ADVANCING
PUBLIC
TRANSPORT

UITP FINANCING TOOLBOX

Hilia Boris Iglesia
Transport Economics Commission
International Association of Public Transport (UITP)

UITP MEMBERSHIP

UITP has **1,300 member companies from 92 countries**.

Our members are public transport authorities and operators, policy decision-makers, research and the public transport service industry.

DOUBLING PT MARKET SHARE

In 2009, UITP launched the **PTx2 strategy**, aimed at **doubling the market share of public transport worldwide by 2025.**

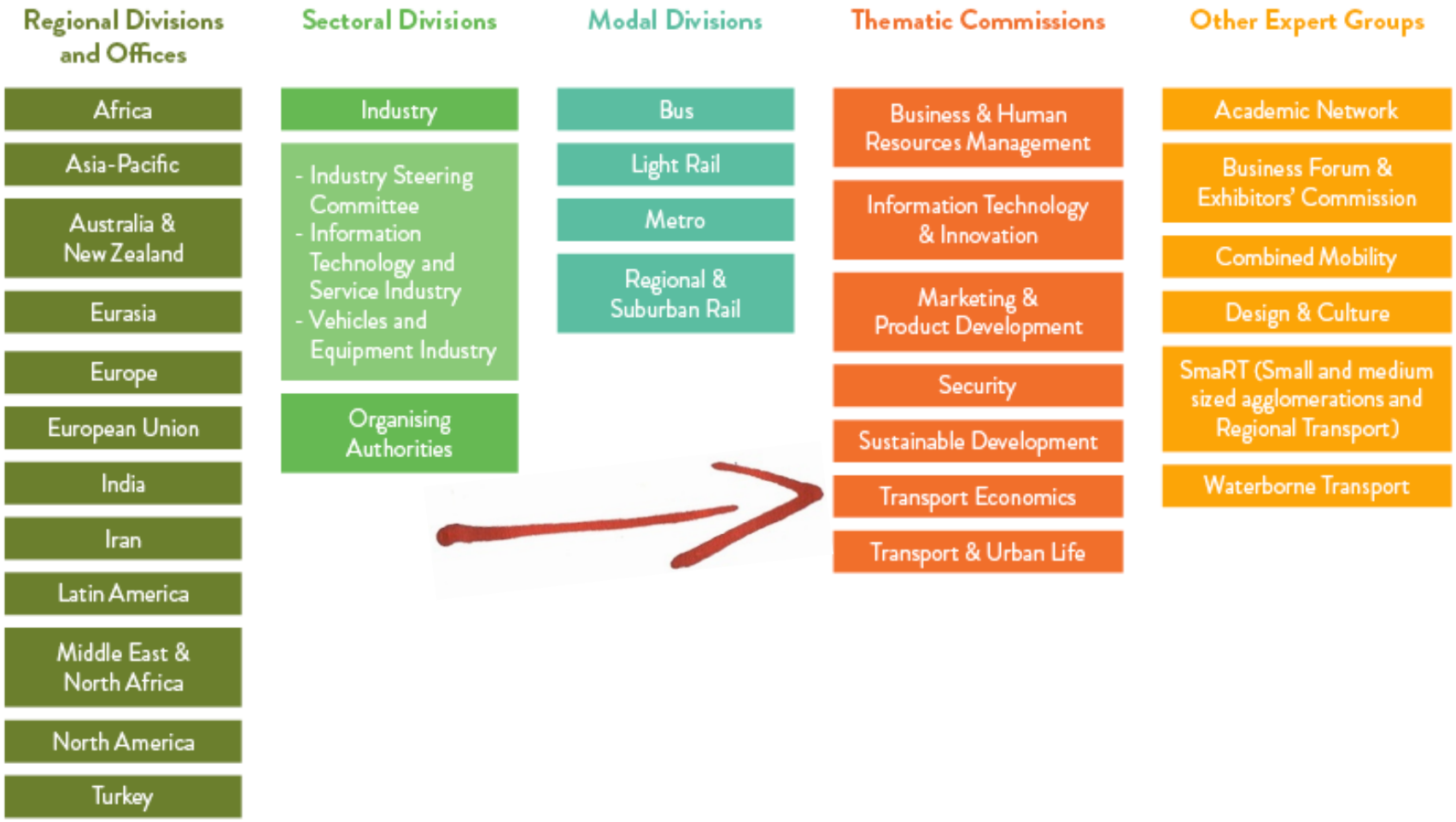
Five strategic axes:

- Develop visionary **urban governance**
- Create a **favourable business environment**
- Secure **stable funding and investment**
- Focus on **customer needs, lifestyle and innovation**
- Resort to **demand management** measures

The paradigm shift strategy proposed by UITP will be successful only through a **positive dynamic** fostered by **leadership** and **ambition.**

GROW with PUBLIC TRANSPORT 2025=PTx2

TRANSPORT ECONOMICS COMMISSION



MEET THE COMMISSION

27 Members
17 countries

Giampaolo Codeluppi
KEY2PEOPLE (Italy) - Chair

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TRANSDEV (France) - Vice Chair

SHENZHEN METRO, TRANSDEV, ARRIVA, WIENER LINIEN, DE LIJN, STIB, DP PRAHA, RHEINBAHN, DRESDEN VERKERHSBETRIEBE, MIEJSKIE ZAKLADY AUTOBUSOWE SPOLKA, CARRIS - LISBON, METRO BILBAO, EMPRESA MUNICIPAL DE TRANSPORTES DE MADRID , POSTAUTO, BERNMOBIL, TRANSPORT OF LONDON, VDV, ASSTRA,….

…. The Commission always welcomes new interested UITP members!

TRANSPORT ECONOMICS COMMISSION

Pillars:

1. Promote Public Transport and sustainable mobility
2. Improve effectiveness and quality of Public Transport
3. Strengthen funding of Public Transport through better understanding of tools and models

The work produced by TEC will have an impact with regard on UITP's **advocacy work** and representation at the international stage.

WHAT IS RESILIENCE?

There is **no silver bullet**, in a context of constrained available public funding, it is required:

- Cost effective service delivery
- Fares which reflect the quality expected by customers
- Development of other commercial revenue
- Creation of earmarking funding sources from indirect beneficiaries

Ensuring a financially sound system enabling the longevity of the system and its capacity to resist to external shocks.

UITP FINANCING TOOLBOX

FINANCING TOOLBOX

REVENUE STRATEGY EARMARKING

NEW PARTNERSHIP

PUBLIC TRANSPORT FINANCING

Ensuring adequate funding for public transport is crucial in a context of growing demand and increasing quality expectations from customers. However, there is rising tension between the costs incurred by these trends and the traditional revenue streams for public transport.

Doubling the market share of public transport worldwide critically relies on the capacity of the sector to combine considerations on funding with the development of a new business model and the integration of public transport with other urban policies.

There is, indeed, no silver bullet for the funding of public transport and successful approaches combine the development of a proper revenue strategy, the earmarking of local charges for public transport, and the establishment of partnerships with private investors.

THE TOOLBOX

The purpose of the public transport Financing Toolbox is to provide inspiration on innovative revenue sources, critical analysis of existing and emerging practices, best practice case studies, and further references.

The toolbox also aims to provide advocacy and technical tools to support the actual implementation of innovative funding streams, notably by engaging with financing institutions, public and private investors, and urban developers.

This toolbox does not provide a magic recipe for the funding of public transport, as each strategy must reflect the local reality and the range of possible solutions, but the toolbox can help with the selection of the best ingredients.

Revenue strategy

Optimizing cost coverage through fare and product differentiation, fare adjustment, and exploitation of assets and know-how

Earmarking

Channeling towards public transport revenues from charges to those who cause or benefit from urban transport externalities

New partnerships

Devising mutually beneficial partnerships with banks, private investors, urban developers and the business community

http://growpublictransport.org/tools-and-case-studies/financing-toolbox/

FINANCING TOOLBOX

Fare Strategy
- Revenue Management
- Revenue Regulation
- Secondary Revenue

Earmarking
- Employers
- Private car users
- Property owners and land developers
- Transport funds

Joint Partnerships
- Debt Financing
- Public Private Partnerships
- Joint Development Projects

New areas of work
- Cost management

New chapter

FARE REGULATION

« Better quality and higher fares = more customers »

A sound fare policy should consider the position of all relevant stakeholders.

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Information Digest on Fare Regulation[1]

1. Funding challenges

Public transport funding needs are increasing significantly due to growing supply, higher quality expectations from customers, and rising costs of production factors, chiefly labour and energy. Required innovation to improve quality and environmental performance is also costly.

Local or regional governments usually support most of the gap between public transport operating costs and commercial revenue (including fares and secondary income). In developed economies, this gap amounts on average to about 50% of operating costs, with significant variations between networks. In general, revenue support from local or regional governments for public transport operations comes from their general budget. In many countries, most of capital investment costs are also supported, at the end of the day, by public authorities.

In recent years, in a majority of networks, the evolution of fare levels has not reflected that of production factors, deepening the gap between operating costs and fare revenue. For instance, data from 27 metro networks worldwide has shown that fares were falling in real terms for 60% of these networks. Unit costs of labour and energy were rising faster than inflation, while labour productivity was actually falling (Anderson, 2011). The consequence is that cost recovery from fare income has decreased in a majority of networks, increasing the burden on governments for revenue support and necessary capital investment.

However, in a context of slow economic growth and public debt crisis, there is increasing pressure on the resources public authorities may allocate to public transport, even though it is considered as a priority on the policy agenda. European local and regional governments' debt grew by 8.5% in 2010 and the overall appetite for lending to municipal debt is decreasing (Greg Clark, 2011). In the longer term, population aging and the related increase in pension and healthcare costs may further challenge the availability and stability of funding for public transport. The viability of public transport itself is at stake.

In recent months, a number of networks were forced to increase their fare levels abruptly and/or reduce supply in response to their funding crisis, prompting strong public opposition.

2. Securing stable resources

This situation prompts a review of the business model of public transport in order to reduce its reliance on a source of funding which appears increasingly unpredictable. This would entail

[1] Credits and document information on last page
† Analysis made by the Railway Technology and Strategy Centre, at Imperial College London, with data from Comet and Nova metro benchmarking groups.

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Fare setting and adjustment practices in Germany

Over the past two decades, Germany has improved its public transport services, increased productivity and cut government subsidy requirements, while attracting more passengers and increasing ridership. The case of Germany particularly stands out due to the involvement of public transport operators in the fare-setting process and annual fare adjustments.

Germany was identified as a case study for best practice due to its regular fare increases at a rate slightly above inflation and due to its cost reduction measures. Overall, total revenues and ridership of public transport operators increased, despite the implementation of such a fare adjustment system. An important outcome is the rise in the operators' coverage rate, which reaches around 80% in many networks. This leads to a decrease in their exposure to public budget restrictions and provides greater flexibility to implement quality improvements benefitting operators, transport authorities and, ultimately, passengers.

Two important observations were made in the 2012 UITP Focus Paper on Fare Regulation[1]. Firstly local or regional governments usually cover most of the gap between operating costs and commercial revenues; on average, this gap amounts to 50% of operating costs in developed countries. Moreover, data from the worldwide metro networks (Comet-Nova) shows that public transport fares have fallen in real terms, despite energy and labour costs consistently rising above inflation. However, at the same time local and regional debt has grown, requiring budget readjustments and spending cuts.

The second observation regards the analysis of demand elasticity carried out in Comet Nova's metro networks†, which shows that demand is more elastic to quality or service frequency than to price. In other words, a 10% reduction in fare levels will result in a mere 3% increase in patronage, whereas a 10% increase in capacity on a fixed network, through frequency enhancements or larger trains, would increase demand by over 5%. Together these results suggest that improvements to the quality of services, rather than fare reductions, may be more effective as a means of increasing patronage.

NEW!

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BETTER PUBLIC TRANSPORT FARE POLICY FOR MORE RESILIENT FUNDING

NEW!

REVENUE MANAGEMENT

Providing **the right service** to **the right customer** at **the right time** for **the right price.**


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Information Digest on Revenue Management[1]

1. Introduction

Electronic fare collection systems (typically smart cards) offer the opportunity to devise more sophisticated fare products and structures (segmentation, yield management) which could optimize fare revenues and reduce operation costs.

Economic theory suggests that a quite high level of price discrimination and product differentiation could be implemented in urban public transport. On the other hand, in practice, most networks apply flat fares with quite little product differentiation, even if smart card technology makes it possible.

Moreover, it is clear that there is not one best way to proceed and that the potential for actually increasing revenues crucially depends on the starting situation.

2. Sources of inspiration

Introducing a degree of fare discrimination and product differentiation has the potential to reduce costs and increase revenues. Based on a careful assesment of the structure of demand, the adoption of distance based pricing, time of day pricing or flexible season ticket solutions may increase the coverage rate. The provision of premium services, charged at a higher price, enables to attract travelers who would otherwise not have used public transport and to increase revenue.

As set out by José Viegas, the main lines for improved revenue streams are:

- Market segmentation and yield management (hour of day pricing, loyalty schemes)
- Introduction of higher value services between traditional public transport and taxi (and priced accordingly)
- Introduction of individually targeted value-added information services, which reduce time lost and increase sense of trust in public transport
- Change overall pricing (tariff) system to allow for these changes in a framework of Modal Alternation so that the citizen may freely (without loss of payments already made) chose each day the mode or combination of modes that best match his agenda


UITP ADVANCING PUBLIC TRANSPORT

Case study: Targeted marketing loyalty programmes to improve value for money and financial results[1]

1. Summary

EATP (as the main operator) and ITF (as the PTA) initiative focused on delivering clear added value to targeted users thus, generating direct financial results. Its main objectives were to increase the annual revenue per capita (ARPU) and to increase the satisfaction levels of frequent users. 10 years after, financial impacts are without a doubt: + 160M€ net profit and 20% of fare box revenues secured from 1 year to the next one. It aims at considering marketing as an investment which is creating value and new profit.

2. Description of measures implemented

Since 1999 EATP has chosen to invest in a global marketing approach to increase fare box revenues. The main strategic direction was to increase the ARPU (average revenue per unit) of present costumers which represent about 75% TO 80% of the inhabitants, more than to attract new public transport users.

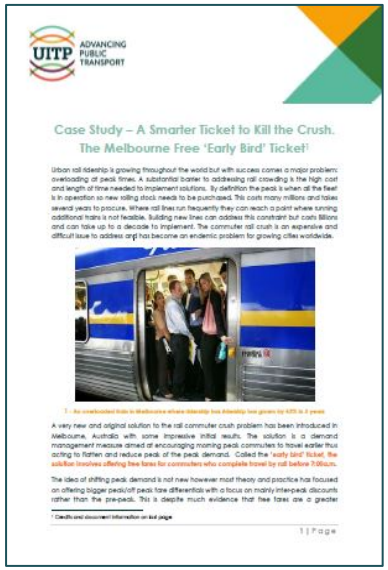
10 years after, financial impacts are without a doubt: + 160M€ net profit and 20% of fare box revenues secured from 1 year to the next one.

This 160M€ profit is made by different factors. Marketing expenses have been increased to recruit these yearly pass holders, managing cost of the customer data base and customer relation management (CRM). The ARPU has been also increased and much more than these marketing and managing expenses. The average difference between new revenue per capital and new expenses per capital is about 20€ TO 30€ per year, depending on the status of the customer. This number multiplied by years and volume of customers is what we call the "160 M€" profit.

This is a clear display of how marketing can boost revenues and profits, without necessarily increasing traffic.

Beyond all these good results, experience is of a strong interest in order to show which types of methodologies and cooperation are needed, especially between financial and marketing people.

The cooperation aims at consider marketing as an investment which is creating value and new profit.


UITP ADVANCING PUBLIC TRANSPORT

Case Study – A Smarter Ticket to Kill the Crush. The Melbourne Free 'Early Bird' Ticket[1]

Urban rail ridership is growing throughout the world but with success comes a major problem: overloading at peak times. A substantial barrier to addressing rail crowding is the high cost and length of time needed to implement solutions. By definition the peak is when all the fleet is in operation so new rolling stock needs to be purchased. This costs many millions and takes several years to procure. Where rail lines run frequently they can reach a point where running additional trains is not feasible. Building new lines can address this constraint but costs Billions and can take up to a decade to implement. The commuter rail crush is an expensive and difficult issue to address and has become an endemic problem for growing cities worldwide.

A very new and original solution to the rail commuter crush problem has been introduced in Melbourne, Australia with some impressive initial results. The solution is a demand management measure aimed at encouraging morning peak commuters to travel earlier thus acting to flatten and reduce peak of the peak demand. Called the 'early bird' ticket, the solution involves offering free fares for commuters who complete travel by rail before 7.00a.m.

The idea of shifting peak demand is not new however most theory and practice has focused on offering bigger peak/off peak fare differentials with a focus on mainly interpeak discounts rather than the pre-peak. This is despite much evidence that free fares are a greater

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Understanding Yield Management:
Exploring its potential in the Public Transport industry

22nd November 2013, Brussels, Belgium
Summary Report

This event gathered experts of Yield Management from selected industries – airlines, hotel and high-speed train – to showcase different practices available to increase both revenues and margins, while ensuring a better management of available capacity. UITP invited a wide range of participants to ensure that all relevant stakeholders, with successful experiences in the practice of Yield Management, were present. As such, speakers from the Revenue Management and Pricing international association, the airline, hotel and train industries were present to share with Public Transport stakeholders their experiences and results with Yield Management.

Opening this event, Giampaolo Cadeluppi, Chairman of the UITP Transport Economics Commission highlighted the forecasted challenges faced by the public transport industry, supported by the observations of current trends. Within the vulnerabilities already assessed, it was argued that there is an already pressing need for more funding due to growing demand, higher quality expectations and rising costs of factors of production. Paradoxically, increasing gaps in the operating costs of public transport systems are being observed, requiring further assistance from public bodies or national governments – despite an increase in secondary revenues activities. Finally, such pressures in the public budgets are not expected to diminish, mostly due to ongoing national and/or municipal debts crisis.

The concept of Yield Management as a tool was introduced to enable the exploitation of all potential revenue opportunities through fare differentiation. Revenue Management[1] is claimed to deliver between 3% and 11% increase in revenue, for the same fixed costs and potential of 100% in profits, in the context of the invited industries. First and foremost, it is paramount to understand that customers are intrinsically different, in terms of their needs, perceptions and behavior. This is depicted in terms of preferences and willingness to pay, under the conditions of limited resources,

NEW!

[1] Perishable goods are defined as goods which if not used or sold, they cease to be of value
[2] Within Yield Class, the areas of commonality will include booking behaviour, time of purchase, revenue, conditions of booking and level of cancellations

COMMERCIAL REVENUES

Providing means to increase both revenues and margins based on **assets** and **know-how** of PT companies.

Partnerships through **joint development projects** also provide win-win situations


UITP ADVANCING PUBLIC TRANSPORT

INFORMATION DIGEST ON SECONDARY REVENUE[1]

1. Introduction

Secondary revenues are one of the more innovative sources for PT and one of those showing more growth potential, compared to other sectors (e.g. airlines, airports, highways).

The development of secondary revenues (or non-fare revenues) is therefore becoming a priority for PT operators, to increase both revenues and margins. Indeed while PT is typically a low-margin business, most of the businesses generating secondary revenues have usually higher margins.

Best examples show a contribution of non-fare to company revenues up to 20-25%, but a much higher contribution to total margins. Asian operators typically show higher values than European or American ones. To give an example, non-fare revenues in 2009 for Hong Kong MTR accounted for 30% of fare revenues and 45% of railway operating expenses.

In developing secondary revenue streams, PT companies can leverage upon two key factors they already own: assets (physical and intangible), and know how.

Assets

PT assets typically include:

- Commercial spaces (for advertisement and retail)
  - Metro stations (including names!)
  - Bus stops
  - Kiosks
  - Poles
  - Intermodal centres/parking
- Buses/Railing
- Direct sales points/contact points
- Contracts and long-term relationship with third-party Points of Sale (e.g. kiosks, tobacconists, newspaper stands, ..)
- IT and ticketing systems
- Interoperability and telecommunication systems
- Company brand
- Clients portfolio, for up-selling and cross-selling
- Ridership/patronage
- Customer database and profiling

All these assets can be valorised for commercial purposes in many ways, each representing a separate non-fare revenue stream. Most of them focus on extracting maximum value from the customer portfolio of PT companies, and their patronage. Having millions of customers travelling in one transit network every day, "confined" in own system for 30-40 minutes each trip, can be a very high valuable asset for any marketing-wise PT company.

[1] Credits and document information on last page

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May - 2013

Latin America Focus

Electronic ticketing system in Latin America

0. Introduction

1. Vision Latin America

2.0 Challenges of electronic fare collection

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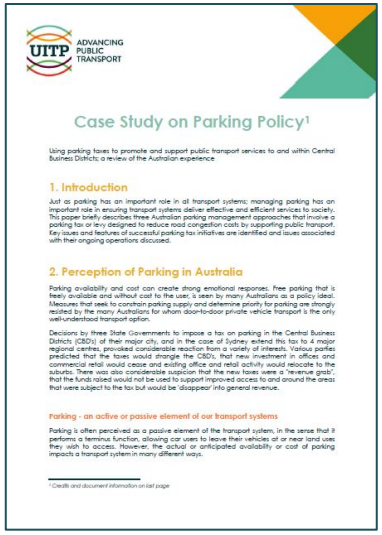
(IN) DIRECT BENEFICIARIES

Inclusion of **direct and indirect beneficiaries** through urban tolls and congestion and/or pollution charging, parking charges and workplace parking levies, as well as various types of tax on fuel.

Business community involvement through levies on employers and businesses served by public transport services

Various types of **land-value location**, notably through betterment taxes and Tax Increment Finance.


ADVANCING PUBLIC TRANSPORT

Case Study on Parking Policy[1]

Using parking taxes to promote and support public transport services to and within Central Business Districts: a review of the Australian experience

1. Introduction

Just as parking has an important role in all transport systems; managing parking has an important role in ensuring transport systems deliver effective and efficient services to society. This paper briefly describes three Australian parking management approaches that involve a parking tax or levy designed to reduce road congestion costs by supporting public transport. Key issues and features of successful parking tax initiatives are identified and issues associated with their ongoing operations discussed.

2. Perception of Parking in Australia

Parking availability and cost can create strong emotional responses. Free parking that is freely available and without cost to the user, is seen by many Australians as a policy ideal. Measures that seek to constrain parking supply and determine priority for parking are strongly resisted by the many Australians for whom door-to-door private vehicle transport is the only well-understood transport option.

Decisions by three State Governments to impose a tax on parking in the Central Business Districts (CBDs) of their major city, and in the case of Sydney extend this tax to 4 major regional centres, provoked considerable reaction from a variety of interests. Various parties predicted that the taxes would strangle the CBDs, that new investment in offices and commercial retail would cease and existing office and retail activity would relocate to the suburbs. There was also considerable suspicion that the new taxes were a "revenue grab", that the funds raised would not be used to support improved access to and around the areas that were subject to the tax but would be 'disappear' into general revenue.

Parking - an active or passive element of our transport systems

Parking is often perceived as a passive element of the transport system, in the sense that it performs a terminus function, allowing car users to leave their vehicles at or near land uses they wish to access. However, the actual or anticipated availability or cost of parking impacts a transport system in many different ways.

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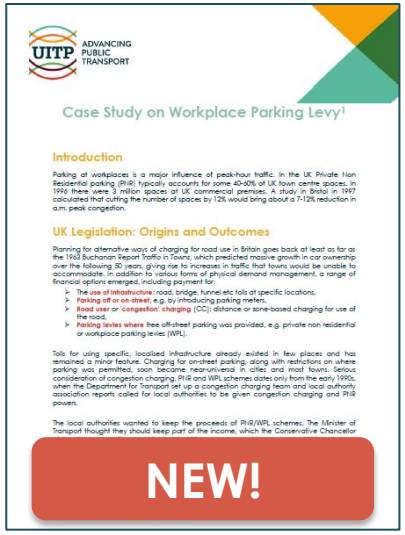
ADVANCING PUBLIC TRANSPORT

Case Study on Workplace Parking Levy[1]

Introduction

Parking at workplaces is a major influence of peak-hour traffic. In the UK Private Non Residential parking (PNR) typically accounts for some 40-50% of UK town centre spaces. In 1996 there were 3 million spaces at UK commercial premises. A study in Bristol in 1997 calculated that cutting the number of spaces by 12% would bring about a 7-12% reduction in a.m. peak congestion.

UK Legislation: Origins and Outcomes

Planning for alternative ways of charging for road use in Britain goes back at least as far as the 1962 Buchanan Report Traffic in Towns, which predicted massive growth in car ownership over the following 50 years, giving rise to increases in traffic that towns would be unable to accommodate. In addition to various forms of physical demand management, a range of financial options emerged, including payment for:

- The **use of infrastructure**: road, bridge, tunnel etc tolls at specific locations.
- **Parking off or on-street**, e.g. by introducing parking meters.
- **Road user or 'congestion' charging** (CC): distance or zone-based charging for use of the road.
- **Parking levies where** free off-street parking was provided, e.g. private non residential or workplace parking levies (WPL).

Tolls for using specific, localised infrastructure already existed in few places and has remained a minor feature. Charging for on-street parking, along with restrictions on where parking was permitted, soon became near-universal in cities and most towns. Serious consideration of congestion charging, PNR and WPL schemes dates only from the early 1990s, when the Department for Transport set up a congestion charging team and local authority association reports called for local authorities to be given congestion charging and PNR powers.

The local authorities wanted to keep the proceeds of PNR/WPL schemes. The Minister of Transport thought they should keep part of the income, which the Conservative Chancellor

NEW!


Transport Policy as Mobility Instruments[1]

The Fundamental Issue

The huge supply of and absence of any form of charging for parking at places of work has long been of concern to transport planners and policy-makers keen to reduce peak-hour road congestion. Employers, however, tend to see staff parking as a fact of life, whose provision is essential to attracting and retaining staff. The cost to businesses of providing parking is insufficiently considered, even though it may have physical (construction), operational (e.g. lighting, maintenance) and opportunity (alternative uses of the land) costs. Because congestion costs do not directly affect employers, but they would experience a direct monetary cost from a levy on workplace parking, employers instincts are to oppose the concept.

Overall Policy Aims

When viewed in an overall policy context, however, workplace parking levies may be seen as an important contributor to achieving transport policy and sustainability objectives such as:

- **Reducing traffic**, environmental and health impacts,
- Encourage **mode shift** from car to public transport, walking and cycling.
- Containing **overall transport budgets** by reducing the need for higher road expenditure,
- Raising **development density** by cutting land requirements for roads and parking,
- Discouraging **urban sprawl** by enabling more people to live and work in areas accessible without cars,
- **Reducing developments costs** by saving expenditure on car park construction and operation,
- Reforming **parking planning and management**, for example by ensuring that the supply of car parking is linked to rational criteria, rather than to meet every demand for free provision.

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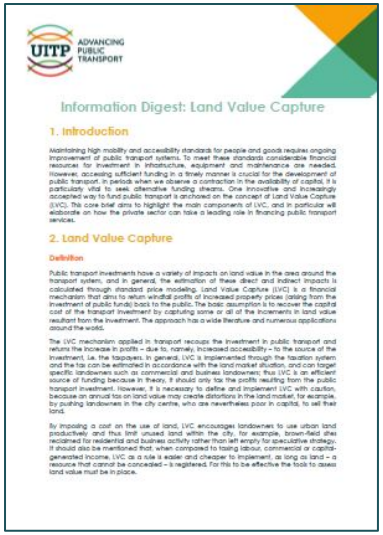

ADVANCING PUBLIC TRANSPORT

Information Digest: Land Value Capture

1. Introduction

Maintaining high mobility and accessibility standards for people and goods requires ongoing improvement of public transport systems. To meet these standards considerable financial resources for investment in infrastructure, equipment and maintenance are needed. However, accessing sufficient funding in a timely manner is crucial for the development of public transport. In periods when we observe a contraction in the availability of capital, it is particularly vital to seek alternative funding streams. One innovative and increasingly accepted way to fund public transport is anchored on the concept of Land Value Capture (LVC). This core brief aims to highlight the main components of LVC, and in particular will elaborate on how the private sector can take a leading role in financing public transport services.

2. Land Value Capture

Definition

Public transport investments have a variety of impacts on land value in the area around the transport system, and in general, the estimation of these direct and indirect impacts is calculated through standard price modeling. Land Value Capture (LVC) is a financial mechanism that aims to return windfall profits of increased property prices (arising from the investment of public funds) back to the public. The basic assumption is to recover the capital cost of the transport investment by capturing some or all of the increments in land value resultant from the investment. The approach has a wide literature and numerous applications around the world.

The LVC mechanism applied in transport recoups the investment in public transport and returns the increase in profits – due to, namely, increased accessibility – to the source of the investment, i.e. the taxpayers. In general, LVC is implemented through the taxation system and the tax can be estimated in accordance with the land market situation, and can target specific landowners such as commercial and business landowners; thus LVC is an efficient source of funding because in theory, it should only tax the profits resulting from the public transport investment. However, it is necessary to define and implement LVC with caution, because an annual tax on land value may create distortions in the land market, for example, by pushing landowners in the city centre, who are nevertheless poor in capital, to sell their land.

By imposing a cost on the use of land, LVC encourages landowners to use urban land productively and thus limit unused land within the city, for example, brown-field sites reclaimed for residential and business activity rather than left empty for speculative strategy. It should also be mentioned that, when compared to taxing labour, commercial or capital-generated income, LVC as a rule is easier and cheaper to implement, as long as land – a resource that cannot be concealed – is registered. For this to be effective the tools to assess land value must be in place.

FINANCING MODELS

Traditional model through **Debt Financing:**

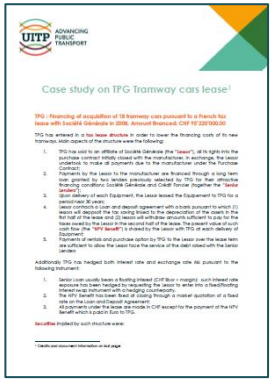
- Credit rating
- Debt notes
- Fiscal leases
- Derivative instruments

Promotion of **Public Private Partnership:**

- Use government resources to attract private investments
- Improve efficiency in service delivery

Access to **Private Investors and Capital**

UPCOMING!



COST MANAGEMENT

Risk Management:

1. Complexities of transport systems not always fully understood by stakeholders
2. Increasing uncertainties may induce important challenges for the management.

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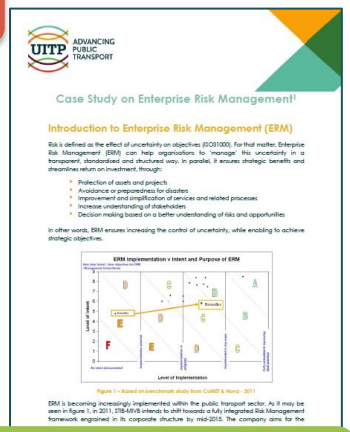
UPCOMING!



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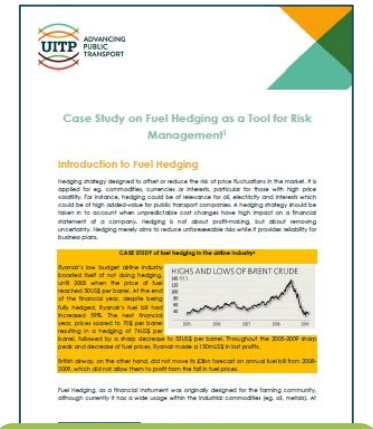

CONCLUSION

There is **no silver bullet** solution, but:

- Need for **local leadership and innovative approaches**
- Engagement with **all stakeholders** in a levelled playing field
- A combination of **different funding streams** enable higher levels of resilience
    1. Improving **service quality** increases the value to both direct and indirect users
    2. Better exploitation of **available assets,** increasing revenues and customer attraction
- Adequate investment and maintenance of **suitable infrastructure**

NEW CONTENT

Upcoming content:

- Fare setting through formula
- Entreprise Risk Management
- Fuel Hedging
- Credit Rating
- Coverage Rate methodology
- Funding architecture

We always welcome new topics and case studies!

Thank you!!

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