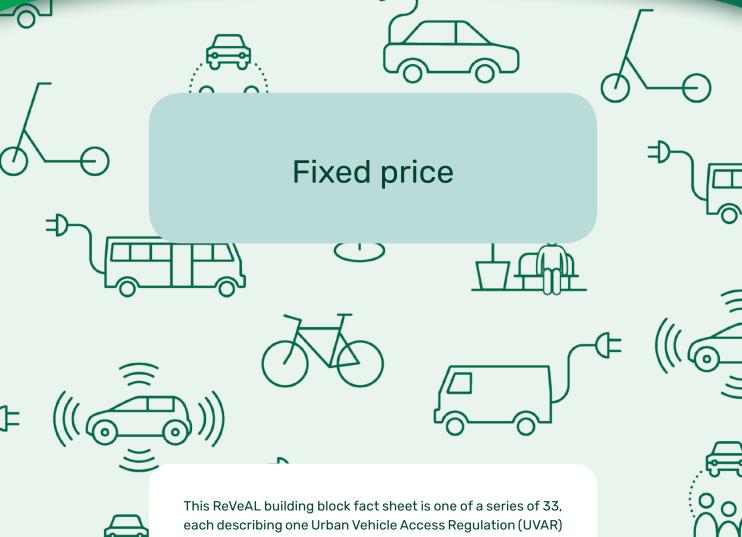


UVAR building blocks Pricing Aspects







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, 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.





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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





Definition of the building block

Vehicles are charged to occupy parking spaces. Prices are fixed according to the area of the city and/or time of the day.

Timing, phasing, scaling and replication

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

Time windows

- Allowing vehicle access at particular times of day
- Allowing vehicle access on given days of the week (e.g., weekends)
- Allowing seasonal vehicle access

Enforcement options

- Cameras with automated number plate recognition (ANPR)
- Manual enforcement through visual inspection
- Physical barriers
- Radio frequency identification (RFID)
- Dedicated short-range communication (DSRC)
- Geofencing

Gender and equity

Consider an allocation of free parking spaces for people with disabilities

Future considerations

In a future with dynamic signs (and related apps), it would be possible to more easily communicate these dynamic prices directly to the specific user, thereby making the pricing more transparent.

Further guidance

- Communicating the aim of the scheme
- Complementary sustainable mobility measures
- Exemptions
- Transparency
- Enforcement options

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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)

Consider combining with:

Pricing Aspects

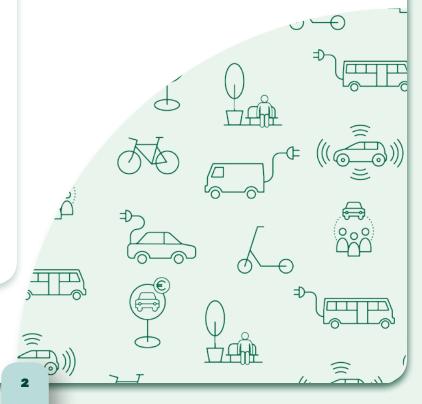
Parking charge: From on-street to off-street parking

Regulatory Measures

Regulation by vehicle type and dimensions:

- Vehicle type
- Dimensions

Regulation by permit: Parking permit





Example: The Hague, the Netherlands

Description

Paid on-street and garage parking in The Hague is charged at a fixed rate. It can be paid online or at parking machines, and motorists must enter their license plate number so that payment can be verified. Residents can obtain a visitor's parking permit, which entitles them to a credit of parking hours per year, and their visitors park for free. Companies in areas with parking regulations are eligible for business permits on the condition that the company does not own, buy, or rent any private parking space.

The introduction of parking regulations as well as limiting the provision of parking permits are considered in those areas where (traffic) safety and quality of life are at stake due to parking pressure.

Enforcement methods

- Registration of plate number
- Scan vehicles

Time windows

Parking charging is in place:

- Monday to Saturday from 9:00 to 00:00
- Sunday from 13:00 to 00:00
- In some streets: Saturday and Sunday morning from 9:00 to 2:00.

In some streets, there is a maximum stay of 120 or 240 minutes.

Phasing and upscaling

Since 2011 the extension of paid parking has been combined with a permit system and the addition, where possible, of new parking spaces. In new development areas (such as Binckhorst and Southwest) where parking pressure is expected to grow, the municipal Executive Board may decide to introduce or expand parking regulations. Project developers will also be encouraged to include arrangements for shared mobility in their plans.



Paid on-street parking (Gemeente Den Haag, 2021).

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Fixed price

Other building blocks put in place

Spatial Interventions

Reallocating parking space: Parklet

Reallocating road space for pedestrians: Pedestrian priority street or zone

Reallocating road space for cycling:Cycle laneCycling street

Reallocating road space for public transport: Bus or tram priority lane

Pricing Aspects

Parking charge:

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

Regulatory Measures

Regulation by emissions: EURO standard

Regulation by vehicle type and dimensions:

- Vehicle type
- Dimensions

Regulation by trip purpose: Through traffic ban

Regulation by permit:

- Parking permit
- Planning permit conditions

Complementary measures

Exemptions

- Motorcycles
- Microcars for people with disabilities
- Visitors and caregivers of residents with a permit
- Visitors of companies who have a permit

Increased mobility options

- Parking facilities
- Park & Ride with connections with public transport
- Park & Ride + bike sharing and rental



The underwater automatic parking garage in The Hague (Gemeente Den Haag, 2021).



Fixed price

The Hague, the Netherlands



Additional information

Motorists entering the city can choose to follow one of four parking routes leading from the city ring road to the closest parking garage(s).

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