



## Vehicle type

This ReVeAL building block fact sheet is one of a series of 33, each describing one Urban Vehicle Access Regulation (UVAR) building block and providing an example of its use in a city. The ReVeAL building blocks can be combined with one another to create a structured UVAR package for a city. Try out the ReVeAL online tool, [www.AccessRegulationsForYourCity.eu](http://www.AccessRegulationsForYourCity.eu), to receive suggestions of appropriate UVAR building blocks for your city as well as guidance in their implementation.

The EU-funded research and innovation project, CIVITAS ReVeAL, aims to add Urban Vehicle Access Regulations and associated policies and technologies to the standard range of urban mobility measures in cities across Europe. The project mission is to enable cities to optimise urban space and transport networks use to improve urban accessibility, sustainability, and liveability.

For more information, please visit: [www.civitas-reveal.eu](http://www.civitas-reveal.eu).

## Spatial Interventions

Spatial interventions are where the road layout has been altered to favor more sustainable mobility and prevent vehicles entering. Examples of these are removing road and parking space taken for vehicles and using the space for sustainable mobility or amenities (bus lanes, logistics hubs, parklets, restaurants and more)

### Speed reduction

#### Traffic filter:

- Recirculation of traffic
- Road block
- Capacity restraint

#### Reallocating parking space:

- Parklet
- Drop-off zone shared mobility
- Logistics bay (mini-hub)
- Kiss & Ride (K&R)

#### Reallocating road space for pedestrians:

- Widen pavement
- Pedestrian priority street or zone

#### Reallocating road space for cycling:

- Cycle lane
- Cycling street

#### Reallocating road space for public transport:

- Bus or tram priority lane

## Pricing Aspects

Pricing aspects are when the entry to an area or to the entirety of the city is given a price tag to encourage more sustainable transport. Pricing aspects also include the (differential) levels of penalty fees to encourage (and enforce) compliance.

#### Road charges / tolls:

- Charge applied to a perimeter or an area (congestion charge)
- Charge applied to specific points
- Distance-based charge
- Time-based charge
- Permit charge
- Charge based on emission standards (pollution charge)

#### Parking charge:

- Dynamic price (real time)
- Fixed price
- Charge based on emission standards (pollution charge)
- Workplace levy
- From on-street to off-street parking

## Regulatory Measures

Regulatory measures are those where there is a legal instrument that states who can and cannot enter an area. They could often also be called "bans" and include Zero Emission Zones, Low Emission Zones, and Limited Traffic Zones.

#### Regulation by emissions:

- Euro standard
- Zero-emission vehicles

#### Regulation by vehicle type and dimensions:

- Vehicle type
- Dimensions

#### Regulation by trip purpose:

- Delivery and logistics
- Through traffic ban

#### Regulation by permit:

- Permit to travel
- Parking permit
- Planning permit conditions



## Vehicle type

### Definition of the building block

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Vehicle access is regulated by vehicle type, such as heavy duty, light duty, car, van, lorry, coach, minibus, special, etc. The regulation (banning) of all vehicle types would result in a pedestrian zone.

### Timing, phasing, scaling and replication

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This building block has no-timing related issues requiring specific attention.

### Time windows

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- Allowing vehicle access at particular times of day
- Allowing vehicle access on given days of the week (e.g., weekends)
- Allowing seasonal vehicle access
- Having no time differentiated vehicle access

### Enforcement options

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- Cameras with automated number plate recognition (ANPR)
- Manual enforcement through visual inspection
- Physical barriers
- Road signs

### Gender and equity

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Consider putting in place exemptions for specially adapted vehicles, such as those for people with disabilities.

### Future considerations

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In a future with dynamic signs (and related apps), C-ITS, IMI messaging and connected vehicles, it could become easier to direct the information on vehicle type and dimension regulations directly to the specific user. With the upcoming requirement for cities to provide digitised UVAR data, information should also increasingly be available in navigation tools, helping both vehicle drivers and owners.

### Further guidance

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- Signage to communicate UVARs
- Exemptions
- Enforcement options
- Managing permits (and exemptions)
- Camera enforcement and privacy issues

## Complementary measures

### Exemptions

The types of exemptions will be different depending on the scheme type, but some examples are:

- Key exemptions for police, fire department, waste collection, etc.
- User needs exemptions, e.g. for people with disabilities with forced car dependency, taxis, classic car owners, residents, deliveries
- Exemptions for adapted vehicles (e.g., retrofitted or converted electric or hybrid vehicles)
- Limited numbers of purchased exemptions for entry (e.g., per day/month/year) to a specific zone
- Specified maximum amount of kilometre “credits” allocated to individuals or businesses

### Increased mobility options

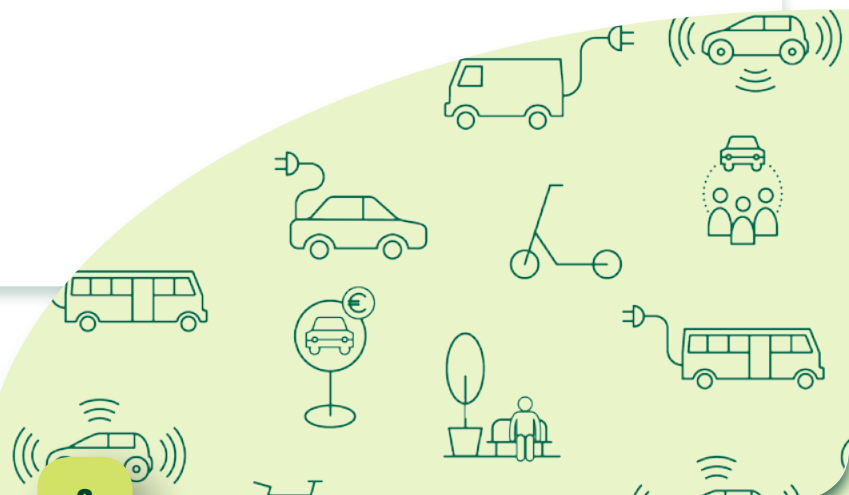
The types of increased mobility options will be different depending on the scheme type, but some examples are:

- Creation of mobility hubs
- Increasing/improving walking or cycling facilities
- Increasing/improving public transport
- Facilitating vehicle hire and/or car sharing
- Providing parking spaces in alternative locations (e.g., Park & Ride)

### Financial incentives

These will differ depending on the planned UVAR measures, but some options include:

- Financial incentives for fleet renewal, e.g., for the purchase, renting or leasing of greener vehicles (including tax exemption)
- Membership or vouchers for sustainable mobility options (e.g., public transport and shared mobility services) such as discount cards, free rides or annual passes for public transport or consolidation centres
- Monetary incentives for cycling trips (e.g., for bike-to-work) or for (e-)cycle or (e-)cargobike purchases
- Grants towards retrofits (e.g., diesel particulate filters, new engine or fuel conversion)
- Compensation for scrapping an old vehicle (either financial or through a voucher), often differentiated by emission standards, vehicle type or owner income.



## Vehicle type

Consider combining with:

### Pricing Aspects

#### Road charges/tolls:

- Charge applied to a perimeter or an area (congestion charge)
- Charge applied to specific points
- distance-based charge
- Time-based charge
- Permit charge
- Charge based on emission standards (pollution charge)

#### Parking charge:

- Dynamic price (real time)
- Fixed price
- Charge based on emission standards (pollution charge)

### Regulatory Measures

#### Regulation by emissions:

- Euro standard
- Zero-emission vehicles

#### Regulation by vehicle type and dimensions: dimensions

#### Regulation by trip purpose:

- Delivery and logistics
- Through traffic ban
- Regulation by permit: permit to travel



One access point to the low-emission zone, with signage differentiating by vehicle types (Municipality of Utrecht, n.d.).

## Vehicle type

*Example: Utrecht, the Netherlands*Description

The city of Utrecht has a low-emission zone in the city centre that differentiates between vehicle type and dimensions. The city adopted the Dutch national scheme in 2020 and plans to move to a zero-emission zone in 2025. A proposal will be made in January 2023 whether to expand the LEZ to the ring road around the city.

Enforcement methods

Automated number plate recognition (ANPR)

Time windows

In effect at all times

Phasing and upscaling

- 2020. Introduction of the national low emissions scheme
- 2021. Euro 4 diesel cars (or better) have access
- 1 January 2022. The minimum standard are: diesel lorries, public transport buses and coaches Euro 6; diesel vans and cars Euro 4; campervans > 3.5t that are built after 1 January 2001
- 2023. Possible extension of the low-emission zone to the ring road around the city
- 2025. Possible switch to a zero-emission zone

## Other building blocks put in place

Pricing Aspects

## Parking charge:

- Fixed price
- Workplace levy
- From on-street to off-street parking

Regulatory Measures

Regulation by emission: EURO standard

Regulation by vehicle type and dimensions: Dimensions

## Regulation by trip purpose:

- Delivery and logistics
- Through traffic ban

Regulation by permit: Permit to travel

## Complementary measures

### Exemptions

- Day exemptions for trucks/buses/vans
- 6 days/year for delivery vans
- 12 days/year for lorries
- 2-year exemption for buses with emission class 4 or 5
- Cars modified for medical reasons
- Camper vans of LEZ residents.
- Classic cars (40 years and older)
- Vehicles that are wheelchair accessible.

Special situations: Vehicle owners in financial need or in extraordinary situations

Special vehicles, registered not earlier than 2009:

- Crane truck and mobile crane
- Aerial platform
- Concrete mixer or concrete pump
- Fire truck
- Cart for retail/exhibition purposes
- City cleaning
- Army vehicles

Special vehicles, registered after 2009:

- Fairground and circus trucks
- Tractors with 4 or more axles
- Moving vans
- Trucks with a >35 tonne meters loading crane

### Increased mobility options

Park & Ride outside the low-emission zone, equipped with OV-fiets racks (bike service operated by the Dutch Railways) and next to stops of bus and tram

### Financial incentives

- Until June 30, 2022, residents and entrepreneurs in Utrecht and in the neighbouring municipalities could apply for a subsidy offered by the city for scrapping their vehicles of Euro 3 class or lower. The subsidy could be used for a public transport subscription, shared mobility options, a cleaner car, or an electric bicycle. The national government offers a subsidy until 31 December 2025 to entrepreneurs who switch to a new clean company car.
- Favourable tax schemes that make investing in a clean company car cheaper.

### References

Gemeente Utrecht. (n.d.). *Environmental zone*. Retrieved May 26, 2022, from <https://www.utrecht.nl/wonen-en-leven/gezonde-lee-fomgeving/luchtkwaliteit/milieu-zone/>

Sadler Consultants Europe GmbH (2022). *Utrecht - Low Emissions Zone*. <https://urbanaccessregulations.eu/countries-mainmenu-147/netherlands-mainmenu-88/utrecht>

