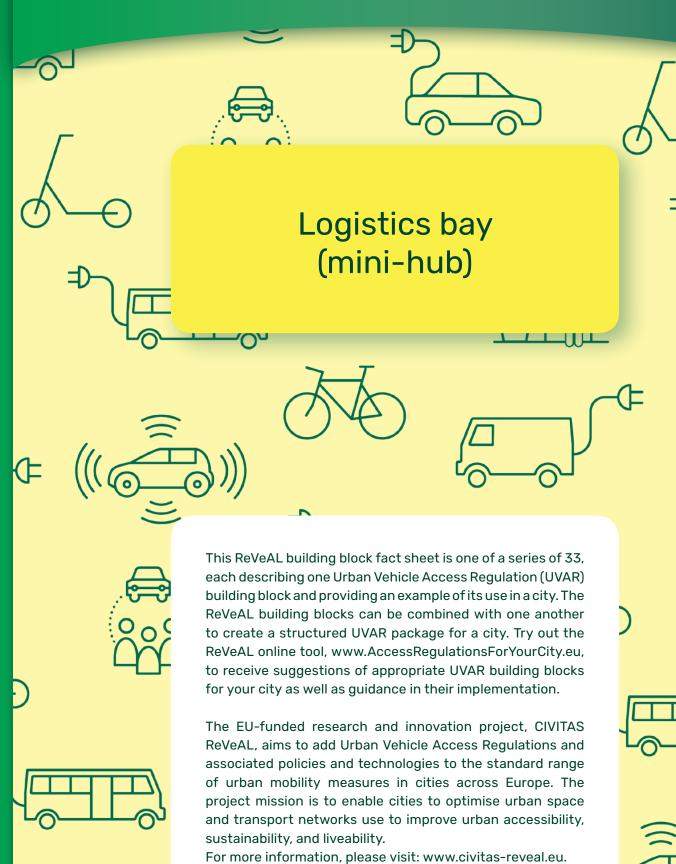


UVAR building blocks **Spatial Interventions**









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

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





Logistics bay (mini-hub)

Definition of the building block

Parking space is converted to a designated parking space for logistics.

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

- Manual enforcement through visual inspection
- · Road sign

Complementary measures

Organisational support

A city can support which shared mobility systems are implemented (and in which way; uniformity, infrastructure, ...) and they can support the dialogue between stakeholders (e.g., citizens, companies, providers, etc.).

Gender and equity

Be aware of the needs of people with disabilities. Individual special arrangements may be needed.

Future considerations

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

Further guidance

- · Communicating the aim of the scheme
- · Enforcement options
- · Fairness and equity

Consider combining with:

Pricing Aspects

Road charges/tolls:

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

Regulatory Measures

Regulation by trip purpose: Delivery and logistics



Logistics bay (mini-hub)

Example: Urban-BRE, Bremen, Germany

Description

Bremen implemented its first environmental loading point for last-mile deliveries in the city centre in 2007. The current system of micro-hubs consists of containers of roughly 3x3x4 meters placed on dedicated space which has been reallocated from car parking, and special e-cargo bikes.

Freight transport is bundled at the logistic centre outside the city centre: from there, goods are distributed to the businesses in the city centre using cargo bikes. These special cargo bikes have custom frames that facilitate loading and unloading. Each cargo bike run can move up to 180 kg, allowing for deliveries to restaurants or retailers.

Enforcement methods

No information available

Time windows

No time differentiation for access

Phasing and upscaling

 2007. Bremen's first environmental loading spot (Umweltladepunkt) offered a reserved loading point for the city centre to vehicles meeting the standard EEV (enhanced environmental vehicle). Hand trailers were used for the last mile in the pedestrianised city centre.

2021:

- The first mini-hub was placed on the location of the former environmental loading zone in the inner city (Jakobikirchhof)
- The second mini-hub was created in an on-street parking space belonging to the city-owned parking management company, BREPARK. It is located in a neighbourhood with narrow streets close to the city centre.
- All delivery operators have their own cargo bikes for delivery.

2022:

- The second location will be increased in size to accommodate a 7.5t container.
- A third mini-hub is planned next to the freight train terminal (Güterbahnhof), in the northern part of the inner city.

Other building blocks put in place

Spatial Interventions

Reallocating parking space: Drop-off zone shared mobility

Regulatory Measures

Regulation by emissions: EURO standard



Logistics bay (mini-hub)

Urban-BRE, Bremen, Germany



The container and the e-cargo bike used in the Urban-BRE (ULaaDS, 2021)

Additional information

The project started with a series of informal conversations with the German postal service.

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