

# POLIS

CITIES AND REGIONS FOR TRANSPORT INNOVATION

ANNUAL  
CONFERENCE  
**2022**

30 November  
1 December, 2022  
Brussels, Belgium



#POLIS2022

## UVAR EXCHANGE

Solutions to improve communication and exchange of information in the implementation of UVARs

4C. Sticks with the carrots: What is new for urban vehicle access regulations?

*Maria Rodrigues, Transport and mobility senior project manager at Panteia*



- Objectives
- Information provision
- Cross border data sharing
- Findings and recommendations

## Team overview



The team overview section displays logos and portraits of team members from the following organizations:

- Panteia** (Research to Progress): 4 team members
- MAP** (TRAFFIC MANAGEMENT): 4 team members
- corle**: 3 team members
- ARMIS** (INTELLIGENT TRANSPORT SYSTEMS): 4 team members
- austriatech** (Mobilität in Bewegung): 3 team members
- TRT**: 4 team members
- Sadler Consultants Europe GmbH** (Specialists in air quality policy): 1 team member



# Objectives

Improve the **communication of information to drivers** in the vicinity of UVARs through the harmonisation of road signs: physical signage, variable message signs, and cooperative intelligent transport system (C-ITS) messages direct to vehicle.

Improve the **cross-border exchange** of technical vehicle and vehicle owner/driver information **to cities** to facilitate foreign vehicles access without pre-registration, compliance checks and enforcement of UVARs.

# Topic 1: Information provision

- Practical aspects of UVAR information provision
- Develop a common EU approach to signage
- UVAR information via Variable Message Signs (VMS) & C-ITS



France - Aire piétonne - Pedestrian area



Czech Republic - Pěší Zóna - Pedestrian Area



Italy - Area pedonale - Pedestrian Area



Graz (Austria)



The Hague (NL)



Germany - Fußgängerzone - pedestrian zone



Slovenia - Pešona - Pedestrian Area



United Kingdom - Pedestrian Zone



Italy



The Netherlands



France



Germany - Umweltzone - Environmental zone



Belgium - ZBE Zone à basses émissions - Low Emission Zone



Spain



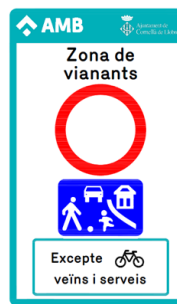
France - Zone de Rencontre - Encouter zone



Poland - Strefa zamieszkania - Residential Zone



Belgium - Zone résidentielle - Residential zone



Spain - Pedestrian + Pedestrian Priority



Germany - Verkehrsberuhigter Bereich - traffic calmed area



Netherlands - Woonerf - Residential Yard



Italy - Zona residenziale - Residential zone



London (UK)



Stockholm (Sweden)



Oslo (Norway)



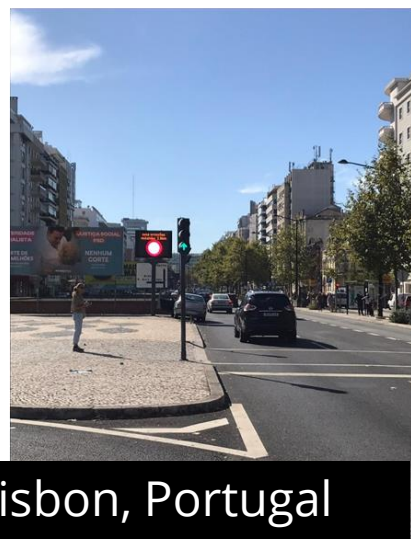
Valletta (Malta)





# Demonstration activities

- Harmonisation of physical road signs/VMS
- C-ITS message to vehicle with UVAR information



Lisbon, Portugal



Monza, Italy



Viena, Austria

## Main zonal panel

- Two options possible for LEZ

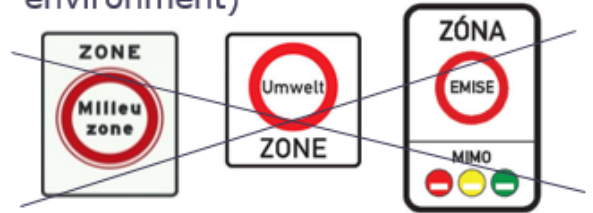
A) Blank C,2 sign (as for LTZ and sometimes PED)



B) Symbol of an emitting car within the roundel



- No inscription related to the LEZ should appear within the red roundel (particularly the word environment)



- Move text above or below the roundel



The Netherlands Germany Czech Rep.

## Existing signs



## Proposals

LTZ	LEZ	ZEZ
<b>Zona</b> 	<b>ZONE</b> 	<b>ZONE</b> 
EXCEPTO   TAXI Y AUTORIZADOS	uitgezonderd   Euro 4   Euro 6 en hoger Euro	SAUF   H ET AUTORIS
	   	
 Y PERMISOS cityname.uvar ☎ 945 16 11 00		



# Some findings/recommendations

- Low emission Zones: Many different signs and practice in terms of information provision
- Limited Traffic Zone is widely used in city cores but no proper recognition and different acronyms used
- Congestion charging: Different signs and symbols, usually associate with “charges apply” warning sign
- Pedestrian zone: No unique symbol, often associate with additional panels (as for other UVARs)
- Pedestrian priority: Sometimes associated to PED or LTZ but focused on driver behaviour

## Main panel

- Pictograms favoured; text should be minimised
- Local abbreviations and acronyms should be avoided
- Both on Entry, and early enough to allow diversionary route
- Red roundel with a white (or yellow) background – no text inside
- Additional information should be preferably placed on additional separate panels below the main one.

## 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

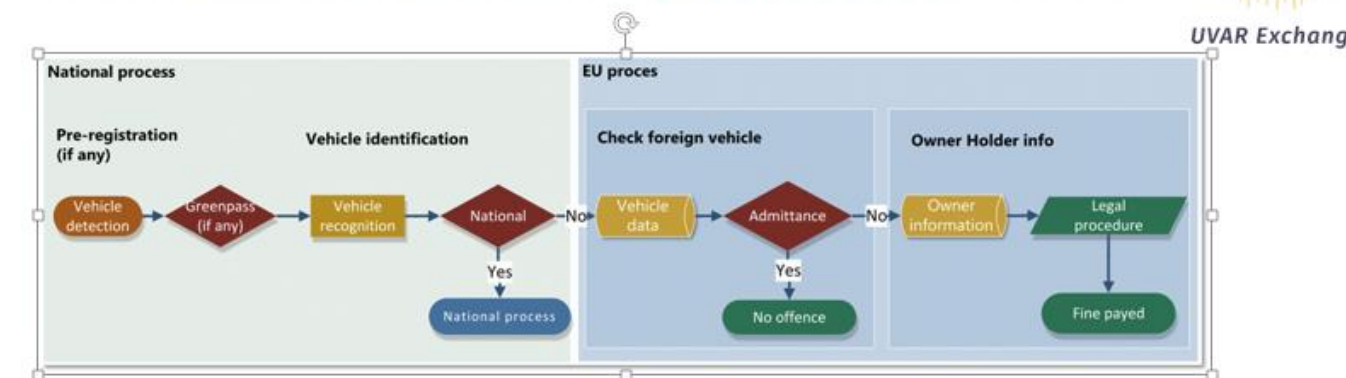
# Topic 2: Cross-border data sharing

- Identification of **legal, administrative** and **technical barriers** to cross-border sharing of data
- Recommendations to overcome barriers

## Challenges:

- ✓Data quality is lacking – recording and updating of vehicle & vehicle owner/holder data not harmonized across EU and this data is not fully digitalized.
- ✓Data is being shared across border between authorities at the national level to enforce regulations other than UVARs (e.g. CBE/EETS). But this data is often not available to cities for UVAR enforcement. Due to absence of national processes/lack of awareness/absence of a legal basis etc.
- ✓Absence of a legal basis to exchange data between countries for enforcing UVARs.
- ✓Lack of harmony on sensitivity of vehicle data some countries share vehicle data publicly, while others do not.

## UVAR LEZ enforcement reference model



### Actors

- Driver and vehicle
- UVAR authorities: cities, regional or national
- Vehicle registration agencies
- (Fine collecting agencies)

### Steps

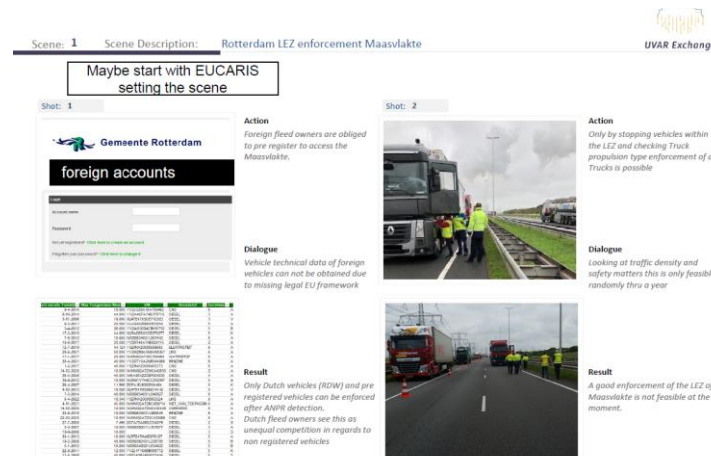
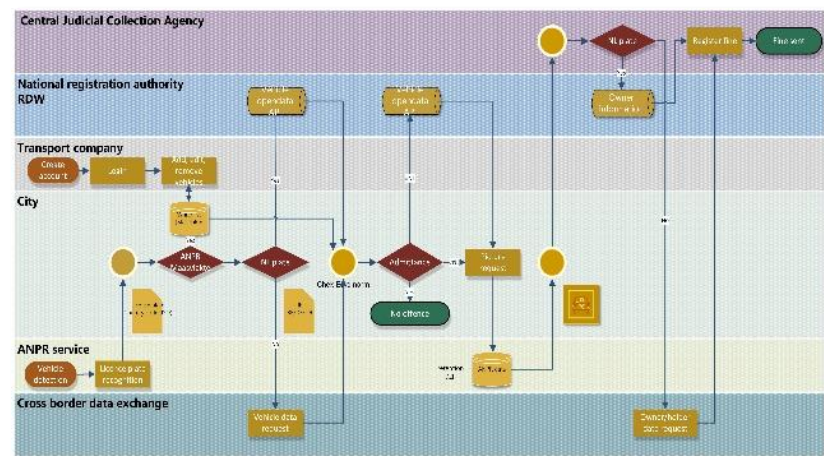
- Pre-registration
- Foreign vehicle detection
- Foreign vehicle technical data collection
- Foreign vehicle owner/holder/driver data collection

# Demonstration activities

- Vehicle technical information to check for compliance
- Driver/holder/owner information for enforcement

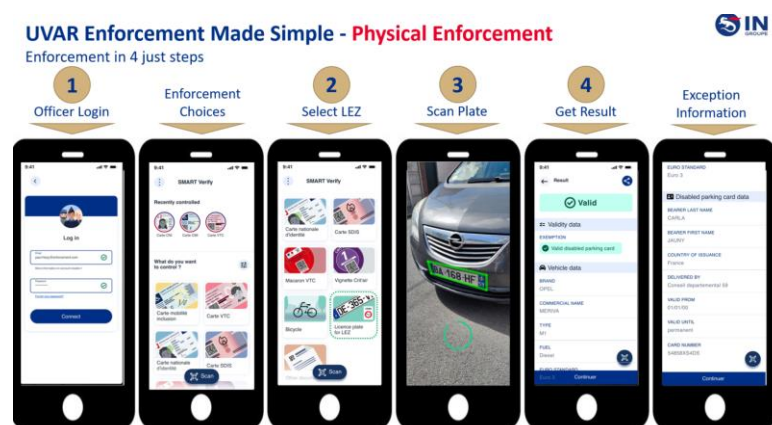
## Authority centric model: EUCARIS demo

In a simulation and/or real-life demo (with Verona, Barcelona, Rotterdam, Antwerp and Brussels)



## Driver centric model: demo with IN Groupe

Simulated demo showcasing all components of a verifiable credential based solution









UVAR Exchange

# For more information

Project website:

<https://uvarbox.eu/uvar-exchange/>

<https://uvarbox.eu/uvar-exchange-concluded-with-final-conference/>

The recommendations of the UVAR Exchange project are also in the ReVeAL guidance:

<https://civitas-reveal.eu/resources-overview/publications/guidance/>





# Thank you for your attention!

For questions:

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*Project website:*

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