

# UVARBox & UVAR Exchange

Lucy Sadler

ReVeAL: <https://civitas-reveal.eu>

Sadler Consultants (Germany)

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



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 815008

# Purpose of UVAR Box = UVAR in M2M format

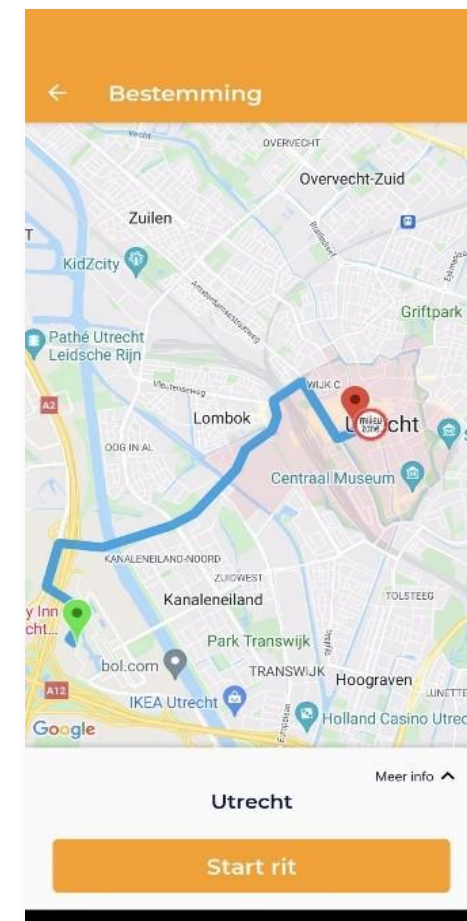
## Why?

M2M (Machine to Machine readable)

- Let's face it, 99% of those travelling in an unknown area
- Use a digital navigation tool / Sat Nav

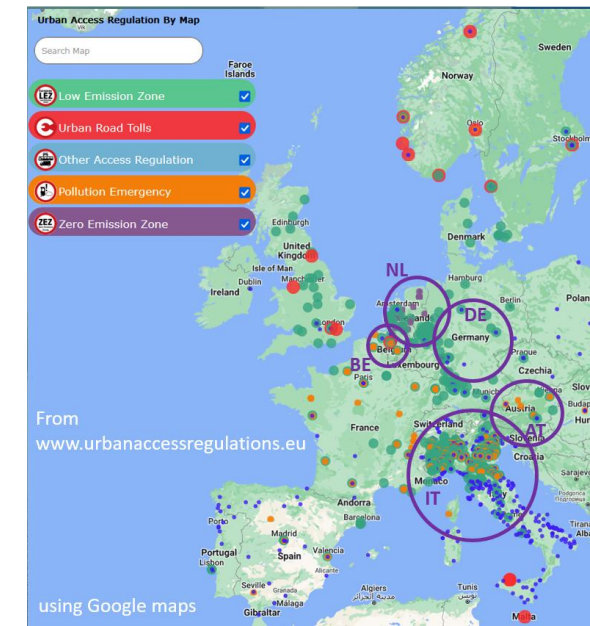
## Ensuring Compliance: Only comply with that they know

- ...or what the navigation device tells them
- The devices need to include UVARs
- This needs cities help



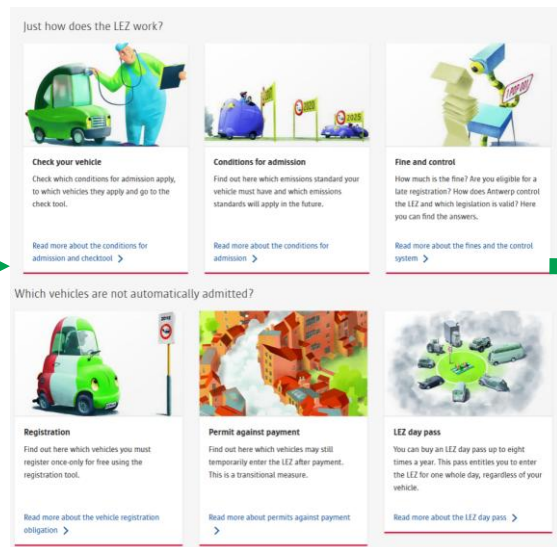
# UVAR Box

1. User-friendly tool to help UVAR authorities to put UVAR regulations into Machine to Machine (M2M) readable data
2. Create M2M data for
  - LEZs in 5 Member States
  - Focus Countries: Austria, Belgium, Germany, Italy, the Netherlands
  - At least one of each UVAR type
  - UVAR definition: LEZ, LTZ, Congestion Charges, Parking zones, pedestrian zones, Emergency schemes
3. How to get cities to digitise UVARs
  - SUMP Guidance, benefits, EU law, NAPCORE.....
  - Tool available at: <https://uvarbox.eu/uvarbox-tool> together with manual & video



# Communication Conversion

Also digital / M2M → Navigation Tools

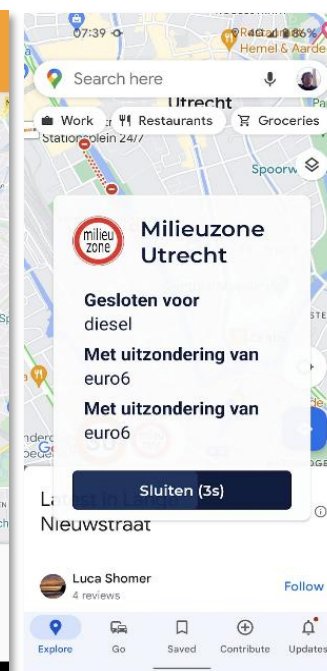
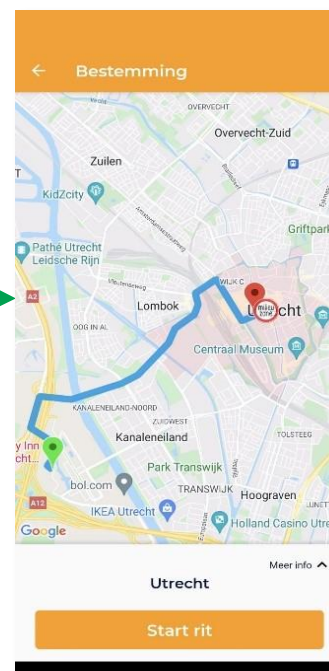


[Antwerp city's LEZ website](#)

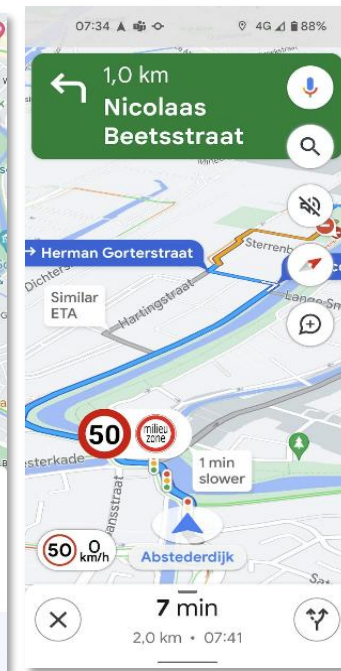
DATEX II format



On [NAP](#) & city/MS Open Data portals



[Onderweg App](#)



& of course many other Communication forms...

# Why should I digitise my UVAR?

## Advantages to cities include:

- **Greater awareness → greater compliance → greater impact**
- **Greater awareness = less enforcement work = fewer complaints & queries**
- Service Providers (e.g. Google) increasingly contacting cities for UVAR data  
If provide to one (in their requested format) = need to provide similarly for others ([Open Data Directive](#))
- Using [UVAR Box](#) → single [EU-wide DATEX II format](#) = provide data once only on [National Action Point](#) & city/national open data websites
- Information on emissions stickers and national traffic rules required on the [Single Digital Gateway](#) by end 2023. UVARs also on the SDG. Needed in SDG format - DATEX II can be easily imported into SDG format.
- [ITS Directive & delegated regulation](#) requires Member States to digitise UVARs & encourage cities to do so too. Revised regulation likely to require UVARs to be digitised.
- UVARs in navigation services significantly reduce the resistance to UVARs at an EU and non-local level
- Cities often have own general digitisation processes
- Some Countries & Cities working on “digital mirror” of traffic regulations (eg [METR](#))
- Digital UVAR data also needed for eg geofencing, ISA, connected & automated vehicle deployment

→ **It will make a more effective UVAR !**

**So use the UVAR Box tool!**

More details: [UVAR Box tool](#)

[UVAR Box final conference recordings](#)

# UVAR Exchange

Three aims:

1. Identify how to achieve EU-wide foreign vehicle enforcement
  - Options / recommendations to the European Commission
2. Recommendations on better & clearer UVAR signage
  - ‘horizontal & vertical’ road signs (metal standing or painted on road)
  - Variable Message Signs (VMS)
  - Guidance & demonstrations
  - Incorporated into ReVeAL Guidance Document
3. Demonstrating cooperative-ITS/geofencing including digital ITS services for car navigation systems.
  - Demonstrated, however for UVARs mainly for updating navigation tools (and emergency/triggered UVARs)

# UVAR Exchange Main signs



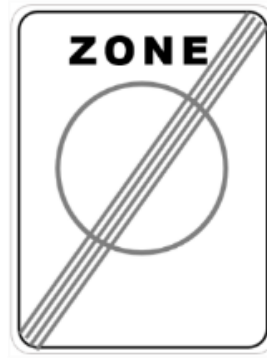
- Pictograms; text should be minimised
- Local abbreviations and acronyms should be avoided
- Both on Entry, and early enough to allow diversionary route



a) LTZ entry sign



b) LEZ/ZEZ entry sign  
(new Tern symbol)



c) LTZ exit sign

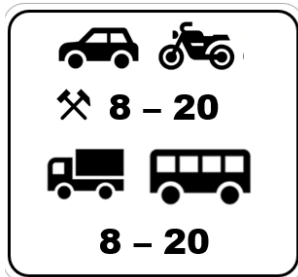


d) Pedestrian zone  
entry sign



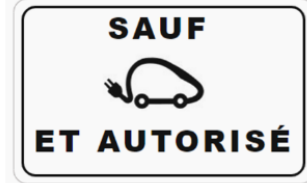
e) Pedestrian Priority Zone entry sign

# UVAR Exchange Supplementary panels



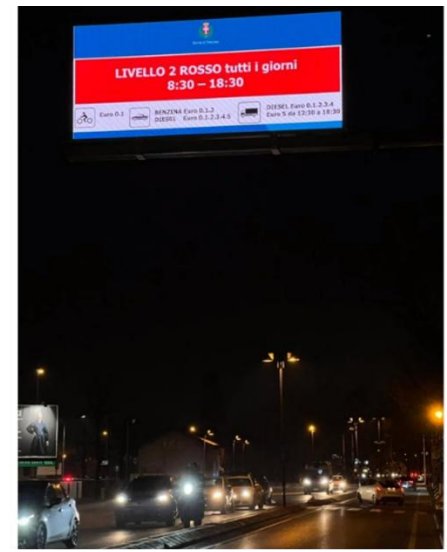
To give further details on the UVAR

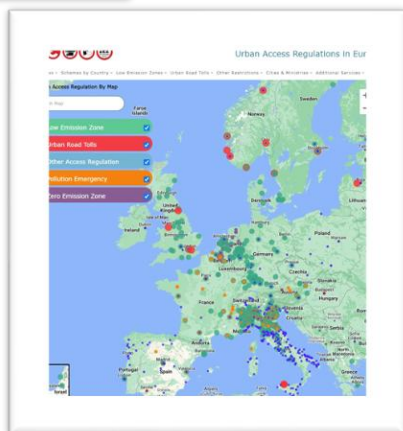
For updates see <https://uvarbox.eu/uvar-exchange/>



# VMS

- Pictograms (same as road signs)
- Information reliable & up to date
- Free text kept to a minimum (5-7 words)
- Avoid local abbreviations & acronyms
- Bilingual messages when possible (national & English)
- VMS turned off when UVAR is not active





## For more information

- <https://uvarbox.eu>
- <https://uvarbox.eu/uvarbox-tool>
  
- <https://uvarbox.eu/uvar-exchange>
  
- **Lucy Sadler** [lucy.sadler@airqualitypolicy.eu](mailto:lucy.sadler@airqualitypolicy.eu)
- [www.urbanaccessregulations.eu](http://www.urbanaccessregulations.eu)