Guideline
SUSTAINABLE PARKING MANAGEMENT

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Parking management is a powerful tool for cities to influence transport. By managing the supply, design and price of parking spaces, cities can exert a high level of control over traffic flow and quantity. In the past, municipalities merely expanded parking supply in order to attract more and more cars. Contemporary parking policies have a more balanced view, include social and environmental goals and want to improve the quality of life in cities.

Over the past decades, car ownership in Europe has increased constantly. Many cities have found themselves drowning in traffic and are taking careful steps to limit congestion. By putting a price on entering the city by car, cities can reduce the number of vehicles driving around and at the same time generate money they can use for sustainable transport. And crucially, decreased traffic volumes directly affect air pollution levels. Last but not least, parking spaces use up a significant share of valuable inner city space. The land that they occupy is expensive and scarce. On top of this, cars are only used for a small amount of time and stand around for up to 23 hours a day. Overall, cars are decreasing the quality of life in cities, with the space they use as well as with their emissions.

Appropriate parking management can reduce the number of necessary parking spaces, balance out

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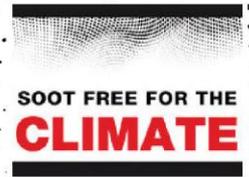
supply & demand and produce a long list of co-benefits. This paper deals with several factors that should be taken into account, and examines some examples of successful parking management.

Vienna

The city of Vienna strategically employs parking management in order to steer traffic demand and accomplish sustainable objectives, including reduced air pollution. Vienna extended its parking management to several additional quarters at the end of 2012.

Interesting to note is that a comparative study on its effect showed that traffic volume was reduced by almost 7.5%. Furthermore, the city partially uses parking revenues for public transport.

Setting up managed parking

Parking management involves several important factors: Setting up parking zones, addressing specific needs and setting appropriate price levels are just a few of them. A city needs to evaluate its successes and improve if supply and price levels have not been well balanced.

Parking Prices

There are of course rather different requirements for a parking zone. Residents, after all, have different requirements of their neighbourhoods than visitors and tourists do of their areas. However with the use of zoned pricing, rates can be structured adequately. Congested areas necessitate higher prices, nearby areas with

excess capacity can be made more attractive to longer-term parkers by lower parking fees.

Parking Supply

Besides setting a price on parking, managing the amount can have remarkable effects as well. For a long time now, European cities have increased the attention they pay to the number of parking spaces actually available. By carefully reducing the on-street parking supply, cities gain valuable space and therefore also improve quality of life. At the same time they increase the value of the remaining parking spaces.

For example, cities may set caps on the number of parking spaces in your city. Or they might review the minimum parking requirements for new housing projects.

Emission-based parking prices

Several boroughs in London and Amsterdam have established parking fee schemes based on vehicle emission classes. Where prices have a direct influence on decisions, tying economic incentives to environmental targets will accelerate the transition to cleaner transport. The downside is that systems like these are more difficult to administer. Still, emission-based parking makes a great deal of sense.

Earmarking

Parking fees generally generate revenue. So why not think about earmarking them? These revenues can be use to directly finance a certain budget item, such as investment in sustainable transport. The city of Barcelona has done so, earmarking 100% of its parking fee revenues for the city's bicycle sharing scheme. Allocating

parking fees to sustainable transport measures will increase public acceptance and understanding.

Repurpose your parking spaces

European Cities are undergoing a rapid introduction of shared mobility solutions. Paris, for example, has removed parking spaces to create spaces for its bicycle sharing scheme Vélib'. Equally important parts of their promotion are parking spaces for car-sharing schemes and zero-emission vehicles. And last but not least, Park&Ride concepts have great potential for removing vehicles from the city.

Urban Planning

Cities should grow in such a way that new land-use projects are checked for their parking-space planning. Instead of relying on connection to the city by cars, they should be well connected by public transport.

Other crucial factors

There are a number of other issues that need to be taken into account when developing a parking policy:

- Concern from local businesses about economic viability
- Concern from the community of overspill of parking into residential streets
- Appropriate parking rates for land use
- Opportunities for reductions in supply due to mixed land uses
- Market and community acceptance
- Sufficient parking provision for increasing demand

Amsterdam

Amsterdam has a highly technological approach in managing its transport. It has a database with car license plate numbers that are also linked to emission information. The city scans plate numbers and cross-examines the information with its database. In its city centre, Amsterdam charges some of the highest fees worldwide. There are interesting housing regulations, requiring the replacement of on-street parking by off-street parking.

Commuters

An important parking management approach is addressing the mobility decisions of commuters. The city may choose different options. It could address the commuters as the main interest group in its parking policy and price business districts accordingly. Or it could make companies responsible for the parking spaces of their employees. Some do that and charge companies for their parking spaces.

Other approaches involve the companies in the planning process. They might support work programmes that promote not commuting by car or car-pool.

Brussels

There are several cities that aim at reducing the overall parking supply, including Copenhagen or Zurich. With a overhaul of the cities parking policy, Brussels has recently included the objective to reduce the overall parking supply by 16%, in combination with an increase in prices and a new zoning concept that includes about 60% of the overall parking supply.
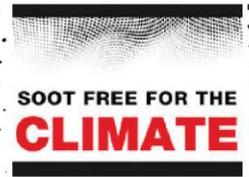
Obstacles

The role of technology in parking management is increasing and opens possibilities for precise parking management solutions. Networked meters, the use of telecommunications and real-time information that supply's car drivers with up-to-date information about their chances to find a parking space. Cities choose the solutions that fit their needs and budget.

Further thoughts

Cities increasingly identify zones where parking is less desirable and convert streets and parking spaces into space used for public transport, sustainable transport or other purposes. Here are three examples:

Use physical barriers to limit parking possibilities, e.g. with lines, bollards and other means. Reallocate parking to less desirable locations. Increase the walking distance to the parking lot.

Summed up

- Adjust parking management approaches to your specific situation and needs.
- Make a comprehensive analysis addressing all costs and benefits.
- Parking demand and supply need to be balanced based on detailed information.
- Holistic and multidimensional urban planning, comprising transport AND development planning.
- Analyse the impact of large development projects on transport systems.
- Shift from on-street to off-street parking. Parking spaces then have to be created by the private sector or incorporated into housing.
- Involve large stakeholders into the process.
- Participation and Transparency.
- Information & Marketing.
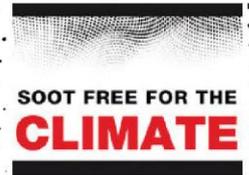
Further information:

- ITDP, Europe'sParking U-Turn: From Accomodation to Regulation, 2011, online 9/2013:
- http://www.itdp.org/index.php/news/detail/european_parking_u-turn_reaps_rewards_ideas_for_the_rest_of_the_world/
- Todd Litman, Parking Management Comprehensive Implementation Guide, Victoria Transport Policy Institute, online 9/2013
- Todd Litman, Parking management Best Practices, Planners Press, 2006

CONTACT

Municipalities interested please contact us for further information:

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ABOUT US

Clean Air is a project by nine European environmental organisations that fight for clean air in European cities. Despite the existing legislative framework and the citizens' right to clean air, continuing violations of air pollution limits remain a problem in many cities. Air pollution threatens health, environment and climate. It's time to take action!
www.cleanair-europe.org

Started in 2009, the associated campaign "Sootfree for the Climate" aims to reduce diesel soot emissions, which accelerate climate change and pose a threat to public health. To this day twelve European NGOs have joined the campaign.
www.sootfreeclimate.org

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TRANSPORT & ENVIRONMENT

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Deutsche Umwelthilfe

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