

# Pricing Transport

Issue No. 3 July 2002

Welcome to the third issue of the European Transport Pricing Initiative Newsletter

## Implementing Pricing Reform in Transport

Readers of the previous issue of this newsletter will recall that the European Commission Directorate General for Energy and Transport is funding a three year strategic review of transport pricing policy research with the aim of advancing the implementation of transport pricing reform. The review, known as the IMPRINT-EUROPE thematic network, involves a series of five high profile, international seminars at which the needs of policy-makers and the findings of research will be synthesised and debated by European, national and local level policy-makers, academics and other stakeholder groups. Based on these debates, recommendations on how to implement fair and efficient prices will be developed.

Two of these five seminars have now taken place. With Over 50 delegates attending each seminar, the events have proven to be extremely useful means of disseminating research findings, generating debate and formulating policy and research recommendations. This has been helped by the significant inputs to the seminars from related European projects such as CUPID, PROGRESS, DESIRE, RECORDIT and MC-ICAM.

The first seminar was an



over-arching introduction to the key issues relevant to implementing transport prices based on marginal cost principles, whilst the second seminar sought to focus more closely on issues specific to the different transport modes. The third seminar is currently under discussion but is expected to take place in the autumn of 2002 and to link closely with the European Commission's forthcoming Framework Directive on transport pricing.

The principal conclusions to emerge from the first seminar can be summarised as follows:

- The different pricing doctrines which exist across the EU may, until we fully understand the ways in which they differ and might be reconciled, remain a barrier to implementing a consistent, comparable transport pricing policy.

- In a complex institutional environment, it will be necessary to trace through the impacts of pricing reform on different stakeholder groups. Lengthy and detailed negotiations on implementation are likely to be needed.

- There is a difficult trade off between efficient pricing - with highly differentiated prices by mode, location and time of day - and efforts to promote public transport integration - which have tended to concentrate on simple fares structures and inter-availability between modes.

- The sequencing of implementation should firstly focus on seeking to move transport prices in the direction of being more fair and efficient and is closely linked to that of packaging - what policy instruments should be implemented

alongside pricing reform

- There is a great deal of research on the economics of pricing but rather less on its psychology.

- If marginal social cost pricing is, in practice, generally a good approximation to the optimum it may be better to attempt to sell the simple principle rather than more complex, so called 'second-best' solutions.

- It is useful to look at simple acceptable developments as a first step in the implementation process even if they are not on the optimal path in any economic sense.

- In addition, revenue and land-use implications, cost measurement and marketing issues emerged as key considerations during the first seminar. As such, these four topics formed key elements of the second seminar.

*For further information please contact the Project Co-ordinator, Professor Chris Nash ([cnash@its.leeds.ac.uk](mailto:cnash@its.leeds.ac.uk))*

*More information on the project and all the papers presented at the conferences are available on the IMPRINT web site: <http://www.imprint-eu.org>*

For more information about IMPRINT-EUROPE and transport pricing issues visit [www.transport-pricing.net](http://www.transport-pricing.net)

# MODES AT A GLANCE

*insights from the second IMPRINT Seminar  
Brussels, 14-15 May 2002*

## *Interurban road transport. A window of opportunity is out there*

Interurban tolling has developed in most EU countries basically in three peculiar forms: network pricing, area pricing and driving permit. As highlighted by the experience of the ongoing European Research project DESIRE – co-ordinated by José Viegas of TIS – when comparing different European countries, the objectives behind tolling differ strongly. At the same time, however, for a number of countries interurban pricing is already in practice (e.g. France, Italy, Spain) whereas in other countries plans are under development to implement pricing (e.g. the Netherlands, Germany, Austria). As a whole, the start of HGV tolling is being supported by supply side developments like Galileo and UMTS, but from a European perspective it is striking that within the several countries interoperability is not on the agenda.



and that all vehicles will be equipped with this device by 2006. An active involvement of social groups (e.g., the Dutch Automobile Association) was also required, as they have the opportunity to participate in an early stage of the policy process. The actual price level will differentiate on vehicle weight and environmental performance. A differentiation on time and place is still under discussion, although the system needs to be capable of such differentiation to be implemented.

Another remarkable experience in the interurban tolling is the proposed Dutch system of km charging, which is planned to transfer an amount of 4.5 billion Euro of mostly fixed taxes towards a tax-based system on the actual kilometres driven. The km charging project team determines the functionality of the system, but market parties will finally determine the technologies which will be used. Olga Teule (Dutch Ministry of Transport) forecast that the first vehicles with a mobimeter equipment will be on the market by 2004

Interoperability is envisaged to play an important role for the

European Union, according to the views of the International Road Transport Union (IRU) and the organisation for European Federation for Transport and Environment (T&E). A twofold path could be followed: both standards could be set – for instance by the EU itself – and a clear regulation to prevent misuse. On the whole, it is remarkable that acceptability on implementing pricing within interurban traffic is increasing while technology is further developing a wide range of opportunities to implement regulatory tools and schemes all over European countries.

*\* When this newsletter is released, the Dutch km charging scheme will no longer be in force, due to a decision carried out by the new Dutch cabinet.*

## *Urban transport. Road passenger pricing*

The strong links of transport policy with land use highlight the fact that transport does not live its own life alone. This evident yet complex phenomenon, as well as the need of observing carefully in detail concentration/dispersion effects, were underlined by David Banister (UCL), although with no theoretical considerations about positive and negative externalities, but in simple words demonstration. Modesty is therefore mandatory in order to both appraise such a complex matter and then draw consistent lessons from intuitions, and the experience of three cities (London presented by Michèle Dix, Rome by Maurizio Tomassini and Oslo by Ivar Sorlie) pointed out the way and tools with which substantial results were achieved in this field. London spurred political willingness and the broad hearing of the population, helping to solve the question of acceptability, mainly by avoiding dogmatism, whilst Rome stressing the fact that policy and technology have a parallel progress, thus revealing an interesting step-by-step process experience of its own.



On the other side, Oslo demonstrated that the existing road pricing system works well because of their simple implementation scheme (e.g., very few exemptions), whereas the initial objectives now need to be re-considered. The three experiences showed alto-

gether their sound uniqueness, since no transferable model is envisaged.

Another main issue still revolves around the use of marginal social cost (MSC) in urban areas, in particular the consistency of the former with the implementation of road pricing. Several hurdles still prevent its thorough achievement from being accomplished: the impossibility of determining all the costs, the revenues collection, and the political matter (like in the UK) are hindering a further progress in public transport development and quality of service provided. Definitely, the attainment of substantial goals (e.g., acceptability, search of equity and simplicity for efficiency as concerns about the treatment of residents) and the development of new technologies could help getting out of the stalemate. It is obvious that the exchange of views, experience and results achieved in the field of road passenger pricing can only help shaping the most concrete tools to put into practice theoretical marginal social costs, by means of both strong political support and clear local objectives.



# Urban Transport. Freight and Public Transport

The great complexity of urban systems and the number of differences among urban areas within a nation and all over Europe make it difficult to settle a unique solution to the problem of pricing transport services in urban areas. In fact more than in other segments of transport market, in urban areas there is a need for an integrated approach to pricing in order to increase efficacy of the strategy and to avoid distorted effects (a comprehensive approach including



both private and public transport, both passenger and freight transport).

For what concerns urban freight transport, industry is sometimes unsatisfied of the level of attention generally devoted to it, and claims for a more careful assessment of its peculiarity while deciding pricing strategies: for instance, freight transport demand is in general less elastic than passenger demand, since delivery transport is essential to urban production activities, therefore the impact of

pricing strategies might be smaller in the short term. More likely are long term outcomes such as changes in land use, shopping behaviour of consumers, new logistic services.

No unanimous advice exists yet on which is the best pricing solution: Dieter Wild (PTV) showed an extreme variety of experiences, even contradictory at a first glance (night delivery promoted in one city and hindered or forbidden in others). Necessary step forward towards the achievement of a sustainable freight distribution in cities are: justifying the objectives of potential new pricing schemas especially for the freight transport, harmonising the freight transport taxation and pricing in Europe and making the overall public freight transport taxes and cost (sources as well as expenditures) transparent are important steps towards a fair and efficient transport pricing. A possible reform on public transport fare system has to take into account the number of issues other than mere efficiency driving the price setting of a public service. These considerations might result in a general resistance to change and creating 'losers'. Fares decisions are more dominated by marketing and communication issues and the desire for an operationally simple structure (even if Richard Smith suggested that the general believe that consumers hardly accept complicated fare structure should be empirically verified). In any case, without popular support and clear evidence of significant benefits decision makers are unlikely to change from their present pragmatic solutions.

It is clear that, in any case, the planning and implementation of pricing strategies at the local level hurts against heavier short term constraints than at a national or supra-national level. In fact political short term objectives of local authorities make vulnerable the price setting: this applies both to already priced transport and even more to previously unpriced infrastructure use.



## Rail Transport

As part of the second IMPRINT-EUROPE seminar, a workshop was held to consider rail infrastructure charging. Railway infrastructure charging has been the subject of much research and policy activity in recent years. Following the Directive (2001/14) on allocation of railway infrastructure capacity and levying of charges, attention has turned to implementation and the European Commission has established a task force to take forward the directive which is due to report later this year. The workshop participants encompassed European and national level policy-makers, stake-holders from CER and UIC, consultants and researchers, and included a number of members of the EC task force.

The first of three presentations, by Professor Chris Nash, highlighted nine potential barriers to implementing more efficient railway infrastructure charges. He suggested that it should be possible to overcome most barriers in the medium term. However, of the nine, the principal barriers relate to the desire for rail infrastructure managers to cover, from charges, a greater proportion of costs than is implied by marginal cost pricing, and the consequent need for two part tariffs or for tariffs differentiated according to willingness to pay.

The second presentation, by Jan-Eric Nilsson, focused on auctioning as an approach to allocating and charging for scarce railway capacity. Often advocated as an effective means of ensuring that train services with the highest value to their customers at a particular time and on a particular route are allocated that particular train path, but often criticised for being too complex to implement, Nilsson presented some promising findings from a pilot study of an auctioning system in Sweden.

Heike Link, the workshop discussant, highlighted the need to view pricing as part of the wider policy framework for achieving a better

railway system and put forward four key questions which she suggested are fundamental to pursuing implementation:

- What is the appropriate institutional arrangement?
- What is the best approach to competition?
- What is the best charging regime?
- What regulation should there be?

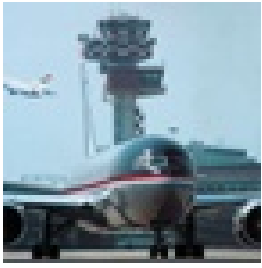
The key issues emerging from the discussion appeared to be:

- the need to recognise that there is a diversity of charging systems throughout Europe and barriers to implementing more efficient charges are different in different countries.
- efficient use is the over-riding objective for infrastructure charges but we should not lose sight of other objectives.
- there is a vital role for a rail regulator.
- we need to consider rail within the bigger picture. As such, relative prices and a level playing field are crucial issues.

There will be a need for phased implementation but we need to ensure phasing does not endanger compatibility between countries and modes.



# Air Transport



A great interest has been recently put on the issue of slot trading and on the attempt of increasing the degree of competition of runways and space allocation market, despite the fact that the current regulatory framework for the allocation of runway slots in the EU neglects the positive effects of market mechanisms. Achim I. Czerny (Technische Universität Berlin) analyses the US market for runway slots to draw some suggestions for European skies:

US experience suggests that there is evidence for an increase in the overall efficiency of the market due to slot trading. Recent studies, such as the one presented by Czerny, show that slot trading

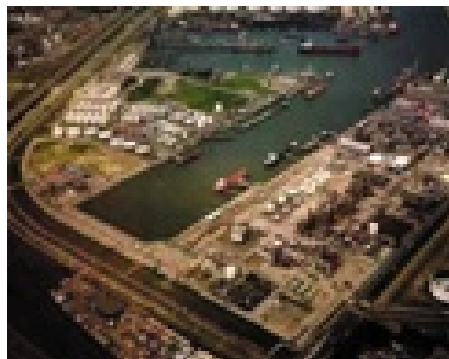


allows the maximisation of market entry opportunities and the optimisation of slots allocation. In order to comply with the increasing worries about the concentration of slot holdings, slot trading should be combined with a strict application of competition law. The issue of how to internalise external costs in air transport prices generates a hot debate: the actual price structure is not yet well known and acceptability of possible price changes by stakeholders might be very low. A possible way of internalising unchecked operational and demand related externalities is setting prices at the marginal social costs: Yossi Berechman (University of Tel Aviv) studied the effects of pricing externalities through a marginal cost scheme on the basis of data obtained from Schiphol Airport (NL). According to this study the current level of peak period charges is in line with calculated charges, while off-peak charges result higher than marginal cost based charges (and should therefore fall to raise social welfare).



## Intermodal and Maritime transport

EU and national transport policies often express favourable views on intermodal transport. But how would the competitive position of intermodal transport change within a framework of marginal social cost based pricing? A newly developed cost accounting framework for intermodal transport (some 800 items, also including external costs, see RECORDIT project) was used to assess the transport cost of three intermodal corridors. Andrea Ricci (ISIS) showed that the costs of the intermodal transport chains were consistently lower than the "all road" alternative but that the lead times in all cases were considerably higher. Much more research is needed before a clear and comprehensive



knowledge base on intermodal costs and demand elasticities is available for pricing purposes.

Concerning port pricing, the paper by E. van de Voorde (UFSIA) highlighted that the complexity of ports' operations, advantages of scale and scope as well as traditional patterns of regulation, ownership, and subsidies are all factors which contribute to the opaque cost structure of ports. For many environmental externalities the assessment of damage cost is difficult, since in many cases it is unclear to what extent emissions are attributable to maritime transport or originate from other activities within the port area. As well as for intermodal transport, the present knowledge of port costs does not provide a solid base for first best marginal cost pricing of ports' services, though some cost estimates were provided. Much more work needs to be done.

Thus there are remaining problems to be solved in order to arrive at well founded "first best" transport prices for individual transport modes as well as for intermodal transport. First best prices would ensure that efficiency conditions are met and, at least in principle, induce optimal adjustments of the transport system. This seems difficult to attain in a short period of time. So, could there be a role

for less than perfect, more pragmatic approaches to transport pricing?

An example of such a pragmatic approach is the Swedish environmentally differentiated scheme for fairway and port charges presented by H. Swahn (Swedish Maritime Administration), which is in operation since 1998. The purpose of the system is to reduce gaseous emissions from maritime transport through the differentiation of state fairway charges and port charges, thereby creating an economic incentive for ship owners to use low sulphur oil and to deploy catalysts or other technologies to reduce NOx emissions from ships. The

incentive scheme is part of a tripartite agreement between the Swedish Maritime Administration (a state agency), the Swedish Ports' Organisation, and the Swedish Ship Owners. Since the introduction of the system, there have been substantial reductions of NOx and sulphur emissions from ships calling at Swedish ports. No traffic distortions have been noticed. The Swedish scheme therefore illustrated that non-perfect pricing instruments may have an important role to play while we are waiting for the full range of information necessary for a "first best" system to become available.



# Pricing Information for Policy Makers

*the UNITE conference, Leuven, Belgium, June 18/19th*

UNITE (Unification of accounts and marginal costs for Transport Efficiency) is a major 5<sup>th</sup> framework project designed to develop methodologies and empirical evidence to support decision-makers involved in pricing and taxation policies for all significant passenger and freight modes of transport in Europe. It includes production of transport accounts for all EU members, Switzerland, Norway and Hungary; more than thirty case studies of the estimation of various elements of marginal social cost for the different modes and research on integrating these, and other, types of information in the taking of

actual pricing decisions. The aim of this conference was to present the results of the empirical analysis, and to debate its implications for issues such as the future role of accounts and appropriate methodologies for estimating marginal social costs. Information from the accounts illustrated, as expected, that there are major differences between member states, for instance in terms of spending on infrastructure and in the degree to which social costs on the various modes are covered by charges. The marginal cost case studies provided new evidence on the external element of marginal social cost allowing for factors

such as economies of scale in infrastructure maintenance and decreasing accident risk as traffic grows; they concluded that a mixture of methodologies is necessary in practice. Work on integration used a variety of tools to model alternative pricing scenarios, finding that whilst naïve pricing rules based on average cost would be much worse than the existing situation, budget constraints across transport as a whole could be reconciled with more efficient pricing if more differentiation were achieved.

On the second day presentations by David Begg,

Chair of the Commission for Integrated Transport in Great Britain, and Andrea Ricci, co-ordinator of RECORDIT, provided inputs from other projects in the area; the conference ended with a wide ranging debate on issues such as whether accounts could be further developed to provide information for monitoring policies, including tracking social benefits as well as costs and revenues.

*For further information on UNITE, please visit <http://www.its.leeds.ac.uk/projects/unite> or contact the Project Co-ordinator, Professor Chris Nash ([cnash@its.leeds.ac.uk](mailto:cnash@its.leeds.ac.uk)).*

## International Conference on Acceptability of Transport Pricing Strategies

*Dresden, May 23. -24. 2002*

Several studies and research projects all over the world have considered transport pricing strategies as promising attempts to solve the urgent traffic problems in urban areas. However, empirical findings have shown that public and political acceptability of such strategies is low.

Thus the conference dealt with the theoretical and methodological framework for acceptance studies as well as with practical implementation of pricing measures in urban transport. First aim was a contribution to an interdisciplinary exchange which covers all relevant aspects of acceptance, integrating economic, psychological, sociological, engineering and political points of views. The second aim dealt with chances how to overcome the lack of public and political acceptability, brought together the most advanced state of the art

and proposed forthcoming and possible solutions for implementing different kinds of transport demand management, including pricing.

The Dresden conference was organized as part of the European research project MC-ICAM (<http://www.mcicam.net/>). 20 invited speakers and around 60 participants from 10 European countries and Australia discussed these problems in 4 sessions:

- The problem and some examples of possible solutions.
- State of the art: European research results.
- Factors influencing acceptability.
- How to enhance acceptability?

*All presentations are available at: <http://www.strafica.fi/mcicam/conferences/dresden/conferences-dresden.html>*



## About CIVITAS



Urban areas are suffering from problems, such as traffic congestion, inner-city decay, sprawling suburbs, and social exclusion.

To address these challenges, the European Commission has launched the CIVITAS Initiative that brings together elements of European transport and energy policy in the view of sustainable development.

CIVITAS addresses cities that are introducing or committed to introduce sustainable urban transport policy strategies. The aim is to achieve a significant change in the modal split towards sustainable modes.

In view of the fast increase of transport and the increasing problems of congestion, it is proven that only a combination of measures can be effective. In the policy strategy, joint measures are taken into account:

- New ways of managing goods and people movement
- New information and transport management systems

- 'Clean' vehicle fleets for passengers and goods
- Promotional campaigns for public transport
- Systems of charging for road use and parking
- Creation of special areas for non-polluting vehicles in city centres

To ensure that policy development is successful, a process of building up citizens and business support and establishing collaborative frameworks accompanies it. Under CIVITAS, the European Commission is providing financial support for 19 pilot cities that wish to show the effectiveness of integrated action that collaborates in four projects. The CIVITAS accompanying measure METEOR will independently assess the results of these projects and on this basis will draft recommendations on best practice for use by other cities. The CIVITAS FORUM was established to stimulate the exchange of experience and to support demonstration sites and all external cities willing to implement new strategies.



**MC – ICAM Project** - a EC funded research project which examines policy reform in the pricing of transportation  
**Project co-ordinators:** Institute of Transportation Studies (University of Leeds)  
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 Leeds, LS2 9JT, UK.  
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**IMPRINT Project** - a European thematic network which sets out to promote the implementation of fair and efficient transport pricing  
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**DESIRE Project** - a research project designed to assess, through the development of realistic case studies, the prospects for inter-urban road pricing in Europe  
**Project co-ordinators:** TIS.PT  
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 Tel: +351 21 359 30 20  
 Fax: +351 21 359 30 21  
 www.tis.pt  
**Contact person:** Jorge Antunes  
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**EUROPRICE Project** - a research project which sets out to inform and support the national and European policy debate on road pricing, and to provide an exchange of experiences and a focus for city/regional issues.  
**Project co-ordinators:** Bristol City Council - Transport Initiatives Team  
 Brunel House  
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 Fax: +44 117 903 6540  
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**CUPID Project** – A European Transport pricing initiative  
**Project co-ordinators:** Transport and Travel Research Ltd.  
 16 Bore Street  
 Lichfield  
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 WS13 6LL  
 Tel: +44 (0)1543 416416  
 Fax: +44 (0)1543 416681  
 http://www.ttr-ltd.com  
**Contact person:** Jo Baker  
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**PROGRαSS Project** - PRoGRαSS is a research and demonstration project into road user charging in cities  
**Project co-ordinators:** Bristol City Council - Transport Initiatives Team  
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More information on these projects can be found on the  
**TRANSPORT PRICING STRATEGIES PORTAL**  
<http://www.transport-pricing.net>



**RECORDIT Project** - Real Cost Reduction of Door-to-Door Intermodal Transport  
**Project co-ordinators:** ISIS – Institute of Studies for the Integration of Systems  
 Via Flaminia, 21  
 00149 Rome, Italy  
 tel. +39-06-3212655  
 fax. +39-06-3213049  
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**CIVITAS Project** – Demonstration of integrated clean urban transport policies in 19 European cities

#### TELLUS

Transport and Environment aLLiance for Urban Sustainability  
**Project co-ordinators:** Rotterdam City Development Corporation  
**Contact person:** Cleo Pouw  
**Email:** c.pouw@obr.rotterdam.nl

#### MIRACLES

Multi Initiatives for Rationalised Accessibility and Clean, Liveable Environments  
**Project co-ordinators:** ATAC - T4 Technology Transport Territory Training  
**Contact person:** Stefania Di Serio  
**Email:** t4@atac.roma.it


#### VIVALDI

Visionary and Vibrant Actions through Local transport Demonstration Initiatives  
**Project co-ordinators:** Bristol City Council - Department of Environment, Transport and Leisure  
**Email:** transport\_initiatives@bristol-city.gov.uk

#### TRENDSETTER

Setting Trends for Sustainable Urban Mobility  
**Project co-ordinators:** City of Stockholm, Environmental and Health Administration  
**Contact person:** Eva Sunnerstedt  
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#### METEOR

 **METEOR Project** Monitoring and evaluation of integrated radical strategies for Clean Urban Transport implemented under the CIVITAS project  
**Project co-ordinators:** NEA Transportonderzoek en – opleiding Postbus 1969  
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