WORKSHOP RESULTS

Tools for managing access and stay rights: An Overview of Plans in European Cities

November 2024, Barcelona

As cities grow and evolve, managing access and the right to stay at our limited curb and parking space becomes increasingly important. Leveraging data and digitalization opens up new opportunities to address these challenges more efficiently and effectively.

During the **Smart City Expo World Congress (SCEWC)**, two workshops were held to explore the question: "What opportunities do data and digitalization offer for managing city access and optimizing curb and parking spaces?"Together, we mapped the initiatives being undertaken by IMPACTS cities, other European cities, and partners. Below, you'll find an overview of the workshop outcomes, organized by topic. Contact details are included for most initiatives, as we believe collaboration is key to achieving greater impact.

Parking

Parking reduction

Redesigning parking policies

Who: Amersfoort
What: The development of new parking policies and local parking hubs to reduce the amount of cars and reclaim space in the city center. These measures are combined with a social design approach to address political sensitivities surrounding paid parking and ensure community support for the changes.
Status: exploration phase

Personal use | Robin de Haan

Parking reduction

Who: Sittard-Geleen
What: Reducing the number of parking spots in the city center to repurpose the space for greenery and other uses that enhance urban quality. To implement this effectively, we need insights into how this reduction impacts livability and business visitor patterns in the area.
Status: design phase

Personal use

Parking data

Parking insights

Who: Dublin
What: Provide real-time information on parking space usage by combining and managing parking data from various sources (private, on-street, off-street, paid via apps, and paid via terminals). This is achieved by enhancing data sharing, standardization, and analysis.
Status: exploration phase

Personal use | payal.pandya@dublincity.ie

Parking management

Parking management

Who: Germany, Designa
What: Free-flow parking access and control systems, combined with an online booking platform, aim to optimize the use of off-street car parks. This includes addressing regulatory changes needed to enable asset owners to utilize their parking spaces more effectively, ultimately reducing the need for on-street parking.
Status: The technology is ready, but regulatory adjustments are required to unlock its full potential

Personal use | christian.gronau@designa.com

Dynamic parking management

Who: Johan Cruijff Arena, Amsterdam
What: Centrally coordinated parking management using zoned, dynamic pricing to prevent inefficient parking use. This solution integrates real-time occupancy data, advanced floating car data, and real-time communication with visitors to guide them to the optimal parking spot within the designated zone.
Status: exploration phase

Personal use | y.rijff@johancruijffarena.nl

Parking management for disables people

Who: Barcelona
What: Development of an application that enables disabled individuals to register their license plates, integrated with an enforcement system and a time-restricted access policy. This initiative seeks to streamline enforcement processes, reduce manual labor, and improve the availability of loading and unloading zones for more efficient use.
Status: exploration phase

Personal use | bhuarte@bcn.cat

Curb

Curb data

Information on logistic space usage

Who: Gotenburg
What: A data-sharing ecosystem for historical and real-time information on the use of logistics spaces. Through data-sharing agreements, logistics stakeholders contribute their data and gain access to shared insights via a unified interface, fostering more efficient space utilization.
Status: pilot

Professional use | mikael.ivarr@stadsmiljo.goteborg.se

Curbside data management

Who: Dublin
What: Digitally mapping the curbside, ensuring the data remains up-to-date, and developing policies for effective digital curb management.
Status: pilots

Professional use | payal.pandya@dublincity.ie

Curb management

Reservable public space

Who: Hannover
What: A digital platform granting access to public space, enabling residents and professional users to reserve areas for activities such as moving, hosting events, or accessing logistics zones. The system integrates supporting infrastructure, including an app, data platform, cameras or sensors, and an enforcement mechanism to ensure smooth operation.
Status: concepting phase

Professional use | perrit.fehr@hannover-stadt.de

Digital permit services

Who: Helsinki
What: A digital, automated permit system that enables users to book spaces for various purposes for efficient space allocation. (In line with 'Coding the Streets' and 'Coding the Curbs')
Status: exploration phase

Professional use

Smart loading and unloading zones

Who: Utrecht (and Coding the Curbs and VisaCity)
What: Establishing smart loading and unloading zones through 15 targeted measures. Utilizing sensors, cameras, location data, vehicle information, and regulation, the system enhances control over vehicles entering the city center, reducing traffic and minimizing the impact of urban logistics on its surroundings.
Status: pilots

Professional use | stefan.van.dorp@utrecht.nl

Urban logistics app

Who: Madrid
What: Deliveries, urban logistics and low emission regulation change the curb. An app is created for urban logistic to [...]
Status: implementation, and research

Professional use

Digital curb management

Who: Amsterdam
What: Providing detailed insights into curb usage and, where necessary, implementing smart loading zones. These zones enable the enforcement of delivery time windows through ANPR cameras and allow logistics companies to reserve specific time slots via an online booking system.
Status: exploration phase

Professional use | d.vanderlaas@amsterdam.nl

Intelligent acces

Emission zones

Low emission zones

Who: Rome
What: Increasing restrictions on private mobility access to six inner city zones to reduce the number of cars, reclaim urban space, and improve air quality. The low-emission zone is enforced through ANPR-based controls conducted remotely by urban police, continuous traffic flow monitoring, logistics regulations, and awareness campaigns.
Status: opening of gates in 2025,
campaigns to start now

Personal use | fabio.russo@romamobilita.it

Smart emmission zones

Who: Gotenburg, Nordicway and Technolution
What: Smart urban traffic zones designed to reduce pollution and noise. During specific times, hybrid cars are only permitted if operating in electric mode. This is achieved through geofences in the traffic management system and communication with vehicles.
Status: pilot

Personal use | Professional use | henk.den.breejen@technolution.nl

Low traffic zones

Limited traffic zone

Who: Paris
What: A limited traffic zone in the city center where through traffic is prohibited (except for specific categories), while destination traffic is permitted. This is facilitated by a gateway database, stickers for permanent users, and QR codes for temporary users.
Status: In development, set to go 'live' in six months.
Next steps: Collaborate with the state to enable the use of cameras and automatic enforcement (currently not permitted).

Personal use | Professional use | cecile.homere@paris.fr

Intelligent access for destination traffic

Who: Gemeente Haarlemmermeer
What: Implementing intelligent access for destination traffic to reduce the amount of cut-through traffic with a destination in surrounding cities.
Status: exploration phase

Personal use | Professional use | jeroen.brink@haarlemmermeer.nl

Intelligent access for events

Who: Johan Cruijff Arena, Amsterdam
What: Implementing intelligent access to the Johan Cruijff Arena area for registered visitors and residents, utilizing smart toll gates, exit management, and a booking platform to reduce traffic congestion during events.
Status: exploration phase

Personal use | y.rijff@johancruijffarena.nl

Intelligent access for freight

Who: Utrecht
What: Smart access empowers the city to regulate freight traffic by defining the specific conditions under which vehicles are permitted to enter. This enhances control over urban logistics, reducing traffic and minimizing the impact of urban logistics on its surroundings.
NB: More strict access policy and tools for enforcement are in development.
Status: pilots, policy ready in Q3/Q4 2025

Professional use | stefan.van.dorp@utrecht.nl

Intelligent traffic filters

Who: Amsterdam
What: Developing a new policy framework and enhancing the city's intelligent access solution to implement low-traffic zones. Next to characteristics of the vehicle, access to these zones will be determined based on characteristics of the driver, such as purpose of travel or profession, ensuring a more efficient and sustainable urban mobility system.
Status: exploration phase

Professional use | d.vanderlaas@amsterdam.nl

Other

Information management

Communication via navigation systems

Who: Copenhagen, Nordicway and Technolution
What: Communication through navigation systems (powered by traffic management systems) to guide cars away from specific routes during events that attract high traffic volumes.
Status: pilot

henk.den.breejen@technolution.nl

Information on roadworks & regulation

Who: Gotenburg
What: Dynamic distribution of real-time information on roadworks and traffic regulations for drivers and cyclists, provided through a local access point using standardized data formats and high-quality, reliable dynamic data.
Status: In development

mikael.ivarr@stadsmiljo.goteborg.se

Information for cyclists

Who: Amersfoort
What: Providing real-time information for cyclists commuting to work, including updates on roadworks, to help them accurately estimate their arrival time (ETA) and choose the bets route.
Status: exploration phase

Robin de Haan

Traffic management

Smart traffic control

Who: Linköping (Sweden), RISE
What: Smart traffic control designed to minimize stop-and-go movements, optimizing traffic flow. This approach has the potential to reduce urban traffic emissions by 30% and increase road capacity by 30%, enhancing both efficiency and sustainability in urban mobility.
Status: idea phase (technology is available)

tomas.westlind@li.se

Data-driven traffic insights

Who: Stockholm & Statens Vegvesen, Oslo
What: Using ANPR cameras and access to the national vehicle database to measure and classify traffic. This approach provides detailed insights into traffic patterns, enabling more effective regulation and the use of nudging techniques to influence driver behavior.
Status: implemented

Smart forecasting

Who: Johan Cruijff Arena, Amsterdam
What: Implementing smart forecasting for the operational mobility center, enabling proactive adaptation and control. Utilizing historical data, an aggregation platform, and AI-driven forecasting, this system enhances decision-making and improves traffic management efficiency.
Status: exploration phase

y.rijff@johancruijffarena.nl

Low emission zones

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Mobility offer

Public mobility

Who: Zeeland and NTM
What: Public mobility in less densely populated regions (characterized by low occupancy rates and limited schedules), achieved by integrating shared mobility, public transport, and access to on-demand vans.
Status: pilot