Climate Action: Urban Zero Emission Zones, ReVeALing the best way forward

Lucy Sadler, Sadler Consultants
Urbanism Next 11 June 2021

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 815069.
ReVeAL 20-second Project Summary

UVAR pilots in 6 cities
(Bielefeld, Helmond, Padua, London, Vitoria-Gasteiz, Jerusalem)

8 Case studies

UVAR Development Process produced & piloted – aligned to SUMP process

UVAR Toolkit developed, including

Guidance Notes on various UVAR aspects
UVAR Building Blocks to combine to produce a tailored UVAR
UVAR Development Process

Aim: To put advice to our pilot cities into a form for others to use
Ensuring Compliance

Building Blocks

Cross-Cutting Themes

- Mobility concepts
- User needs / acceptance
- Governance and financing

Measure Fields

- Zero-emission zones
- Spatial interventions
- Pricing measures
- Future options

Additional Complementary measures

Lucy Sadler, ReVeAL
Ensuring Compliance

Cross-Cutting Themes:
- Mobility concepts
- User needs/acceptance
- Governance and financing

Measure Fields:
- Zero-emission zones
- Spatial interventions
- Pricing measures
- Future options

Additional Complementary measures
**Spatial Interventions**
1. School street
2. Cycling street
3. Traffic filter
4. Removing parking/road
5. Cycle lane
6. Pedestrian street
7. Bus/tram priority lane
8. Woonerf

**Pricing measures**
9. Congestion charge
10. Pollution charge
11. Parking charge
12. Traffic flow management
13. Urban logistics charge

**Pathways to ZEZ/LTZ**
14. Regulation by emissions
15. Regulation by vehicle type/dimension
16. Regulation by trip purpose
17. Scheme timescale
18. Regulation by permit
19. Regulation by other

**Future options**
20. Enablers
21. Indirect UVAR
22. Promoting alternatives

**Complementary measures**
23. Financial incentives
24. Exemptions
25. Increased mobility options
26. Individual solutions

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### Pathways to ZEZ/LTZ

14. Regulation by emissions
15. Regulation by vehicle type/dimension
16. Regulation by trip purpose
17. Scheme timescale
18. Regulation by permit
19. Regulation by other

#### 14. Regulation by emissions

- Vehicle type
- HDV/LDV
- Vehicle weight
- Vehicle length

#### 15. Regulation by vehicle type/dimension

- Delivery
- Residents and specific users

#### 16. Regulation by trip purpose

- Permit to travel
- Car park or ownership permit
- Permit to build car park space

#### 17. Scheme timescale

- Programmed time window
- Reactive operation
- Phasing

#### 18. Regulation by permit

- Load factor
- Vehicle safety features
- Company size
- Removing road space

#### 19. Regulation by other
ReVeAL UVAR Recipe

Choose the relevant Building Blocks
With the Cross-Cutting Themes
Add complementary measures to make it possible

To get an UVAR that works for your city meeting the city’s goals

ReVeAL UVAR Development Process is under Development!
ReVeAL Toolkit: UVAR Development Process

Is under development....

Watch out for the UVAR Development Toolkit when it comes!  

www.civitas-reveal.eu

Important:

Co-creation

Involve (internal/external) stakeholders

Several iterations

The BBs open up other options
## Building Blocks chosen by our 6 cities

<table>
<thead>
<tr>
<th>Building block category</th>
<th>Bielefeld</th>
<th>Helmond</th>
<th>Jerusalem</th>
<th>London</th>
<th>Padua</th>
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Existing (E), planned (P) and considered (C) UVAR measures in the six ReVeAL pilot cities
3 ReVeAL cities with Zero Emission Zones
5 cities emissions aspects in UVARs

Helmond

London /City of London

Jerusalem
Two ways to Zero Emission Zones

Remove the Vehicles

Remove the Combustion Engine

Pictures: City of London, Sadler, Pixabay, bike-eu.com, Strasbourg city
ReVeAL

Two ways to remove the vehicles

Spatial interventions: physical changes to the roads to prevent access/use

Limited Traffic Zone: banning entry, penalties for infringement, requirements to enter

(Pricing out the engines)

Pictures: Oslo city, Gent Databank Publieke Ruimte, Sadler
Even the most ‘extreme UVAR’; a pedestrian zone; may need street cleaning vehicles, large deliveries etc

1) Reduce the vehicles
2) The see that the vehicles that need to enter are zero emission

Best case: often combination of both

Pictures: Sadler, City of London, Gent city

ZEV refuse collecting vehicles
ReVeAL pilot, City of London Zero Emission Zone

Problems, at peak pedestrian/commuting times:

- **Traffic flows**
- **Emission & pollution levels**
- **Loading activity**

  - More space and ease of movement for people walking
  - Fewer vehicles.
  - Better air quality
  - Maintaining essential access to buildings

90% of on-street journeys that start or finish in the City are entirely or partially walked, including walking to and from public transport.
ReVeAL presentation

Actions in place so far
- Restrict motor vehicle access
- Supporting measures

Actions planned / considered to be phased in
- Those vehicles allowed in require ZEZ
- Geofencing

- Started out wanting a ZEZ
- Realised that first need to reduce the number of vehicles
- More pedestrian etc space
- Then require those allowed to be Zero Emission

Pictures: City of London
One way streets and point closures on key roads allow to control the zone reduce traffic & congestion, improve flow.

Combining bans with bollards = Spatial Interventions

Also used spatial interventions to achieve a better goal.

Pictures: City of London & Pixabay
• Geofencing with Intelligent Speed Assistance (ISA, trialled in ReVeAL) to limit speed
• Geofencing for automatic switch to electric mode for plug-in-hybrid vehicles at zone boundary
• Trial geofencing for e-scooters to ensure they are parked in designated bays

First two voluntary to start, as current powers do not enable geofencing enforcement
ReVeAL Guidance on Geofencing & UVARs

www.civitas-reveal.eu/resources-overview/publications/guidances

ReVeAL Webinar on Ensuring Compliance with ISA presentation

Webinar recording available from Monday

www.civitas-reveal.eu/events/ensuring-compliance

ISA report will follow in few weeks

Watch reveal website

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<th>ReVeAL Guidance Document Topic</th>
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<td>1 Governance and finance</td>
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<tr>
<td>2 Mobility concepts</td>
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<td>3 Ensuring Compliance</td>
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<td>4 User needs and public acceptance of UVARs</td>
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<td>5 Data and monitoring</td>
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<td>6 Geofencing</td>
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<td>7 Permits and exemptions</td>
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<td>8 Stakeholder involvement</td>
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<td>9 Communication, awareness raising (incl. digitising UVARs)</td>
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<td>10 Privacy and Camera enforcement and privacy issues</td>
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<td>12 General – What to think about when planning an UVAR?</td>
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www.civitas-reveal.eu/resources-overview/publications/guidances
Cross-cutting Theme Webinars every Tuesday in June at 16:00 CET
(UVAR Development ReVeALed 18 May)

Presentations & Recordings on the ReVeAL website from Monday

www.civitas-reveal.eu/webinar/join-us-online-reveal-spring-webinars-are-here/
Thank you for your attention

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www.UVARBox.eu
Digitising UVAR = Navigation tools (=compliance) & ITS

www.civitas-reveal.eu

www.urbanaccessregulations.eu

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