

A toolkit to help your city develop good practice Urban Vehicle Access Regulations (UVARs)

Authors: Lucy Sadler^a, Bonnie Fenton^b, Sofia Pechin^c all of the ReVeAL project, <https://civitas-reveal.eu>, [corresponding author lucy.sadler@airqualitypolicy.eu](mailto:lucy.sadler@airqualitypolicy.eu)

a) Sadler Consultants Europe GmbH (www.airqualitypolicy.eu and www.urbanaccessregulations.eu), b) Rupprecht Consult (www.rupprecht-consult.eu), c) Sofia Pechin, Transport and Territory (www.trt.it)

Word count: 4597

Number of figures/pictures: 10

Abstract

Urban Vehicle Access Regulations (UVARs) are a useful tool used widely in Europe that help the move towards people-friendly cities and help reduce transports climate impact. They include pedestrian zones, low emission zones, congestion charging, traffic limited zones, pedestrian priority zones and spatial interventions. The ReVeAL project produced a toolkit to support authorities developing UVARs, developing and trialling it with 6 cities. This article outlines how other cities can use the ReVeAL toolkit to develop good practice UVARs, to help take urban road and parking space from motorised vehicles, and give them to people and sustainable mobility.

Introduction

As outlined in the article in the last issue, many European cities restrict access to an area, road, or portion of a road to all, or to specific vehicle categories of, motor vehicle traffic. This is done to improve issues such as safety, health, the environment or mobility (such as reducing congestion or air pollution, or increasing sustainable mobility). When such restrictions are implemented in urban and metropolitan areas, they are referred in general terms to **Urban Vehicle Access Regulations** or **UVARs**.

Over 700 UVARs are currently in place in over 500 cities across Europe. These are shown in Figure 1, with more details available at www.urbanaccessregulations.eu¹, where further details on these UVARs can also be found. If you have not yet read the UVAR article in the May 2022 issue of this magazine², we would recommend you do this.

The [ReVeAL project](#), **Regulating Vehicle Access** for Improved Liveability, helps to add Urban Vehicle Access Regulations (UVAR) to the standard range of urban mobility transition approaches of cities across Europe, by providing an online toolkit for cities considering UVARs.

¹ Sadler 2022 www.urbanaccessregulations.eu

² World Transport Policy and Practice May 2022, Urban Vehicle Access Regulations (UVARs), Lucy Sadler, Cosimo Chiffi and Bonnie Fenton <https://static1.squarespace.com/static/619593021331d42c0b62a1c6/t/62868b9445dd3825612cb8e4/1652984802401/WTPP27.1-May2022-HighRes+%2818mb%29.pdf>



Subscribe to newsletter

Search ...

English

Urban Access Regulations in Europe

Overviews ▾ Schemes by Country ▾ Low Emission Zones ▾ Urban Road Tolls ▾ Other Restrictions ▾ Cities & Ministries ▾ Additional Services ▾ News

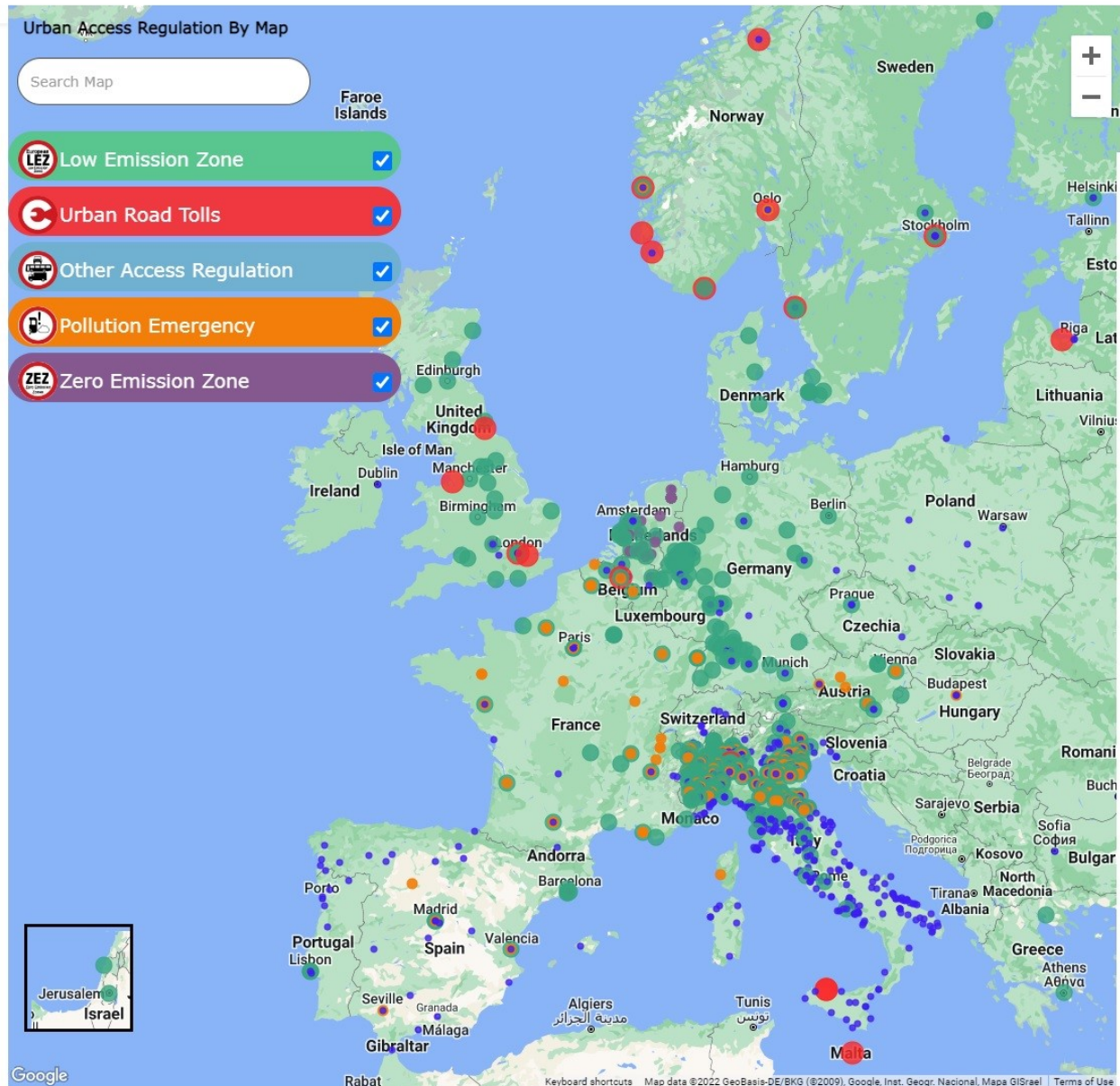


Figure 1: UVARs across Europe as shown on www.urbanaccessregulations.eu

ReVeAL explained – the basics

An UVAR can be a simple or a complex measure. In the ReVeAL method, we break each UVAR down into its component building blocks, to allow an UVAR to be developed that suits your city.

In order to understand what a complete UVAR “package” consists of, the ReVeAL project analysed a wide range of UVAR schemes to identify the constituent components of the scheme. 33 UVAR “building blocks” were identified that can be combined to create an UVAR package. The building blocks were categorised into three measure fields: 1) spatial

interventions, 2) pricing aspects and 3) regulatory measures, and split these into 12 sub-categories. Building blocks can be combined within or across the three measure fields to create an UVAR package. See Figure 2 for an overview of the ReVeAL building blocks.

For each of the 33 identified building blocks in **Error! Reference source not found.**, ReVeAL [developed building block fact sheets](#). Each factsheet (see Figure 3) provides a definition, a description of its implementation, which building blocks work well with each other, a case example of its use and other useful information about it.



Figure 2: UVAR building blocks and their categories, as defined in ReVeAL



Figure 3: Factsheets on the different building blocks.

ReVeAL has identified four cross-cutting themes – that are relevant to all UVARs (see Figure 4). The cross-cutting themes *user needs and public acceptance*, *governance and finance* and *ensuring compliance*. Complementary measures are cross-cutting in the sense that all UVARs need them, but the measures themselves are discrete measures that need to be combined with an UVAR, once a draft scheme has been developed.

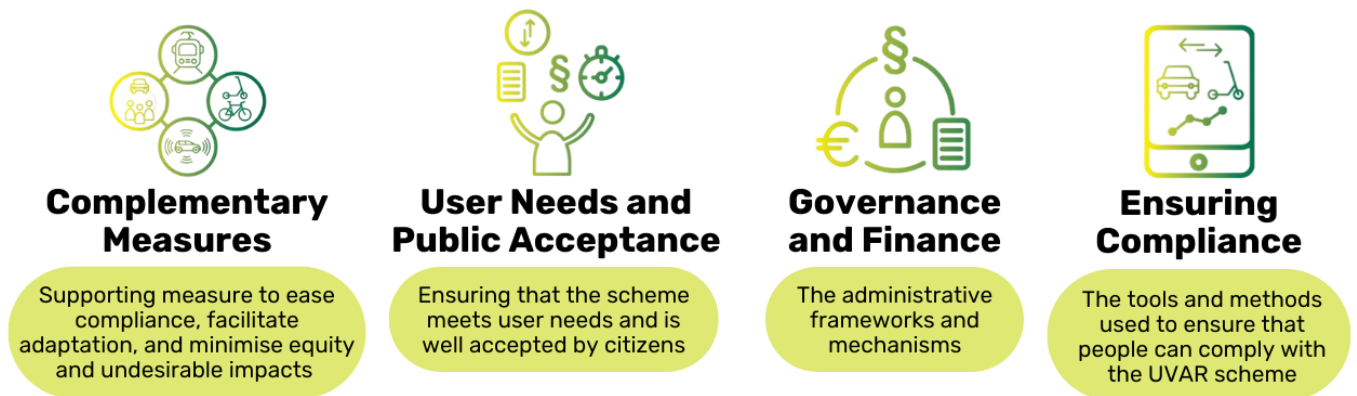


Figure 4: ReVeAL's four cross-cutting themes

The relationship between building blocks and cross-cutting themes can be visualised in Figure 5 below.

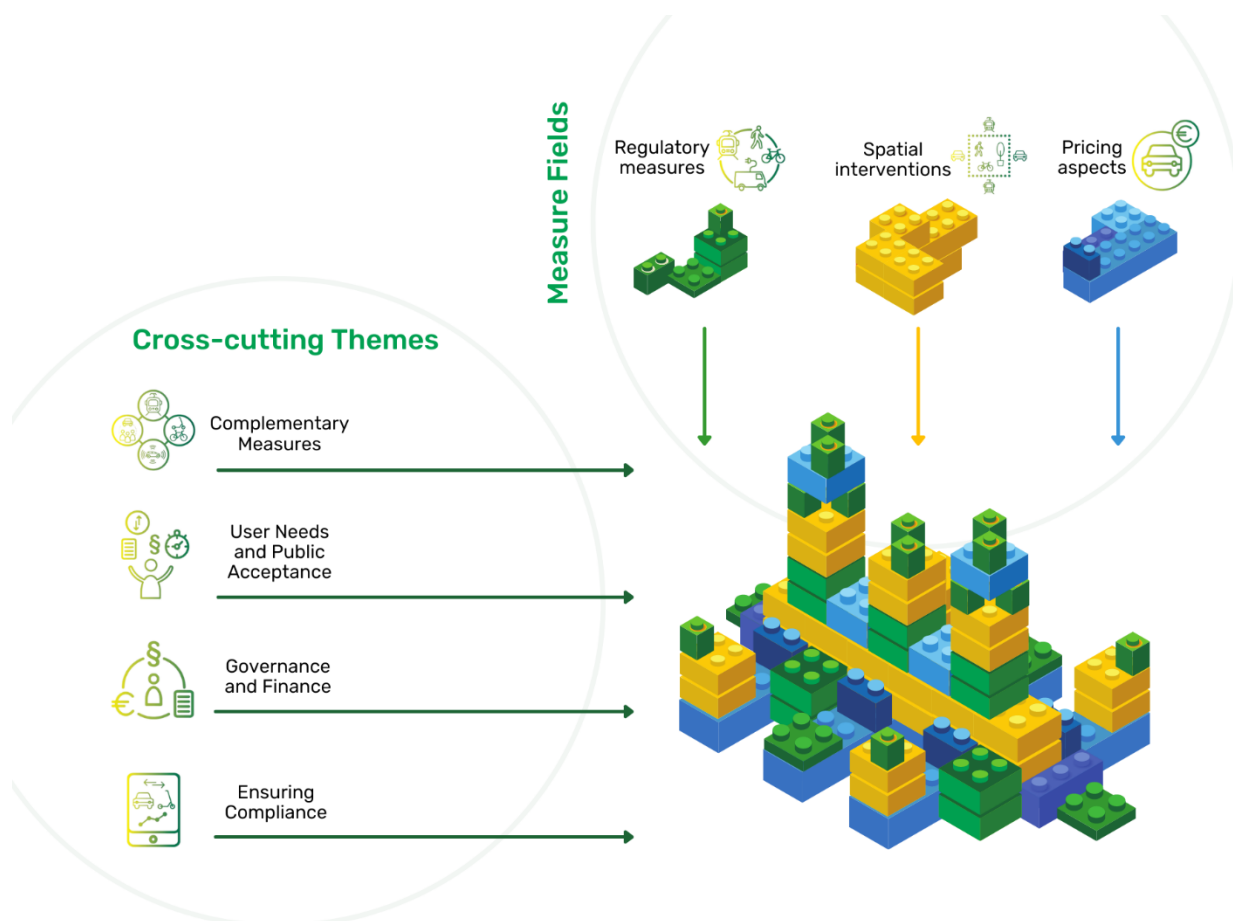


Figure 5: How the components of ReVeAL fit together

Cross-cutting themes

The cross-cutting themes are interwoven into each other, but have been grouped under the headings in Figure 4. While complementary measures are somewhat like building blocks, individual measures that can be chosen and added to the UVAR scheme, the other complementary measures are more ongoing themes that need to be addressed in any UVAR. The [ReVeAL guidance](#)³ goes into these in more detail, but an overview is given here.

Complementary measures

A supportive complementary measure is an additional measure that complements a planned UVAR to ensure access of people, goods or services into the UVAR area while maintaining the goals of the UVAR, easing compliance and facilitating the best adaptation to the new reality. It can also serve to minimise any equity issues that may result from the measure it complements.

Complementary measures can be crucial to making an UVAR feasible and successful. The planned UVAR should be implemented with an integrated package of supportive complementary measures to improve cost effectiveness and the performance of the UVAR with respect to the declared goal and specific objectives. Complementary measures can, for example, enable trips to be taken by transport modes not affected by the UVAR, facilitate a

³ <https://civitas-reveal.eu/resources-overview/publications/guidance/>

higher level of compliance or help to avoid a disproportionate impact on disadvantaged groups.

Complementary measures can also increase public acceptance by showing citizens that the UVAR is not just about requiring a change in their mobility options, but that it is implemented as part of a full package that provides concrete solutions to those who are asked to change their behaviour.

ReVeAL has identified four categories of complementary measures. These are:

1. Complementary sustainable mobility measures
 - Examples include additional public transport, increased or improved walking or cycling facilities, a consolidation centre, cycle logistics, micro-mobility, mobility hubs for different forms of shared mobility, a shuttle bus for those with reduced mobility or additional parking outside the zone⁴
2. Financial or in-kind incentives
 - Examples include grants for retrofits or exchanging parking/access permits for sustainable mobility vouchers
3. Exemptions
 - Examples include vehicles for people with disabilities, emergency vehicles, and – especially during the introductory phase – residents.
4. Organisational support or other solutions based on the local situation
 - Examples include pilot projects to support adaptation to the UVAR, linking service providers to one another, adapting the UVAR operating times or organising joint procurement⁵.

Supportive complementary measures can be added to and selected with the UVAR building blocks and can work as paired carrot and stick measures to encourage more people towards the desired mobility behaviour. The UVAR might be seen as a stick while the supportive complementary measures are the corresponding carrot. However, spatial interventions can also act as complementary measures to regulatory or charging UVARs, by making use of the space for perhaps recreation or faster bus or cycle mobility. The overall scheme should include a balance of rules and restrictions together with services and opportunities that accompany them. The main thing to keep in mind is that the accessibility *of people and goods* is enabled, even if it is not with individual vehicles.

⁴ The European Sustainable Urban Mobility Plans ([SUMPs](#)) outline a structured approach to mobility planning. There are SUMP topic guides that provide guidance on the implementation of many sustainable mobility measures. Sustainable urban logistics planning, micromobility, active mobility and electrification may be particularly relevant; all have SUMP topic guides. See www.eltis.org/mobility-plans/topic-guides. For logistics measures, there are the [Sustainable Urban Logistics Plans \(SULP\) Guidelines](#). Additional guidance on parking can be found at [Park4SUMP](#).

⁵ examples of complementary measures, including organisational support are given in the [Dutch Zero-Emission Zone Support Framework](#), also translated into English <https://drive.google.com/drive/folders/1rp-fNiBilxPcDf9d-valXxcAUqqZhRGH?usp=sharing>

Governance

For ReVeAL, good governance implies transparent procedures for policy and project design, project management, procurement, financial management and allocation of revenues at the local level. In many cases, policy and operational coordination is needed between different levels of government affected by the UVAR.

At its best, effective governance translates into professional project management of the UVAR scheme, with accompanying measures (short and long term) institutionally anchored by means of a specific agency/authority, different agencies working together or through the establishment of public-private partnerships.

Key aspects include:

- Decision-making context
- Legal frameworks (national and local)
- UVAR-specific EU legal issues
- Institutional setting and organisational arrangements
- Policy frameworks and planning instruments
- Political instruments
- Enabling sufficient resources (human and financial)
- Integration and interaction of cross-cutting themes (including champions; see below)
- Communications
- Champions for the UVAR
- Planning the UVAR in the context of electoral cycles.

User Needs

It is important that the UVAR area is still open for people and goods, even if it is not by their first mode of choice. So user *needs* are important to consider – rather than perhaps their *desires*. Stakeholder involvement is a good way of ensuring that the needs of users are met, ensuring that it is not only the ‘usual suspects’ with loud voices that are heard, but also those that may find it harder to attend meetings or reply to consultations and otherwise make their voice heard.

Listening to all helps ensure that the UVAR is fair, and improves transport for those that may not always be well served by current transportation. The issue of spatial justice is also relevant here. Why should those travelling sustainably – which takes less space – be squashed onto a marginal space, and the majority of the space be given over to those travelling less sustainably.

The [arrogance of space](https://colvilleandersen.medium.com/the-arrogance-of-space-93a7419b0278)⁶ highlights the difference between space given over to cars and to people in many European cities. This applies both to moving and to parked cars and, considering that the average car is parked roughly 96% of the time⁷, most cities dedicate astonishing amounts of their precious public space to the storage of private property. The

⁶ <https://colvilleandersen.medium.com/the-arrogance-of-space-93a7419b0278> and <https://www.youtube.com/watch?v=CfXP6KOVBOY>

⁷ Source: <https://www.racfoundation.org/research/mobility/spaced-out-perspectives-on-parking>

three images in Figure 6 demonstrate the difference in public space consumed by the same number of people when they are travelling alone by car, walking, cycling or using the bus.

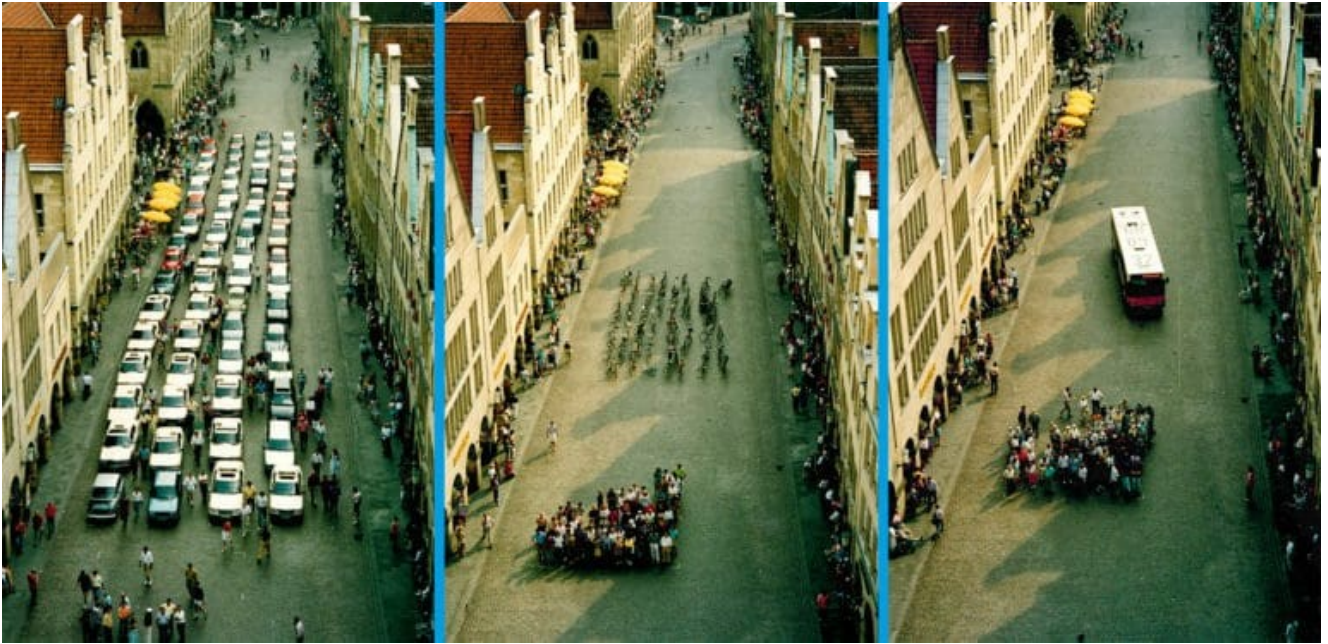


Figure 6: Space taken by people when they are travelling by individual cars as compared to by bicycle, on foot or by bus (source: [Stadtwerke Münster](#))

Public Acceptance

Stakeholder involvement is a key part of meeting user needs and achieving public acceptance, as discussed above. If user needs are not taken into account when designing an UVAR scheme, a city may end up with a system that does not work as anticipated. It is important here to distinguish between user *needs* and user *desires*. The need may be to access the area, the desire may be to access the area by private car; ensuring the perceived access *need* is appropriate and an issue that the UVAR should address, but this may not always be in the *desired mode*.

It is important to make sure the needs of all groups are heard, and the diversity of different needs in a city is one of the reasons why UVARs are not a one-size-fits-all solution. There is a risk that essential transport needs cannot be met or that certain groups will be unintentionally disproportionately affected if stakeholders are not involved. Some user concerns can be addressed, but the supposed automatic “right” to drive everywhere may not.

Public opinion and acceptance will almost certainly vary across user groups. While it is unreasonable to expect the scheme to please everyone, overall, it is important for any UVAR scheme to have a high level of general local support for it to work well. A scheme that is well designed with stakeholder involvement, tackling a known and agreed-upon problem has good chance of being accepted. Public opinion may vary across societal groups, as will the needs. Furthermore, public acceptance and opposition often fluctuate over time, meaning acceptance should be seen as a continuous process and not a once-and-for-all “for or against” a specific UVAR.

Stakeholder involvement

As with the [SUMP process](#)⁸, stakeholder involvement is an essential part of implementing an UVAR. This is because it is likely to make a better, more accepted and adapted scheme. Taking the extra time and resources to engage with different users can seem to make the planning process expensive and risks making the outputs inconclusive. However, these efforts can uncover issues not previously considered by experts. They can also be a source of innovative solutions.

Stakeholder involvement needs to be designed so that it hears more than the voices of those resisting any change that will inconvenience them. A judgement will need to be taken as to which concerns are legitimate, and which simply want to resist change. Care needs to be taken to ensure that voices such as those of youth, women, minorities and those with disabilities are heard as clearly as those who may otherwise have undue influence over the process.

"WE SPENT NEARLY A YEAR IN STAKEHOLDER ENGAGEMENT, BUT IT WAS WORTH IT."

Juan Carlos Escudero, City of Vitoria Gasteiz
(when asked about how the city gained public support for
the removal of hundreds of car parking spaces to use for sustainable mobility)

"GENERALLY, STAKEHOLDER RELATIONS IS QUITE SIMPLE, IT IS JUST ABOUT TAKING PEOPLE ON A JOURNEY, MAKING THEM FEEL INVOLVED, AND ALLOWING THEM TO REPRESENT THE CITY THEY SERVE!"

Victoria Wilson, Transport for London

Communication

Communication is one of critical issues to take into account when planning and implementing an UVAR. Some of the reasons are:

- People cannot comply with an UVAR they are not aware of.
- How an UVAR is communicated will significantly affect how it is perceived; timely and appropriate communication can improve the perception.
- Dialogue fosters understanding and can enable a certain shared commitment, which can lead to voluntary compliance.
- Understanding the purpose of the UVAR makes people more willing – or at least less resistant – to adapt their behaviour; in this way, good communication contributes to the achievement of the goals of the UVAR.

Communication is related to how stakeholders are involved, but also goes beyond this to the general public within and outside the authority and even beyond the region and the country.

⁸ <https://www.eltis.org/mobility-plans/sump-guidelines>

"DON'T UNDERESTIMATE THE VALUE OF COMMUNICATION AS A TOOL, AS WELL AS HARD INFRASTRUCTURE. IF YOU GET YOUR MESSAGING RIGHT, PEOPLE WILL COMPLY."

Samantha Tharme, City of London

Communication plays a key role in all UVAR phases. The key aspects of communication for UVARs are:

- Two-way communication with stakeholders *while developing the UVAR*
- Dissemination of information about the agreed-upon scheme to enable people to comply; this includes opportunities to ask questions, *from the time the scheme has been confirmed and continuing during its operation*. This is essential and should be as wide ranging and use as many methods as possible – particularly for regulatory or area charging schemes.
- Providing opportunities to ask questions and for penalties to be contested *during operation*.
- Keeping people up to date on evaluation results and developments, and their implications *during operation*

The way an UVAR is communicated can make all the difference – as communication can in all strands of life. For example, is the road **closed** to motorised vehicles or **open to people**?



Figure 7: Two road signs for the same thing – one saying road closed, the other road open ([Alamy](#)).

Ensuring Compliance

It is important that an UVAR achieve high levels of compliance as an UVAR that is not complied with is not worth implementing. Indeed, it should be your goal to make it as easy as possible to comply with your UVAR, as greater compliance will lead to better achievement of the goals behind the UVAR. The main means of achieving compliance is, of course, effective enforcement. But it is important to keep in mind that there is more to ensuring compliance than blind enforcement of rules. Spatial interventions are often largely 'self-enforcing' through physical barriers or the alteration of the road layout. Ensuring compliance also includes aspects of communication as drivers can't comply with something they are not aware of. Flexibility, as can be achieved by well-focussed complementary measures, is also necessary, to minimise negative impacts for certain groups of users. Having established these aspects first, effective enforcement will be the "last line of defence" for your UVAR, and it must be planned and considered carefully from the beginning.

There are a wide range of factors to consider when it comes to choosing enforcement mechanism(s). The type of UVAR, the scale, the cultural, political and economic context and the legal framework in which you are working, as well as the attributes of each option are all factors to take into account when these choices are being made.

Finance

Financing refers to the way UVAR measures are funded and how any resulting revenue streams are generated and used. Within the ReVeAL context, any financial allocation must be fully transparent. Up-front financing of an UVAR scheme might be a challenge for an UVAR implementer, but there are financing instruments and options which can be considered for this purpose⁹, as well as the option to rent as oppose to buy enforcement equipment. Sometimes a higher initial investment can reduce operational costs. Clarity about how any revenue streams from UVARs (e.g., from fines or fees collected) are spent (in particular ringfencing any revenue for sustainable mobility), can improve acceptance. That said, UVARs (unless designed as toll schemes) are rarely net money makers. Generally, the city should prioritise compliance over collecting fines.

The financing of complementary measures also needs to be considered; this may take place at a national (e.g., retrofitting grants) or at the regional or city level (e.g., subsidised public transport passes or improvements in walking and cycling facilities).

Getting started with your UVAR

The first action of any UVAR development is to assess the 'business-as-usual' situation (i.e., what will happen if we continue on the same path). This helps identify the problem, what needs changing and which vehicles will be affected. For example: is the problem caused by commuters to the area or through traffic? Is it caused by light or heavy-duty vehicles? What sustainable mobility options are available for access to the potential UVAR area(s)?

The second step in developing an UVAR is to clarify the goal(s) that you aim to achieve by implementing it. An UVAR may help with many aspects of the city's strategies, and it is useful

⁹ See eg [SUMP Guidance on Funding and Financing](#)

to clarify which *main goals* the UVAR should achieve. For example, reducing traffic volume will likely also improve air quality and reduce noise, climate emissions and congestion. It may also increase walking, cycling and public transport use, improve safety and enable more liveable space, all of which may be city goals.

There are several factors that might affect the goal of the UVAR, including:

- the main mobility-related problem in the city,
- how the scheme is perceived and communicated, and therefore accepted
- the national law under which the UVAR is implemented
- an UVAR often requires a clear legal justification in the form of an identified goal that can be measured as having been met. If this is not the case, the UVAR may be vulnerable to legal challenges

It is therefore wise to have one main goal for which the new UVAR is being implemented and acknowledge that it will support other aims as well.

Developing an UVAR is best done using a participatory process. One way to approach the process is through a series of workshops with selected stakeholders to select the building blocks (and then complementary measures) that are most appropriate for the city's UVAR.

Different stakeholders will need to be engaged in the process, both to ensure that all aspects are considered, as well as to gain buy-in for the scheme. Stakeholders range from colleagues from different departments in the city authority, politicians, different layers of government and many different aspects of society. As with many things, a balance needs to be struck; you and your colleagues know your city, its stakeholders, and the context of the UVAR development best. Even if there is no or little history of participatory development in the authority, it is worthwhile trying it.

Involving stakeholders early in UVAR discussions will likely be better received than presenting them with a completed scheme; early involvement enables them to understand the purpose, offer constructive comments and help inform the development of the scheme, rather than being faced with a finished scheme to criticise. An UVAR development process that is and, importantly, is also *seen as*, transparent, open and fair can help increase public acceptance and ensure that legitimate are appropriately accommodated. Ensuring an inclusive UVAR development process helps achieve this.

Carefully considering the groups that you gather feedback from will ensure that your scheme is equitable and reflects the needs of the people who will be affected by it. This includes representatives of groups that may have particular needs, such as people with disabilities, the elderly or parents with children.

"WE HAD LOTS OF INVOLVEMENT IN OUR STAKEHOLDER PROCESS, AND SURPRISINGLY FEW CRITICAL VOICES. WE WOULD NORMALLY EXPECT MUCH MORE DISCUSSION AND CRITICISM IN THE PRESS. IT SEEMS THAT PEOPLE COULD PUT BOTH THEIR NEGATIVE AND POSITIVE COMMENTS INTO THE PROCESS AND FELT INVOLVED RATHER THAN FRUSTRATED. MAYBE PEOPLE DIDN'T KNOW ABOUT IT, BUT I DOUBT IT AS WE REACHED OUT TO MANY PEOPLE."

Oliver Spree, City of Bielefeld

Workshop participants need to be informed about the process and the building blocks, as well as the current assessments that have been undertaken of the city/area, so they are in a position to make decisions. The [REVEAL building block fact sheets](#) (Figure 3) clearly explain the building blocks and provide concrete examples to ease this process. Making the materials available in advance is useful to achieve this, as well as introducing them in the first workshop.

During the workshop, each participant ranks each building block in terms of how relevant they feel it is for the area under consideration for an UVAR. After this, a discussion among the participants of their choices, and the reasons for them, is useful. The different perspectives and opinions expressed may impact a participant's initial choices and they may want to modify the rank given. Another round of workshop(s) might be done after making a shortlist of options, after combining different views and impact assessments, and / or with different workshop attendees.

The ReVeAL project created an online [decision support tool](#) (Figure 8) which is intended to help users identify which UVAR building blocks might be appropriate for their local context. The online tool can help by steering the user to a combination of different UVAR building blocks that may become the basis of an UVAR package that suits the city. The ReVeAL [decision support tool](#) can be used to help participants identify the building blocks with the highest potential for success in their situation. One way to use the tool: in a first workshop, participants discuss building block options and comes to a general agreement on some that may be valuable. In a second workshop, the participants use the ReVeAL tool to see if it offers any new options. The differences and similarities can be compared and discussed.

- Pedestrian Zone, a ban of traffic plus new road surface

Regulation by vehicle type/dimension Reallocating road space for pedestrian

- LEZ

Regulation by emissions
• EURO standard

Regulation by vehicle type/dimension
• Vehicle type (e.g., HDV/LDV, car, van)

Exemptions

Grants

- LTZ

Regulation by permit
• Permit to travel

Regulation by trip purpose

Road charges/tolls
• Permit charge

Reallocating road space

Regulation by permit
• Parking permit

Additional Sustainable Mobility Measures

Exemptions

Figure 9: Typical combinations of building blocks for different UVARs

Ideally, these processes will lead to two or more different “packages” of building blocks for the project area or different areas, where different building block combinations, geographic scales, timing or implementation conditions are considered. These scenarios can then be assessed in more detail during the design phase in order to choose between them.

A complementary measure is an additional measure that complements a planned UVAR to ensure access of people, goods or services into the UVAR area while maintaining the goals of the UVAR, easing compliance and facilitating the best adaptation to the new reality. It can also serve to minimise any equity issues that may result from the measure it complements. It is useful to keep these in mind even at early stages of UVAR development; as they may make a building block possible or acceptable that otherwise would not be. They can also facilitate a more sustainable adaptation to the UVAR, reduce any undesired negative impacts on certain sectors of society or enable essential transportation needs. The need for complementary measures may arise from the project inception, in assessments, stakeholder workshops or through an understanding of the cultural, social and political situation in the city.

The ReVeAL toolkit

As described above, the ReVeAL toolkit is designed to help cities think about UVARs. It has been piloted in six European cities, and is completely scalable to different levels of city and scheme. It does not give a prescriptive method, but gives suggestions of types of building blocks that might be useful in your city, and how they might be combined to produce an UVAR package that suits you.

The toolkit consists of three aspects:

1. [Fact Sheets on each Building Block](#)¹⁰.

The factsheets include the definition of the building block, aspects relevant to timing, phasing and upscaling, time window options, complementary measure and enforcement

¹⁰ <https://civitas-reveal.eu/about/approach/>

options, equity issues and future considerations. Where issues cross more than one building block, they are covered in the ReVeAL Guidance.

2. [ReVeAL Guidance](#)¹¹

The ReVeAL guidance covers aspects that are broader than a single building block such as the cross-cutting themes, and/or go into more detail on implementational issues than the factsheets allow. There are also links to the other building blocks that might be relevant to use with each building block. The different aspects are linked from the factsheets where relevant, as well as available as a stand-alone document.

3. Decision Support Tool: [AccessRegulationsForYourCity.eu/tool](#)¹²

15 questions on your goal, your city and the area being considered for the UVAR, which gives a prioritisation of the building blocks that might be appropriate for your city.

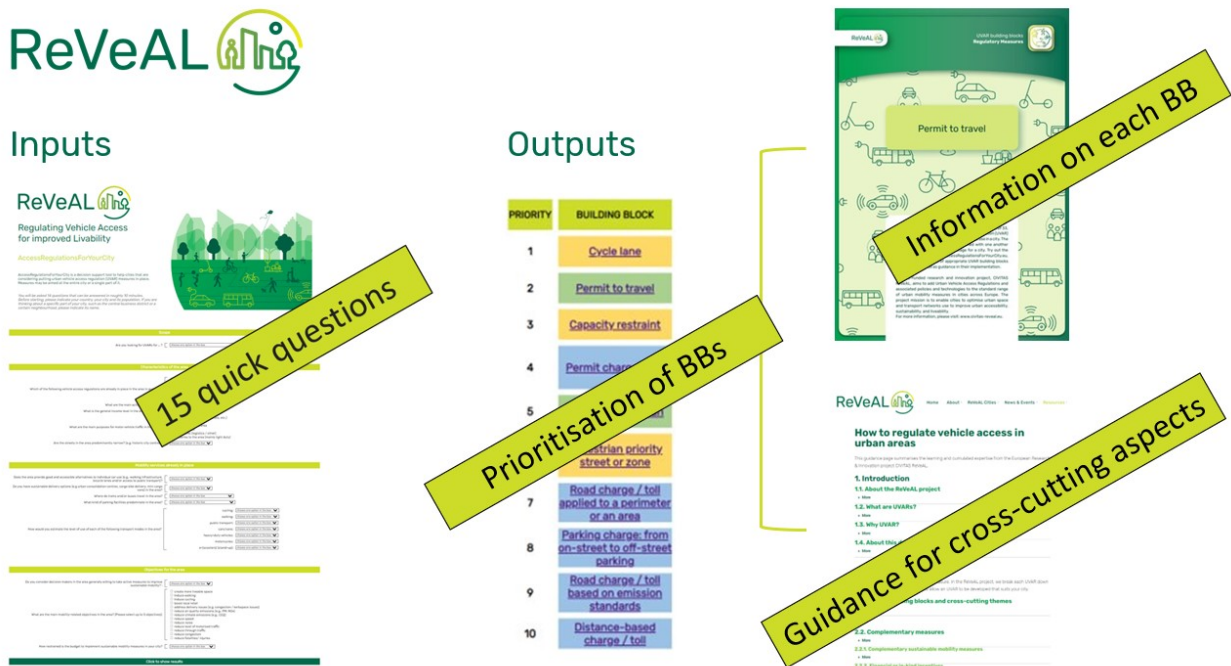


Figure 10: A schematic of the ReVeAL tool and its output.

The best way to start with the ReVeAL toolkit is to go to the [ReVeAL website approach page](#). Webinars on the ReVeAL toolkit will be available on the [ReVeAL website](#) at the end of November.

Acknowledgments: This article is written by members of the EU [ReVeAL project](#). ReVeAL was an EU research project that has developed an UVAR toolkit to support city authorities implementing UVARs; to help research, develop and trial this toolkit ReVeAL is supporting European six cities to develop UVARs. This article outlines how other cities can use the toolkit to develop good practice UVARs, to help take urban space from motorised vehicles, and give

¹¹ <https://civitas-reveal.eu/resources-overview/publications/guidance/>

¹² [AccessRegulationsForYourCity.eu/tool](#)

them to people. The authors also work on linked EU projects [UVARExchange project](#)¹³ and [UVARBox projects](#)¹⁴.

References:

Sadler 2022 www.urbanaccessregulations.eu/

World Transport Policy and Practice May 2022, Urban Vehicle Access Regulations (UVARs), Lucy Sadler, Cosimo Chiffi and Bonnie Fenton
<https://static1.squarespace.com/static/619593021331d42c0b62a1c6/t/62868b9445dd3825612cb8e4/1652984802401/WTPP27.1-May2022-HighRes+%2818mb%29.pdf>

ReVeAL 2022 (1) <https://civitas-reveal.eu/resources-overview/publications/guidance/>

Rupprecht Consult (editor), Guidelines for Developing and Implementing a Sustainable Urban Mobility Plan, Second Edition, 2019. <https://www.eltis.org/mobility-plans/sump-guidelines>

European Commission 2022 www.eltis.org/mobility-plans/topic-guides

Memex 2015, Sustainable Urban Logistics Plans (SULP) Guidelines,
<https://www.eltis.org/resources/tools/planning-sustainable-urban-logistics>

Mobiel 21, 2022 <https://park4sump.eu/>

ReVeAL 2022 (2) <https://civitas-reveal.eu/about/approach/>

Zero Emissie Stadslogistiek 2022, <https://www.opwegnaarzes.nl/kennisbank>, translated into English <https://drive.google.com/drive/folders/1rp-fNiBilxPcDf9d-valXxcAUqqZhRGH?usp=sharing>

Mikael Colville-Anderson 2019, <https://colvilleandersen.medium.com/the-arrogance-of-space-93a7419b0278>

Mikael Colville-Anderson 2020, <https://www.youtube.com/watch?v=CfXP6KOVBOY>

Stadwerke Münster 1990, <https://www.stadtwerke-muenster.de/blog/verkehr/das-wohl-bekannteste-muenster-foto-der-welt/>

RAC foundation 2012, <https://www.racfoundation.org/research/mobility/spaced-out-perspectives-on-parking>

<https://www.eltis.org/mobility-plans/sump-guidelines>

Wuppertal Institute, 2019, SUMP Guidance on Funding and Financing,
https://www.eltis.org/sites/default/files/funding_and_finance_of_sump_v2.pdf

ReVeAL 2022 (3), <https://civitas-reveal.eu/about/approach/>

ReVeAL 2022 (4), <http://accessregulationsforyourcity.eu/tool/>

ReVeAL 2022 (5), <https://civitas-reveal.eu/news-events/news/>

UVAR Exchange 2022, <https://uvarbox.eu/uvar-exchange/>

UVAR Box 2022, <https://uvarbox.eu>

¹³ <https://uvarbox.eu/uvar-exchange>

¹⁴ <https://uvarbox.eu>