

Organisation and Regulation of Bus Transport - International Experience



BRENDAN FINN

ETTS LTD., IRELAND

Overview of the Presentation



- **Roles and Functions of Passenger Transport Authorities**
 - Focus on Urban areas, many principles also applicable to rural areas
- **Forms of Regulation and Market Access**
 - Options, potential benefits, potential examples, examples
- **Options for passenger transport institutions**
 - Options, potential benefits, potential examples, examples
- **Discussion**

Passenger Transport Authorities



ROLES

FUNCTIONS

Urban Passenger Transport (UPT)



- UPT has many linkages to the Urban form :
 - Land use
 - Urban development
 - Internal economy of the City
- UPT has many impacts on the City :
 - Mobility of citizens
 - Local environment and traffic
 - Opportunities for the low-waged and disadvantaged
- It is not just a technical or administrative issue

Who plans and manages UPT?



- UPT is normally managed by the Urban areas :
 - Integrate with the goals and policies of the City
 - Responsive to the needs of citizens and businesses
 - Avail of local knowledge, integrate with other local plans
 - Accountable locally for the UPT performance
- Decision-taking and planning is integrated with roads and transportation expenditure
- A dedicated UPT unit does the technical work
- *In some cases, responsibility is at national level*

Good Practice in UPT Service Planning



- Planning is based on well-defined goals which :
 - Are compatible with urban goals
 - Incorporate the needs of passengers and stakeholders
- Integrate the transport network with land-use
- Set service design standards
 - Coverage, frequency, accessibility, transfers
- Base the design on a travel demand model
- Check feasibility and affordability

Transport Market : Three Key Elements



- **The Authority**
 - The entity that organises and regulates the market for the supply of transport services
- **The Operator**
 - The entities (public or private) that operate the transport services
- **The Transport Services**

Basis of different approaches



- **Transport authority**
 - role, mandate and legal basis of the Transport Authority
 - relationship and mandates at national and local levels
- **Transport market**
 - basis on which Operators may enter the transport market
 - number of Operators and their forms of ownership
- **Allocation of rights between authority and operator**
 - deciding the network and the service levels
 - tariff-setting and who carries the financial risk
- **Transport policy**
 - who provides investment finance for vehicles and infrastructure
 - Authority may wish to influence the transport outcome
 - Authority may wish to achieve social objectives through transport

Role of Passenger Transport Authorities - International Practice



- **Develop and implement transport policy and strategy**
- **Balance the interests of customers and operators**
- **Manage the transport supply**
 - competing demands for operating rights among Operators
 - allocate market access and rights
 - set conditions for participation by Operators
- **Manage the transport performance**
 - Define performance and quality standards
 - Monitor performance and behaviour
 - Takes corrective action and imposes sanctions as required
- **Ensure sector sustainability**
 - but prevent excessive profit-taking

Typical Main Functions of the UPT Authority



- Establish the design parameters for the service
 - may design the network itself
- Procure the passenger transport services
 - under permit, contract, franchise or concession
- Arrange support finance for services
 - may also sponsor free/reduced rate travel for elderly, handicapped
- Provide the framework for integration and support services
 - transport modes and services
 - ticketing and passenger information
 - support facilities : terminals, bus stops
- Improve the operating conditions
- Regulate the passenger transport sector

Roles of Municipalities in UPT



- 1) Regulates access to the UPT market
- 2) Issues licences/permits
- 3) Develops the passenger transport network
- 4) Integrates modes and services
- 5) Provides capital finance for the public domain UPT infrastructure
- 6) Provides subsidy for transport services, and free or discounted travel
- 7) Arranges priority for passenger transport in traffic
- 8) Direct operation of passenger transport

Role of Municipality in UPT in leading cities

City	Issue Licence	Network planning	Integrate UPT Services	Capital for infrastructure	Subsidy for services	Bus priority in traffic	Operates bus services	Role for Private operators
Hong Kong	✓	Harmonises	✓	✓		✓		✓
Singapore	✓	Guides	✓	✓		✓		✓
Seoul	✓	Plans	✓	✓	✓	✓		✓
Dubai	✓	Plans	✓	✓	✓	(✓)	✓	
Beijing	✓	Plans	✓	✓	✓	✓	✓	
Adelaide	✓	Plans	✓	✓	✓	✓		✓
Brisbane	✓	Plans	✓	✓	✓	✓	✓	
Sydney	✓	Plans	✓	✓	✓	✓	✓	✓
Curitiba	✓	Plans	✓	✓	✓	✓		✓
Bogota	✓	Plans	✓	✓	✓	✓		✓
London	✓	Plans	✓	✓	✓	✓		✓
Vienna	✓	Plans	✓	✓	✓	✓	✓	
Helsinki	✓	Plans	✓	✓	✓	✓	✓	✓
Madrid	✓	Plans	✓	✓	✓	✓	✓	

Motivations, driving forces for change



- Financially unsustainable subsidies are forcing governments to seek ways of providing the same or better quality of service at lower cost
- Governments wish to tackle climate change
- Regulatory frameworks and markets for public transport services are changing (imposed change)
- Transport authorities face the need to balance opening of markets with the need for quality, integrated services.
- Transport authorities need to adapt to meet the new challenges.

General International Trends in the Bus Passenger Transport Market



- Restructuring of Institutional Frameworks
- Clear separation of planning and operating roles
- Opening of markets to allow new entrants to offer services
- Procurement of services through market processes
- Corporatisation of public-sector operating entities
- Privatisation, joint ventures, and other changes to ownership base
- Making public assets available to all potential bidders
- Private investment for public infrastructure and services

Regulation of Urban Passenger Transport



ALTERNATIVES

EXAMPLES

POTENTIAL BENEFITS/DISBENEFITS

COMPETITIVE TENDERING

Why is this relevant?



- Regulation and Market Access defines the roles of the Transport Authority and the Operator
- Typically, design the regulatory principles first, then design or adapt the Transport Authority to implement effectively

Basis for public transport market



- **Public Service Approach**
 - Service provided on “command” of the authority
 - Typically one of many services of the municipality
 - Supported from the public purse
- **Market approach**
 - Naturally provided by entities for profit, accept risk
 - Public intervenes where the market fails
 - In practice, intervention not “temporary” and may become entrenched
- **Key issue is right of initiative**

Alternatives for Regulation of UPT



- **Wide range of Regulation and Market Access:**
 - Public Monopoly
 - Dominant Public Sector, limited role for private sector
 - Service Contracting – Route Level
 - Service Contracting – City Level
 - Management Contracting
 - Operating Concessions
 - ‘Light touch’ regulation
 - Quantity Licencing
 - Quality Licencing
 - Deregulation / Open Market

Which option to choose?



- Is there a “best” scenario?
 - There is no universal “best” scenario
 - Each has advantages and disadvantages
 - Depends on the objectives of the stakeholders
 - Must take in to account contextual and historic factors
- Note that sometimes different forms of regulation can exist in the same city, e.g.:
 - Metro and tram : Public monopoly
 - Scheduled bus services: Contracted at Route or Area level
 - Taxis : Quantity or Quality Licencing
 - Inter-city bus services : Deregulated

Presentation of Alternatives



- For each alternative, for Urban Bus Services:
 - Characteristics
 - Examples
 - Potential advantages
 - Potential disadvantages

Public Monopoly



Characteristics	Examples	Potential Advantages	Potential Disadvantages
<ul style="list-style-type: none">• Authority makes all policy and strategic decisions• Right to design the network is with Authority• Services provided by publicly owned monopoly operator• Public Operator designs network and service levels	<ul style="list-style-type: none">• Dublin• Paris• Old-style Chinese model• Old-style Russian model• Traditional European model• Traditional US model	<ul style="list-style-type: none">• Policy can be implemented directly• Full integration of services• Stability• Low requirement for institutional capacity of Authority	<ul style="list-style-type: none">• No competitive pressure on prices• Inefficiencies• Excessive subsidy requirements• Low motivation for innovation• Few means to resolve problems• Low incentive to increase service and/or patronage• No role for the private sector

Dominant Public Sector, limited Private



Characteristics	Examples	Potential Advantages	Potential Disadvantages
<ul style="list-style-type: none">• Authority makes all policy and strategic decisions• Design of network is with Authority• Dominant publicly-owned operator, which designs the network• Private sector can only participate in limited role	<ul style="list-style-type: none">• Barcelona• Vienna• Zurich• Chinese cities• German cities• US cities	<ul style="list-style-type: none">• <i>As for Public Monopoly; plus:</i>• Access to investment, resource and capacity of the private sector• Private sector costs, quality and productivity provide 'benchmark' for public Operator	<ul style="list-style-type: none">• <i>As for Public Monopoly; plus:</i>• Private operators may be allocated least profitable routes• Protectionist pressure from public Operator• Inconsistent policy undermines willingness of private Operators to make long-term investments

Service Contracting – Route Level

Characteristics	Examples	Potential Advantages	Potential Disadvantages
<ul style="list-style-type: none"> • Authority makes all policy and strategic decisions • Authority designs the network • Routes procured and operated under contract by Operators • Payments are made through the contract 	<ul style="list-style-type: none"> • Bogota • Copenhagen • Gothenburg • Helsinki • London • Seoul • Kazakhstan cities 	<ul style="list-style-type: none"> • Service design and quality is assured • Integration of services is assured • Competition leads to lowest price (for quantity and quality). • Contract specifies outputs, quality • Strong incentive for to meet targets • Payments made through contracts • Can replace bad operators 	<ul style="list-style-type: none"> • Needs Authority with sufficient powers , capacity, resources • Needs Operators to compete for route contracts • Administrative burden on Authority • The number of competing Operators may reduce over time • Might not fully benefit from economies of scale

Service Contracting – Area Level



Characteristics	Examples	Potential Advantages	Potential Disadvantages
<ul style="list-style-type: none"> • Authority makes all policy and strategic decisions • Authority designs the network • Area contracts are procured and operated under contract by Operators 	<ul style="list-style-type: none"> • Adelaide • Curitiba • Perth • Rome (partial) • Santiago • Netherlands 	<ul style="list-style-type: none"> • <i>Generally as for Route Level; plus:</i> • Smaller number of Contracts • Less administration • Can get Operator to do demand analysis and develop network • Less problems of boundaries, overlap, revenue sharing • Benefit from economies of scale • More stability than for route contracts 	<ul style="list-style-type: none"> • <i>Generally as for Route Level; plus:</i> • Contracts are bigger, so require greater attention • More effort at the competition stage to attract potential bidders • Authority needs to research travel demand, ridership levels, revenues, and cost structures • More difficult to replace Operator

Service Contracting – City Level



Characteristics	Examples	Potential Advantages	Potential Disadvantages
<ul style="list-style-type: none">• Authority makes all policy and strategic decisions• Authority defines the network parameters• Single contract awarded for entire urban area• Operator defines the detailed service level within specified parameters• Primary assets owned by the City	<ul style="list-style-type: none">• Bordeaux• Lyon• Other French cities (except Paris and Marseille)	<ul style="list-style-type: none">• Network as desired by the Authority• Integration of services is assured• City can invest in core assets• Gain benefits of Operator know-how• Single contract for economy of scale• Join with major infrastructure investment as single global contract• Less administrative burden	<ul style="list-style-type: none">• Contracts are very large, require very significant effort• Very difficult to replace if there are problems• If the Operator makes pricing error, then very serious problems• High barrier to entry, can be difficult to get genuine competitors

Operating Concessions



Characteristics	Examples	Potential Advantages	Potential Disadvantages
<ul style="list-style-type: none">• Authority establishes basic service and quality parameters• Concessions for specific corridors, areas, service types, modes• Operators determine service levels, within the specified parameters• Operators determine investments and carry financial risk	<ul style="list-style-type: none">• Hong Kong• Singapore	<ul style="list-style-type: none">• Authority only needs to set key service and/or quality parameters• Operator know-how for service and investment decisions• Operators plan, manage, operate the service• Operators develop the network where they see benefit• Operator optimises service across the concession area	<ul style="list-style-type: none">• No direct means for Authority to determine the transportation outcome• No direct means for Authority to supplement the network, augment service levels, or improve service quality• Agreement usually prevents other Operators from entering the market

'Light-touch' Regulation



Characteristics	Examples	Potential Advantages	Potential Disadvantages
<ul style="list-style-type: none">• Authority sets high-level policy and tariff controls• Authority has no direct involvement in service design• Authority issues permits on request• Authority can limit the number of permits issued ('quantity licencing') or set qualifying standards ('quantity licencing')	<ul style="list-style-type: none">• Accra, Ghana• Manila• Jordan• Palestine	<ul style="list-style-type: none">• Authority does not need sector knowledge• Administrative burden reduced to issuing licences and collecting fees• Low barriers to entry, easy for new Operators to join• Operators can respond rapidly to changes in travel demand, patterns	<ul style="list-style-type: none">• Authority cannot influence network or improve services/quality• Difficulty to integrate services, fares, information• Fragmentation of the market• Risk of 'penny war'• Resources focus on busiest routes• Hard to develop new routes• Secondary trade in licences

Deregulation



Characteristics	Examples	Potential Advantages	Potential Disadvantages
<ul style="list-style-type: none">• All right of service initiative is with the Operator• Operator offers services according to its own business assessment• Authority may only intervene where commercial Operators do not provide service• Authority may procure services by tendering	<ul style="list-style-type: none">• Leeds• Manchester• Newcastle	<ul style="list-style-type: none">• Operators take all responsibility for services, planning• Operators take all investment and financial risk• Low administrative burden for the Authority• May not require to have a Authority	<ul style="list-style-type: none">• Authority cannot set network, service levels, or quality• Cannot integrate service or fares• Direct competition on the road can become highly aggressive• Tendency for a highly competitive phase, followed by market consolidation and lack of competition

Lessons learned from International experience



- **Transport authorities can :**
 - achieve the transportation outcomes they are seeking ...
 - ... without being the owner or otherwise controlling the transport operators
- **This is done through a combination of :**
 - appropriate and effective regulatory frameworks
 - institutional capability
 - well-structured competition
- **This requires :**
 - a well-developed and appropriate strategy
 - all elements must be in balance
 - long-term commitment, embedded in policy

On-the-road competition



- Operators compete directly with each other for customers
- Common in inter-urban, rare in urban bus environments
- Buses only, not trams
- UK, outside London
 - Open market since 1986, operator has total right of initiative
 - Winners and losers, subsidy and costs greatly reduced, but major loss in bus patronage and reduced modal share
 - After 3-4 years, markets settled, now in consolidation phase
- South America – Santiago
 - Market liberalised, then deregulated, 1979-83
 - Bus fleet doubled, route associations formed, prices increased
 - Market re-regulated in late '90's
- Illegal and paratransits

Off-the-road competition



- Operators compete with other for the **right** to provide services
 - may or may not be exclusive
- Allows the authority to influence:
 - type, quantity and quality of service
 - level of integration
- Allows stability, avoids wasteful competition
- Many options available to select the preferred operator
 - Competitive tendering is a leading procurement tool
 - Can also have Negotiated Contracts, Performance-based Contracts
- Places greater workload on the transport authority
- Appropriate for all main modes – Bus, tram, LRT, Metro

Competitive procurement



- Transport Authority specifies the service and quality
- Options for the unit of the tender :
 - Area, Corridor
 - Individual routes, “bundle” of routes
 - Supply of vehicles and drivers (for allocation by Authority)
- May be “gross cost” or “net cost”
- Defined processes for bid preparation, submission, selection
- The Contract describes :
 - Scope of work
 - Quality and monitoring
 - Payment basis
 - Duration, change to scope, early termination, extension

Procurement of Bus Services - Examples

City	Country	Service unit	Contract duration	Option to extend?
Adelaide	Australia	Area of the city	5 years	+5 years, if good performance
Copenhagen	Denmark	Route cluster	6 years	+2 years, by mutual agreement
Helsinki	Finland	Route cluster	5 years	+2 years, by mutual agreement
London	England	Route	5 years	+2 years, if good performance
Manchester	England	Route	5 years	Not permitted
Oslo	Norway	Route cluster	5 years	+2 years, at choice of authority
Stockholm	Sweden	Route cluster	5 years	+5 years, by mutual agreement

Passenger Transport Authorities



ALTERNATIVES

FACTORS IN SELECTION OF OPTIONS

Passenger Transport Authorities



- **Geographical Area**
 - National/State
 - City/local
 - Regional/metropolitan area
- **Nature of the PT Authority**
 - Unit within the Administration
 - Passenger Transport Authority
 - Transport Authority

Area (1) - National Level



Characteristics	Examples	Potential Advantages	Potential Disadvantages
<ul style="list-style-type: none"> • Ministry of Transport or national agency is the Authority • Issues permits/licences for all urban passenger transport services • City/local authority has limited (or no) role in planning and regulation of UPT 	<ul style="list-style-type: none"> • Ireland • Jordan (except Amman since 12/07) • Philippines • Santiago de Chile • Singapore • South Australia (includes Adelaide) • Sri Lanka 	<ul style="list-style-type: none"> • Reduces administrative burden • Avoids duplication of effort • Overcomes problems of capacity, competence or corruption at local level 	<ul style="list-style-type: none"> • Low knowledge of local transport requirements • Competence for service planning • Not accountable at level of served areas • No representation of main stakeholders • May serve national rather than local needs • Disconnect from other key local planning – land use, roads, social, ...

Area (2) - City Level



Characteristics	Examples	Potential Advantages	Potential Disadvantages
<ul style="list-style-type: none">• City or local authority is the exclusive Authority for its area• Responsible for all planning and permit issuing	<ul style="list-style-type: none">• Amman• Bangkok• Barcelona• Bogota• Curitiba• Madrid• Melbourne• New York• Oslo• Stockholm	<ul style="list-style-type: none">• Planning and regulation integrated with land use, transport and social policies of the city• Integrated Budget and investment decisions for all transportation aspects• Accountable to the area it serves, stakeholders have direct representation• Better access to data and local knowledge	<ul style="list-style-type: none">• Difficult to achieve sufficient competence in multiple cities, especially in smaller cities• Risk that individual cities do not properly comply with national policies

Area (3) - Metropolitan / Regional Level



Characteristics	Examples	Potential Advantages	Potential Disadvantages
<ul style="list-style-type: none"> • City/local authority has the legal authority • Metropolitan area spreads over multiple authority areas • Cities agree to form common Authority to plan, regulate, procure and manage the UPT for their common area 	<ul style="list-style-type: none"> • Copenhagen • French <i>agglomerations</i> • German <i>verkehrsverbund</i> • Helsinki Metropolitan Area • Lagos (LAMATA) • Greater Manchester • Greater Seoul Metropolitan Area • Transport for London • Vienna 	<ul style="list-style-type: none"> • <i>As for City/local level; plus</i> • Overcomes boundary issues • Allows cross-authority integration of services, tariffs, information • Share fiscal and administrative burden, especially for planning common services 	<ul style="list-style-type: none"> • <i>As for City/local level; plus</i> • Co-ordination • Cost • Maintaining agreement and resolving tensions among the participating areas (and local factions)

Nature (1) - Unit within the Administration



Characteristics	Examples	Potential Advantages	Potential Disadvantages
<ul style="list-style-type: none">• Unit within the Ministry or City Administration	<ul style="list-style-type: none">• Adelaide• Amman• Helsinki• Ireland	<ul style="list-style-type: none">• Lower cost• Less complexity• Consistency of policy and focus• Sourcing of good quality staff and career prospects• Access to support resources	<ul style="list-style-type: none">• Lack of specialist capacity• Lack of focus on passenger transport objectives• Operators might not trust the unit• Tendency to protect publicly-owned operators

Nature (2) - Passenger Transport Authority



Characteristics	Examples	Potential Advantages	Potential Disadvantages
<ul style="list-style-type: none">• Special purpose agency• Deals only with Passenger Transport	<ul style="list-style-type: none">• Bangkok• Bogota• Copenhagen• Curitiba• German <i>verkehrsverbund</i>• Madrid• New York• Paris• Philippines• UK cities (except London)• Vienna	<ul style="list-style-type: none">• Development of specialist skills• Clear focus on passenger transport• Relationships with operators and stakeholders• ‘Lean’ organisation, lower cost• Minimised conflict with other objectives	<ul style="list-style-type: none">• Lower integration with general traffic planning and development• Consideration for broader transportation and societal objectives• Lower support for major projects and policies, especially where they impact on general traffic

Nature (3) - Transport Authority



Characteristics	Examples	Potential Advantages	Potential Disadvantages
<ul style="list-style-type: none">• Special purpose agency• Deals with all transport for the area of coverage• Dedicated division deals with passenger transport	<ul style="list-style-type: none">• LAMATA, Lagos• Land Transport Authority, Singapore• Transport for London• Vancouver	<ul style="list-style-type: none">• Consistency of Policy, Planning and decision-taking across transport modes• Skills development• Resources available• Political capacity	<ul style="list-style-type: none">• Conflicting modal objectives• Reduced focus on passenger transport• Passenger transport budget may be reduced to support other modes• Organisational and decision-taking complexity

Discussion



Suggested Discussion Themes (1)



- What are the priorities for development of the Urban Passenger Transport in an Urban Area?
 - More capacity : generally; on specific corridors or areas
 - Develop a structured network
 - Improve Quality of service, reliability
 - Improve Quality of vehicles and drivers
 - Effective Organisation and management of services
 - Pricing and tariffs
 - Profitability in the sector and investment
- Are the priorities similar in all cities?

Suggested Discussion Themes (2)



- **What sort of transport is best for target cities?**
 - Mostly large buses in a well structured network
 - Large buses on the main routes, small buses supporting
 - Mix of large and small buses, plus shared taxis
- **What sort of Operators?**
 - One company for the whole city
 - A few large companies
 - Many companies of different sizes
- **How should it be organised?**
 - Authority plans all network and services
 - Authority grants concessions, Operators plan the detail
 - Operators plan by their interests, Authority gives permissions

Suggested Discussion Themes (3)



- **What should be the role of Municipalities?**
 - What role should the Municipalities have in transport policy?
 - Should Municipalities organise and regulate UPT in their area?
 - Should the Municipalities be directly involved in operations?
- **What should be the institutional framework?**
 - Should the Ministry or the Municipality be the Authority?
 - What capacity would the Authority need to develop?
 - Who would finance the costs of urban passenger transport?
 - What are the options for organising new buses?
 - Are different approaches needed for different cities?

Suggested Discussion Themes (4)



- Which factors are opportunities, and which factors are potential problems?
 - Organisational and financial capacity of the Operators
 - Organisational and financial capacity of Municipalities
 - Legal, regulatory and financial frameworks
 - Attitude of Operators and interest in sector development
 - Competing interests of bus, minibus and taxi Operators
 - National and Municipal transport policy
- Are there other factors that would be important?
- Is there an emerging consensus on direction and, if so, what should be the next steps?