Urban Mobility in Mediterranean cities: Feedback and perspective

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Session
Governance and Financing of Sustainable Urban Transport

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<th>Stages</th>
<th>Governance issues</th>
<th>Financing issues</th>
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| **Strategic Planning**      | Integration of modes in decision making  
- Place of cars in the city?  
- The Transport Organizing Authority has power on land planning, traffic AND collective urban transports  
- Realistic demand and adapted investments | Limited over-design, hence optimization of costs for investment and operation |
| **Financial closure**       | The Transport Organizing Authority has the capacity to channel funds and/or borrow | Mobilization of a mix of financial sources                                        |
| **Project implementation**  | Integration of the future operator in construction stage                           | Optimization of costs                                                            |
| **Operation**               | KPI and regulation of operators                                                    | Financial integration  
Mobilization of a mix of financial sources                                         |
Critical questions

1. What to finance?
Planning, decision and optimization -> close imbrication between financial and governance issues

2. Regulation issues

3. Who pays for what?
Direct/indirect beneficiaries?
Taxpayers? Justification of subsidies?

...looking for innovative sources of financing:
- land value capture
- climate funds?
The first strategic choice: what is the « target » modal shift?

[Diagram showing modal shift in Istanbul, Mumbai, and Johannesburg.]
Margins of action to optimize costs and revenues for the Transport Authority

Tariff policy (monthly subscription, social tariff, zones, etc.); anti-fraud actions

\[
\text{Tariff revenues} = \frac{\text{tariff revenues}}{\text{trip}} \times \frac{\text{trip}}{\text{inhabitant}} = \frac{\text{costs}}{\text{operated Km}} \times \frac{\text{operated Km}}{\text{inhabitant}}
\]

GDP; car restriction policy, attractiveness of urban transport network

Costs per mode: investment; efficiency of operation (energy efficiency \times cost of gasoline/electricity; staff efficiency \times number of staff)
Investment policy: adapt investment to needs and allocate funds for maintenance

Figure 2: Coûts d’investissement moyens en fonction des modes et du PIB par habitant

Figure 3: Coûts d’exploitation avec amortissement en fonction du PIB (en € et par kilomètre)
Regulation issues

• **Roles of public authorities**: regulation of quality (define the level of service, as well as environmental norms), of the price and of the performance

• **Roles of private sector**
  • for the operation and maintenance through management contracts (ex. France, Morocco, India)
  • for financing infrastructures under concession schemes (ex. Sao Paolo Metro, Lagos) – but this should ultimately be paid from tariffs or subsidies from the budget
  • For para-transit transport

• **Roles of mixed semi-public enterprises** - very often related to urban development
Who pays what for urban transport?
Direct users: what level of tariffs?

### Main City Fare Ratios

<table>
<thead>
<tr>
<th>Monthly pass fare in main city / Monthly GDP per capita in main city (%)</th>
<th>Single ticket fare in main city (€) / petrol litre price (unleaded 95 in 2011, €)</th>
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<tbody>
<tr>
<td>3.0%</td>
<td>Amsterdam 1.0, 1.3</td>
</tr>
<tr>
<td>4.3%</td>
<td>Paris 1.1, 1.1</td>
</tr>
<tr>
<td>3.8%</td>
<td>Madrid 1.1, 1.1</td>
</tr>
<tr>
<td>4.3%</td>
<td>Stockholm 1.1, 1.1</td>
</tr>
<tr>
<td>3.2%</td>
<td>Vilnius 0.5, 1.5</td>
</tr>
<tr>
<td>6%</td>
<td>Warsaw 0.7, 1.5</td>
</tr>
</tbody>
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(16) GDP figure corresponds to PTA area value
Incentives to use urban transport
Tallinn (Estonia, 420 000 inh.): urban transport is free for local inhabitants and students

Social considerations
Strasbourg (France): tariff depends on household revenues

Geographical cross-subsidies: one zone (ex. Izmir) or tariff by zones (ex. Jakarta, Paris)?
Taxation of private car users: various objectives
Taxes on private vehicle ownership

The first objective is to limit car ownership, hence limit congestion and future investment needs

- **Taxes**: Japan, Danemark (equal to the price)
- **Quotas**:
  - Singapour / 1990 / auctions / certificate valid for 10 years
  - Shangai / 1994 / auctions / 11000 plates awarded in April 2013 / average price 10 000 euros (price is capped)
  - Beijing / monthly lottery: 20 000 new plates/month
Fuel taxes: everywhere, but not always ear

d-market for urban transport

**California**: 70% of fuel taxes for transport – out of which 90% for road maintenance; 10% for collective transports

**Colombia**: additional tax on fuel -> up to 250 M €/year; investment of the three first Transmilenio lines was partially financed through this tax

**Germany**: Bayern finance the rail with fuel taxes transferred to the general level
Urban Tolls: two functions

- **Finance the maintenance of an infrastructure**
  
  *San Francisco bridges*: about 625 MUSD in 2012, mainly for maintenance and rehabilitation
  
  *Marseille tunnel (PPP)*

- **Congestion charging and modal shift**
  
  *London*: 160 M € of net revenues for TfL
  
  *Singapour*: 57 M € of net revenues, non ear-marked for transport
Indirect beneficiaries: employers

Bénéficiaires directs:
- Usagers du transport public
- Usagers des transports privatifs

Taxes sur les carburants, recettes sur le stationnement, péages

Recettes tarifaires

Bénéficiaires indirects:
- Propriétaires Immobilier / fonciers
- Commerçants
- Employeurs

Captation de la rente foncière
Fiscalité sur la masse salariale, contribution au financement des abonnements

Contribuables
Impôts directs et indirects
Fonds publics

Banques et Bailleurs de fonds

Dons

Budget transport urbain

Investissement
Fonctionnement
Employers' contributions

- **Voluntary basis**: own organization (Egypt, Morocco, India) or reimbursement of costs for employees

- **Mandatory**:
  - **France**: the «Versement transport» covers 40% of O&M costs of collective urban transport
    - since 1970, for entreprises over 9 employees,
    - 1 to 3% of payroll, ie 6 to 7 billions €/year

- **Brazil**: the «Vale Transporte» benefits to 40% of collective transport users if tariff exceeds 6% of their salary

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*Figure 16: Les recettes du SYTRAL, l’autorité organisatrice de l’agglomération lyonnaise : 761,1 M€ (budget 2013)*

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Indirect beneficiaries: land value capture
Land value capture: making property developers pay through taxes around new stations in urbanized areas (win-win)

**Dublin tramway**: an additional tax for « land added value » (between 250 and 600 000 €/ha), has been used to finance investment.

**Transit Oriented Development**: new constructions generate new fiscal revenues, ear-marked for a transport investment

**San Francisco**: « Transit Impact Development Fees » created in 1981 for any new business building (adapted in 2012) – 1,4 Bn USD over 20 years
Land value capture for extensions: reselling land for new urban developments

Aguas Claras in Brazil (a « new city » close to Brasilia): 85 % of the metro costs have been covered by the selling of land – ie nearly 500 M €. Today 135 000 inhab.

Copenhagen (Danemark) and Orestad neighborhood:
60 % of metro investment has been covered by the reselling of lands and land taxes – although with some difficulties because of the crisis and cost overruns
Land value capture for extensions: reselling rights to build for densification

**CEPAC in Brazil**: to increase the land occupancy coefficients

**Aguas Espraiada** – about 375 M € have been « collected » through the selling of CEPAC - out of which 160 M € for transport (metro and BRT)
Integration of transport and « real estate » or commercial activities

The case of Hong Kong MRT
- Property transactions around stations and depots
- Selling or renting of residential or commercial buildings: the management of a « portfolio » of 13 malls, 90 000 housing units, 5 commercial buildings cross-subsidizes transport activities

Japan Railway companies
- 25 % of their revenues is coming from commercial activities managed within the stations

SNCF-Gare Saint Lazare
Others: climate funds?
Climate funds: MDPs and NAMAs

MDP: the initial “project approach”
Ex. Transmilenio in Bogota: between 20 and 60 MUSD should be collected through MDPs, although traffic is less than planned

NAMAs: a global approach, more appropriate for urban transport
Ex. Mexico

...but a lot of methodological difficulties and still, uncertainties
Conclusion: very different financing structures
For discussion, in your respective countries

Regarding financing issues: what is the ratio tariff revenues/O&M costs? how to increase contribution of direct beneficiaries? are there ear-market taxes for urban transport? Possibility of land value capture? previsibility of financing sources?

Regarding governance issues: is there an organizing authority? With which attributions? PPP?