Integrated Urban Vehicle Access Regulations: Lessons from Mannheim and Rome

UPPER CLUB

January 2026 · Webinar Summary

Contents

Introduction

How do cities manage urban traffic and reduce pollution?

On 26 January 2026, UITP's Mobility Governance Unit hosted the webinar "Integrated Urban Vehicle Regulations" under the UPPER Club initiative. The session brought together UITP members, including international operators, authorities, city municipalities, academics, and experts in strategic transport planning.

Moderated by Lottie Stainer (UITP), the session explored the different approaches to UVARs from two European cities, supported by the UPPER project, Rome and Mannheim, focusing on parking policies and Limited Traffic Zones (including Low-Emission Zones) as measures to street reallocation.

UPPER is coordinated by UITP and brings together 41 partners. The project aims to increase both ridership and satisfaction with public transport in ten cities and regions across Europe. To achieve this, 10 UPPER cities and regions are implementing around 80 measures that prioritise public transport and sustainable mobility.

The UPPER Club is a peer-exchange initiative designed to connect cities and selected UITP members through structured discussions. It enables UPPER cities to share progress and challenges during the 2025–2026 implementation phase, while inviting peer questions, practical insights, and potential pathways for replication beyond the project.

The webinar featured:

Mannheim: "Reclaiming pavements: regulating parking to restore walking space", presented by Tim Neugebauer, Policy Advisor and Mobility Coordinator, City of Mannheim

More information about the measure MAN_08 "Redesign urban space and test alternatives for social purposes" ***here****.*

Rome: "A layered approach: Limited Traffic Zones to Low Emission and Congestion Charges Zones", presented by Chiara Di Majo, Senior Project Manager, Roma Servizi per la Mobilità (Rome Mobility Agency)

More information about the measures:
- ROM_01 "To reduce private vehicles by implementing a 'pollution charge' scheme in the core part of Rome Zone 2" ***here****.*
- ROM_02 "Promoting modal shift towards PT with the implementation of a LEZ in Rome Zone 3" ***here****.*
- *ROM_08 "Designing the urban space to promote active travel modes, PT and "30 km/h" zones"* ***here****.*

Mannheim

Reclaiming pavements: regulating parking to restore walking space

Mannheim is a medium-sized German city of around 325,000 residents, part of a wider metropolitan area with Heidelberg and Ludwigshafen. It is also one of the first German cities to receive the EU Mission Label for climate-neutral and smart cities. Yet Mannheim's transport story is shaped by a strong legacy: it is widely known as the birthplace of the car - and car use remains deeply embedded in everyday life, particularly in suburban neighbourhoods where parking on the pavement has become the norm.

Why pavement parking became a citywide issue

In many districts, streets are narrow and were never designed for today's levels of car ownership. For decades, parking partly on the pavement has been widely practised. Although it was never fully legal under German traffic law, it was often tolerated at the expense of pedestrians. This also compromises accessibility, particularly for wheelchair users, people with prams, travellers with luggage, and anyone needing to pass comfortably and safely. In many streets there was no clear marking or signage indicating where pavement parking was permitted and where it was not.

Parking policy also varies across the city. In the centre, parking is largely paid, often through resident permits that have become more expensive (rising to around €130 per year), though still cheaper than garages or public parking facilities. In suburban areas, parking is mostly free, which makes the removal or regulation of spaces especially sensitive.

With all these challenges, in 2020, the Baden-Württemberg state issued a decree requiring local authorities to regulate sidewalk parking and ensure a minimum clear footway width of 1.50 metres for pedestrian safety. The intention was not to ban pavement parking everywhere, but to stop informal tolerance and replace it with clear, enforceable rules: pavement parking can only be legalised where street geometry allows it, and only if the required space for walking and accessibility is preserved.

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From legal compliance to a new mobility opportunity

For Mannheim, the decree created both an obligation and an opportunity to improve streets functionality. On one hand, it meant confronting the loss of parking spaces in neighbourhoods where residents have parked for free for decades. On the other, it supports a safer coexistence of all street users, also encouraging citizens to switch to alternative transport modes, getting rid of the car and using public transport instead.

The city is implementing the measure district by district across 20 districts, starting in the centre and moving outwards. The work is detailed and resource-intensive because it depends on on-the-ground assessment.

Teams measure and photograph conditions and check two requirements: **(1)** streets must remain passable (including for emergency services) and, **(2)** the footway must retain at least 1.50 metres of clear width. Each street segment is then assigned an appropriate parking arrangement, generally falling into four categories (see Figure 1). Then, plans are compiled into a report, discussed through the District Council and City Council, and implemented through signage and road markings.

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Figure 1 – The four different parking modes

Parking on the road

Parking fully on the pavement

Parking half on the pavement

No parking

Q&A Highlight

For how long is this implementation process going on?

This "simple" measure is actually taking years. Mannheim began planning in the city centre roughly three years ago and expects the overall programme to take significantly longer than initially planned, closer to six years rather than the early estimate of three to four. The bottleneck, however, is not the planning itself, but the practicalities of implementation: works require contractor availability, favourable weather conditions for markings, and coordination with other works (utilities, resurfacing, and seasonal constraints). On the one hand, this iterative process gives residents time to adapt and prepare for changes in their neighbourhood, while also helping the city administration identify challenges and adjust measures where needed. On the other hand, it makes delivery lengthy and time-consuming.

When pavements become accessible and free: alternatives uses of public space

Restoring walking space is the immediate gain: streets become accessible for pedestrians and especially those constrained such as wheelchair users, elderly with walking frames and carers with pushchairs. It is also safer for children travelling to and from school. Over time, reclaimed space can also support other public uses, including cycle parking and mobility hubs, parklets, outdoor seating and charging infrastructure.

> ***"Getting rid of your car — that's nothing you just do because parking spaces are reorganised in your neighbourhood... That's a longer process, which takes months or even years."*** Tim Neugebauer, City of Mannheim

However, these new uses of space do not automatically change the mindset of citizens and local businesses. Time is needed to understand local needs, communicate and raise awareness of the benefits towards street transformation.

The city has not yet run a large, city-led campaign. As the speaker noted, political support for an explicit "reduce car ownership" narrative is limited, and the measure is often framed publicly as legal compliance rather than a proactive choice, which constrains communications. For now, messaging focuses mainly on the fact that public transport alternatives exist.

Peer reflections

Participants raised the business acceptance matter. While evidence often shows that more walking, cycling and public transport can support local commerce, changes to kerbside access, and the inability to park directly outside shops, can provoke resistance. Mannheim's approach varies by area: in suburban commercial streets, time-limited parking (for example, one-hour restrictions) is used to prioritise turnover. In the city centre, where retail depends partly on visitors from the wider region (including areas with weaker public transport connectivity), Mannheim is testing complementary measures such as short free-stay periods in public parking garages while making on-street parking comparatively less attractive. It is an attempt to manage transition without losing footfall, even if it does not fully align with the long-term ambition of modal shift.

The discussion showed that pavement parking is rarely "just" a technical issue, it quickly becomes a question of enforcement credibility, coordinated response, strong governance and what alternatives people can realistically switch to. And even within the same country, the challenge is not uniform. Cities in eastern Germany face fewer pavement parking issues, partly because parking policy has historically been more structured, while many western cities struggle with older, narrower street patterns and long-standing tolerance.

German law needs to change to allow higher enforcement fees – otherwise, parking fines and parking costs will never be a deterrence. This is how many cities such as Barcelona and Geneva are pushing for less on-street parking.

Other cities recognised the same tension between entrenched habits and the need to protect safe, accessible footways, often depending on political capacity and street layout. It requires both push and pull measures to disincentivise car usage, but attractive, connected public spaces and reliable mass transport systems need to be established beforehand.

One participant noted that stronger governance is often required to enforce such change. Policial support is key and coordinated, clear communications to visually show citizens what their city can become is a powerful tool in encouraging changing mindset.

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Rome

A layered approach: Limited Traffic Zones to Low Emission and Congestion Charges Zones

Rome, also one of the EU's Mission Cities, operates at a very different scale from Mannheim. The city is home to 2.9 million residents and 4.4 million across the wider metropolitan area, with daily commuting flows and intense year-round tourism demand.

Rome's UPPER measures align with the city's Sustainable Urban Mobility Plan (SUMP) and respond to a critical reality: in a historic capital, traffic is not only a question of congestion or travel time. High volumes of private vehicles affect air quality, road safety and the preservation of cultural heritage. Rome is therefore tightening access regulation to protect sensitive areas, and redistributing street space so that walking, cycling and public transport become easier and safer choices.

The evolution of Rome's UVARs

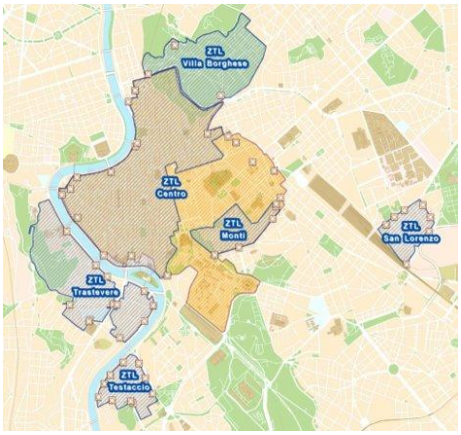

Figure 2 – Limited Traffic Zones

Rome's UVARs have developed over decades, responding to successive triggers. In 1995, a central Limited Traffic Zone (LTZ) was introduced in the historic centre (still in force today), with permits defining who could enter and when. The Jubilee in 2000 then accelerated traffic management and the rollout of centralised automatic access control using automatic number plate recognition, coordinated with the local police. Later, in 2006–2007, Rome expanded LTZs to manage nightlife congestion, creating different perimeters and rules for daytime and night-time access.

Another turning point came with air-quality compliance. After exceeding pollutants limits (such as PM and Nox), Rome revised its traffic planning in 2015, introducing a zoning approach: the closer to the historic centre, the more sensitive the area and the stronger the constraints on private mobility. This zoning now underpins a layered scheme in which multiple restriction areas overlap and reinforce each other.

Access restriction policies: the Fascia Verde

Rome's low-emission zone - Fascia Verde (Green Area) - is designed to progressively limit access based on vehicle emission category. It covers around 156 km², with ambitions to monitor flows by vehicle type, improve traffic conditions (including public transport commercial speed), and reduce emissions.

The initial plan was to ban Euro 4 diesel vehicles (from November 2024) across a large part of the city, supported by cameras and control points around the perimeter. However, strong public opposition led to a revision. Rome used infrastructure already in place to test and measure behavioural effects before fines were issued, observing traffic patterns and compliance shifts. Analysis of around 800,000 e-gate transits showed potential illegal transit falling from around 5% to 2–3% after 2023, then to 0.47% in 2025.

For now, at least for the 2025/2026 period, the city has chosen not to implement the Euro 4 diesel ban, retaining restrictions up to Euro 3 diesel and Euro 2 petrol, while exploring compensatory measures in other sectors to maintain sustainability objectives given the calls for stricter bans. Rules on exemptions, flexibility, and incentives are still under study, alongside continued public transport improvements.

A key point from the presentation is that these decisions require structured coordination, because air quality, mobility needs and legal compliance all pull in from different directions. Rome set up a multi-stakeholder competence group spanning national ministries (Environment and Transport), the regional environmental agency ARPA, municipal environment and mobility departments, and the Rome Mobility Agency to support implementation and assessment.

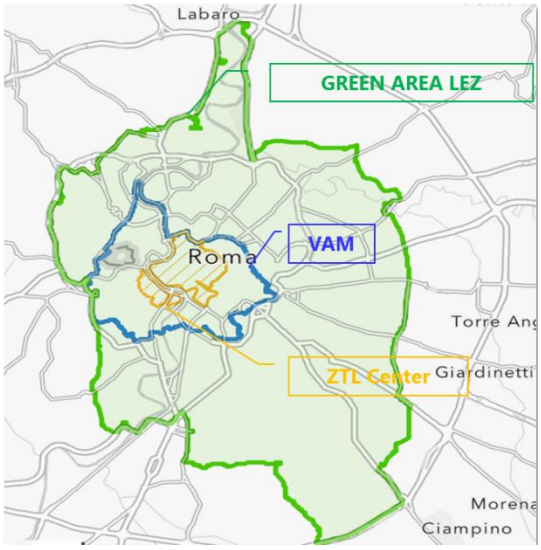

Figure 3 – Green Area and VAM zone

The VAM area: preparing a "pollution" charge

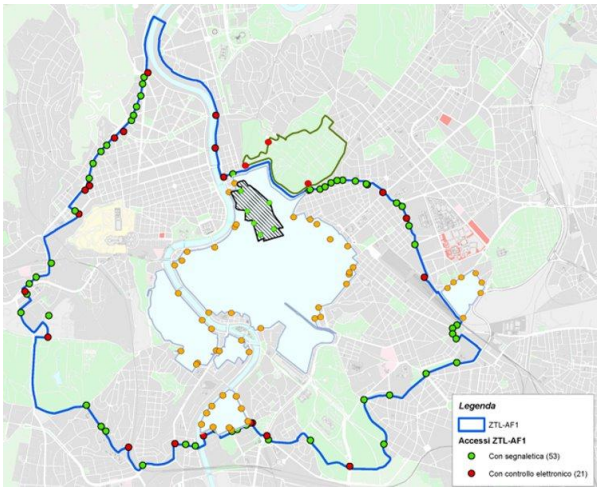

Figure 4 – The VAM area

Alongside the LEZ, Rome is also exploring a future congestion or "pollution" charge in the VAM area (around 23 km²), linked to the city's zoning logic and wider SUMP goals. The charge is not yet active, but the enabling framework is being developed through digital access tools and expanded electronic gate coverage.

The VAM area, introduced in 2017, already operates with time-based access rules (from 05:00 to 12:00) and is controlled through a network of 74 e-gates (with additional access points planned during the project). Current restrictions apply to vehicles over 7.5 metres in length and to more polluting categories below specified emissions standards. Temporary permits can be issued for cases such as tourist coaches or certain freight deliveries.

The future intention is that the electronic access control system, integrated with the existing restricted traffic zone (ZTL), could regulate entry by vehicle category, time and environmental criteria, and support the introduction of a structured charge.

Designing streets for active travel, public transport and 30km/h zones

Rome is also aiming to reduce private motorised traffic by reallocating street space and improving conditions for walking, cycling and accessing public transport. This includes addressing barriers to PT use such as illegal parking at stops, which affects both accessibility and service reliability. In parallel, the city is extending its cycling network, developing mobility hubs at key interchanges, and rolling out 30 km/h zones combined with traffic-calming measures to make streets safer for active travel.

Road safety is one of the drivers of this approach. Rome has acknowledged that it has not historically been designed for vulnerable road users: 53% of road-fatality victims are vulnerable users, with pedestrians particularly exposed. To respond, the city is implementing integrated "friendly areas" in 13 zones, bundling interventions within defined micro-areas. These packages typically combine pavement refurbishment, traffic calming, new cycle lanes, improvements to the streetscape and public realm, and school streets designed to make every day journeys safer for children.

A broader "connected city" objective is being pursued through the Biciplan, which focuses on reconnecting existing networks into a coherent cycling system. The plan prioritises links near schools and universities, provides for cycle parking in public buildings and at railway stations, includes an increase in bicycle facilities across at least 25% of the public transport fleet, and sets an ambition to expand the cycling network by 45%.

Q&A Highlight

With multiple overlapping zones and rules, how do you make Urban Vehicle Access Regulations understandable for residents and businesses?

Rome relies on clear in-street messaging and repeated channels: variable message signs (VMS) warning drivers before entry, plus information via social media, the internet and newspapers. In practice, the speaker suggested that people don't "accidentally" enter restricted areas. VMS makes the restriction explicit, and entering becomes a deliberate choice that risks a fine.

Speed management is also advancing. On 15 January 2026, Rome introduced a 30 km/h zone within its LTZ. As the measure is in a trial phase, the emphasis is currently on helping people adapt rather than issuing fines.

Evidence and evaluation throughout have been a huge strength for Rome. Following the speed-reduction experimentation, the city reported a decrease in road accidents and deaths, especially among vulnerable users. In response to concerns about longer travel times, the analysis showed that crossing the city centre by car takes, on average, only 60–90 seconds longer.

In parallel, the city is using analysis to refine the approach, distinguishing between cars and commercial vehicles, reviewing transit rules, and examining indicators such as average vehicle dwell time, transit routes and areas with the highest parking pressure.

These changes to street design and regulation are being reinforced by wider mobility investment. Rome is developing new tramway lines over the coming years, strengthening micromobility sharing and integrating it with public transport ticketing, renewing bus and tram fleets with a strong electrification component (including depots), and upgrading passenger infrastructure such as smart bus stops. Taken together, the intent is to pair safer, slower and better-designed streets with stronger public transport so that active travel becomes a realistic default for more trips.

Peer reflections

Several participants recognised Rome's challenge as broadly universal. London noted that the public debate around UVARs, especially low-emission zones, often follows a familiar pattern: resistance early on, then slower acceptance once evidence builds and daily habits shift. Another key theme was the role of community and civil society engagement. Beyond regulation and design, participation through local initiatives and organised activities can build acceptance and help change feel shared rather than imposed, especially when the communities most affected are actively involved in the process.

Key conclusions

Cities are using Urban Vehicle Access Regulations more and more to support cleaner air, safer streets and a better and more liveable public space. For the public transport sector, the takeaway is that UVARs change the rules of the street, which directly affects how public transport performs and how people choose to travel.

Mannheim and Rome show that, whatever the restriction (parking rules, low-emission zones, access controls or 30 km/h areas), cities often face the same three pressures: public acceptance, coordination, and enforcement.

Public acceptance

Behaviour change takes time. Resistance is common in the early phases, but habits can and do shift once new rules become part of everyday routine, as cities have seen over the past 10-15 years. Ultimately, cities need to consistently communicate the "why" behind measures and support it with clear evidence of the benefits. Explaining what's in it for citizens, and how these measures improve the city for everyone, is as essential as the measures themselves.

Strong, coordinated response

These measures only work when there is structure behind them: shared responsibility across mobility and environment teams, the right technical expertise, and (where needed) coordination beyond the city level, including regional and national. Political ownership matters too - it shapes not only the pace of delivery, but also whether change is framed as proactive city-making or reluctant compliance. And restrictions are far more likely to stick when people have realistic alternatives, such as better public transport, safer walking and cycling, and clear information.

Enforcement

Rules that cannot be enforced consistently risk undermining trust and inviting non-compliance. Where capacity is stretched, cities benefit from pragmatic choices: simple, legible rules; clear signage and information; and targeted enforcement in the places and time periods where conflicts are highest. Technology can help, through access control, monitoring and calibration, but legitimacy still depends on visible fairness and the sense that rules apply to everyone.

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