social protection agencies*** who know their situations better

Conclusions (IV)

- ***Investment costs may require contributions from the (national) public budget***, given their foundation role in the urban fabric
- ***Benchmarking practices must be systematic adopted in their appraisal***, followed by independent peer-review of the corresponding studies in case of discrepancy
- ***Any new investment project must only be approved*** after it can show that it can be properly integrated in the general system ***without disturbing the future balance of operating cost coverage***

EMTA
European Metropolitan Transport Authorities

Thanks for Your attention !

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