



## 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

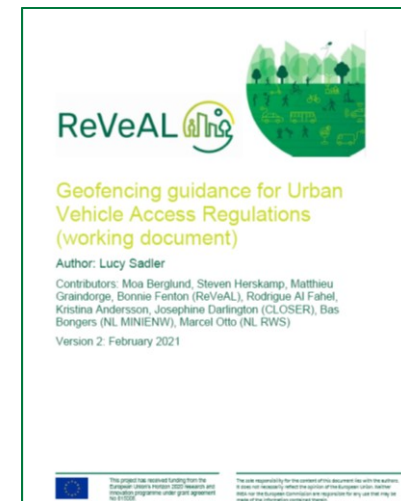
Guidance Notes on various UVAR aspects

UVAR Building Blocks to combine to produce a tailored UVAR

UVAR Development Process

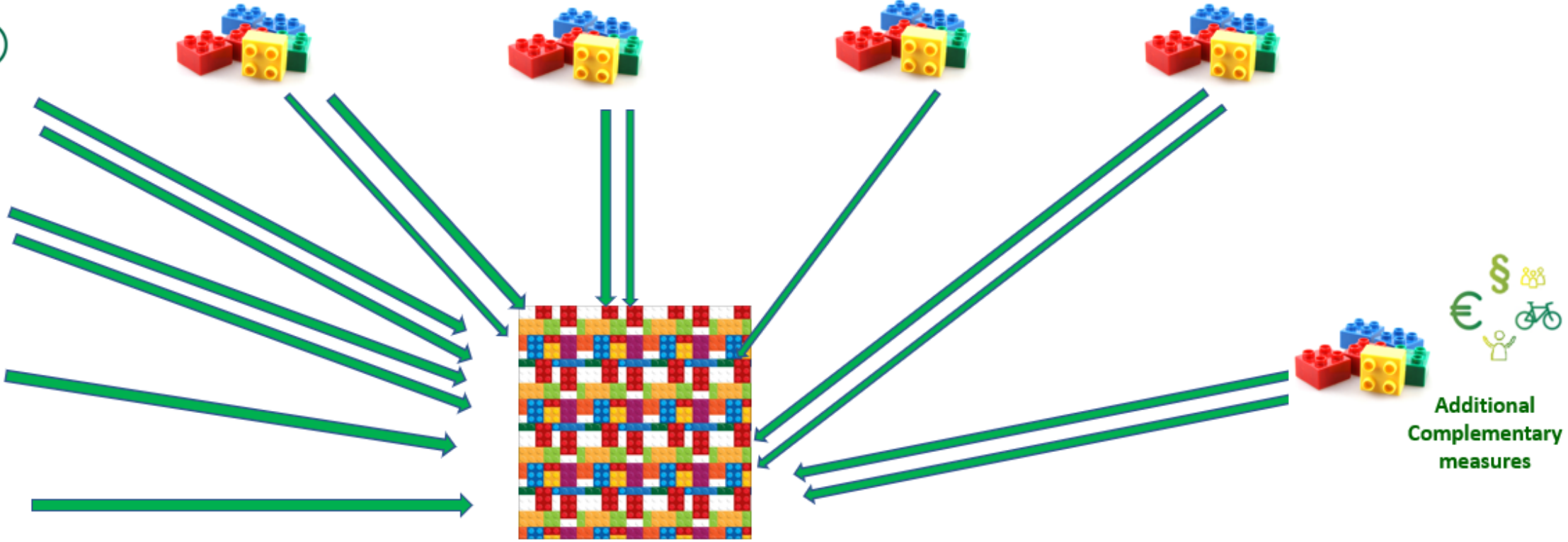
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Aim: To put advice to our pilot cities into a form for others to use





**Cross-Cutting Themes**





Measure Fields



**Cross-Cutting Themes**



Mobility concepts



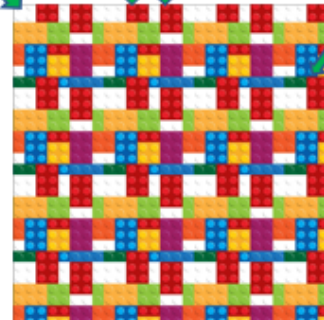
User needs / acceptance



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
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### 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

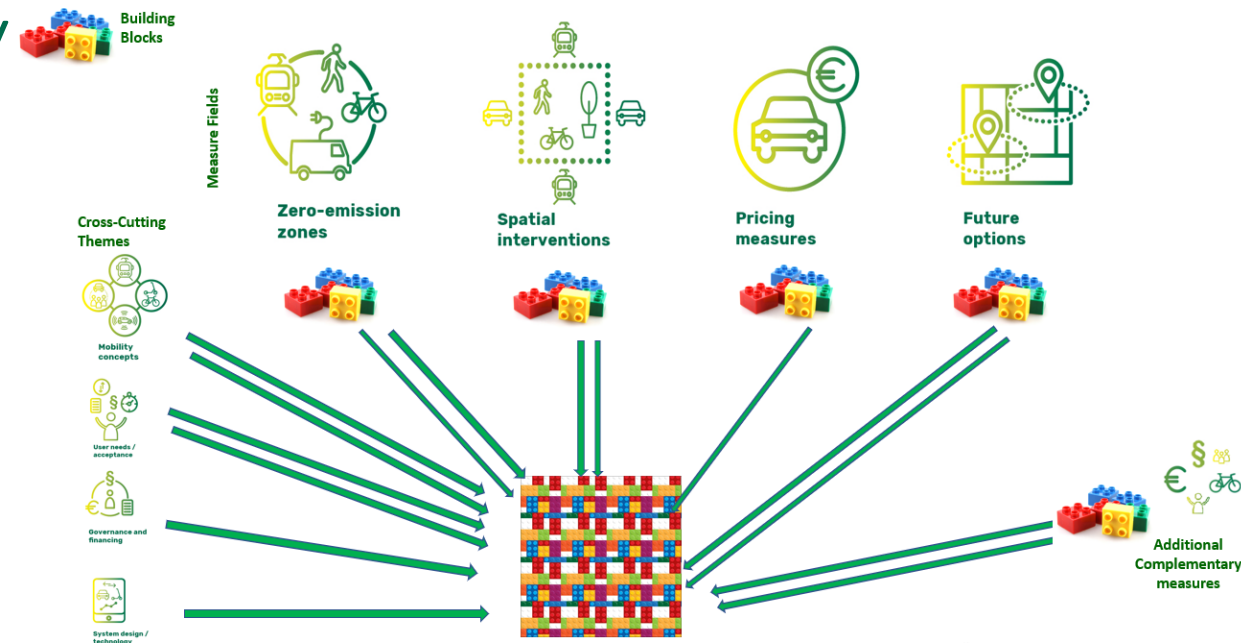
### 19. Regulation by other

- 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

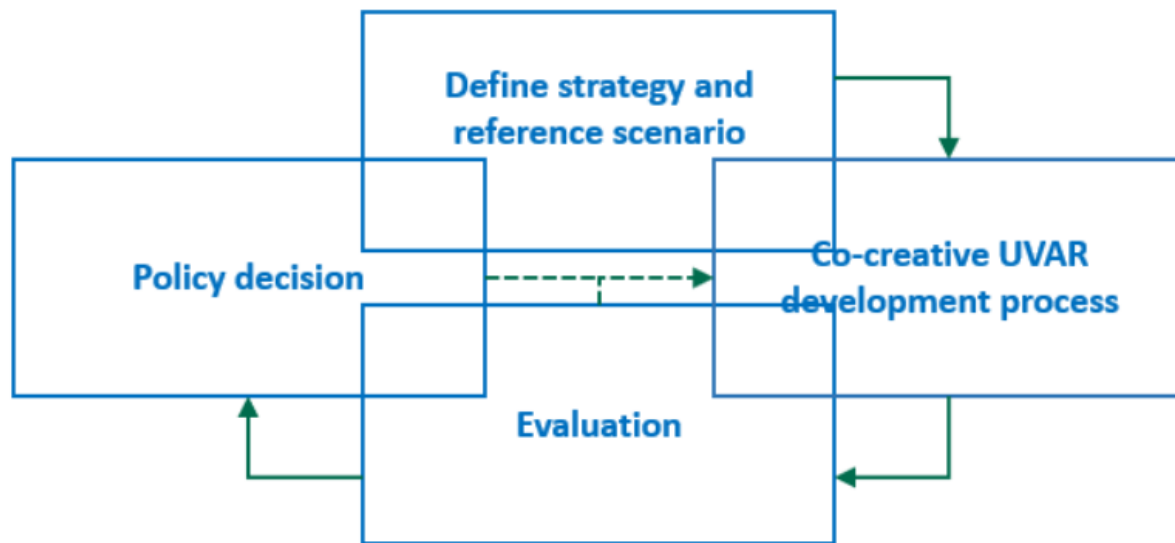
To get an UVAR that works for your city  
meeting the city's goals

ReVeAL UVAR Development Process  
is under Development !



Is under development....

Watch out for the UVAR Development Toolkit when it comes! [www.civitas-reveal.eu](http://www.civitas-reveal.eu)



**Important:**

Co-creation

Involve (internal/external) stakeholders

Several iterations

The BBs open up other options



Building block category		Pilot city					
		Bielefeld	Helmond	Jerusalem	London	Padua	Vitoria-Gasteiz
<b>Spatial interventions</b>	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
	<b>Pricing measures</b>	Congestion charge				E	
Pollution charge				E/P	E		
Parking charge					E	E/P	E
Traffic flow management							
Urban logistics charge							
<b>Pathways to ZEZ/LTZ</b>	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
<b>Future options</b>	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

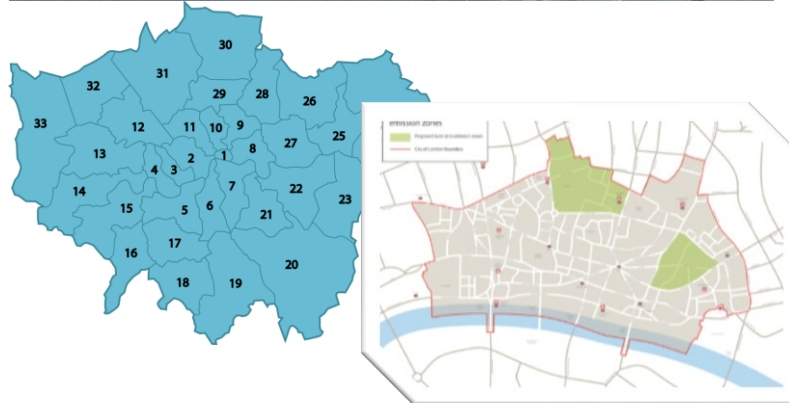


## 3 ReVeAL cities with Zero Emission Zones 5 cities emissions aspects in UVARs

### Helmond



### London /City of London

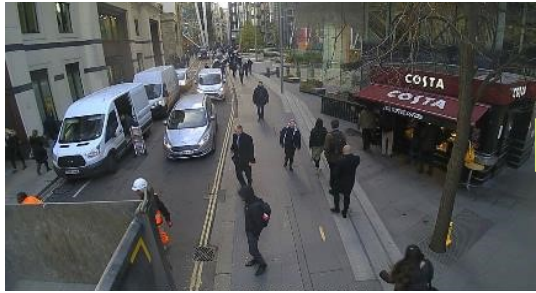


### Jerusalem

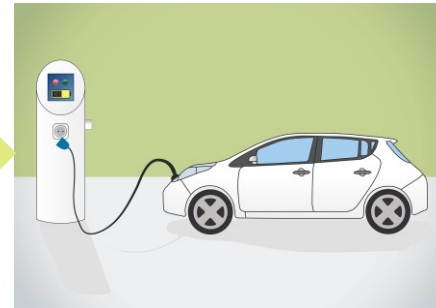


## Two ways to Zero Emission Zones

### 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



# 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

# ReVeAL

## Actions in place so far

- Restrict motor vehicle access
- Supporting measures

## Actions planned / considered to be phased in

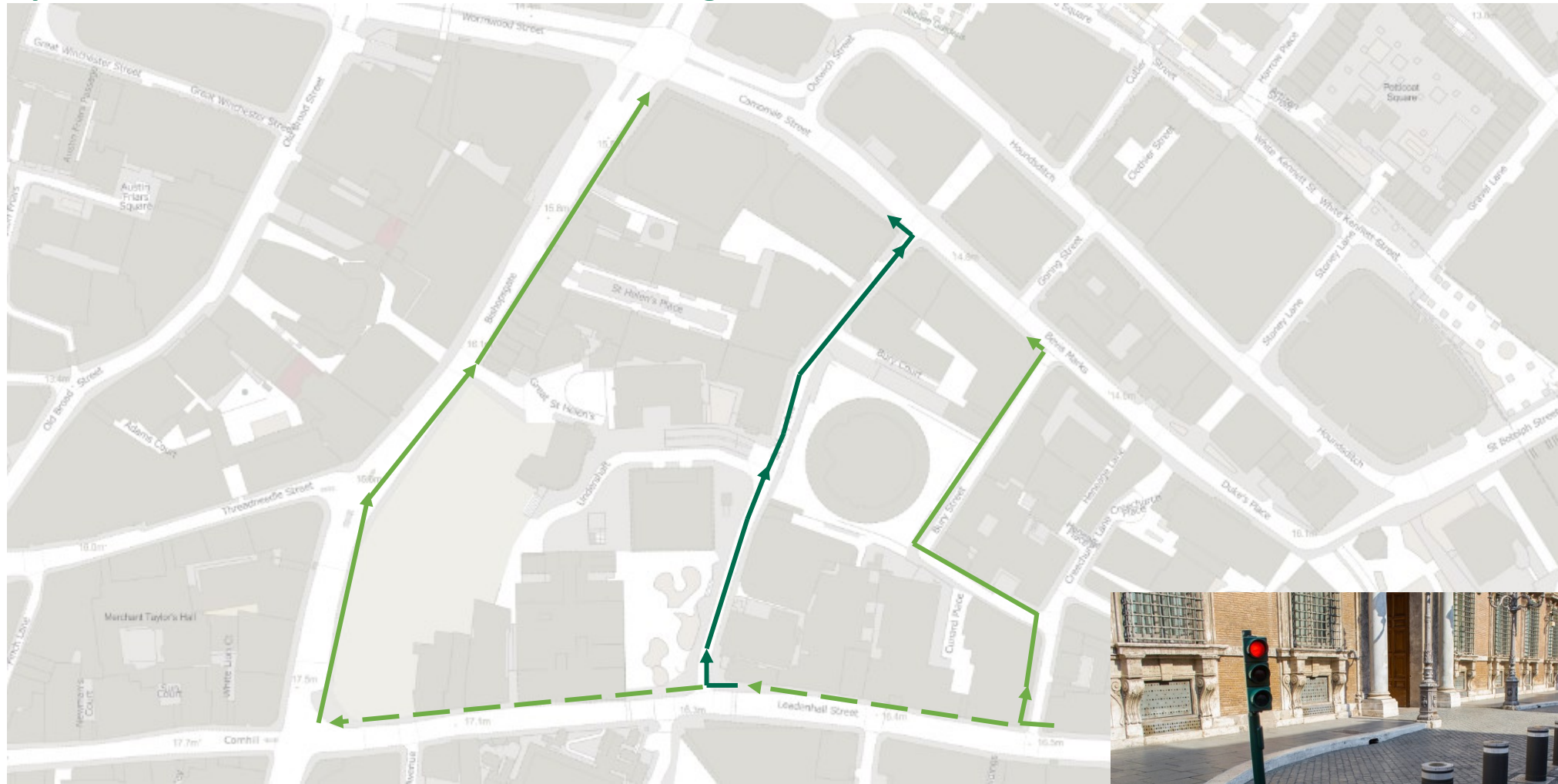
- Those vehicles allowed in require ZEZ
- Geofencing



- **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



## Geofencing & ISA with UVAR: City of London

- 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

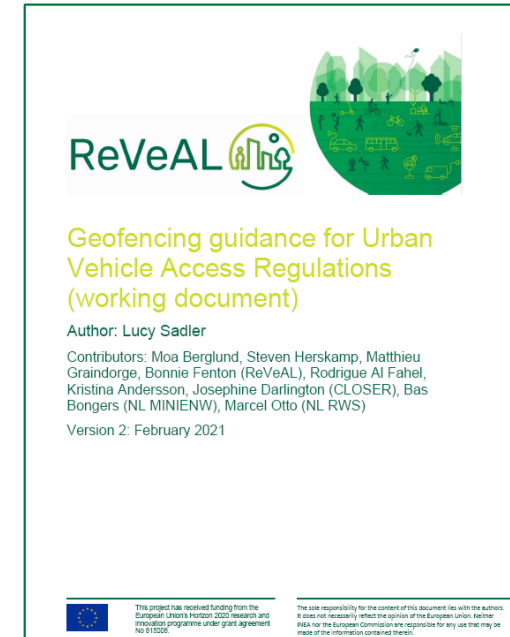
First two voluntary to start, as current powers do not enable geofencing enforcement





## ReVeAL Guidance on Geofencing & UVARs

[www.civitas-reveal.eu/resources-overview/publications/guidances](http://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](http://www.civitas-reveal.eu/events/ensuring-compliance)

ISA report will follow in few weeks

Watch reveal website

[www.civitas-reveal.eu/news-events/news/](http://www.civitas-reveal.eu/news-events/news/)



The slide features the ReVeAL logo and the title "V-tron Intelligent Speed Assistance (ISA) System". It includes a bulleted list of features: ISA either prevents speeding or warns when speeding; ISA will be required soon on new vehicles; and it uses data from a smart camera and a digital HD map. Three images illustrate the system: a camera mounted on a vehicle, a road with a 30 km/h speed limit sign, and a white car with the V-tron logo on its side.

- 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



## ReVeAL Webinars

**Cross-cutting Theme Webinars every Tuesday in June at 16:00 CET**

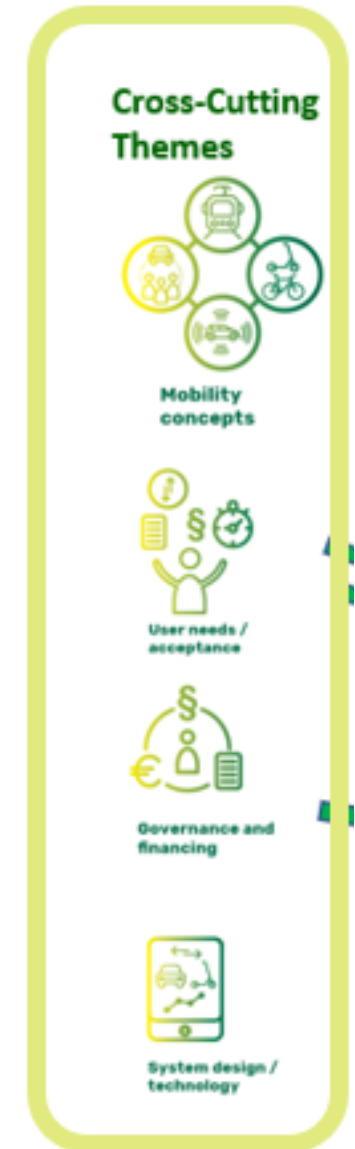
**(UVAR Development ReVeALed 18 May)**

**Presentations & Recordings on the ReVeAL website from Monday**

[www.civitas-reveal.eu/webinar/join-us-online-reveal-spring-webinars-are-here/](http://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!





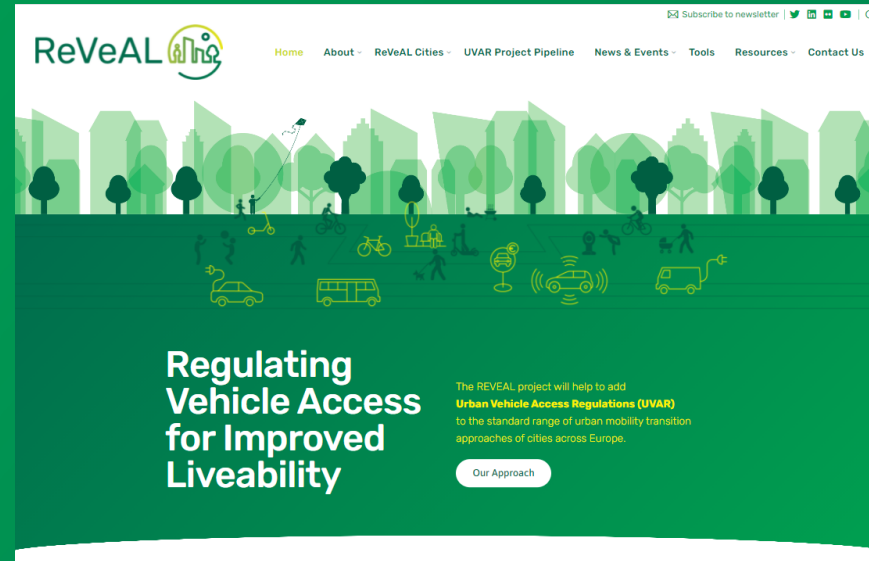
[www.UVARBox.eu](http://www.UVARBox.eu)

Digitising UVAR = Navigation tools (=compliance) & ITS

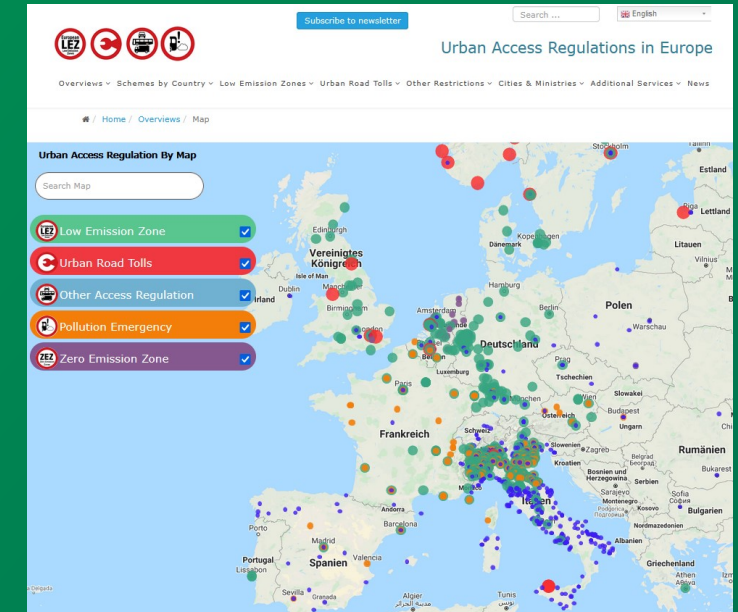
Lucy Sadler, Sadler Consultants - [lucy.sadler@airqualitypolicy.eu](mailto:lucy.sadler@airqualitypolicy.eu)



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 815069



[www.civitas-reveal.eu](http://www.civitas-reveal.eu)



[www.urbanaccessregulations.eu](http://www.urbanaccessregulations.eu)

