



Regulating Vehicle Access
for improved Livability

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

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Urbanism Next 11 June 2021



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UVAR pilots in 6 cities

(Bielefeld, Helmond, Padua, London, Vitoria-Gasteiz, Jerusalem)

8 Case studies



8 exemplary 'best' practice case studies: Barcelona (Ajutament de Barcelona), Ghent (city of Ghent), Mechelen (ReScape), Milan (ETSC), London (The Telegraph), La Rochelle (city of La Rochelle), Bologna (Parkimeter), Amsterdam (city of Amsterdam)
More information: ReVeAL website (<https://civitas-reveal.eu>) or Urban Access Regulations website (<https://urbanaccessregulations.eu/>)

UVAR Development Process produced & piloted – aligned to SUMP process

UVAR Toolkit developed, including

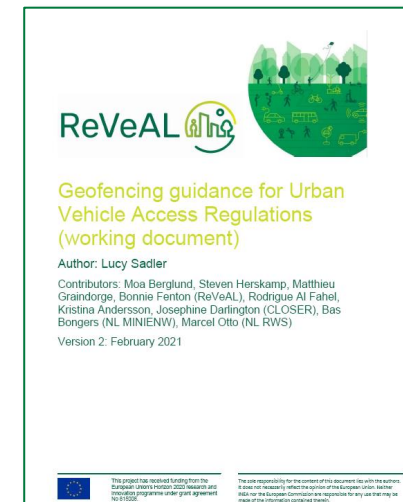
Guidance Notes on various UVAR aspects

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





Measure Fields



Zero-emission zones



Spatial interventions



Pricing measures



Future options

Cross-Cutting Themes



Mobility concepts



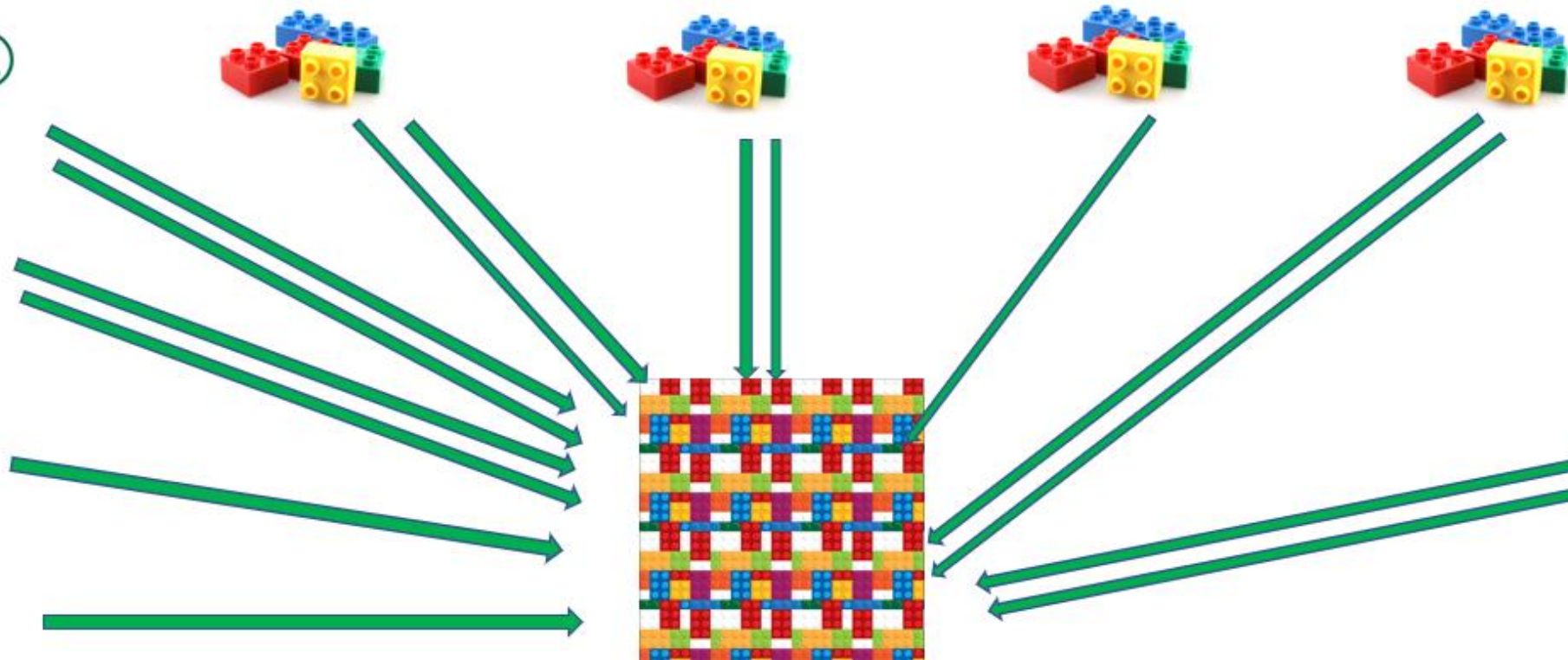
User needs / acceptance



Governance and financing



Ensuring Compliance



Additional Complementary measures



Measure Fields



Cross-Cutting Themes



Mobility concepts



User needs / acceptance



Governance and financing



Ensuring Compliance



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

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

15. Regulation by vehicle type/dimension

- a. Vehicle type
- b. HDV/LDV
- c. Vehicle weight
- d. Vehicle length

16. Regulation by trip purpose

- a. Delivery
- b. Residents and specific users

17. Scheme timescale

- a. Programmed time window
- b. Reactive operation
- c. Phasing

18. Regulation by permit

- a. Permit to travel
- b. Car park or ownership permit
- c. Permit to build car park space

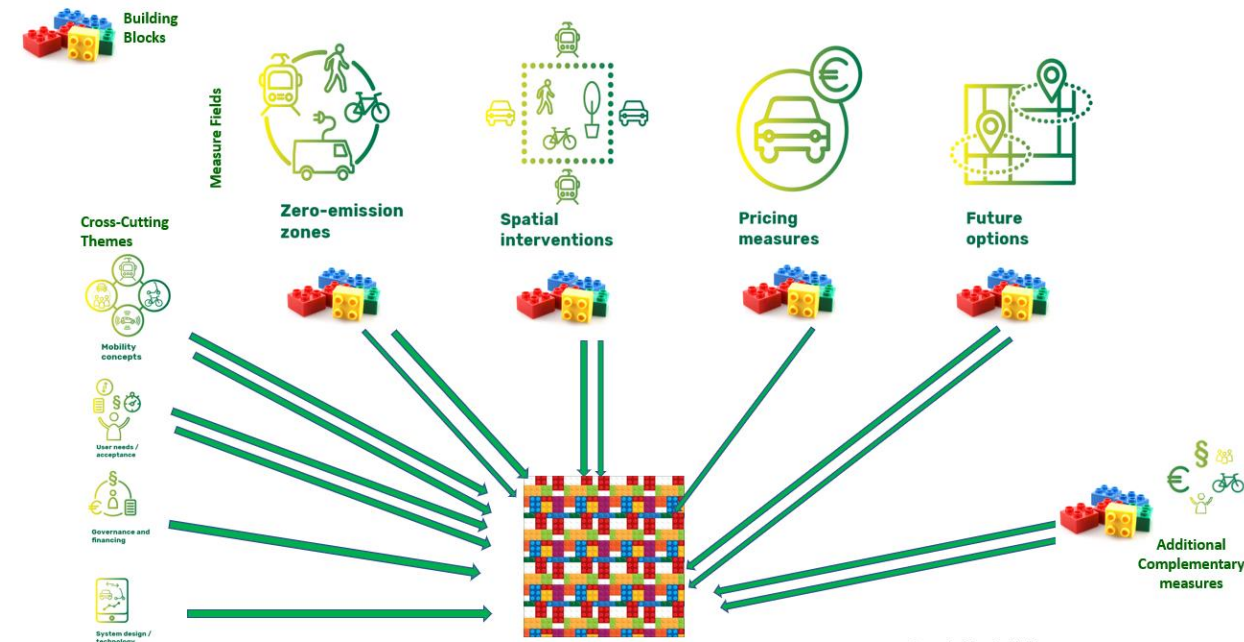
19. Regulation by other

- a. Load factor
- b. Vehicle safety features
- c. Company size
- d. Removing road space

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

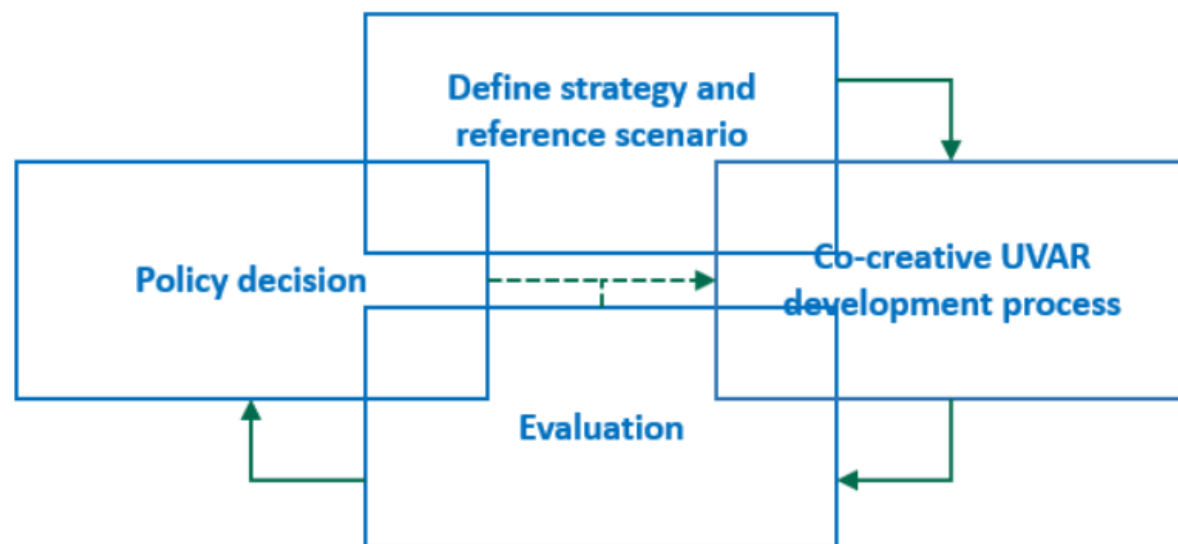
ReVeAL UVAR Development Process
is under Development !



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



		Pilot city					
Building block category		Bielefeld	Helmond	Jerusalem	London	Padua	Vitoria-Gasteiz
Spatial interventions	School street	E		P	E	E/P	E/C
	Cycling street	E/C	E/C	P	E/P	P	
	Traffic filter	P/C	E/P/C	E	E/P	E/P	E/P
	Removing parking/road	C	C		E/P	E/P	E/C
	Cycle lane	C		E	E	E/P	E
	Pedestrian street	E	P	E	E/P	E	E
	Bus/tram priority lane	E/P		E/P	E	E/P	E
	Woonerf		E				P
Pricing measures	Congestion charge				E		
	Pollution charge			E/P	E		
	Parking charge				E	E/P	E
	Traffic flow management						
	Urban logistics charge						
Pathways to ZEZ/LTZ	Regulation by emissions		P	E/P	E/P	P	
	Regulation by vehicle type			P	E/P	C	
	Regulation by trip purpose	C	P		E/P	E/P	E
	Scheme timescale			P	E	E	E
	Regulation by permit	C	P		E	C	E
	Regulation by other				E	C	E/P
Future options	Enablers		C	P	C	P/C	
	Indirect UVAR		C	E/C	E/C	P	C
	Promote alternatives	P	C	E/C	E/C	E/P	

Existing (E), planned (P) and considered (C) UVAR measures in the six ReVeAL pilot cities

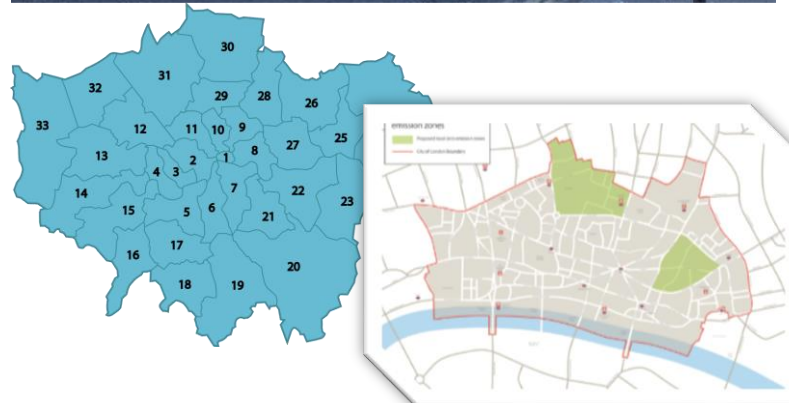


3 ReVeAL cities with Zero Emission Zones 5 cities emissions aspects in UVARs

Helmond



London /City of London

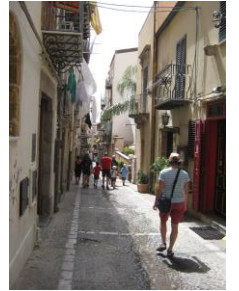
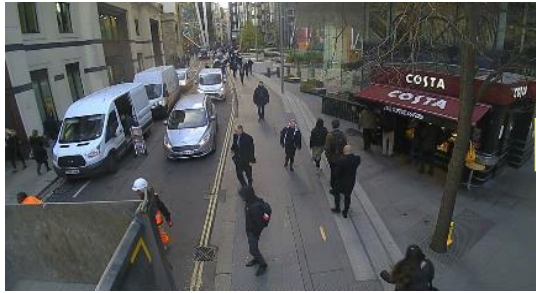


Jerusalem

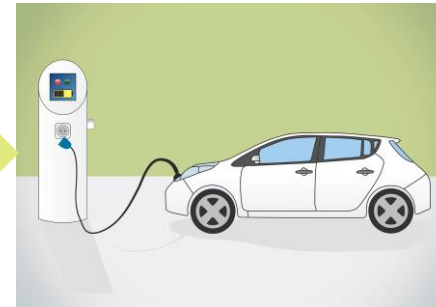
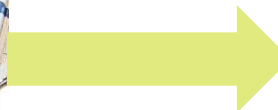


Two ways to Zero Emission Zones

Remove the Vehicles



Remove the Combustion Engine



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)

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



ZEV refuse collecting vehicles



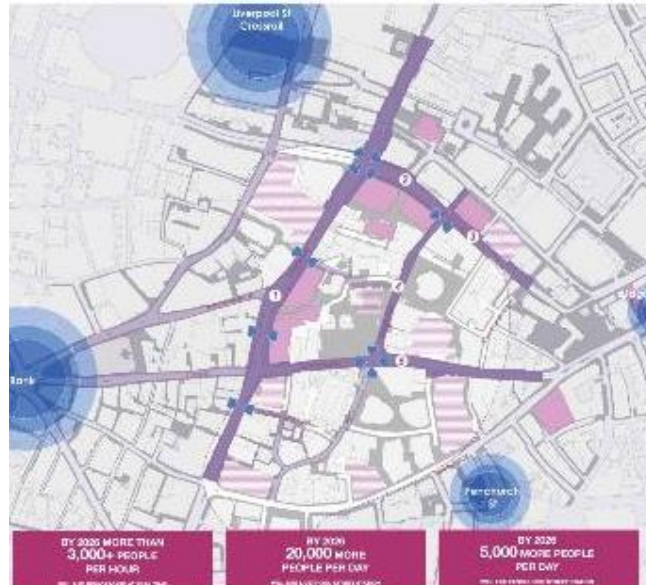
ReVeAL pilot, City of London Zero Emission Zone

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



Pictures: City of London



Actions in place so far

- Restrict motor vehicle access
- Supporting measures

Actions planned / considered to be phased in

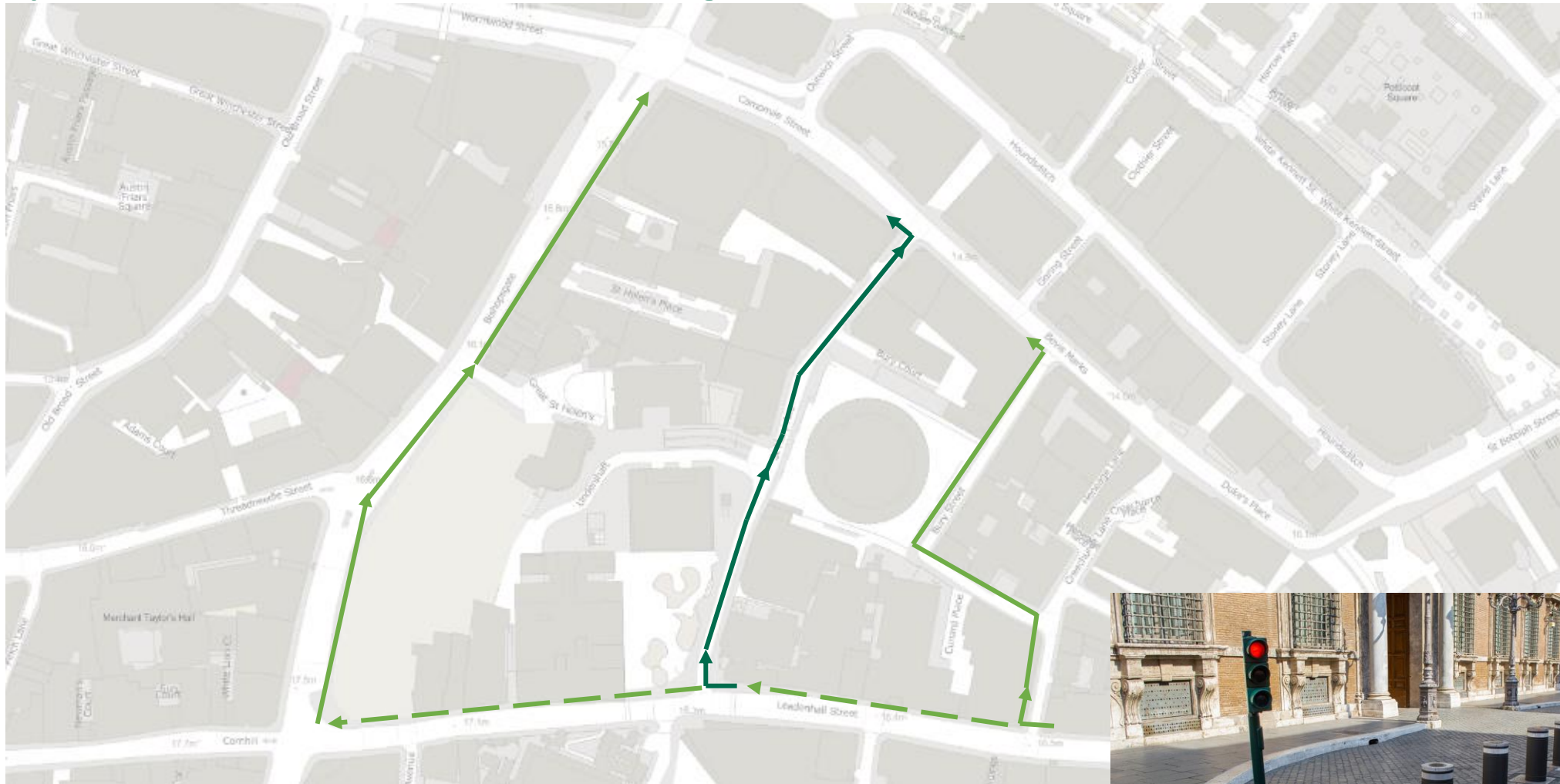
- Those vehicles allowed in require ZEZ
- Geofencing



- 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

Combining bans with bollards = Spatial Interventions

Also used spatial interventions to achieve a better goal



One way streets and point closures on key roads allow to control the zone
reduce traffic & congestion, improve flow



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

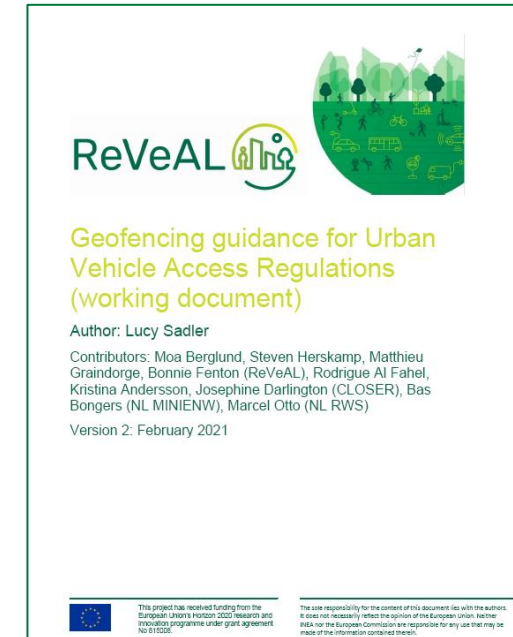




Geofencing Guidance & ISA Talk

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

www.civitas-reveal.eu/news-events/news/

V-tron Intelligent Speed Assistance (ISA) System

- ISA either prevents speeding or warns when speeding
- ISA will be required soon on new vehicles
- Uses data from a smart camera and a digital HD map



	ReVeAL Guidance Document Topic	Status
1	Governance and finance	Published
2	Mobility concepts	Published
3	Ensuring Compliance	Published
4	User needs and public acceptance of UVARs	Published
5	Data and monitoring	Expected Autumn 2021
6	Geofencing	Published
7	Permits and exemptions	Published
8	Stakeholder involvement	Expected Autumn 2021
9	Communication, awareness raising (incl. digitising UVARs)	Expected Autumn 2021
10	Privacy and Camera enforcement and privacy issues	Expected Autumn 2021
11	Foreign vehicle enforcement	Expected Autumn 2021
12	General – What to think about when planning an UVAR?	Expected Autumn 2021
13	UVAR Development Process	Expected Autumn 2021



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

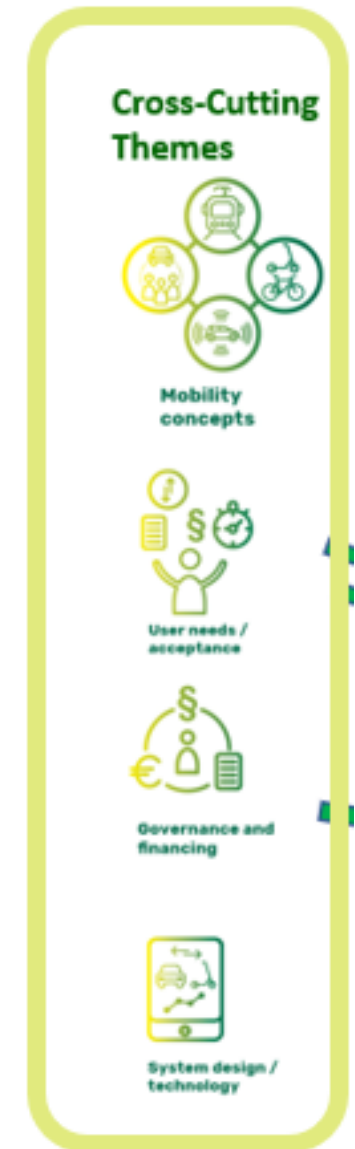
www.civitas-reveal.eu/webinar/join-us-online-reveal-spring-webinars-are-here/

Join the ReVeAL Webinars

From May 18 onwards - all the way, until Summer 2021!



ReVeAL Webinars





Thank you for your attention



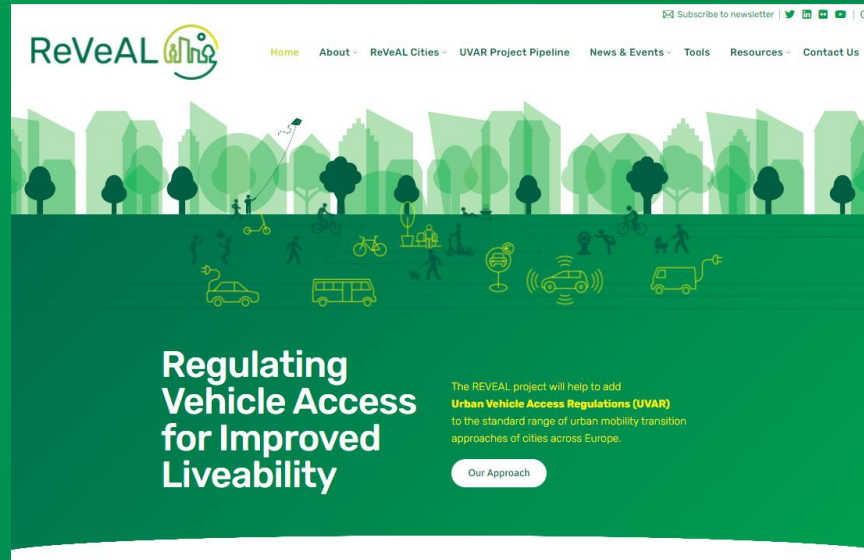
www.UvarBox.eu

Digitising Uvar = Navigation tools (=compliance) & ITS

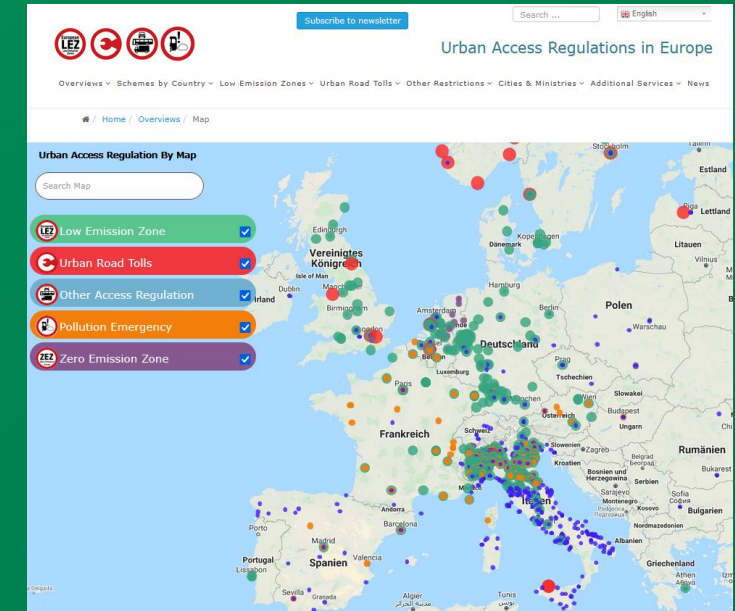
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