

Parking in Madrid gets Smart

Madrid is the first city in the world to implement a variable parking rate based on vehicle emissions. In the current discussion about standardised approaches for on-street parking service provision, Madrid is a shining example, so could this be a way forward for other cities as well? **Ivo Cré** reports



The key objective of Madrid's SUMP is to promote more sustainable transport in the city and to reduce the use of private cars in favour of more sustainable modes. The parking strategy helps to accomplish this goal

Parking is important for the redefinition of the role of cities, between the "motorway" culture and re-urbanisation. Centralised parking in cities has been proven to decrease the dependency on car trips and improve the urban public space. However, implementing integrated parking strategies is a challenging task, for both local authorities and parking operators.

To create a better understanding between the different actors in parking activities, the European Parking Association (EPA) and Polis have established a partnership to discuss the interaction of urban transport and parking activities. The current focus of the cooperation is standardised approaches for on-street parking. Off-street parking practice is moving towards a standardised operational framework: users meet the same information and payment technologies across Europe. Would a similar approach be possible for on-street parking?

PARKING AS PART OF A STRATEGIC FRAMEWORK

The city of Madrid has developed a Sustainable Urban Mobility Plan (SUMP). This is a strategic document that sets the framework for all urban transport policies. The key objective is to promote more sustainable transport in the city and to reduce the use of private cars in favour of more sustainable modes. The SUMP has set the framework for several innovative schemes and measures, such as the public bicycle scheme,



the pedestrian plan, low emission zones etc.

The Madrid SUMP is there to implement EU policies such as air quality legislation and the Urban Mobility Package as well as national policies (National energy efficiency strategy, National transport infrastructure plan etc.). The SUMP itself relates to different urban transport policy documents: the road safety plan, the energy strategy, the air quality plan, and so on.

Since 2008, the city is taking an active approach to deploy clean vehicles, starting with greening its own fleet. Madrid City Council is aware of its leadership for the development of the market for clean vehicles and fuels and has launched several initiatives in close collaboration with

the economic and social actors in the city. In this framework, the city engaged in a close cooperation with the business sector, organising the ProClima Forum Madrid.

FROM STRATEGY TO OPERATION: ON-STREET PARKING THREE TIMES SMART!

The city established a low emission zone (LEZ). The city will deploy 100 per cent clean buses in this zone by 2015. By 2025, only zero-emission vehicles will be allowed in the city centre for goods delivery and the presence of cars in the city centre will be discouraged by increasing the price of parking by 10 per cent.

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But there is more: the on-street parking policy is a crucial element to persuade people to either choose cleaner vehicles or to shift to another mode of transport. The Madrid parking strategy, which manages 156,000 parking spaces, is smart in three ways:

- 1 Those who park on-street pay according to the level of environmental friendliness of the technology of the vehicles (in Euro-class): when a car is parked the driver is asked to submit its licence plate number. This is checked against a reference database that includes the eco-performance of the vehicle. This determines the cost of parking. Madrid is the first city

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- in the world to implement such a scheme, which includes all vehicles, and is not only giving incentives to hybrid or electric vehicles.
- 2 Within the parking system, the most advanced intelligent transport systems (ITS) are deployed. These ITS systems include all possible ways of payment.
 - 3 Parking management does not only helps to regulate the traffic but also helps to contribute to the air quality policy.

GETTING IT ORGANIZED: THE MADRID INTEGRAL MOBILITY TENDER

The service provision with regards to the smart parking approach is part of a package of management issues related with the urban realm. The city of Madrid has brought various aspects of street management together in one call for tender. The objective is to get benefits from synergies and economies of scale. More holistic planning and management, with one leader integrating different services, leads to a richer and more balanced approach to public space management.

The services rendered through the tender are the smart on-street parking services (see above); restricted areas control, road signage and marks; and the bike-sharing scheme. The tender was offered in five lots: four for the different zones, and one for the ITS back office.

REQUIREMENTS FOR SUCCESS

The Madrid smart parking approach has a lot of advantages to all user groups:

- The system ensures parking



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Madrid's coherent parking strategy serves different policy goals such as air quality, traffic management, energy use and clean vehicle deployment

rotation, and increases the probability for residents and visitors of finding a public parking space.

- The system ensures the dynamic use of public spaces: it streamlines the use of areas of high commercial potential.
- The use of ITS and the high level of digitalization of the parking process liberates resources for parking management closer to the citizen.
- The presence of controllers gives citizens confidence about the parking situation.

Madrid shows that a coherent parking strategy can serve different policy goals: air quality, traffic management, energy use and clean vehicle deployment. It combines this with a very innovative integrated tendering process for urban transport services. Madrid starts from building blocks that are available to all cities in Europe: the national vehicle register, parking hardware, parking regulations, and so on and it also offers good practice ready for transfer. So, who is going to be next? 🚗

FYI

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This article is based upon a presentation by Maria Elisa Barahona of the City of Madrid at the EPA Polis workshop on standardised approaches for on-street parking, Lisbon, 19 September 2014

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