Financial Issues of Urban Transportation Programs

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A similar situation all over the world

- Urban populations are increasing
- We need competitive cities
- We want a good quality of life
The same dilemma for each and every city

- Cities need to provide safe, clean, and affordable transportation to all
  → they need to develop dynamic and ambitious policies

- Massive financial resources are needed
How much do we need?

- Paris region spends more than 7 B€ / year

- Capital investments not including rolling stock:
  - Metro: > 75 M€ / Km
  - Light Rail Systems: 15-25 M€ / Km
Montpellier light rail system (2001)
Lyon light rail system (2002)
Examples of light rail systems
Cost breakdowns in M€

<table>
<thead>
<tr>
<th></th>
<th>Lyon</th>
<th>Montpellier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure</td>
<td>129</td>
<td>91</td>
</tr>
<tr>
<td>Rolling stock</td>
<td>64</td>
<td>52</td>
</tr>
<tr>
<td>Buildings (depot, stations)</td>
<td>27</td>
<td>35</td>
</tr>
<tr>
<td>Energy, road signs</td>
<td>58</td>
<td>41</td>
</tr>
<tr>
<td>Underground pipes</td>
<td>34</td>
<td>26</td>
</tr>
<tr>
<td>Land acquisition, studies</td>
<td>39</td>
<td>46</td>
</tr>
<tr>
<td>urban spaces</td>
<td>37</td>
<td>43</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>388</strong></td>
<td><strong>334</strong></td>
</tr>
</tbody>
</table>

21 M€/Km

22 M€/Km
Paris automated metro system

Latest extension (2007): 170 M€ for less than 1 Km
Where does the money come from?

Resources:
- Revenues from traffic 25%
- Subsidies 75%

How is the money spent?

Expenditure:
- Operation 75%
- Capital investments 25%
How are we going to finance our new policies?

- Optimize the existing financing system
- Find new resources
Optimize the existing financing system 1/2

- Efficiency of the public institution:
  - Responsibilities
  - Area of authority

- Traffic revenues:
  - Free trips and discount policies
  - Cheating
  - Fare raises
  - Employer subsidies

- Chose the most appropriate system:
  - Metro / LRT / BRT / Regular Buses
  - Taxis, On-demand transportation
Optimize the existing financing system 2/2

- **Optimization of assets:**
  - Meeting rooms and business offices
  - Stores
  - Advertising
  - Radio station

- **Better debt and loan management**

- **Better productivity:**
  - Efficient urban transport policies (road use, parking policies, park and ride, HOV-HOT lanes…)
  - Private operation and competition
Private operation and competition

- A strong public institution with qualified staff
- Transparent competitive tendering procedures
- Incentives and penalties
- Competition on the same network?
## Different types of contracts

<table>
<thead>
<tr>
<th></th>
<th>Operation &amp; Maintenance</th>
<th>Capital Investment</th>
<th>Commercial Risk</th>
<th>Ownership</th>
<th>Duration of Contract</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Administration</td>
<td>Public</td>
<td>Public</td>
<td>Public</td>
<td>Public</td>
<td>No contract</td>
</tr>
<tr>
<td>Outsourcing</td>
<td>Public/Private</td>
<td>Public</td>
<td>Public</td>
<td>Public</td>
<td>1 to 2 years</td>
</tr>
<tr>
<td>Management Contract</td>
<td>Private</td>
<td>Public</td>
<td>Public</td>
<td>Public</td>
<td>3 to 5 years</td>
</tr>
<tr>
<td>Affermage / Leasing</td>
<td>Private</td>
<td>Public/Private</td>
<td>Public/Private</td>
<td>Public</td>
<td>8 to 15 years</td>
</tr>
<tr>
<td>Concession</td>
<td>Private</td>
<td>Private</td>
<td>Private</td>
<td>Public</td>
<td>20 years +</td>
</tr>
<tr>
<td>BOT</td>
<td>Private</td>
<td>Private</td>
<td>Private</td>
<td>Private</td>
<td>20 years +</td>
</tr>
<tr>
<td>Full Privatization</td>
<td>Private</td>
<td>Private</td>
<td>Private</td>
<td>Private</td>
<td>Unlimited</td>
</tr>
</tbody>
</table>
Many forms of contracts but a few shared characteristics

- Public authority chooses the operator
- The operator can invest
- The public authority keeps the control and the ownership of the infrastructure
- Duration chosen in a contract
Relationships in a contract

PUBLIC AUTHORITY

Contract

PRIVATE PARTNERS

Democratic control

Consumer control

USERS
CITIZENS
CUSTOMERS
In a BOT contract, a significant part of the revenues of the private partners has to come from the users (exception: shadow – tolls)

Successes: mostly for airport access

Failures: mostly due to poor traffic forecasts
Find new resources - Principles

- Financing and policies are closely linked
- Best practices can be found around the world
- Dedicated taxes
Find new resources
Create new dedicated taxes

- Taxes on motorized vehicles (gas, usage, registration, emissions…)
- Employer tax
- Parking revenues and tickets
- Congestion charging
- Land use and real estate
U.S. Gas tax

- 18.6 cents / gallon
- Raises approximately 55 B$ / year
- 18.5% are dedicated to urban transport
French employer tax

- Paid by employers (public or private) with 10 employees or more
- Within the urban area
- Up to 2.6% of overall wages
- Dedicated to urban transport
- Raises close to 3 B€ in the Paris region, representing more than 40% of all resources
London parking revenues and tickets

- Clear policy and regulations
- Strict enforcement
- Mediation procedures
- Raises about 500 M£ dedicated to TFL
- Other examples
Congestion charging

- Goals need to be clearly defined
- Requires democratic decision making procedures and political courage
- Choice of technology is crucial
- More and more examples around the world: Singapore, major cities in Norway, Rome, Milan, London…
Land use and real estate

- Dublin real estate law
- Copenhagen development project
- “ZAC rive gauche” in Paris
Financing solutions exist. To be effectively implemented, they require:

- A strong, efficient and responsible public authority
- Appropriate public policies
- Political courage
Thank You!

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