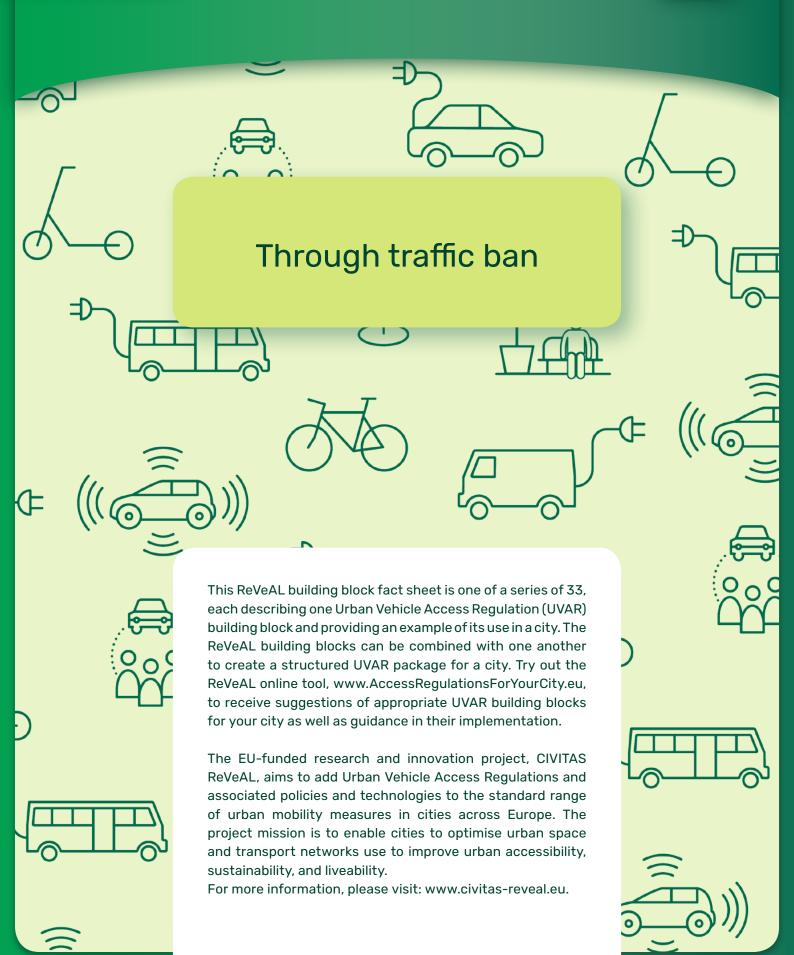


UVAR building blocks **Regulatory Measures** 







# **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,

Regulation by emissions:

Limited Traffic Zones.

Low Emission Zones, and

- 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

Vehicle access is regulated for through traffic (e.g., 'access only' road signs to prevent through traffic). This enables a scheme to focus on inclusion (e.g., of residents) or exclusion (e.g., of through traffic) of certain vehicle uses. The rules can allow access during time windows or they may be in effect 24/7. Many smaller cities and individual streets in many cities do this by use of a road sign only.

# 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)
- Having no time differentiated vehicle access

# **Enforcement options**

- Cameras with automated number plate recognition (ANPR)
- Manual enforcement through visual inspection
- · Physical barriers
- · Radio frequency identification (RFID)
- Road signs

#### Gender and equity

There are no specific concerns to be aware of.

#### **Future considerations**

No specific effects are foreseen for this building block from future technologies. drivers and owners.

### Further guidance

- · Signage to communicate UVARs
- Exemptions
- Exemptions and permits in limited traffic zones
- Enforcement options
- 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

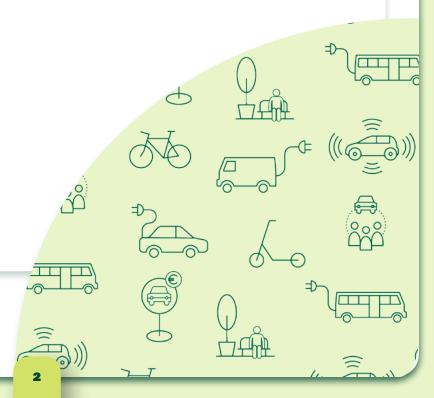
The types of increased mobility options will be different depending on the scheme type, but some examples are:

- · 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.





# Consider combining with:

# **Spatial Interventions**

#### Traffic filter:

- · Recirculation of traffic
- Road block

Reallocating road space for pedestrians:

- Widen pavement
- Pedestrian priority street or zone

Reallocating road space for cycling: Cycle lane

# **Pricing Aspects**

Road charges/tolls: Charge applied to a specific points

# Regulatory Measures

Regulation by emission: Zero-emission vehicles

Regulation by vehicle type and dimensions:

- Vehicle type
- Dimensions

Regulation by trip purpose: Delivery and logistics

A through traffic ban is often combined with traffic filters to restrict through traffic.



The EU road sign for a throug traffic ban for lorries. (Green-Zones.Eu, n.d.).



# Example: Cologne, Germany

# Description

Since 2019, there has been a through-traffic ban for lorries in the city centre of Cologne. Heavy goods vehicles of over 7.5t maximum permitted weight as well as trucks with trailers are not permitted to transit through the city centre and the districts of Deutz and Mülheim. This measure is directly linked to the local Clean Air Plan and the national scheme of environmental stickers and lowemission zones.

#### **Enforcement methods**

Law enforcement officers

#### Time windows

In effect at all times

#### Phasing and upscaling

The ban was introduced in 2019

# Other building blocks put in place

# **Regulatory Measures**

Regulation by emission: EURO standard

Regulation by vehicle type and dimensions: Vehicle type

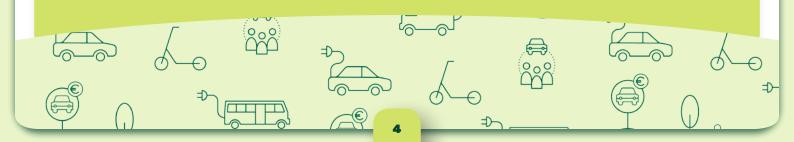
Regulation by trip purpose: Delivery and logistics

Regulation by permit: Permit to travel

# Complementary measures

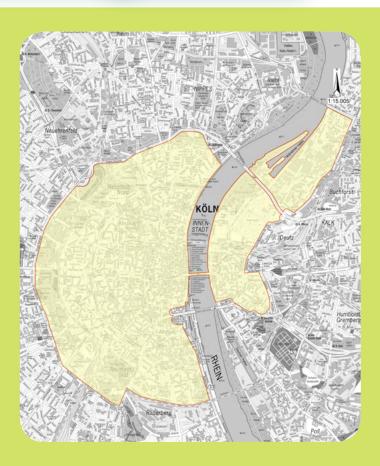
# Exemptions

- Lorries that meet the Euro 6 standard or better and can prove with freight documents that either the destination or the place of departure is the Niehler Port
- · Emergency services
- Military vehicles





Cologne, Germany



On the left, the extent of the area regulated by the through traffic ban in Cologne (Stadt Köln, 2019)

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