



Regulating Vehicle Access
for improved Livability



D6.4 - ReVeAL Final Conference report

**Six cities, 33 building blocks, and a
whole lot of learning!**

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Summary sheet

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List of acronyms

ISA	Intelligent Speed Assistance
LEZ	Low Emission Zone
LTZ	Low Traffic Zone
ReVeAL	Regulating Vehicle Access for Improved Liveability
UVAR	Urban Vehicle Access Regulation
ZEZ	Zero Emission Zone

Overview

“This has been a learning process, we have been learning from the very beginning, and we continue to do so today!”

Juan Carlos Escudero-Achiaga, Vitoria-Gasteiz

“We are today wrapping up the ReVeAL project, showing what we have done, and where we want to be in the future”

Bonnie Fenton, ReVeAL Coordinator.

On the 8th and 9th of November 2022, the CIVITAS ReVeAL project (Regulating Vehicle Access for Improved Liveability) convened its final conference in London (and online), bringing together urban mobility representatives from across Europe.

It was a unique opportunity to hear first-hand how UVARs (Urban Vehicle Access Regulations) have been transforming urban mobility in six cities, the lessons learnt and strategies for others to follow suit.

Conference Agenda

Day 1: 8 November 2022

Timeslot	Topic
13:00 – 14:00	Registration and light buffet/coffee
14:00 – 14:15	Welcome and conference agenda <i>Moderator:</i> Bonnie Fenton
14:15 – 15:00	ReVeALing ReVeAL: measure fields, building blocks, cross-cutting aspects, and all the other bits and pieces needed to make a complete UVAR package <i>Introduction to ReVeAL</i>
15:00 – 16:00	A tale of <i>three</i> cities: lessons learnt and recommendations from London, Jerusalem, and Helmond – I <i>Panel discussion between representatives of the ReVeAL cities of London, Jerusalem, and Helmond</i>
16:00 – 16:30	Coffee break

16:30 – 17:30	A tale of <i>three</i> cities: lessons learnt and recommendations from Bielefeld, Padua, and Vitoria-Gasteiz - II <i>Panel discussion between representatives of the ReVeAL cities of Bielefeld, Padua, and Vitoria-Gasteiz</i>
17:30 – 17:45	Wrap up Day 1 <i>Moderator: Bonnie Fenton</i>
18:00 onwards	Networking cocktail

Day 2: 9 November 2022

Timeslot	Topic
9:00 – 9:30	Registration and coffee
9:30 -10:00	The technical challenges: digitising and harmonising UVARs <i>Presentation of other EU projects in the field of UVARs</i>
10:00 – 10:45	Cross-cutting aspects: the things every good UVAR needs to make it a success <i>Deep dive into UVARs’ supportive mobility measures, user needs and public acceptance, governance and financing, and ensuring compliance</i>
10:45 – 11:00	Coffee break
11:00 – 11:45	AccessRegulationsForYourCity: selecting UVAR measures to fit your city using ReVeAL’s Decision Support Tool <i>Launch of and introduction to ReVeAL’s Decision Support Tool</i>
11:45 – 12:30	Wrap up: all cities on board <i>Moderator: Bonnie Fenton</i> <i>Panel discussion between representatives of all ReVeAL cities</i>
13:00 onwards	Departures

Revealing ReVeAL: UVARs, building blocks, measure fields and cross-cutting themes

The challenge facing our cities

Nearly 1/3 of total urban greenhouse gas emissions in major cities are generated by transport, with air pollution responsible for over 300,000 deaths per year across the EU27. At the same time, the lack of accessible and affordable transit is plunging the most vulnerable members of society into transport poverty, inhibiting access to fundamental services.

Creating cleaner, more inclusive urban mobility is perhaps the biggest challenge facing our cities today, and many have set ambitious targets. However, big ambitions must be met with bold action, confronting our car-centric transit systems with multi-modal transport offerings which put people and places first.

At the same time, the post-pandemic city finds itself in a unique position. Over the last three years, rapid transformation in urban mobility has proved possible, from new cycle lanes to parklets to more affordable public transport, cities responded to COVID-19 in a decisive and resourceful way which has set a new precedent for sustainable mobility planning.

It is now crucial we build on this momentum to meet urgent environmental and social challenges.

In come UVARs

UVARs are instrumental to this. Through innovative spatial interventions such as Low Emissions Zones (LEZs), Congestion Charges, Limited Traffic Zones (LTZs) and superblocks, cities can use UVARs to create greener, safer more inclusive streets. Cities across Europe are increasingly looking to UVARs as urban management strategies, reallocating space to prioritise active travel and public transport, while minimising polluting vehicles.

Undoubtedly, this is easier said than done; nevertheless, through the ReVeAL project, six cities have proved it is not just possible, but successful! Across three years, Helmond (NL), Jerusalem (IL), London (UK), Padova (IT), Vitoria-Gasteiz (ES) and the project leader Bielefeld (DE) have piloted pioneering ways to prompt comprehensive modal shifts.

“The pandemic demonstrated we need our public spaces, they cannot be given over solely to cars, they are crucial to life! Our pilot cities have shown while it may take some time, such shifts in mobility management are possible and they have gathered here to share their insights.”

Bonnie Fenton, ReVeAL’s Coordinator.

Each city faced unique challenges along the way, implementing solutions which worked for their specific geographic, social and political context. The Final Conference was an opportunity to explore spatial interventions, pricing aspects, regulatory measures, governance and stakeholder engagement, exploring the different approaches taken by each city.

“Cities across the world are all asking the same questions; how can I keep my city healthy, active and have nice places to live? This is the issue we have addressed across this project, with the aim of ensuring cities know the processes involved, encouraging, inspiring and supporting them to take the same steps our pilot cities here today have done.”

Sidharta Gautama, University of Ghent

What are building blocks?

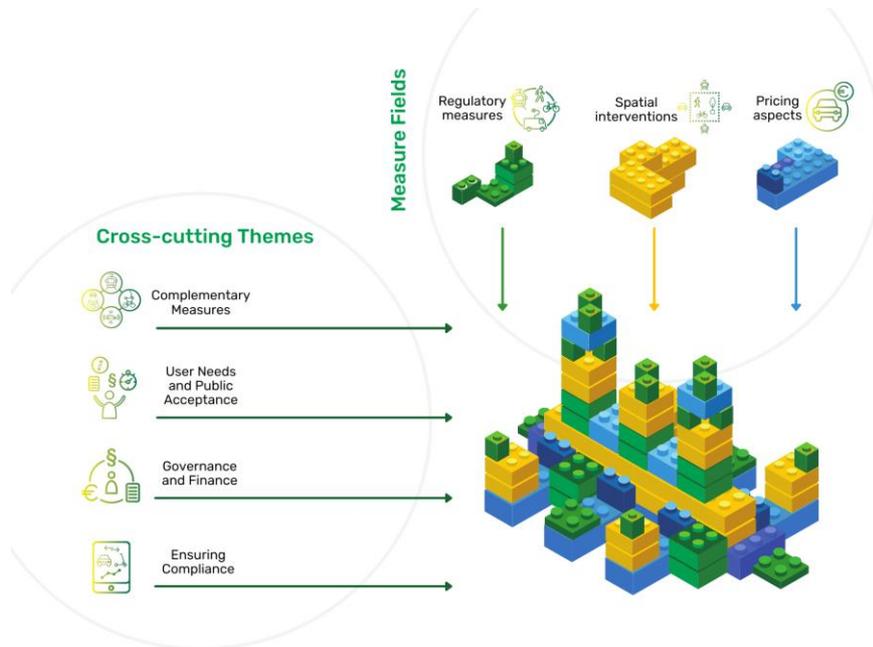
The conference was an opportunity to understand what building blocks are and why they are essential for the successful implementation of UVARs.

ReVeAL identified 33 UVAR interventions (building blocks) which include parklets, cycling lanes and bans for high-emitting vehicles. They can be implemented in isolation (1 building block) or more often in combination (multiple building blocks).

These consist of spatial interventions, pricing aspects and regulatory measures- which need to be used according to the problems each city is facing, be it air quality, lack of public space, need for active travel.

“These are not easy, we are not pretending this, but through comprehensive approaches to each of these blocks, tailoring them to their local contexts, it is possible. Cities are messy, but it is about navigating a path through.”

Lucy Sadler, Sadler Consultants (Independent Air Quality Consultant)



ReVeAL's building blocks, cross-cutting themes and measure fields



ReVeAL's Measure Fields and relevant building blocks

What's in our toolbox?

Translating experiences into practical guidance was at the core of the event. On day two, attending delegates had the chance to take a deep dive into the project's cross-cutting themes and the project's decision support Tool 'AccessRegulationsForYourCity'. The latter helps cities that are considering putting UVARs in place to find out which strategies may work for them, how they can be adapted to their context; as well as creating effective communications and public outreach procedures.

As cities (and regions) from Brussels to Bristol, Paris to Pisa strive to implement and expand UVARs to meet modal switch and decarbonisation targets- such guidance is key.



Panel discussion on ReVeAL's framework : Bonnie Fenton (RC), Lucy Sadler (Sadler Consultants) and Sidharta Gautama (University of Ghent).

A tale of six cities: lessons learnt and recommendations in ReVeAL

Over the last three years, ReVeAL's pilot cities have been busy developing, implementing and reworking a range of UVAR measures, from superblocks to LEZs, Intelligent Speed Assistance (ISA) technologies to cycle infrastructure.

The approaches taken by each city were shaped by their individual needs and challenges, building on existing transport infrastructure, and integrating into the city's wider mobility strategies. Indeed, from the medium sized city of Helmond in The Netherlands to the major metropolis of Jerusalem, each pilot city is a thoroughly distinctive place.

It was a process of testing, measuring, implementing, assessing, redeveloping and scaling up - a process which is still ongoing. Across several sessions, each city presented their actions, outputs and lessons, before joining for panel debates to compare and contrast experiences.



Two panels with the six city representatives

Top, from left to right: Bonnie Fenton (Rupprecht Consult), Samantha Tharme (City of London), Nimrod Levy (Municipality of Jerusalem), Matthieu Graindorge (City of Helmond), and Niels Kneppers (V-tron)

Bottom, from left to right: Bonnie Fenton (Rupprecht Consult), Juan Carlos Escudero-Achiaga (CEA – Environmental Studies Centre at Vitoria-Gasteiz), Raffaella Michelin (Municipality of Padova), and Olaf Lewald (City of Bielefeld)



City of London

The City of London - also known as the Square Mile - is one of the 33 local authorities within Greater London. The City faces a range of complex mobility challenges, including the pressure to manage over 513,000 daily commuters and 10 million annual visitors, as well as high transport related emissions.

This presents a very different dynamic to other cities- and indeed the rest of the capital.

“Where we are now is a relatively small area, but it is strategically important, anything we do here affects our neighbours south of the river and indeed across the capital”

Samantha Tharme from the City of London, welcoming delegates to the conference.

Through ReVeAL, the City of London launched a zero-emission zone (ZEZ) pilot, while testing measures including vehicle bans for specific time period, improving cycling infrastructure, installing pedestrian priority signs, and one-way streets with contraflow cycling lanes. This was accompanied by a range of complementary measures such as supporting markets for cargo bikes and zero-emissions waste collection fleets.

The City did not start with this approach, but after examining the use of space – 90% of people arriving to their final destination on foot – they shifted their measures.

“COVID hit, and our focus changed to different areas and renewing our focus on walking and cycling,” said Tharme.

The pilots on Beech Street produced some critical data for Transport for London, which the project was able to feedback. Understanding communication was a central aspect, and Tharme relayed the importance of standardising messaging, creating consistent and clear signage.

Jerusalem

The City of Jerusalem is located between the Mediterranean and the Dead Sea. The city faces air pollution issues and mobility challenges as it must balance residential, tourist and logistics transport demands.

Before participating in the ReVeAL project, Jerusalem had established a small LEZ covering the city centre; however, achieving the emissions reduction targets required more comprehensive action. Within ReVeAL, the Municipality of Jerusalem expanded its LEZ in 2020 to the entire city area (125 km²), and restricted entry for all polluting vehicles.

“To execute the project, we understood success was only possible through support from citizens and multiple political levels.”

Nimrod Levy, Environmental engineering department manager, Environmental Quality Department, Municipality of Jerusalem, who discussed the broad communications plans the city developed.

The project was executed through legislative changes, installation of road signage, advertising, public notices, monitoring and evaluation of compliance. For example, each driver received a letter informing them of the new regulations and new monitoring stations had been installed.

Jerusalem has now started to work on reducing air pollution from non-road mobile machinery. The city has undergone a process of analysis, negotiation and currently working on regulation.

“What did we learn? Knowledge, receiving feedback from the project and experts; legitimisation, through our connections with the other cities and precedent-setting,” explained Levy.

Helmond

Helmond is a medium-sized city with approximately 95,000 inhabitants, located in the south of The Netherlands. Within ReVeAL, the city tested Intelligent Speed Assistance (ISA) with V-tron and established a striving ZEZ district (Brainport Smart District).

“From July 2022, all new vehicles will need to be equipped with some sort of ISA system, this will have a big impact on the roads, and we need to understand how this will affect our urban streets.”

Niels Kneppers, Project Manager at V-tron, who partnered with Helmond to test ISA.

Niels shared their results from the tests of ISA to regulate the speed of vehicles. The deployment and testing of the technology are essential with EU legalisation pushing towards the equipment of ISA in vehicles from 2024. Key findings from the ISA test in July 2020 in Helmond on 10 vehicles include the need for better digital and physical speed infrastructure. Overall, the pilot was a success with positive feedback and good perception from users that tested the technology in Helmond.

The municipality of Helmond also created Brainport Smart District which intends to become a ZEZ with 2 500 houses and 4 ha of business park. The district was designed with streets for people, activity mobility being at its core: vehicles must park outside in dedicated parking lots with exemptions for those who require special access needs. All solutions are co-designed with citizens and stakeholders from the very ideation of the district.

“Streets are designed for people, not for vehicles, and we need to provide safe and accessible active travel alternatives. However, our UVAR cannot disadvantage those with different physical access requirements.”

Matthieu Graindorge, Senior Project Manager at Municipality of Helmond

Bielefeld

Bielefeld is a medium-sized city in North Rhine-Westphalia, Germany, which aims to reduce car traffic from 51% (2019) to 25% by 2030. To do so, Bielefeld turned to a range of UVAR building blocks in the old town district to encourage alternative modes of travel and deter private vehicle use. This space was characterised by its narrow streets, high amount of on-street parking, road safety and air quality issues, and more.

“Before we began the ReVeAL project, we had been transforming several areas of the city including Jahnplatz, away from car-centric spaces to prioritise more sustainable modes. In ReVeAL we looked to test UVARs in the old town, where the challenges for transport were very different.”

Olaf Lewald, City of Bielefeld, Head of Office for Mobility

By extending a pedestrian zone, redesigning public spaces, reallocating car lanes to cycling lanes, transforming parking spaces for other uses and preventing through traffic in certain areas, the city explored the impacts of spatial interventions and potential for scalability and transferability in its horseshoe-shaped old town between June 2021 and February 2022.

Stakeholder engagement was at the heart of Bielefeld's process, before testing impacts and acceptability of the possible solutions and potential for scalability. The city used a dedicated website to collect feedback from the public, which proved to be a successful measure.

Padova

The Northern Italian city of Padova has implemented two actions within ReVeAL: transforming a Limited Traffic Zone (LTZ) into a Low Emission Zone (LEZ) and the development of a superblock in the district of Guizza named 'SuperGuizza'.

The LTZ was previously regulated by many overlapping rules which led to a range of subsequent and supplementary changes. This posed a key issue to ensure compliance and enforcement in the area. Within ReVeAL, Padova created a new innovative ordinance to ensure the compliance and enforcement of the zone with entry and exit plate reading systems, added signage and created a system of access and permits which cater for residential, touristic and commercial needs. The goal is to transition the LTZ into an LEZ.

"This will not only facilitate compliance, but will also provide us with critical data on traffic flows and transit patterns."

Raffaella Michelon, Mobility Department of Padova

The second action is linked to superblock in Guizza, a peripheral area where public space was dedicated mainly to cars. The goal was to create pleasant and more liveable neighbourhoods. To do so, Padova implemented an extensive stakeholder engagement process, which included online and face-to-face events across 2021 and 2022, with citizens and mobility councillors.

Vitoria-Gasteiz

Vitoria-Gasteiz is the capital of the Spanish Basque Country. Over the last several years, the city has implemented a range of new active mobility, decarbonisation and climate action agendas cementing ambitious sustainable mobility targets with clear timelines and milestones.

The interventions in Arquillos and Médico Tornay enhanced the superblock approach within the ReVeAL project. Both actions have been critical to this process by supporting a cleaner and more active modal mix. In the Central and Judimendi Superblocks, the redesign of La Cuesta de San Francisco/Los Arquillos area, the pedestrian promenade connecting the old square (Virgen Blanca) with the mediaeval quarter was extended, while in the Judimendi neighbourhood, a new civic area has been implemented in what was once car parking space.

“Our focus was on physical interventions, to improve the mobility system, make it more efficient and reduce environmental and social impacts. We wanted to work on a human scale city, putting people on top of the transport pyramid.”

Juan Carlos Escudero-Achiaga, Head of Mobility and Data Science Unit, Environmental Studies Centre (CEA)

Regulating parking more stringently has also proved critical, with expansion of cycling parking, speed reduction, traffic filters and several other building blocks.

Low cost, yet effective, tactical urbanism has shifted and calmed traffic flows, including vegetation and bike safe parking spots.

This tactical urbanism has been combined with the first stages of developing an LEZ. This is being rolled out in a graduated way, beginning with an LTZ, before moving towards an LEZ.

“This is just the start, if we succeed here, we can continue, scaling up and transferring our actions to new areas,” asserted Escudero-Achiaga.

“ReVeAL has been crucial in our journey, our work in the project has been key to securing the European funds we need to move forward, we have an example of what we as a city can do, and a clear vision for the future!” he added.

The panel debates!

Following the presentations, Project Coordinator, Bonnie Fenton chaired a panel debate with the city representatives, quizzing them on their actions, what they learned, and how they might adapt their approach if they were to start the project again.

It was an opportunity for honest and open exchange, with delegates in the room- and online- posing questions to the panellists on everything from the political coalitions created to the finer details of street redesign.

Given the incredibly diverse experiences of each city, it was also a chance to look into detail how the building blocks were implemented, where, and why they had been deployed, and the different results they had in distinct contexts.

What did we learn from the debates?

- **You can't solve what you don't see!** The first step is ensuring citizens and transport users understand the problems they are facing and the need to solve them.

- **Communicate, communicate... communicate!** Whether it is with residents, business owners, or national and local politicians, clear communication needs to be established and maintained.
- **Choose the weapons you have;** UVARs need to work with the tools you have, legal frameworks, geography, infrastructure and more.
- **Ensuring compliance** is key. This means making sure users are aware of the scheme AND keep to the rules within it. Enforcement can only work when people know how to comply.
- **Break those silos!** Departments **MUST** work together to address the multiple components which will arise.
- **UVAR is not a fit and forget!** These measures require continued monitoring, revision and development.
- **Designing for all needs;** UVAR measures need to take into account the variety of mobility needs and cannot penalise those with reduced or different transport requirements.

A deep dive into the tools for UVAR success

Having examined how each pilot city had approached their UVAR design and implementation, the challenges encountered, and solutions found, day two returned for an exploration of how other cities can utilise these findings and the tools developed across the project.

UVARs and the European Union

The EU's approach has tremendously changed over the last decade, going from planning for road vehicle movement (road building, parking, etc) to focusing on planning for city life with active mobility, traffic restraint, removal of cars in urban cities, and linking mobility to other objectives including sustainability, health and the economy. UVARs are one of the tools the EU has turned towards.

ReVeAL is one of a few other EU-funded projects which have examined UVARs, supporting cities to develop new mobility management strategies, as well as pricing mechanisms and regulatory measures.

Ivo Cre, POLIS Network's Director of Projects walked attendees through the existing and upcoming actions taking place at the EU level and what this means for cities. These include spatial interventions, pricing measures (Eurovignette, European electronic tolling system, internalisation of external costs of transport) and regulatory measures (Fitfor55, strengthened AQ norms, clean vehicle direction, etc). In addition, SUMP as a framework for UVARs and complementary measures (e.g. urban nodes) and ensuring compliance (e.g. European Electronic Tolling System and Cross border enforcement directive).

Regions too are exploring the development access regulations, with another EU project, Dynaxibility4CE project releasing a UVAR SUMP Topic guide which guides decision makers how to implement UVARs considering the city and its wider zone, the so-called Functional Urban Area (FUA).

"We are no longer discussing if we need access regulations or not. The EU is now trying to develop the technology pathways, the 'bigger picture' legislation including climate neutrality and green transitions, and establishing an expert group to encourage national level support too."

Ivo Cre, POLIS Network's Director of Projects and Policy.



ReVeAL sister projects: UVAR Box & UVAR Exchange

ReVeAL is part of a range of projects which have been helping roll out UVARs and develop the necessary technological, governance frameworks, and regulatory measures.

One such project, **UVAR Box** has been facilitating the private, public and commercial use of UVARs through a user-friendly tool. The project is facilitating UVAR compliance, which is especially an issue for those travelling in foreign countries and across borders. Digitisation Software providers may use the open-source UVAR Box Tool software to include UVARs.

“Why should we digitalise UVARs? It supports with great awareness, greater compliance and greater impact.”

Lucy Sadler, Sadler Consultants

In a nutshell, the project enables the creation of user-friendly tools to help put UVAR regulations in Machine to Machine-readable data. It makes it easier for cities and regions to create awareness, compliance and impact for their UVARs. In addition, more and more navigation service providers are asking cities for data; this tool enables cities to give the data once in a single format, rather than several times in different formats.

UVAR Exchange is another EU-funded project which aims to identify EU-wide vehicle enforcement, produce recommendations for clearer UVAR signage and demonstrate cooperative ITS/ geofencing for car navigation systems. It created guidelines on signage for different types of UVARs including LTZs and pedestrian zones.

The cross-cutting themes: the things every good UVAR needs to make it a success

Each pilot city has individual - and often very different - mobility ecosystems. Nonetheless, several cross-cutting themes can shape the successes and challenges encountered. The ReVeAL project has demonstrated the importance of observing these themes to deliver successful UVAR strategies.

Complementary Measures

Complementary measures are additional measures to a planned UVAR that ease compliance and facilitate the best adaptation of a newly introduced UVAR while minimising equity issues and undesirable impacts that may arise.

Cosimo Chiffi (TRT) explored four elements in this category.

The first is **complementary sustainable mobility measures** which include mobility schemes and related services that could improve the public transport network, walking and cycling, enhance shared mobility or urban logistics. These could include free minibuses in an LTZ or P+R shuttle buses.

Then, he elaborated different types of **financial or in-kind incentives** to ease compliance and address potential inequities. Grants, scrappage schemes or compensations are a few tools available to cities.

“There are several cities running such measures,” asserted Chiffi, examining approaches in Bologna and London-where many residents can choose between the voucher and a year's free public transport membership.

The third element was **exemptions** which serve the purpose of mitigating the impact of an UVAR on certain disadvantaged groups and make compliance possible. These are particularly useful during the introductory phase and may include user needs exemptions (e.g. taxis and residents), exemptions for adapted vehicles or key exemptions (e.g. police, fire department, etc).

Finally, the last category includes all types of **organisational support or other solutions based on the local situation**. This includes projects to support the changeover to sustainable mobility (e.g. cargo bike rental scheme), promotional activities or supporting alternative business models for facilities affected by the UVAR.

Governance and financing

Governance structures differ in each city. A key lesson from ReVeAL is that identifying governance and decision-making processes, key stakeholders, supporters and opposition, leading voices, “champions”, etc is essential from the start of the implementation of an UVAR.

“Each ReVeAL city used existing governance structures, or established new partnerships, to implement UVARs. Helmond created broad coalitions for decision-making in the Brainport Smart District and Padova based its decision-making and public acceptance strategy on data collection techniques”.

Juliette Thijs, POLIS Network

In regard to **legislation**, based on the experiences of the ReVeAL cities, it was found to be important to identify legal frameworks that may pose issues (sending fines, number-plate recognition, personal data, etc.) and tap into new legislation or creatively into existing ones.

Creating synergies with similar schemes was also key to increasing acceptance and success.

The **financing** of the UVAR is perhaps one of the trickiest, but most important, aspects of its implementation.

“Keep in mind the financing of the full project cycle: from conceptualisation to enforcement, and do not forget to define a budget for complementary measures!”

She also explored the ways UVAR revenue streams could be used and reminded that they should not be money makers. She finally reminded the audience of the possibility of tapping into regional, national and EU funds for UVAR implementation. Indeed, Vitoria-Gasteiz secured funding from the Spanish government; Jerusalem’s cooperation between municipal authorities and the Ministry of Environmental Protection facilitated the funding and legal structure required to allow the LEZ to take effect.

Ensuring compliance

“If it is not complied with... it is not worth implementing!”

Sidharta Gautama, University of Ghent.

Each city experimented with different **enforcement measures**, from traffic calming tactical urbanism to camera technologies. Indeed, compliance must be easy, as greater compliance leads to better achievement of the UVAR goals. Cities can either use **active enforcement**, which includes cameras, or **self-enforcement**, like bollards. Increasingly **new technologies like ISA, ADAS and geofencing** are tapped into.

Gautama examined the necessity of linking enforcement to UVAR design, creating mechanisms which suited the specific context on the ground. Legal options, political/culturally accepted options, level of compliance expected, available human and financial resources for set up and operation, and data privacy laws should determine the compliance systems selected in each city.

At the same time, compliance requires adequate knowledge of the system in operation, and communication prior to establishment, during and after is critical.

Stakeholder engagement, communication & public acceptance

As the experiences of each pilot city revealed, **stakeholder engagement** is a crucial aspect of any decision-making process. Only through the active involvement of different stakeholders can needs be fully apprehended and addressed.

Indeed, regardless of size, location, or political economy, stakeholder engagement was an indispensable element in each city; arguably making or breaking a scheme. She reminded the audience that UVARs are not a static process, one UVAR scheme generally leads to another, acceptance is essential to make it politically feasible to be gradually more ambitious.

Julie Schack, Transport planner at WSP walked delegates through the engagement process, examining how processes could be rolled out, when and who they needed to engage.

“Understanding the user needs and engagement at an early stage, while the concept is still flexible will be crucial to gain the trust that is needed to shape a good UVAR” said Schack.

Developing a **stakeholder engagement strategy** at the early stage of the processes, while choosing the right tool (e.g. meetings, surveys, online/physical gatherings) depending on the objectives of the consultation and the target group is necessary to ensure users feel fully involved. It is important to consult both those in the UVAR and outside the UVAR, as they will be affected too.

Communication is also essential: users cannot comply with an UVAR they are not aware of! Communication has a vast impact on the way UVARs are perceived and accepted, especially regarding the purpose and benefit on their lives.

ReVeAL also demonstrated the varying degrees and fluctuation in **public acceptance**.

“We need to understand that it is not a linear route, public acceptance will vary over time. As the concept progresses towards implementation, more concrete definitions around the scheme design are developed and presented to the public. The scheme becomes more “real” (and potentially personally relevant) to those who may be affected and a “not in my back yard” reaction may occur,” warned Schack.

Key success factors include selling the benefits of UVARs to the general public, as well as the way they are framed, where they are communicated (channels) and when has a major impact on their acceptance.



The ReVeAL tool

AccessRegulationsForYourCity: selecting UVAR measures to fit your city using ReVeAL's Decision Support Tool

UVAR strategies must be implemented according to the goals, ambitions and capacity of each city and local government. To support decision-makers in this process, ReVeAL developed an **open-source online UVAR tool** made for local governments and decision-makers: [AccessRegulationsForYourCity](#).

The tool consists of 15 questions that can be answered in 5-10 minutes by a city representative who knows the local mobility context and goals well. Through their responses, the tool filters the 33 UVAR building blocks identified in the ReVeAL project to suggest the ones that are likely to suit the local context. Each building block is linked to a factsheet, case examples, and to the ReVeAL guidance.

The final conference was used as an opportunity to launch the tool and a chance for other cities attending to find out more.

What's behind the tool?

The tool was developed through ReVeAL's activities in the pilot cities across the last 3 years. Sofia Pechin, TRT, presented how ReVeAL developed the tool and the impetus behind it.

The tool seeks to identify relevant aspects that a decision maker would need to consider when choosing a UVAR scheme, providing suggestions based not only on the **current situation** but also on a city's goals.

To develop the tool, the appropriateness of each of the 33 building blocks was assessed against each of the identified 93 local-level characteristics (they have different weights according to their importance), with prioritisation of some aspects in the decision-making process. This led to the creation of a matrix with over 3 000 values!

The tool output is a list of 5 to 10 UVAR building blocks, sorted according to the total appropriateness score for the relevant aspects selected by the tool user.

Cities have a lot to gain from the tool. They will access lessons learnt for each building block through the 33 fact sheets which lay out an overview, context, advice, complementary measures, possible combinations, and case studies. These are also linked to the [ReVeAL guidance](#).

A demonstration of the tool

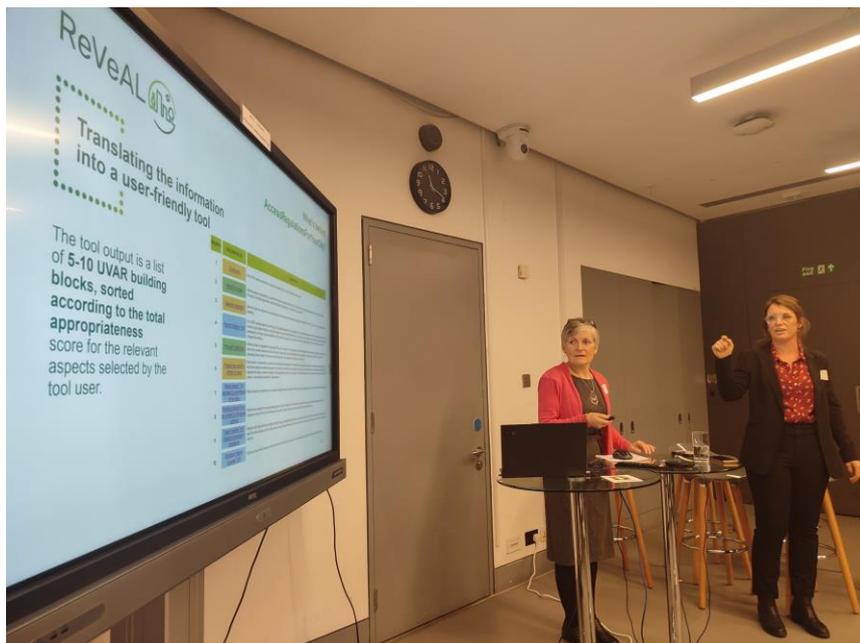
Bonnie Fenton then demonstrated the tool and what a city can gain from using it.

“Spatial interventions, permits to travel and pricing mechanisms are all aspects for consideration, and the tool matches the building blocks within these which may go well together,” said Fenton.

Delegates were walked through a live demonstration, showing how the tool accommodates for existing measures, main activities, mobility services available, as well as the socio-economic makeup of the area.

The tool then looks to the objectives of the area- be it noise reduction, inducing active travel, decongestion- and the available finances.

The tool provides possible measures for the city and appropriate guidance.



Bonnie Fenton (Rupprecht Consult) and Sofia Pechin (TRT) presenting the ReVeAL Tool

Wrapping up!

To finish the event, all pilot cities joined for a panel discussion to share the challenges they faced, the solutions they found and their recommendations for others.

The consensus was clear, public acceptance was the bedrock of any UVAR scheme, a process which starts at the ideation phase, and goes on throughout the implementation. Each city approached this slightly differently, with Jerusalem launching a large city-wide campaign, with Vitoria-Gasteiz taking to the streets to focus on the specific district where work was being undertaken.

The cities also noted ReVeAL had been a chance to consolidate, enhance and expand complimentary measures such as bike lanes, while highlighting the importance of such alternative modes to citizens.

The importance of collaboration with the political and administrative levels was also shown. The panellists described how these decision-makers could be brought on board and maintained on-side as situations or administrations shift.

Equity was also of vital importance. The cities needed to launch comprehensive assessments of planned action on all user groups. If you implement barriers, who may be affected? If you reduce car space, are there any vulnerable users who may lose out? If implementing new active travel infrastructure, how can you ensure these are accessible to all?

The cities noted the importance of ensuring engagement processes reached a variety of groups, making material available to all different groups, varying outreach platforms... and starting early!

Embedding UVARs within the city's wider sustainable mobility strategy was indispensable; climate neutrality goals, modal switch, emissions reduction, and clean fleets. UVARs are not about completing switching a city's transport approach, but complementing, supporting and propelling the journey they are on already.

Careful consideration of exemptions and their communication were also key. "As few as possible, but as many as necessary," said Matthieu Graindorge, from Helmond.

Finally, did the cities have advice for cities starting out with UVARs now?

"Choose the people you work with well, if you define your needs, budget and focus, you will find the right people, who will be able to support you," said Nimrod Levy from Jerusalem.

"Each city that wants to start with a UVAR should join a consortium like this! The exchange of knowledge and support was crucial for us," asserted Olaf Lewald, Bielefeld.

“At the same time, I cannot stress enough the need for stakeholder discussion, an honest one about the pros and cons, and their role in the decision-making process, that the final decision is in the hands of the elected politicians.”



The ReVeAL Consortium in London, November 2022