

Flow? Destination!

Summary of findings of the Polis Working Group on Social and Economic Issues on parking in cities.



**economic
& social aspects**

2009 was dedicated to parking in the Polis Working Group on Social and Economic Issues in urban transport. In this framework the Working Group met in December 2008 and in October 2009. A specific session at the Polis Conference December 2009 in Brussels is dedicated to parking. Polis presented its views on parking and ITS at the World Parking Symposium in Breda, June 2009. This document provides a short overview of the key outcomes of this process.

This document builds on presentations of the cities of Madrid, Tallinn, Edinburgh and Brussels, and representatives of Erasmus University Rotterdam, VIM, TML, ECORYS, KPVV, the European Parking Association (EPA) and LOGOS.

All information presented during the Polis parking workshops is available in the www.polis-online.org members' area.

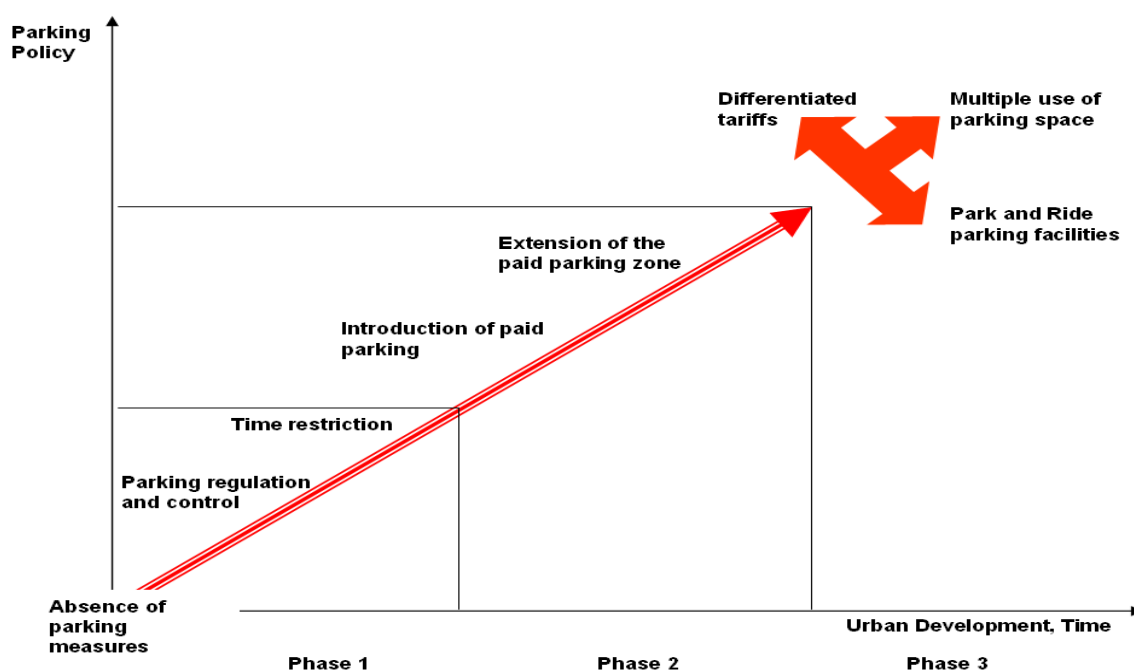
1. Parking policy as essential part of urban development strategies

Parking policy is a very effective means of controlling the volume of traffic in a given area. Parking policy has several **advantages** for cities:

- It is cost effective: it can generate a financial profit in the case of paid parking policies, as can parking schemes based upon permits and time regulation.
- It delivers good outcomes as: the traffic volume will often be substantially reduced. It also helps to manage scarce road space efficiently.
- It is politically effective: local governments are (in most EU countries) fully responsible and free to act. Parking policies can be implemented on short notice and can be seen as quick win measures.
- In the long term, approval of citizens and businesses can be high.
- With developments in ITS, parking will be increasingly user friendly.

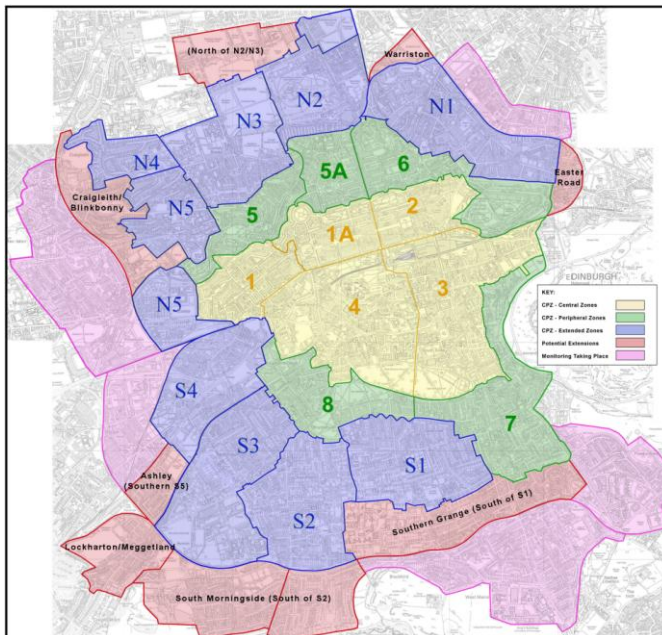
Parking policies also have their **problems**. As decisions on parking policy are taken at the local level, there is little recognition of its significance by national or European authorities. Cities are on their own: there is some peer learning, but often cities only can learn by doing. Credit must be given to the parking industry and service providers who bring new technologies and new operational models to local authorities. They currently can be considered as the main driver for innovation.

Cities follow a **similar pattern in parking policy development**. In a first phase, cities look at parking regulation and control, e.g. time restrictions. In a second phase, cities introduce paid parking zones in the city centre. These zones can be extended and amended over time. In a final phase, cities fully use parking policy to manage and boost urban development in the territory of their competence. Parking management tools become more differentiated and can include differentiated tariffs (according to place, time, type of user and vehicle), multiple use of parking space (e.g. urban freight loading zones that are used part of the day for parking purposes) and park and ride parking facilities.



2. Getting the institutional framework right

In the best case, the local parking plan is an **integrated part of the Sustainable Urban Transport Plan (SUTP)**. This approach supports integration between parking policy, freight management, clean vehicles and access restrictions management. To discuss parking in detail at the SUTP planning level creates synergies with spatial development and location policy. This means that the stakeholder group involved to draft the SUTP should include essential partners from a parking background to develop a local parking policy.



Parking can generate **substantial resources** to local authorities through paid permits, paid parking or even taxes on availability of parking (e.g. Work Place Parking Levy, UK). The use of income generated by fines differs throughout the EU. In most cases cities try to enable an administrative handling of parking offenses. Research shows that transport professionals prefer a targeted use of revenues generated by parking policy within the local transport system.

The Edinburgh zonal parking management system.

There is a wide diversity of **institutional and operational structures** of parking management in cities, ranging from fully public service provision, over arms length municipal parking companies to outsourced parking service provision in the form of service contracts. In general, one can say that in successful cases in parking management, the city is the central coordinator of parking policy, including elements as parking infrastructure provision, local regulatory framework and price setting. In some occasions, the central city authority provides the regulatory framework for territorial sub-entities such as city districts or city sectors.

Inspiring example: Parking agency Brussels



The Brussels Region has established a parking agency that coordinates parking within the Region's 19 municipalities. The agency determines the maximum number of

parking spaces on the regional and municipal roads of every municipality and the minimum number of reserved parking spaces (e.g. for people with disabilities or for deliveries). The agency sets the rates and has enforcement authority. The agency is responsible for parking infrastructure of regional importance, such as regional park and ride infrastructure.

3. Better tools for parking policy planning

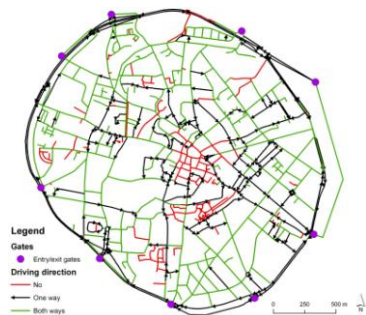
Cities are interested in practical tools to advise on sustainable parking to policy makers. These tools should include an account of the criteria drivers use as a basis for their parking strategy. The tools should help:

- to plan the necessary parking offer
- to set the right price: surprisingly, there is limited econometric scientific literature about rational determination of parking rates
- to describe and evaluate parking management strategies.

Currently available software designed to model parking behaviour are felt to be too detailed for policy recommendations. Even with this detail, it is difficult to include all aspects of local transport policy (intermodality, public transport, pricing aspects etc.) in the model. The huge data requirements and high technicality make it difficult for all cities to use these tools.

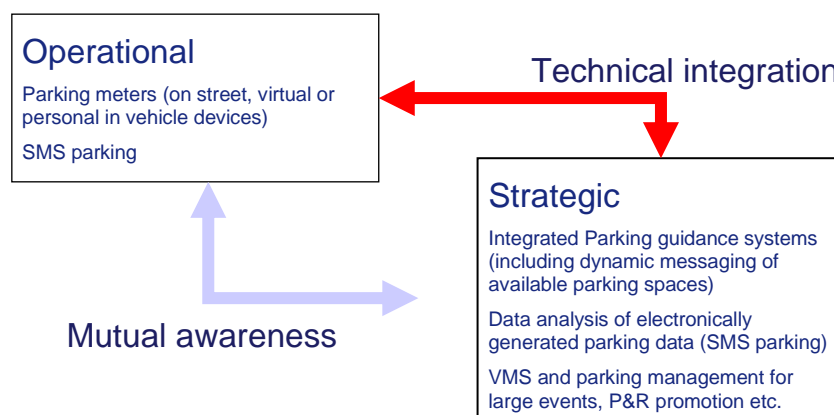
Inspiring example: SUSTAPARK

In the SUSTAPARK project, TML built a simulation tool for planning parking. It is constructed as an agent-based microsimulator, in which drivers are modelled as a synthetic population. Their trips related to working, shopping, going out, et cetera are simulated, as well as their search for a parking space. The search behaviour is based on research that takes economic, cognitive, and situational factors into account when people look for a parking space.



4. Integration of strategic traffic management and operational parking technologies

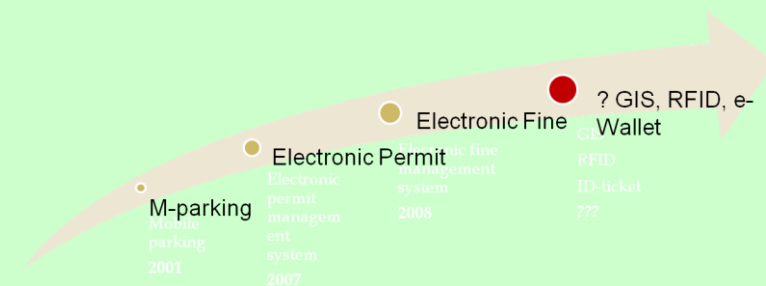
For many cities, parking technology is their **first encounter with Intelligent Transport Systems**. Parking meters and automated enforcement are the most common technology applications available. SMS parking payment is available in several parts of the EU. On a higher level, parking guidance systems provide dynamic information on availability of parking (in off street parking lots).



There is however a growing challenge of increasing the **interaction of “operational” and “strategic” parking and traffic management** tools with higher level traffic management systems. Operational intelligent parking technologies facilitate the client payment and enforcement. Strategic traffic management is looking at management of the traffic flows at city level, using historic data and traffic management tools such as guidance, dynamic traffic light management etc.

Operational systems will increasingly deliver useful data for strategic traffic management (SMS parking data sets, in and out flux data of off street parking spaces.) It is currently not clear how data streams will connect. This is an issue of technical integration (linking up systems), but also of mutual awareness. Cities have to be aware of the importance of the data generated by parking management tools and have to internally assign resources and expertise to analysing and using this data.

Inspiring example: Tallinn



The city of Tallinn has been the fore runner in the field of intelligent parking technologies. SMS parking has been possible since the year 2000! The technology reduces problems faced with revenue collection by parking operators, it offers a viable and working m-commerce opportunity for operators, which has been proven in operation and can provide arguments for loyalty and it greatly increases revenue collection of parking. The city has decreased the number of city officials which are dealing with parking problems thanks to their electronic fine management.

5. Future technological innovations

It is expected that over the next decade, GPS technology and value added services such as in car parking guidance systems will take ground in the EU. After selecting a destination through an on board device, the system will also ask whether the driver wants to be directed to the nearest organised parking infrastructure (currently mainly off street parking, but why not on street parking in the longer run?). Experiments with actual parking slot reservation and booking were not a success.

Digital map providers are difficult to motivate to map the parking offer. The process would be too labour intensive and the potential return on investment is currently not clear. This lack of data creates a problem that in - car parking information providers will have to by-pass. One solution can be to offer tools for parking infrastructure providers to enter their parking offer in geo-referenced databases. In general parking data warehousing (including parking offer, data on permits and rights holders, infringements) will become more and more important.

6. Towards more attention to parking at EU level?

Parking is currently not a central part of EU research and policy development. This is a pity. Parking is one of the most common methods of cities to make internalisation of external costs. In this regard parking **policy** is linked to processes such as the ITS action plan, the EU urban transport action plan, the European Electronic Tolling System and the Directive on cross border enforcement.

Regarding research, there are several research topics that deserve further inquiry at EU level. To name a few:

- Getting the prices right? What is a sound and transferable econometric model to calculate fair parking charges at the local level?
- Parking and its interaction with spatial planning
- New technologies for parking, integration of strategic traffic management with parking management.

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