



# Final project publication – Final results from TuneOurBlock and ULL activities (in English)

**Deliverable: 7.3b**

Version: 1.0  
Date: 30. June 2024

## **TuneOurBlock**

***Transforming urban quarters to human scale environments: applying superblock concepts for different urban structures***

 Federal Ministry  
Republic of Austria  
Climate Action, Environment,  
Energy, Mobility,  
Innovation and Technology

 Bundesministerium  
für Bildung  
und Forschung

  
**ARRS**  
SLOVENIAN RESEARCH AGENCY

*ERA-NET Cofund Urban Accessibility and Connectivity*

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 875022.



European  
Commission

URBAN  EUROPE

**Lead editor:**

Patrick Diekelmann (Difu)

**Authors:**

Uta Bauer (Difu)

Lisa Ruhrort (Difu)

Valentin Gebhard (MA18)

Florian Lorenz (LAUT)

Georg Wieser (LAUT)

Ulrich Leth (TU Wien)

Helmut Lemmerer (TU Wien)

Valentina Haas (Changing Cities e. V.)

Nicolina Kirby (RIFS)

Dirk von Schneidmesser (RIFS)

Joshua Grigsby (STC)

Viktoria Sandor (AIT)

Johannes Müller (AIT)

Jerney Tiran (ZRC SAZU)

Francesco Remonato (STC)

**Project Partners**

<b>Name of Organisation</b>	<b>Type of Organisation</b>	<b>Country</b>
TU Wien - Institut für Verkehrswissenschaften (TUW)	University or Other Educational Institution	Austria
Austrian Institute of Technology (AIT)	Public or Private Research Organisation	Austria
Studio LAUT (LAUT)	Business – SME	Austria
City of Vienna - Department for Urban Planning and Development (MA18)	City Authority/Municipality	Austria
Smarter Than Car (STC)	Other Non-Profit Organisation	Austria
Deutsches Institut für Urbanistik (DIFU)	Public or Private Research Organisation	Germany
Research Institute for Sustainability, Helmholtz Centre Potsdam (RIFS)	Public or Private Research Organisation	Germany
Changing Cities e.V. (CC)	Other Non-Profit Organisation	Germany
Research Centre of the Slovenian Academy of Sciences and Arts (ZRC SAZU)	Public or Private Research Organisation	Slovenia

# Contents

- 1 The TuneOurBlock project..... 1
- 2 The most important facts in brief..... 2
- 3 The superblock concept ..... 4
  - 3.1 Adaptation of the Superblock concept in Germany and Austria..... 5
  - 3.2 Realisation of superblock concepts in other European cities..... 7
  - 3.3 General definition of superblocks ..... 8
- 4 Methodological approach in the TuneOurBlock project..... 9
  - 4.1 Reallabor Berlin ..... 9
  - 4.2 Reallabor Vienna ..... 10
  - 4.3 European network of cities ..... 11
- 5 Experiences with the realisation of superblocks..... 15
  - 5.1 Superblocks need visions ..... 15
  - 5.2 Planning superblocks - interdisciplinary and agile implementation ..... 16
  - 5.3 Of bollards and plant troughs - transformation needs aesthetics ..... 18
  - 5.4 Pilot phases have advantages and disadvantages..... 19
  - 5.5 From information to participation to joint cooperation ..... 19
  - 5.6 Dealing successfully with resistance and conflicts..... 22
  - 5.7 Effects of superblocks ..... 23
  - 5.8 Conclusion ..... 24
- 6 Outlook..... 26
- 7 Bibliography ..... 27
- Acknowledgement ..... 30

# 1 The TuneOurBlock project

In response to climate change and the growing burden of car traffic in many European cities, the concept of superblocks from Barcelona has attracted a lot of attention in recent years. The street space, which is currently predominantly reserved for car traffic, is to be utilised with this planning instrument for people's stay, mobility for all, health care and climate impact adaptation. The reorganisation of public space can be described as a comprehensive urban transformation process that can only succeed together with the population.

TuneOurBlock was a three-year research project that focussed on the transferability of this planning instrument to the conditions in Berlin and Vienna in particular. The project analysed the superblock concept as a policy and planning strategy for the comprehensive transformation of urban spaces in terms of traffic calming, climate protection, climate adaptation and quality of life. A particular focus was on the question of the extent to which successful concepts in one country can be transferred to other national and local contexts. To this end, strategies for cooperation between different stakeholders and practical steps in the implementation process were analysed. In the real-world laboratories in Vienna and Berlin, the obstacles and success factors were analysed on a local level and solutions were further developed in close dialogue between research and practice.

TuneOurBlock essentially investigated the following research questions:

- What is meant by the superblock concept in different national and local contexts?
- How is the Superblock concept implemented locally? How is the implementation process organised?
- How can residents be involved and how can administration and civil society work together efficiently?
- To what extent are superblock projects more than a locally effective traffic calming measure? Can they be used as a fundamental building block for comprehensive urban transformation processes towards sustainability?

The research questions were reflected together by a European city network of municipal and civil society actors. Representatives from Amsterdam, Barcelona, Brussels, Ghent, London, Lodz, Ljubljana and Rotterdam took part in the first city network meetings.

Partners from Germany, Austria and Slovenia were involved in TuneOurBlock. The project is a funding measure of national institutions, in Germany the Federal Ministry of Education and Research (BMBF), in Austria the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK), as well as the EU "Urban Accessibility and Connectivity" within the Joint Programming Initiative "JPI Urban Europe".

## 2 The most important facts in brief

### **Superblocks are booming internationally**

Barcelona has already implemented seven of the blocks, London is following suit with 72 low-traffic neighbourhoods, Vienna has its first Supergrätzl, Berlin has several Kiezblocks, Stuttgart is launching its first Superblock traffic trial in spring 2024 and Zurich also wants them - there is undoubtedly great international interest in widespread traffic calming measures. At the same time, experience in various cities shows that there are different ways to achieve a superblock; a checkerboard street pattern like in Barcelona is not a mandatory requirement. Irrespective of this, however, there are some "must haves" that the TuneOurBlock research project has identified for successful implementation.

### **Top down versus bottom up - different players provide the impetus**

While in Barcelona, Vienna, Ghent or Vitoria-Gasteiz - to name just a few examples - local politicians or administrations are launching superblock projects in response to various urban problems, it is striking that in German cities the initial impetus often comes from civil society. With almost 70 local citizens' initiatives, Berlin can now be described as the capital of the "neighbourhood block movement". Nevertheless, both approaches have advantages and disadvantages. While the top-down approach facilitates a city-wide, cross-departmental strategy and response to central municipal challenges (traffic, air pollution control, climate adaptation, etc.), bottom-up driven projects are characterised by a broader social consensus, which is sometimes only based on a low common denominator (traffic calming).

### **One superblock does not a traffic turnaround make**

Although superblocks as a single measure can help to reduce through traffic locally and improve the quality of life, but they only show their true potential when they are seen as part of an overall urban transformation, as in Barcelona. Only a mosaic of several superblocks can lead to active modes of transport becoming more attractive, greener spaces enabling people to stay and meet, and better cushioning against extreme weather events. Superblocks therefore need a vision of how competition for street space should be resolved in the future. In Berlin, only the district of Friedrichshain-Kreuzberg has developed a concept for the comprehensive implementation of neighbourhood blocks.

### **Superblocks are not uncontroversial, but dissenting voices are fading over time**

The less superblocks are implemented as individual, temporary measures and the more they are understood as a comprehensive urban transformation, the louder the opposition will be. The following experiences help to counter resistance:

- Courageous leaders who stay the course back the administration. Prominent role models are the mayors of Barcelona, Ada Calau, and Paris, Anne Hidalgo.
- The overarching narrative of the superblocks can also play an important role. In Barcelona, the qualities of public space, health and the social interaction of the population take centre stage. In Vienna, superblocks are seen as an "answer to the climate crisis for the densely populated existing city", while in Berlin, transport policy takes centre stage, too.
- Intensive communication with local residents and neighbours, at an early stage and proactive, is a key component. The benefits of neighbourhood blocks for residents and businesses must be convincingly communicated. Data and facts are necessary in

order to justify measures well on the one hand and to be able to refute fears on the other.

- Prioritising the redesign of streets in front of schools and day-care centres and combining this with school route planning and the establishment of school zones improves acceptance.
- Media influence public opinion. Distorted opinions created by a few loud opponents should be avoided. The quiet but approving majority of the population is much less likely to have their say in the press.
- Temporary measures make the added value of the superblocks tangible, but they must not look "cheap" and require regular maintenance and care.

### **Politicise or de-politicise**

Questions of political acceptance are highly topical in cities. The way they are dealt with varies greatly. While some municipalities rely on selective and street-related interventions i.e. tend to "de-politicise", others can rely on stable political majorities and local politicians (e.g. London Waltham-Forest) who enjoy the trust of the population and stay the course. Civil society movements are another driving force for urban transformation. In Berlin, the 2016 bicycle referendum, which gave rise to Changing Cities association, has led to a large number of local neighbourhood block citizens' initiatives. Nevertheless, a "politicisation strategy" is no guarantee of success. Politicisation and de-politicisation can alternate or complement each other.

### **Superblocks have many positive effects**

The number of comprehensive impact analyses on realised superblocks is still quite small. Nevertheless, the well-researched Low Traffic Neighbourhoods in London and individual superblocks in Barcelona refute common fears. The idea that the economic success of a shop is linked to accessibility by car and parking in front of the shop is very persistent. However, analyses of the superblocks in Barcelona prove the opposite: traffic calming leads to an increase in sales rather than a loss of sales. Based on sales data from credit card payments, it can be proven in Barcelona that remodelled 'superillas' are economically attractive (UBA 2023, p.49). The feared displacement of motor vehicle traffic into the neighbouring main road network either does not occur or is so small that the existing road network can absorb the traffic.

### **Finally, Ariadna Miquel's recommendation for other cities:**

"Be courageous! Be convinced of what you are doing. Be patient! Give people the time to understand your ideas and plans, to understand the change. When people see and feel the benefits of the measures, they will not want to go back. Nobody will want to go back to the way things were. Use the knowledge about the effects on health." (UBA 2023, p. 42) (Ariadna Miquel, Barcelona, 14 November 2022)

### 3 The superblock concept

The idea of superblocks ("superilles" in Catalan) comes from Barcelona and is based on the typical checkerboard street pattern there. Enormously high population densities, few green spaces and health-threatening levels of noise and air pollution from road traffic forced the city council to take action. The superblocks were mentioned for the first time in the 2013-2018 urban mobility plan (Ajuntament de Barcelona, 2014). Implemented across the city, the superblock model can be seen as an urban "transformation intervention" (Zografos et al., 2020) that no longer places the car in the foreground, but rather people and redistributes public space.

In Barcelona, a superblock is defined as a street block of around 400 by 400 metres or three by three blocks in which vehicle traffic is reorganised. A system of diagonal barriers and one-way streets means that motor vehicles can no longer cross the neighbourhood. Pedestrians and cyclists have priority, while the remaining cars are only allowed to enter or exit at 10 to 20 km/h. Public transport will be optimised at the outer edges of the superblocks. The street space thus gained will be utilised anew: Trees will be planted, flowerpots placed, park benches erected and play facilities created. Initial experience with the "superblock" idea was gained in the Gràcia district back in 2003. Between 2015 and 2020, five more superblocks were realised and three more are planned (Federal Environment Agency [UBA], 2023). The plan is to create a comprehensive network of 503 superblocks covering the entire city of Barcelona.

The redesign is being carried out in several stages, starting with the traffic organisation and the temporary redesign of the public space through to permanent construction measures. The first superblock according to the above definition was created in 2017 in the Poblenou neighbourhood - initially with a lot of resistance from business people and residents.

Based on the experiences in Poblenou, the original strategy was adapted for the first time by placing greater emphasis on the participation of residents and neighbours. Greater consideration was to be given to the complexity and major investment required for structural changes.

The original strategy is now being continuously adapted, partly because the pressure to act is increasing due to longer periods of heat and drought as well as heavy rainfall events, and partly because the transformation process is progressing more slowly than planned (UBA, 2023).

Linear green axes (Eixos verds) now supplement the superblocks, in which pedestrian traffic is given priority. The intersections of the green axes are widening into squares. In this context, lanes on the main traffic axes are also gradually being reduced and rededicated to eco-mobility (Ajuntament de Barcelona, 2023). Another focus is on the street areas in front of schools, which are being converted into play zones, attractively furnished and planted with greenery. Since 2015, the surroundings of 200 schools across the city have been upgraded in this way, and by 2030 all 585 schools should have a safe street space (Ajuntament de Barcelona, 2023).

With this combination of two-dimensional, linear and punctual interventions, Barcelona has now managed to develop the label "Superilla Barcelona" into a cityscape-defining standard of urban transformation (Furchtlehner & Meszaros, 2023). However, with the changed majorities following the local elections in May 2023, the momentum of recent years has clearly stalled.

### 3.1 Adaptation of the Superblock concept in Germany and Austria

The basic objective of the superblocks is part of a tradition of ideas and transport concepts that is by no means new, either in Germany or in other countries. For example, the monumental municipal buildings erected in Vienna at the beginning of the 20th century with their central communal facilities and green spaces in the courtyards were already known as "superblocks" (Keller, 2011; Schlandt, 1970). In the mid-1980s, the West German Federal Ministry of Building promoted "model projects for extensive traffic calming" in various cities. The aim was to ban through traffic from residential neighbourhoods, reduce speed and improve the quality of the street space by making it greener and more pleasant. What is causing a stir today was aptly illustrated back in 1986 in a brochure published by the CDU-led Ministry of Construction entitled "Urban Traffic in Transition". At the time, the construction minister stated: "I say a clear 'yes' to the car. Nevertheless, the car and traffic have a serving function. They must not be allowed to take over. We must limit car traffic to a reasonable level" (The Federal Minister for Regional Planning, Building and Urban Development, 1986). In the West Berlin districts of Moabit, Charlottenburg, Schöneberg, Wilmersdorf and Kreuzberg, many measures were implemented at the time that still contribute to the quality of life in the neighbourhoods today.

But what is the difference between the concept of superblocks and the concepts of 40 years ago? The pressure to act has increased due to conflicts over space in the street areas. The dominance of the car has steadily increased since then, delivery traffic has exploded and the navigation systems now used by many people mean that diversionary traffic is putting more pressure on the secondary road network than ever before. Secondary roads are thus becoming a pressure relief valve for the main roads, for which they were not planned.

In addition to these challenges, there are demands for more open spaces for people in their neighbourhoods, for a traffic turnaround, for more space for walking and cycling and for climate change-adapted public spaces that help prevent heat build-up and allow rainwater to seep away locally (Ajuntament de Barcelona, 2023). The concept of superblocks is therefore not old wine in new bottles; rather, it is about implementing the transformation process more comprehensively, more decisively and with additional building blocks (Bauer & Stein, 2022).

Because superblocks are a suitable way of solving several of the above-mentioned problems at the same time, consistent traffic calming measures are being discussed in more and more cities, particularly in German-speaking countries. Following the example of Barcelona, they are called "Kiezblocks" (Berlin), "Supergrätzl" (Vienna), "Superbüttel" (Hamburg), "Heinerblocks" (Darmstadt), "Freiblock" (Freiburg), "Superveedel" (Cologne), or remain with the name Superblock, such as in Stuttgart, (Superblock-West), Hanover, Munich or Leipzig. What many superblocks in German cities have in common is that the impetus for implementation comes from civil society (e.g. in Leipzig, Cologne, Stuttgart, Darmstadt) and is further developed in cooperative processes with the administration (Bernegg et al., 2023).

#### Berlin

The development in Berlin is particularly dynamic: implementation here is strongly characterised by bottom-up initiatives. Citizens' initiatives have been founded in all twelve districts of Berlin, the so-called Kiezblock initiatives, which are calling for the introduction of a "Kiezblock" in their neighbourhood. As of March 2024, there are 70 such initiatives. This network is supported by the Changing Cities e. V. association, among others. It coordinates and advises on transport planning and public relations issues. A total of 30 neighbourhood block projects have already been approved in the respective district assemblies (BVV) and are to be implemented. Eight neighbourhood blocks have already been realised with various



measures or are currently being implemented. At the same time, neighbourhood blocks have also been created in some districts on the initiative of the district administrations.

Both the Berlin Senate Department for Mobility, Environment, Transport and Climate Protection (SenMUVK) and the Changing Cities association support the district administrations and initiatives responsible for implementation with guidelines for action. Nevertheless, the implementation of the neighbourhood blocks still differs greatly from the model in Barcelona. In many cases, the primary aim is to prevent through traffic by means of diagonal barriers and one-way streets. All other measures, such as speed reduction, comprehensive redistribution of street space and unsealing of areas, are only carried out in isolated cases (e.g. Bergmannstraße, Lausitzer Platz, Gräfekiez). This is often due to resistance from neighbours and residents when it comes to redesignating parking spaces on a large scale. The experienced or feared protests deter both the administrations and the initiatives from demanding and implementing concepts that are more comprehensive. As a result, Berlin still lacks a transferable pilot project that illustrates what a converted neighbourhood block - beyond bollarded streets and parklets - can be (Bauer & Stein, 2022).

## Vienna

In comparison to Berlin, the "superblock" concept in Vienna is still in its infancy, but has been the subject of intensive discussion among academic, political and civil society actors for several years. The first theoretical considerations and visions of superblocks in Vienna have been developed since 2015. With the SUPERBE R&D project, an initial exploratory study was carried out in 2018 to determine the potential for realising superblocks in the Austrian context, for which Vienna was selected as a case study (Frey et al., 2020). The results generated a certain amount of media attention, and the project won the Mobility Award of the Austrian Transport Club (VCÖ) in 2020. In addition, based on the findings of the research project, a pilot study was conducted in 2019 to implement a super neighbourhood in Vienna's 2nd district of Leopoldstadt. However, implementation of the concept was not pursued after the 2020 elections in Vienna.

In 2020, the Supergrätzl was mentioned in the coalition programme of Vienna's new social-liberal state government as a strategy for preventing through traffic and increasing traffic safety. The concept is particularly suitable around educational institutions in order to organise traffic more safely, but also to increase the quality of life in residential areas. The concept is also included in Vienna's strategy documents such as the Smart Climate City Strategy and the Vienna Climate Roadmap as one of the levers for achieving the climate targets in the area of mobility. With the Supergrätzl Favoriten, the first Viennese Supergrätzl is currently being implemented (as of the end of 2023).

### *Supergrätzl favourites*

In 2021, a development concept was drawn up, consisting of a transport and an open space concept for the Favoriten super neighbourhood. This formed the basis for the realisation of the first - pilot - Viennese Supergrätzl. The Supergrätzl will be realised in two phases:

- As part of a pilot phase in 2022, the majority of the new traffic organisation (construction of a central pedestrian zone as a school forecourt as well as diagonal filters and one-way loops to prevent through traffic) was implemented and initial impetus was provided by means of temporary interventions such as coloured road markings. Information and public participation formats such as street labs, street festivals and specialist walks were organised; the results of the participation were incorporated into the subsequent detailed planning.

- The construction of the Supergrätzl Favoriten will take place from autumn 2023 until probably autumn 2025. In two construction phases, a total of over 60 new trees will be planted on 9.5 hectares, 17 micro open spaces will be created, water features will be built and side stelae and various seating options will be installed. In the second construction phase, three street sections in the centre of the Supergrätzl will be combined to form a pedestrian zone and completely redesigned with the focus on bringing more greenery and a better quality of life to the Grätzl. In total, around 30% of the car parking spaces in the public space will be removed and made available for other uses.

Many traffic-calming measures in the past were not implemented under the name "Superblock". A presentation<sup>1</sup> by Radlobby Wien and the pedestrian initiative "Geht-doch" shows that there are already a large number of selective traffic filters and extensive structures similar to superblocks in Vienna.

## 3.2 Realisation of superblock concepts in other European cities

### Woonerfs, Netherlands

In the Netherlands, superblock-like concepts have been planned and built since the 1970s under the term "Woonerf", and the overall conclusion is very positive. In this concept, streets in predominantly urban residential areas are laid out as mixed traffic areas and given a special design. Pedestrian, cycle and motor vehicle traffic are not clearly separated and have to consider each other. As a result, motor vehicles lose their priority position (Appleyard, 1980). Even back then, the Woonerfs were often developed in such a way that it was impossible to cross them by car.

### Mini Hollands/Low Traffic Neighbourhoods, London

London is building on this idea with its *Mini Hollands* or *Low Traffic Neighbourhoods (LTN)*. Mini Hollands are small "superblocks" that are being implemented on a large scale, particularly in London's suburban areas, proving that traffic calming is not just an inner-city issue. The first Mini Holland "Waltham Forest" was already traffic-calmed in 2015 using modal filters, reduced speeds, pocket parks and plant troughs. The project was initially communicated as a programme to promote cycling and met with considerable resistance, as there had been little cycling in the district to date. The transport authority has learnt from this and has communicated road safety and the gain in quality of life more strongly. The positive effects on the Waltham Forest district are well documented by several surveys conducted by the University of Westminster and King's College London (Allgemeiner Deutscher Fahrrad-Club [ADFC], 2021, p. 8).

LTNs gained more momentum with the start of the pandemic in 2020. Between 2020 and 2022, the city implemented 72 LTNs (Aldred & Thomas, 2023).

### Circulation Plan, Ghent

As the Belgian city of Ghent (pop. 260,000) proves, concepts for less car traffic and a better quality of life can also work in smaller cities with many commuters. With the "Circulation Plan", the city centre was divided into six zones in 2017 to prevent through traffic. This traffic intervention was accompanied by temporary and permanent urban design measures. Car parks were unsealed, streets were designated as pedestrian zones and areas formerly dedicated to cars were converted into areas for people to spend time and for active mobility. Public transport was also massively strengthened and expanded. After initial scepticism and

<sup>1</sup> <https://www.radlobby.at/superblock-grundkarte>

sometimes fierce resistance, the short and long-term effects speak for themselves. In the short term, the city of (Wim Schuddinck):

- 60 % more cycle traffic,
- 12 % more use of public transport,
- 35 % fewer accidents and
- Measure 60 % less through traffic.

The measures are also paying off in the long term: since 2015, the car ownership rate in Ghent has fallen from 1.2 to 1.0 per household<sup>2</sup>. The city now wants to build on the successes in Ghent's old town with the "Neighbourhood Circulation Plans". Each of the seven peripheral neighbourhoods is to be redesigned according to the city centre model. In line with the three key objectives of "less through traffic", "improved road safety" and "improved quality of life", the measures are being developed with local people.

### 3.3 General definition of superblocks

As striking as the superblock concept may seem at first glance, it is blurred on closer inspection. In various national and local contexts, very different approaches are sometimes associated with it. In Barcelona, for example, the superblock concept is understood as part of an overall urban transformation that comprises different building blocks (Ajuntament de Barcelona, 2014). In many German cities, on the other hand, the superblock concept is often seen more as an individual measure to calm traffic in residential neighbourhoods.

One of the aims of the TuneOurBlock project was to develop a standardised definition of the superblock concept for the reasons outlined above. To this end, an iterative process (e-Delphi) was carried out together with international experts to determine which aspects are unanimously seen as part of a superblock definition. In a three-stage process, experts from academia and practice were first asked to give their opinions on statements regarding the objectives, measures and effects of superblocks and later on a possible definition. From this, the following definition was developed, which met with the greatest approval among the respondents:

*The Superblock concept uses the reorganisation of traffic and the redistribution of public space to support the urban transformation towards sustainability. By systematically reducing the number of through roads for motor vehicles, the Superblock concept transforms the city into a mosaic of traffic-calmed neighbourhoods. The reorganisation of traffic happens at a scale large enough to support systemic change, e.g. at the level of neighbourhoods or even entire cities. Individual neighbourhoods - superblocks - prevent motor vehicle through-traffic, are pedestrian-friendly and redesign the reclaimed public space to focus on active mobility, climate adaptation, the improvement of local environmental conditions and opportunities for diverse and inclusive public life.*

---

<sup>2</sup> Lecture by Filip Watteeuw, Deputy Mayor of Ghent, on the occasion of the International Superblock Meeting, 22-25 March 2023 in Barcelona

## 4 Methodological approach in the TuneOurBlock project

In order to examine the *Superblock* planning concept not only on a theoretical level, but also in terms of practical implementation, the two cities of Berlin and Vienna were analysed in depth as case studies and real-world laboratories. The aim was to develop and analyse various implementation paths and participation strategies. The intensive interaction between research and practitioners was crucial here.

### 4.1 Reallabor Berlin

#### *Specialist forum neighbourhood block*

In light of the numerous neighbourhood block projects in Berlin and the scientific monitoring of some projects (e.g. Komponistenviertel in the district of Pankow by the TU Berlin), it seemed sensible to evaluate the existing experiences and implementation strategies across districts and initiate a peer learning process. In September 2021, Difu hosted the first "Berlin Neighbourhood Blocks Expert Forum". The aim was to create an internal exchange platform for the Berlin district administrations and the Berlin Senate Department for Mobility, Environment, Transport and Climate Protection (SenMUVK), to share experiences with implementation and to discuss progress as well as challenges in implementation. A focus topic was set for each expert forum. A total of six expert forums were held, in which representatives from almost all of Berlin's districts took part. The participants rated the expert forums as an important exchange format for administrative action. The key results are documented in Chapter 6.

- 1) Expert forum - 28/09/2021 - Administrative procedure
- 2) Expert forum - 15.02.2022 - Definition of "neighbourhood block"
- 3) Expert forum - 10.06.2022 - Civil society as a resource
- 4) Expert forum - 30.11.2023 - Effects and evaluation methods
- 5) Expert forum - 26.04.2023 - Commercial transport
- 6) Expert forum - 25.01.2023 - Evaluation, balance sheet, outlook

#### *Scientific monitoring in the Gräfe neighbourhood*

The Gräfekiez neighbourhood was selected as a specific real-world laboratory in which comprehensive measures based on the Superblock concept were implemented: Preventing through traffic, climate adaptation measures and measures to increase the quality of stay by converting car parks into available public spaces. Scientists from the TOB team joined a group of researchers to carry out participatory measures and also to evaluate the various participatory approaches used. The biggest challenge was a perceived lack of information from the district authority on the part of the residents and loud resistance from a small but well-organised group in the neighbourhood.

Gräfekiez is a residential neighbourhood in the Friedrichshain-Kreuzberg district. Centrally located, it is characterised by its many gastronomic offerings and Wilhelminian-style building structure, which have made it a very popular place to live. Although the neighbourhood is now heavily gentrified, some of its cultural diversity has been preserved. The Gräfekiez was already traffic-calmed in the 1980s, the maximum speed is limited to 7 km/h and pedestrians are allowed to walk on the carriageway. In practice, however, these rules are rarely followed.

The pilot measures included, in particular, the conversion of unpaved areas into urban gardening projects, green spaces or new recreational areas (green classrooms, parklets). The process was accompanied by various participation formats. These were implemented by the

Friedrichshain-Kreuzberg district office in cooperation with various research institutes. These included a survey of 116 local tradespeople conducted by researchers from the Research Institute for Sustainability (RIFS) and a planning workshop with tradespeople and representatives of the local district office as part of TuneOurBlock.

## 4.2 Reallabor Vienna

In addition to the Supergrätzl Favoriten, which is currently being realised, the Supergrätzl Lichtental, which was called for by a local initiative, was the focus of the Vienna Reallabor.

### *Supergrätzl Lichtental*

The pilot implementation of the Supergrätzl Favoriten neighbourhood has made the Superblock planning concept better known in Vienna. Among others, the Local Agenda 21 group "Supergrätzl Lichtental" was founded as a result. This is a group of residents who are calling for a Supergrätzl for their neighbourhood. As part of the TuneOurBlock project, the local agenda group was supported by the Viennese project partners as a bottom-up initiative and at the same time accompanied by research. The aim was to gain insights into how bottom-up initiatives can be empowered so that they can effectively demand superblocks for their neighbourhoods. Accordingly, various projects and programmes were planned and implemented together with the initiative over the course of the project:

- Traffic count - in the spirit of citizen science, the members of the Local Agenda Group were taught the methodological principles for carrying out a scientific traffic count as part of a workshop, which the group was subsequently able to carry out independently.
- Envisioning/Backcasting - three workshops were held together with the Local Agenda Group to test the Envisioning/Backcasting method for implementing the Superblock approach. The methods were intended to help the Local Agenda Group define its objectives and support it in drawing up a timetable.
- Co-creative design of planning materials - in a co-creative setting, a traffic concept for a super neighbourhood in Lichtental was designed together with the Local Agenda Group, including potential tree locations.
- Augmented/virtual reality workshop - together with the Local Agenda Group, a workshop was held in which participants used augmented/virtual reality to test how public space could be used differently. The participants were able to change the proportion of parked cars and the proportion of greenery in public spaces in selected streets in the area. This was intended to encourage and inspire them not to perceive the status quo of public space as unchangeable.
- Spiel-Platz-Straße street festival - in June 2023, a section of road in the centre of Lichtental was closed to motorised traffic for two days in order to hold a street festival there. In cooperation with the neighbouring youth centre, bicycle courses were held, among other things.
- Joint planning workshops - plans for a super neighbourhood were discussed with residents in seven workshop rounds. The results were presented as part of an exhibition.

As a Local Agenda 21 group, the initiative is partially institutionalised: on the one hand, it has the opportunity to hold its regular meetings in a neighbourhood room that is temporarily used by Local Agenda 21. On the other hand, there are regular exchange meetings between the Local Agenda 21 groups and the district council, whereby the issues and concerns of the group can be directly communicated to politicians. The fact that there are no explicit political objectives at local level to support the ideas of the Agenda group proved to be a challenge for the implementation of a super neighbourhood in Lichtental. However, the goal of redesigning individual streets within the neighbourhood with climate adaptation in mind offers a starting point.

### **4.3 European network of cities**

In addition to the living labs in Berlin and Vienna, another core element of the project was the establishment of a European city network. Under the concept of a "Municipal Peer Group", an intensive exchange was organised between municipal actors from the two real-world laboratories in Vienna and Berlin and representatives of various European pioneering cities. Cities that had already gained experience with the implementation of superblocks or related concepts (such as "Low Traffic Neighbourhoods" in London or traffic-calmed neighbourhoods in Lodz) were specifically approached. The cities represented were Amsterdam, Barcelona, Ghent, London, Lodz, Ljubljana and Rotterdam.

A key objective was to learn from each other's experiences ("peer learning") and to identify important challenges and their solutions. A total of five meetings of the Municipal Peer Group took place: Two were held online, one meeting took place in Barcelona and one each in Berlin and Vienna. Interest in the international exchange was very high and developed its own dynamic over the course of the research project. The meeting organised by the city of Barcelona in the Catalan metropolis was attended by other municipalities in addition to the city network (Valencia, Vitoria-Gasteiz, Milan, Paris, Zurich, Brussels, Copenhagen).

### **TEXTBOX 1 Redesigning the streetscape - an interdepartmental task (Barcelona)**

The implementation of the superblocks goes far beyond pure traffic management measures. The traffic, design, social and ecological transformation process of the public space requires close co-operation between different specialist disciplines - no easy task in a still "pillared" departmental structure of the municipal administration. In Barcelona, a powerful, interdisciplinary staff unit has been set up under the leadership of the second mayor. A highly motivated team from the fields of urban planning, mobility, infrastructure and ecology, supported by the chief architect's team, works closely together here. This ensures political backing as well as rapid, competent coordination and sophisticated design of the superblocks. The decision in favour of this project-related, interdisciplinary working structure was made in 2014, after the implementation of the superblocks was anchored as a city-wide transformation strategy (UBA, 2023).

### **TEXTBOX 2 Dealing with counter-arguments (Barcelona)**

Many cities across Europe are currently experiencing considerable (political) headwinds in the implementation of traffic-calming measures. The city of Barcelona has learnt from its first superblock projects in the Poblenou district and has since intensified the exchange with the population when planning further superblocks. A distorted image of opinion in the media has often been observed, for example, when loud opponents get a lot of coverage in the press, but the quiet but approving majority of the population hardly gets a chance to speak. In Barcelona, it was successful to communicate the benefits for residents and businesses at an early stage rather than the transport policy objectives: more social interaction in the neighbourhoods, fewer accidents and injuries, a flourishing local business, less noise and heat congestion, better air and therefore better health, environmental and climate protection, as the evaluation of the Sant Antoni superblock from 2018 to 2023 shows (Ajuntament Barcelona 2023):

- +25,000 m<sup>2</sup> more space for pedestrians
- +38 % increase in retail sales
- +Increase from five social activities per year to more than 30
- +20 % less car traffic in the entire neighbourhood
- +25% NO<sub>2</sub> /17% PM10: less nitrogen and particulate matter emissions

Transformation processes trigger resistance, which is normal at first. Intensive communication with citizens, courageous local politics with a clear vision for the future of the city and an agile administration are important for long-term acceptance.

### **TEXTBOX 3 Effects: London's Low Traffic Neighbourhoods (LTN)**

The effect of the LTN was extensively analysed in London:

- Compared to the same period in 2018/2019, the number of traffic injuries in LTN fell by 50% in 2020, especially in pedestrian traffic (Goodman et al., 2021).
- A meta-analysis of traffic data in 46 LTNs in eleven London boroughs shows that motorised traffic in residential streets decreased by an average of 47.8% after the introduction of LTNs. In contrast, traffic on main roads did not change fundamentally. Depending on the calculation, the data varies between a decrease of 1.7 % and an increase of 3.7 % (Thomas & Aldred, 2023).
- People who live in LTN are more likely not to own a car. Those who do own a car are using it less and less since the implementation of the LTN (Aldred & Goodman, 2020).
- LTNs promote active mobility: From 2016 - 2021, residents in LTNs walked on average 62 minutes more per week and cycled 43 minutes more per week than before (Aldred, R., Goodman, A., & Furlong, J, 2021) (Aldred et al., 2020).
- A study in the London Borough of Islington found that nitrogen dioxide was reduced by the LTN - not only by 5.7 % in the LTN itself, but also by 8.9 % on the neighbouring roads (Yang et al., 2022).
- Although there were some loud voices against LTN at the beginning, the majority now see it differently: A study by Redfield & Wilton Strategies found that 58% of all Londoners are in favour of implementing LTN, while only 17% are against it (Redfield & Wilton Strategies, 2023).

These figures show the effectiveness of superblock-like measures, even beyond traffic safety. Although they are less concerned with the quality of life in residential neighbourhoods, the research results provide good evidence that traffic does not shift and that health effects are also effective beyond the traffic-calmed area.

### **TEXTBOX 4 Combining the best of different strategies (Brussels)**

With the "Good Move Brussels" plan, the Brussels Capital Region developed a strategic plan in 2020 that combines the "Circulation Plan" known from Ghent with the concept of "Low Traffic Neighbourhoods": In total, the capital region has been divided into 63 "meshes", which are to be traffic-calmed on the basis of axes at the outer edges, among other things by preventing through traffic within the meshes - analogous to the Circulation Plan. A total of 50 Low Traffic Neighbourhoods are then to be created within the meshes. However, the implementation of the plan has currently stalled: Only seven Low Traffic Neighbourhoods are currently being implemented - fewer than originally planned. The reason for this is that the implementation has met with considerable local resistance and some districts are therefore critical of the plans. How quickly and to what extent the "Good Move" plan, which incidentally won the SUMP Award 2020, will be implemented remains to be seen (Brussels mobility, n.d.). In the meantime, more and more voices - such as that of the Brussels city architect - are calling for a bundle of small interventions in the 'ordinary road space' in addition to the above-mentioned strategic elements in order to herald a departure from car-centred road planning (Borret 2021).



### **TEXTBOX 5 Bottom-up citizen engagement needs structures (Berlin)**

Citizens' initiatives for superblocks are a valuable and driving factor for transformation processes in cities. Experience from Berlin shows that an organised network (Changing Cities e.V.) and the right political leverage (residents' petition) can successfully put neighbourhood blocks on the political agenda and that targeted public relations work can influence media coverage. Changing Cities essentially fulfils three functions:

- 1) The organisation supports citizens who are not usually politically active. Practical instructions such as the "HowTo Kiezblock" describe how to set up a citizens' initiative. Monthly online events (the "Kiezblock-Runde") and advisory services ("Dr. Kiezblock") provide low-threshold answers to many questions about organising an initiative. Another advisory element is the "Recommendations for Superblocks" (ESu), which provide both civil society groups and administrations with assistance on which measures can be used to implement superblocks.
- 2) The decisive success factor for a strong bottom-up movement is the so-called residents' petition, an instrument of direct democracy. This requires a certain quorum of signatures (1,000 signatures) to be reached. A total of 30 neighbourhood block projects were placed on the agenda of the respective district council (BVV) in this way.
- 3) Secondly, Changing Cities acts as a citywide lobbying organisation for neighbourhood blocks. The organisation places a strong focus on press and public relations work, promotes the vision of a traffic-calmed city and gives the Berlin-wide initiatives a public presence. Changing Cities thus manages to give the very local commitment, which is always focussed on a specific neighbourhood, a citywide voice and publicity.

Further information at: [www.kiezblock.de](http://www.kiezblock.de) and [www.changing-cities.org/kampagnen/superblocks-bundesweit/](http://www.changing-cities.org/kampagnen/superblocks-bundesweit/)

### **TEXTBOX 6 Superblocks - just a strategy for metropolises?**

As the Basque city of Vitoria-Gasteiz (pop. 250,000) proves, concepts for less car traffic and a better quality of life can also work in smaller cities. Almost like something out of a traffic turnaround textbook, three central strategies were pursued in Vitoria-Gasteiz: consistent parking space management, expansion of public transport and cycling infrastructure and the implementation of superblocks. Between 2009 and 2012, Vitoria-Gasteiz rebuilt its historic centre. The city implemented traffic-calming measures in 47 streets. These included the regulation of through traffic, the construction of new trams, more frequent bus services, the creation of new cycle paths along a 150-kilometre stretch and the installation of bicycle racks (Linnert, 2015). The proportion of footpaths in all areas increased from 45% to 74% (ICLEI - Local Governments for Sustainability, 2014). The parallel realisation of several measures is considered a success factor. The introduction of three times higher short-term parking charges in October 2009 was accompanied by an improved public transport service. The number of public car parking spaces was reduced by 2,000 and the space freed up was used for two new tram lines. The increased parking charges were used to finance the tram (Weber et al 2022).

## 5 Experiences with the realisation of superblocks

This chapter presents key findings for the successful implementation of superblocks that have emerged from the case studies of Vienna and Berlin, but also from the discussions in the city network. The different procedural stages in the respective cities of Vienna and Berlin must be taken into account (see Chapter 3). While in Vienna only one superblock is initially being realised as a pilot project, Berlin can already look back on a series of implementation processes.

### 5.1 Superblocks need visions

It is not possible to speak of a *single superblock* concept that serves as a blueprint for all cities. Rather, an examination of the two real-world laboratories in Berlin and Vienna shows that the realisation of a superblock depends on the local circumstances and the corresponding objectives. The planning concept as such must therefore be adapted to the respective local contexts. In the process, individual elements of the concept are often emphasised more strongly, while others are taken into account less or not at all.

In Barcelona, the health of the population was an important driver for the reorganisation of the urban space. The city suffers from traffic, dense development, excessive noise pollution and air pollution, and increasing water shortages. Statistically speaking, there are 6.6 square metres of green space per inhabitant in Barcelona, and only 1.85 square metres in the city centre districts. In comparison: in London it is 27 square metres, in Amsterdam even 87.5 square metres. Increasing drought and steadily rising temperatures due to climate change are increasing the pressure to act. The overarching narrative for the implementation of the superblocks therefore focussed less on transport policy and more on quality of life, health, social interaction between the population and the quality of public space.

The situation is different in Berlin, where the issue of traffic calming was the starting point of the movement. The demands supported by many neighbourhood block initiatives focus primarily on the prevention of motorised through traffic through residential areas. In practice, the respective concepts of the neighbourhood blocks vary, which is also due to the two-tier administration in Berlin (federal state/municipality) and the relative autonomy of the districts. Each district is individually responsible for the design of the neighbourhood blocks. While individual districts such as Friedrichshain-Kreuzberg have the redistribution of public space and its redesign more strongly on their agenda, the focus of the majority of neighbourhood blocks is on traffic calming through the arrangement of one-way streets as well as modal and diagonal filters.

In Vienna, by contrast, a different narrative was developed that places the topic of climate adaptation at the centre. Parallel to the conceptualisation of the Supergrätzl Favoriten pilot project, a Supergrätzl information brochure was published, which takes a closer look at the strategic framework of the planning concept (City of Vienna 2022). It describes the Supergrätzl as "Vienna's answer to the climate crisis for the densely populated existing city" (ibid., p. 2). The concept offers a "reorientation of the use and design of public street spaces in the context of climate change" (ibid.) by combining measures in the target areas of mobility and transport, climate adaptation and climate protection, public space and quality of stay, participation and involvement, neighbourhood development as well as health and well-being. Improving road safety increases the quality of life in the neighbourhood, especially for kindergarten and school children as well as pedestrians, cyclists and older people.

The comparison shows that a clear idea of the expected objectives of a superblock is needed before planning begins. Are traffic calming and traffic safety the main focus or should space

primarily be created for climate adaptation measures such as greening, unsealing and improving the quality of life? What is possible depends largely on the available resources (time, finances and personnel). Pure traffic calming can be realised relatively quickly and inexpensively, whereas comprehensive greening measures or aesthetically pleasing redesigns to improve the quality of life require more planning, time and money.

For this first (conceptual) phase, the city network has emphasised the important role of statistical indicators that can be used to justify why a change to the status quo appears necessary. A good data basis provides good arguments. Barcelona, for example, has set itself the target of increasing the low proportion of green space by 1 square metre per capita by 2030. It quickly became clear that the additional 160 hectares of green space targeted could not be created without massive redistribution in the existing street space.

Another important basis can be representative surveys that help to make the opinion of the "silent majority" transparent. A representative survey conducted during the initial phase of the Berlin Gräfekeiez project revealed that a surprisingly clear majority of the population was in favour of reducing the number of parking spaces and redesigning and repurposing street spaces. This formed an important basis for legitimising the implementation of the redesign measures in the Gräfekeiez (Ruhrt et al 2021).

A shared vision should therefore always be developed, ideally in a participatory process, which combines the realisation of superblocks with long-term goals. Some people see a tension here between a short-term, local objective (e.g. road safety), which engages and motivates citizens, and a long-term development perspective for the entire city, for which local politicians must take responsibility.

## **5.2 Planning superblocks - interdisciplinary and agile implementation**

Once a political decision has been made to realise a superblock and a consensus has been reached on the objectives, the next step is for the administration to take over.

Due to the two-tier administration in Berlin (federal state/municipality), the respective districts (municipality) are responsible for the realisation of the neighbourhood blocks. However, the financial resources of the districts are generally not sufficient for realisation. Financial support from the Senate Administration is therefore a necessary prerequisite. In the past, the Senate Department provided financial support for neighbourhood block projects and supported the realisation process with guidelines for action, among other things. The necessary financial support was significantly reduced following the change in the political majority due to the re-election to the House of Representatives in February 2023. For this reason, and due to limited personnel resources and feared resistance to the removal of car parking spaces, a phased implementation approach has now become established in Berlin's districts:

1. Prevent through traffic
2. Temporarily redistribute areas
3. Permanently remodelling and unsealing street space

This approach in Berlin so far lacks a realisation of neighbourhood blocks analogous to the superblocks in Barcelona, but can be interpreted as a successive procedural model for the implementation of neighbourhood blocks. The first step (stopping through traffic) is particularly important for local acceptance, as this measure often enjoys broad support among the residents affected. This can be particularly decisive in areas where there is not yet a broad consensus among residents about comprehensive traffic calming measures. The next steps can then follow successively.

As in Berlin, the administration in Vienna is organised in two parts (federal state/municipality). The Supergrätzl is planned by the city's departments in close dialogue with the district council and local stakeholders in two phases: an initial strategic-conceptual phase in which design potential and implementation options are outlined. Participation formats with the population, local businesses and local stakeholders are also carried out as part of this. In a second phase, the concept is passed on to the departments responsible for detailed planning.

Different organisational frameworks and the sometimes very different administrative processes in the respective cities must be taken into account for the successful implementation of a superblock concept. Adapting the concept to local laws and administrative processes is a challenge, especially during the initial phase and the first implementation steps.

In many German cities, the legally compliant ordering of traffic calming measures (e.g. cross/diagonal barriers, modal filters, reorganisation of the road space) causes great uncertainty. According to the provisions of the German Road Traffic Regulations (StVO), changes to the road space that are to the detriment of moving motorised private traffic must demonstrate a special ("qualified") hazardous situation. All other justifications, e.g. those aimed at "orderly urban development" in accordance with Section 45 (1b) sentence 1 no. 5 StVO, require detailed justification in a traffic or urban development concept (BBSR 2023). Several projects in German cities, such as the temporary traffic calming measures in parts of Berlin's Friedrichstraße or the traffic trial in Hamburg Ottensen, have been rejected by administrative courts.

In addition to the instrument of the road traffic order via the StVO, the "dedication" of the road, i.e. its designation for basic use, can also be used as an instrument. The regulations of the federal states in the road laws are decisive here. The concrete application and interpretation of the standards is practised very differently in the Berlin districts:

- The "performers": One of the "performers" is the Friedrichshain-Kreuzberg district authority, which has factored in a judicial clarification and has the ambition to "get into action". Neighbourhood blocks are to be implemented across the entire district (15 planning areas). To this end, a standardised procedure has been developed and an informative website has been set up and linked to an "x-hain beruhigt sich" (x-hain calms down) campaign.
- The "pragmatic": districts such as Mitte or Schöneberg want to achieve visible success as quickly as possible and, like Friedrichshain-Kreuzberg, are implementing measures quickly, but are expressly limiting themselves to so-called "neighbourhood blocks light". These are primarily traffic management measures (diagonal barriers, one-way streets) and low-threshold street furniture. Further steps will only follow once the first step has been established and accepted.
- The "cautious": One problem that affects all districts is the great uncertainty about implementing measures that restrict motorised traffic with legal certainty. The "cautious" only plan a neighbourhood block when legally secure procedures are guaranteed.
- The "experimenters" also have concerns about implementing measures with legal certainty and therefore initially use the instrument of the "experimental clause" in accordance with **Section 45 (1) sentence 2 no. 6 StVO** to implement measures temporarily, determine their effects and gather experience for subsequent continuation.

In Austria in general and in the case of Vienna's Supergrätzl, however, the aspect of legal certainty is not an obstacle. In Austria, the arrangement of the measures necessary for a

superblock, such as the construction of modal and diagonal filters and the arrangement of roads in favour of pedestrians, is legally covered by the StVO and "only" requires the political will and the approval of the road safety authority.

Further implementation hurdles from the city administrations' perspective:

- **Staff shortage:** The transformation of the road and civil engineering departments from an ordering, building authority to a conceptual authority that is supposed to organise cooperation with other departments (urban planning, open space planning) and civil society does not always run smoothly, not only in Berlin but also in other cities. Additional tasks have to be taken on, and the existing capacities and competences of engineers traditionally working in transport planning are often not sufficient. For this reason - and due to the general shortage of skilled labour - some Berlin district authorities are recruiting specialist staff with diversified qualification profiles (Agora Verkehrswende 2023).
- **Civil society:** The well-organised civil society in Berlin offers opportunities to relieve the administration of tasks - an experience that was confirmed in the exchange between the city network. Intermediary institutions that support the entire - often multi-year - implementation process and relieve the administration of individual tasks are helpful. In Berlin, the Changing Cities association performs this task. A clear definition of the various roles and a transparent division of tasks are important for this type of cooperation.
- **Interdisciplinarity:** The traffic, design, social and ecological transformation process of public space requires close co-operation between different specialist disciplines. The need for interdepartmental cooperation is recognised in many administrations, but is still far from being an established matter of course due to the "pillared organisational structures". It works well where managers make coordination a "top priority", where organisational structures promote cross-departmental project work. In Barcelona, a powerful, interdisciplinary staff unit was set up under the leadership of the mayor's office. A highly motivated team of transport and urban planners, architects and open space planners work closely together here. This has ensured political backing as well as swift, competent coordination and sophisticated design work on the superblocks.
- **Financing of measures:** Secure financial support is crucial for the implementation of superblocks, and this must be secured through a political commitment. This also ensures that communication does not raise false expectations regarding the planned measures.

### 5.3 Of bollards and plant troughs - transformation needs aesthetics

Regardless of whether measures in public spaces are implemented temporarily or permanently, experience in many cities shows that a distinctive "design language", a visual recognition value, can be an important building block for success. To put it bluntly, transformation processes in public street space need "aesthetics" to gain acceptance. Individual infrastructure projects such as the Highline in New York or the Nordbahntrasse in Wuppertal are prominent examples alongside the Superillas from Barcelona that prove that design can influence emotions and user preferences (Reidl, 2023). There is also scientific evidence for this (Gehl, 2015). In his dissertation, Hillnhütter analysed factors that encourage walking. Green spaces, stimulating, varied facades, shop windows and streets full of people trigger pleasant sensations and encourage walking. The distances on such routes are perceived to be up to 30% shorter compared to unattractive routes (Hillnhütter, 2016).

Whether an appealing design of the respective public spaces is successful depends on various factors. The desired objectives (traffic calming versus improving the quality of life) are decisive for the realisation of superblocks, but other criteria such as the content and design of the superblock concepts, interdepartmental cooperation within the administration and the available time and cost framework play an important role, too.

The great effectiveness of a distinctive "design language" is particularly evident in the example of Barcelona. The appealing and uniform design of the various Superblock projects not only helped the city to publicise the project, but is also one of the reasons why interest in the Superblock instrument has developed so positively internationally.

#### **5.4 Pilot phases have advantages and disadvantages**

Temporary redesign measures are an effective way of testing whether the measures work and whether they are accepted. Temporary measures have the advantage of making a different use of public space tangible and allowing plans to be adapted if they fail. The implementation of the Supergrätzl Favoriten in an initial pilot phase helped to alleviate some of the concerns expressed in advance (impact and scope of the reduction in parking spaces, accessibility of the residential area, accessibility for emergency vehicles and delivery services). During the pilot phase, residents were able to experience the Supergrätzl in their everyday lives and conquer the new open spaces that had already been created. The pilot phase also revealed the need for a seamless design of the modal filters in all areas.

Nevertheless, temporary measures are not uncontroversial. A pilot project requires a similar amount of planning and testing from the administration as a permanent solution. A pilot with inexpensive design elements (e.g. bollards, temporary furniture) is sometimes perceived as "cheap" by the population and can sometimes worsen acceptance instead of improving it. In workshops with the European network of cities, it was emphasised that a pilot requires constant support (in the short and medium term). A sufficient budget for cleaning, maintenance and ongoing communication with users must be guaranteed. In Ghent, for example, "stewards" on bicycles were deployed to answer questions in the first few days of implementation and solve problems on site at short notice. Time will tell whether the maintenance and use of urban gardening areas by volunteers, as in the Gräfekiez living lab, will prove successful in the long term. Clear communication during the pilot phase should not be forgotten. In Vienna, people who were not familiar with the subject matter sometimes had the impression that the temporary measures were already the final product. For one group, this led to a certain disappointment about the "unfinished" realisation, while the other group questioned the further construction phase and would be satisfied with a permanent temporary solution.

In Barcelona, it has now been decided to use the limited resources of the administration primarily for stakeholder participation and to dispense with temporary measures, as the population now has enough illustrative material in superblocks that have already been implemented (UBA, 2023).

The use of pilot phases should therefore always be carefully considered; pilots are best suited in an early phase and especially if further superblocks are to be implemented. A pilot should always plan for the phase after the end of the temporary implementation ("plan the follow-up!").

#### **5.5 From information to participation to joint cooperation**

Involving different population groups and neighbouring residents is a complex and challenging task, especially for multi-year projects. The following experience was gained from the various participations in Berlin and Vienna.

### *Start with expectation management*

The scope of participation must be clearly defined at the beginning. What is involved? What is the scope? What cannot be negotiated? When is information more effective than participation? This is particularly important for successful expectation management. For example, it must be clearly communicated that a superbloc will be implemented because there is a political decision to do so. So it is not the "whether", but only the "how" - the specific organisation - that is negotiable. If several phases are planned for the implementation, it is essential to make it clear in the communication that the initially visible result will not be the end product, but merely an intermediate step.

It is also important to clearly communicate what the administration can achieve. This involves, for example, constraints resulting from the legal framework, such as the German Road Traffic Regulations (StVO). In Gräfekeiez, for example, the stakeholders involved were not previously aware that tradespeople cannot reserve parking spaces in the public street space, but must apply for a delivery zone, which can then also be used by other tradespeople. All those involved will be more satisfied if the limited financial and personnel resources are disclosed and communicated transparently.

Proactive participation with early information often saves resources and time in the follow-up of measures. The division of effort before, during and after the implementation of a measure aims to find the optimum point between preparatory work and follow-up. On the other hand, it can be observed repeatedly that not everyone feels sufficiently informed despite intensive participation. Too early information and participation can lead to residents taking little notice of the project and not participating (participation paradox) (Hirschner, 2017).

Participation processes are labour-intensive. In Berlin, it has proven successful to either involve experts from the administration or to commission external expertise. However, even with external commissioning, there is still a considerable need for internal management and therefore personnel costs. Awarding several participation procedures to one contractor saves resources here. In any case, it is much more efficient to standardise the procedures for implementing neighbourhood blocks as far as possible. Established and proven participation formats can be reused and then only need to be adapted to local conditions.

### *Productive cooperation requires clear structures*

A special feature of the Berlin neighbourhood block implementation is the variable structures. Sometimes a citizens' initiative is the driving force, sometimes the district decides, as in Friedrichshain-Kreuzberg, to implement neighbourhood blocks across the board. Which actors take responsibility for what, act proactively and drive the implementation of a neighbourhood block varies. In these processes, it must be clearly defined how the roles are distributed, how cooperation takes place and who takes responsibility for which process. This distribution of roles must be communicated as transparently and comprehensibly as possible, both internally and externally.

Civil society initiatives can support the administration by taking on certain tasks. However, the development of neighbourhood block concepts by initiatives such as those in Berlin's Wrangelkiez district has not proved successful. The disappointment of not being able to implement certain measures was not conducive to the process as a whole. On the other hand, several neighbourhood block initiatives, for example, are working on their own proposals for the design of modal filters, while others are supporting the administration in organising participation events.

A planning workshop organised by the Local Agenda 21 group in the neighbourhood of Lichtental in Vienna also proved its worth. It was positively perceived that the discussions were held at eye level from neighbour to neighbour. The thoroughly innovative approach of printing out a 1:50 scale cross-section of each street in the area and using this to talk to neighbours and passers-by in the respective streets proved to be successful. The proximity of the residents to the neighbourhood means that important local knowledge that should not be neglected can be used.

#### *Different formats reach different target groups*

Different stakeholder groups not only have different needs, but also different opportunities and resources to get involved in participation processes. This should be accommodated with a variety of formats.

Information campaigns should be coherent and disseminated via various channels: This means online, e.g. on the website of the respective city or district, in social media, via newspaper newsletters, but also in print media, via flyers (direct mail), posters and ideally also through local contact persons (e.g. regular consultation hours on site). Information campaigns should be organised several times and ideally not only in German.

Street festivals create the opportunity to open up streets for people and to utilise public space, making it accessible for other uses. At the same time, they are places where people come together and contribute to strengthening the neighbourhood and the sense of social identity and cohesion in the neighbourhood. This approach has proven successful in the case of Lichtental.

In the Gräfe neighbourhood, there was a variety of participation formats that addressed different stakeholder groups. For example, interviews and a group workshop were used to identify the specific concerns and needs of tradespeople, many of whom had fears about their livelihoods due to the impending loss of car parking spaces. They also felt that they were not sufficiently informed about the process as a whole. A focus group with the traders led to them getting in touch with each other and forming a new network of mutual support.

Citizen science formats enabled local residents to accompany the project and support the data collection, while at the same time learning about the effects of noise and particulate matter with little effort. Formats aimed at schoolchildren ensured that they became more aware of the changes in public space and engaged with the new opportunities that this offered them. The neighbourhood lab and the open consultation hours reached people who often do not take part in "traditional" participation formats because they do not have the time (often due to their children), because they lack the skills due to their age, because they do not speak the language, because they do not feel addressed or because they are not aware of it. A mixture of dialogue and action-oriented formats can appeal to broad stakeholder groups.

For many people, it is challenging to question the status quo and imagine how public space can be used differently. "Augmented Reality" has helped participants in Vienna to perceive space differently and even change it virtually by allowing them to artificially control individual variables such as the number of parking spaces and the degree of greenery. Such projects can turn participants into "dreamers" and improve acceptance of planned measures.

#### *Internal administrative tasks require coordinating control*

Internal communication and coordination within the administration are also important in order to initiate the necessary change within the administration for "new things". The same also applies to interest groups, e.g. commercial transport associations, as well as public interest groups such as public transport and public utilities and waste disposal companies. In the



beginning, they were deliberately not proactively involved by the administration for fear of resistance. However, they must be consulted during the realisation phase so that their needs can be taken into account in the planning and possible misunderstandings (e.g. regarding access restrictions) can be resolved at an early stage. They can become important alliance partners if, for example, the conditions for commercial traffic improve rather than deteriorate.

Due to the scale of the neighbourhood level, the holistic approach of the Supergrätzl Favoriten and its pilot character, its implementation is accompanied by a high degree of complexity. District politics, a large number of departments and other relevant stakeholders and local actors must be involved in the planning process. Due to the high number of stakeholders involved, particular attention must be paid to the interface between strategic planning, which should provide the framework, and the detailed planning for implementation. What content should already be considered as part of strategic planning and what content only comes into play during detailed planning? It seems essential to set up a joint project team at an early stage in order to coordinate the interface between the two levels in the best possible way.

## 5.6 Dealing successfully with resistance and conflicts

The implementation of superblocks can be characterised as a far-reaching transformation process that is almost inevitably controversial and triggers political headwinds - an experience that other German cities have also experienced (Bernegg et al., 2023, p. 30). (Bernegg et al., 2023, p. 30) and almost all cities in the city network accompanying the research. The city of Barcelona now attaches much greater importance to the participation of the population and local businesses than it did at the beginning of the initial measures.

Nevertheless, many cities are currently experiencing a noticeable political "backlash". In Barcelona, further planned superblocks were put on hold after the local elections in May 2023 and as a result of the changed political balance of power. Berlin had a similar experience, where financial support for the implementation of neighbourhood blocks in the respective districts was massively cut by the Senate administration after the parliamentary elections on 12 February 2023.

When analysing the counter-arguments, it is noticeable that they are similar and repetitive. Fears include the displacement effects of motorised private transport onto the surrounding main roads and even the loss of function of urban traffic, rising rents and displacement of the local population (gentrification processes), loss of sales for local retailers and businesses as well as restrictions in accessibility for the residential population (Bernegg et al., 2023, p. 29).

According to the unanimous assessment of the international city representatives, it is normal for transformation processes to initially trigger resistance. There are no patent remedies for dealing with this resistance, but numerous success factors can be identified:

- Data and facts (evaluations, before/after surveys) that provide information on the effects of superblock measures are crucial (Bauer et al., 2023). Indicators and measurable targets ("KPIs") should therefore be defined before each implementation (e.g. on through traffic, air quality), on the one hand to be able to justify the need for action locally and on the other hand to be able to measure the achievement of targets (UBA 2024).
- Creating synergies with other accepted projects and measures creates acceptance. It helps, for example, to focus on improving road safety, to combine traffic calming with school route planning and the establishment of school zones and to prioritise the redesign of road space ahead of schools and daycare centres, the most vulnerable groups (see Barcelona).

- Without intensive communication with residents and neighbours, at an early stage and proactively, changes cannot be implemented. It is important to focus on the benefits of neighbourhood blocks for residents and businesses: more social interaction in the neighbourhoods, fewer accidents and injuries, thriving local businesses, less noise and heat congestion, better air and therefore better health. Transparent expectation management towards initiatives and citizens was also emphasised as important in order to avoid disappointment.
- The media have a considerable influence on public opinion and care should be taken to avoid distorted opinions. Loud opponents get a lot of coverage in the press, while the quiet but approving majority of the population is much less likely to have their say.
- Temporary measures should play an important role in making the benefit of the superblocs tangible and enabling improvements to be made. Markings, traffic management measures, seating and movable planters should become an integral part of the planning process. Temporary measures are now part of everyday planning in Barcelona, the "new normal".
- Courageous leaders in administration and local politics can make a big difference. The role models of the mayors of Barcelona, Ada Calau, and Paris, Anne Hidalgo, show the dynamism that a clear vision for the future of the city can unleash. In a comparison of Berlin's districts, committed department heads or city councillors have also implemented significantly more than is possible in other districts without this support. Committed managers are important in order to stay on course in the face of headwinds and to strengthen the administration.

However, experience in Barcelona, Ghent and London also shows that after a few months, most of the dissenting voices fall silent (Redfield & Wilton 2023), the urban street space regains its quality of life, retail and gastronomy benefit, personal encounters in the neighbourhood increase and the public space becomes more attractive: greener, quieter and less hot.

## 5.7 Effects of superblocs

The number of comprehensive impact analyses on realised superblocs is still quite limited. The effects of the Low Traffic Neighbourhoods in London and individual superblocs in Barcelona have been well studied (Ajuntament de Barcelona, 2023, p. 160).

Retailers and traders' concerns are a major stumbling block in Barcelona, London, Ghent, Vienna and Berlin. The idea that the economic success of the business is linked to car accessibility and the car park in front of the shop is very persistent. Even though numerous studies show that retailers regularly overestimate the turnover of customers who come by car (v. Schneidmesser 2021) and that traffic calming tends to lead to an increase in turnover rather than a loss (Förster/Ackermann/Fitchen 2017; Ajuntament de Barcelona, 2023), it still takes a lot of convincing in Barcelona to dispel all counter-arguments. Based on sales data from credit card payments, it can be proven in Barcelona that remodelled 'superillas' are economically attractive (UBA 2023, p.49).

In order to be able to assess the displacement effects of current traffic calming measures on road traffic on the neighbouring main road network, various impact analyses of traffic calming measures in German and European cities were evaluated as part of the TuneOurBlock project. Although the measures analysed cannot be compared with each other due to the diversity of local approaches and framework conditions, but also due to different evaluation designs, the results do allow trend statements to be made (Bauer/Bettge/Stein 2023).

Overall, the empirical findings from Germany and abroad refute the fear that consistent traffic calming measures only lead to a shift of the problem to the neighbouring road network. On the contrary: almost all surveys confirm the phenomenon of "traffic evaporation", for which there is no really appropriate technical term in German and which means that the volume of traffic

does not flow away one-to-one elsewhere like a liquid, but is reduced overall - following the intervention and road redesign - and thus "fizzles out" to a significant extent. The order of magnitude of the "deflagration" in the analysed area-wide traffic calming projects is between 15 and 28 %, for entire city centres between 25 and 69 %, and in the vicinity of individual redesigned streets between 4 and 52 %. The figures vary depending on the project and frame of reference (Bauer/Bettge/Stein 2023).

The effect can be explained by a change in traffic behaviour: The more attractive footpaths and cycle paths are, the more frequently people use them. In addition to a change in the choice of transport mode, the effect is certainly also caused by other adaptation strategies: other destinations are chosen, less important journeys are omitted or other routes are travelled. And although the measurements do show a shift to neighbouring roads, these are usually moderate and the feared gridlock does not occur in almost all cases.

Furthermore, significant improvements in air quality can be measured for many traffic calming measures. Nitrogen oxide pollution in particular decreases in the streets with intervention - in some cases also on the neighbouring main roads. In London's Low Traffic Neighbourhoods, this effect is even more pronounced on the main roads than in the streets with intervention. The experience of European cities, some of which can look back on longer intervention periods, also shows that the positive relief effects increase over time. In the Low Traffic Neighbourhoods, more and more people are walking or cycling and sometimes decide to give up the car altogether after one or two years. Car ownership rates have also been falling in the Belgian city of Ghent since the implementation of the car-free city centre in 2017. In 2015, Ghent residents owned 1.2 cars per household, in 2021 it was 1.0 cars<sup>3</sup>.

Looking at data from the navigation provider "TomTom", it is also clear that good cycling infrastructure and smooth motor vehicle traffic are by no means mutually exclusive. On the contrary: in a European comparison of traffic jams, the cycling cities of Amsterdam and Copenhagen always come out on top. Here, the average motor vehicle speeds are 40 km/h and 30 km/h respectively. In comparison, the average values from Leipzig (26 km/h) and Hamburg (23 km/h) are significantly lower - motor vehicle traffic therefore flows more slowly than in the "cycling cities"<sup>4</sup>.

The present results once again confirm the theory from the 1960s that additional roads generate additional traffic (Braess, 1968; Downs, 1962). The analyses of Cairns, Atkins & Goodwin (2002) are also underpinned (2002) who analysed 60 traffic calming projects from eleven countries in the 1980/90s and found that in half of the projects studied, on average more than 11% of motor vehicle traffic simply disappears after a redesign, even in the adjacent road network. A significant increase in traffic volume was only measured in three out of 60 cases.

## 5.8 Conclusion

To summarise, the analysis of Vienna and Berlin provides a recommendation for other cities to make some fundamental conceptual considerations before implementing a superblock. As part of the project, an analysis scheme was developed that distinguishes between three dimensions: "scope" ("depth of implementation"), "scale" ("scale of implementation") and "speed" ("speed of implementation").

*Scope: "Not all superblocks are the same"*

---

<sup>3</sup> Lecture by Filip Watteeuw, Deputy Mayor of Ghent, on the occasion of the International Superblock Meeting, 22-25 March 2023 in Barcelona

<sup>4</sup> Mirror data analysis from 05/07/2023, [https://www.spiegel.de/auto/radwege-datenanalyse-bremsen-radspuren-den-autoverkehr-wirklich-aus-a-3fc963b1-2c65-4bec-a46b-189c1bec7240?sara\\_ref=re-xx-cp-sh](https://www.spiegel.de/auto/radwege-datenanalyse-bremsen-radspuren-den-autoverkehr-wirklich-aus-a-3fc963b1-2c65-4bec-a46b-189c1bec7240?sara_ref=re-xx-cp-sh)

The comparison of Berlin and Vienna shows that there are different "demands" and expectations of a superblock in the two cities. While the Berlin neighbourhood blocks focus on traffic calming and the prevention of through traffic, the approach of the Viennese Supergrätzl is more holistic: from the outset, a holistic strategic framework consisting of a traffic and open space concept was created with the aim of creating space for greenery and cooling in order to increase the quality of life in the neighbourhood. The Supergrätzl planning concept is seen as "Vienna's answer to the climate crisis for the densely populated existing city" and is therefore directly linked to measures relating to climate protection and climate change adaptation that go beyond traffic calming. The overarching narrative of the superblock also plays a key role here. This focuses less on transport policy and more on quality of life, health, social interaction between the population and the quality of public space.

*Scale: "Pilot versus scaling"*

When considering superblocks, a distinction must be made between two levels: on the one hand, the level of piloting a superblock and, on the other, the level of scaling superblocks to the city level as a whole. In the former case, a superblock is only planned for one area and the effect is therefore primarily local. In the latter case, it is necessary to consider in advance how the city/area can be divided into different urban cells that are suitable as superblocks. The construction of individual superblocks is then embedded in an overarching strategy. It is important to bear this in mind: The larger a superblock becomes, the more cost-intensive its redesign and greening will be, provided that more measures are desired than just traffic calming and the prevention of through traffic.

*Speed: "Time and cost resources"*

The implementation of superblocks is often strongly determined by politically prescribed political measures. How much time do I have available, how many financial resources do I have for the realisation of the superblock? The design of a superblock also depends on this. It is important to define the framework of the superblock in advance and to be aware of the goals associated with the superblock in order to avoid fuelling false expectations. If a superblock is to be realised in just a few months and only limited funds are available, comprehensive unsealing and greening is not feasible, for example.

## 6 Outlook

The results of the TuneOurBlock project show that superblocks can play a central role in the sustainable transformation of urban spaces. Despite dynamic development in many European cities in recent years, however, this approach remains marginal overall. In order to achieve the goals of climate-adapted, socially just and ecologically sustainable urban mobility, cities would have to declare superblocks the "new normal" and implement them on a large scale.

Citizens' usual mobility practices can change if it is no longer taken for granted that private cars always take direct routes to every district. Nevertheless, this change in mobility practices only takes place if the redesign of spaces goes beyond selective interventions. After the problematic experiences with conflicts surrounding traffic calming that many cities have had in recent years, more research is needed on how urban transformation conflicts can be successfully dealt with.

The relationship between the city and its surroundings, or between the inner, densely populated city quarters and the outer districts, plays an important role. There are often major differences between these spatial types in terms of accessibility, lifestyles and mobility cultures. Current political debates about a less car-oriented transport policy often reveal tensions between the city centre and the periphery, such as recently in the elections for the Berlin House of Representatives. People in the periphery, who generally have less good public transport connections and poorer bicycle connections, feel more negatively affected by measures that take away space and privileges from car traffic.

The discussions within the European city network showed that even in the "pioneer cities" of widespread traffic calming, there is still little dialogue between the city and the surrounding communities. There is a clear need for improvement here in the future in order to achieve more balanced solutions for regionally integrated transport development planning. This could also help to gain broader majorities in the city and region for a sustainable transformation of urban areas.

## 7 Bibliography

- Ajuntament de Barcelona (2014). Urban Mobility Plan 2013-2018 Barcelona.  
<https://www.barcelona.cat/mobilitat/en/about-us/urban-mobility-plan>
- Ajuntament de Barcelona (Oktober 2014b). *Pla de Mobilitat Urbana de Barcelona. PMU 2013-2018*.  
[https://ajuntament.barcelona.cat/ecologiaurbana/sites/default/files/PMU\\_Sintesi\\_Catala.pdf](https://ajuntament.barcelona.cat/ecologiaurbana/sites/default/files/PMU_Sintesi_Catala.pdf)
- Ajuntament de Barcelona. (2023). *Superilla Barcelona: Barcelona 2015-2023*.  
[https://bcnroc.ajuntament.barcelona.cat/jspui/bitstream/11703/129164/1/br\\_superilles.pdf](https://bcnroc.ajuntament.barcelona.cat/jspui/bitstream/11703/129164/1/br_superilles.pdf)
- Aldred, R. & Goodman, A. (2020). Low Traffic Neighbourhoods, Car Use, and Active Travel: evidence from the People and Places survey of Outer London active travel interventions. *Transport Findings*. Advance online publication.  
<https://doi.org/10.32866/001c.17128>
- Aldred, R. & Thomas, A. (2023). *Changes in motor traffic inside London's LTNs and on boundary roads*. Possible. Inspiring climate action; Active Travel Academy; KR Foundation. <https://www.smarttransport.org.uk/whitepapers/latest-whitepapers/changes-in-motor-traffic-inside-london-s-ltns-and-on-boundary-roads>
- Aldred, R., Woodcock, J. & Goodman, A. (2020). *Major investment in active travel in Outer London: impacts on travel behaviour, physical activity, and health*.  
<https://doi.org/10.31235/osf.io/5ny4c>
- Aldred, R., Goodman, A., & Furlong, J. (2021). *People and Places: Final quantitative report*. General German Bicycle Club. (2021). *InnoRAD: Urban development and cycling: The best international ideas*.  
[https://www.adfc.de/fileadmin/user\\_upload/Expertenbereich/InnoRAD-Projekt/adfc\\_innorad\\_2021\\_web.pdf](https://www.adfc.de/fileadmin/user_upload/Expertenbereich/InnoRAD-Projekt/adfc_innorad_2021_web.pdf)
- Appleyard, D. (1980). Livable Streets: Protected Neighbourhoods? *The Annals of the American Academy of Political and Social Science*, 451, 106-117.  
<http://www.jstor.org/stable/1043165>
- Bauer, U., Bettge, S. & Stein, T. (2023). *Traffic calming: Relief instead of collapse! Measures and their effects in German and European cities*. <https://doi.org/10.34744/difu-policy-papers-2023-2>
- Bauer, U. & Stein, T. (2022). Neighbourhood blocks for Berlin: More than just bollards! *Difu Reports*(1/22), 6-7.
- BBSR. (2023). *Rechtliche Bausteine für eine strategische Neuausrichtung der Mobilitätswende in Kommunen* (ExWoSt-Informationen 55/1).
- Bernegg, A., Hackenberg, K. & Lammert, F. (2023). Street as an experimental field. *RaumPlanung*(224), 27-31.
- Borret, K. (2021). Die normale Straße. Ein bislang unterschätztes Potenzial der städtischen Transformation. *Bauwelt*(230 (13.2021), 34–37.
- Braess, D. (1968). On a paradox in transport planning. *Business Research*, 12(1), 258-268.  
<https://doi.org/10.1007/BF01918335>
- Brussels Mobility. (o.J.). *Good Move. The Regional Mobility Plan 2020-2030*. <https://mobilite-mobiliteit.brussels/en/good-move>
- The Federal Minister for Regional Planning, Building and Urban Development. (1986). *Urban transport in transition*.

- Cairns, S., Atkins, S. & Goodwin, P. (2002). Disappearing traffic? The story so far. *Municipal Engineer*, 151(1), 13-22. [https://nacto.org/docs/usdg/disappearing\\_traffic\\_cairns.pdf](https://nacto.org/docs/usdg/disappearing_traffic_cairns.pdf)
- Downs, A. (1962). The Law Of Peak-Hour Expressway Congestion, 16(3), 393-409. [https://hdl.handle.net/2027/uc1.\\$b3477?urlappend=%3Bseq=457](https://hdl.handle.net/2027/uc1.$b3477?urlappend=%3Bseq=457)
- Förster, A., Ackermann, C., Fitschen, K., Knopp, S., Kurz, J. & Wassmer, M. (2017). *Verkehrsversuch Fußgängerzone Sendlinger Straße – Koordinierung, Evaluierung und Dokumentation des Verkehrsversuchs sowie Begleitung der Öffentlichkeitsarbeit: Evaluationsbericht*. Zebralog GmbH & Co KG. <https://risi.muenchen.de/risi/dokument/v/4656516>
- Frey, H., Graser, A., Leth, U., Lorenz, F., Millonig, A., Müller, J., Richter, G., Rudloff, C., Sandholzer, F. & Wieser, G. (May 2020). *Potentials of superblock concepts as a contribution to the planning of energy-efficient urban neighbourhoods: SUPERBE* (Berichte aus Energie- und Umweltforschung 42/2020). <https://nachhaltigwirtschaften.at/de/sdz/publikationen/schriftenreihe-2020-42-superbe.php>
- Furchtlehner, J. & Meszaros, L.-M. (2023). How open space conquers a city: a live report from Barcelona. *zoll+*(43), 43-49.
- Gehl, J. (2021). *Städte für Menschen* (A. Wiethüchter, Übers.) (6. Auflage). Jovis.
- Goodman, A., Lavery, A. A., Thomas, A. & Aldred, R. (2021). The Impact of 2020 Low Traffic Neighbourhoods on Fire Service Emergency Response Times, in London, UK. *Findings*. Advance online publication. <https://doi.org/10.32866/001c.23568>
- Hillnhütter, H. (2016). *Pedestrian Access to Public Transport* (PhD thesis UiS;314). University of Stavanger, Stavanger. [https://uis.brage.unit.no/uis-xmlui/bitstream/handle/11250/2422928/Helge\\_Hillnhutter.pdf?sequence=1&isAllowed=y](https://uis.brage.unit.no/uis-xmlui/bitstream/handle/11250/2422928/Helge_Hillnhutter.pdf?sequence=1&isAllowed=y)
- ICLEI - Local Governments for Sustainability. (2014). *Streets designed for sustainable mobility: Demand Management Strategies*. Case Study Vitoria-Gasteiz. <https://civitas.eu/resources/civitas-case-study-streets-designed-for-sustainable-mobility-in-vitoria-gasteiz>
- Keller, D. (2011). *Superblock versus garden city* [, University of Vienna]. DataCite.
- Linnert, U. (2015). Green city for people. *fairkehr*(4). <https://www.fairkehr-magazin.de/archiv/2015/fk-04-201500/2015-4-politik/4-2015-vitoria-gasteiz-verkehr/>
- Redfield & Wilton Strategies. (2023). *Londoners Support Expanding London's Ultra Low Emissions Zone (ULEZ)*. <https://redfieldandwiltonstrategies.com/plurality-of-londoners-support-expanding-londons-ultra-low-emissions-zone-ulez/#:~:text=58%25%20of%20respondents%20support%20the%20introduction%20of%20LTNs%20in%20London>
- Reidl, A. (2023). The transport turnaround needs more beauty. *VELOPLAN*(4/23), 58-68.
- Schlandt, J. (1970). The Vienna Superblocks. *werk*(04/1970), 221-226. <https://doi.org/10.5169/SEALS-82176>
- Schneidmesser, D. von (2023). Kiezblocks in Berlin – partizipativ nachhaltige Stadträume entwickeln. *Geographische Rundschau*(2023 (4), 16–22.
- Seipel, N. & Weber, C. (2022). *Analysing a 15-minute city with freely available data*. Stadt Wien. (2022). *Das Supergrätzl. Wiener Straßenräume transformieren*. [https://smartcity.wien.gv.at/wp-content/uploads/sites/3/2022/08/Supergraetzl\\_Infobroschuere-1.pdf](https://smartcity.wien.gv.at/wp-content/uploads/sites/3/2022/08/Supergraetzl_Infobroschuere-1.pdf)

- Stein, T. & Bauer, U. (2023). *From the plan to the street. How municipalities can accelerate the From plan to road. How municipalities can accelerate the expansion of cycling infrastructure and car park management.*
- Thomas, A. & Aldred, R. (2023). *Changes in motor traffic inside London's LTNs and on boundary roads.*  
<https://smartransportpub.blob.core.windows.net/web/1/root/changes-in-motor-traffic-inside-londons-ltns-and-on-boundary-roads.pdf>
- Federal Environment Agency. (2023). *Measures for the redistribution and reallocation of transport areas (121/2023).* Federal Environment Agency (UBA).
- Weber, B., Gies, J., Hertel, M. & Ratz, P. (2022). *Klimagerechte Stadt- und Mobilitätsentwicklung: von europäischen Städten lernen (1. Auflage).* Difu-Sonderveröffentlichungen. Deutsches Institut für Urbanistik.  
<https://repository.difu.de/handle/difu/583697>
- Yang, X., McCoy, E., Hough, K. & Nazelle, A. de (2022). Evaluation of low traffic neighbourhood (LTN) impacts on NO<sub>2</sub> and traffic. *Transportation Research Part D: Transport and Environment*, 113, 103536. <https://doi.org/10.1016/j.trd.2022.103536>
- Zografos, C., Klause, K. A., Connolly, J. J. & Anguelovski, I. (2020). The everyday politics of urban transformational adaptation: Struggles for authority and the Barcelona superblock project. *Cities*, 99, 102613. <https://doi.org/10.1016/j.cities.2020.102613>



## Acknowledgement

The entire project team would like to sincerely thank everyone who supported the project! Special thanks go to the colleagues from the district administrations and the Senate Department for Transport in Berlin, who not only invested their valuable time with their expertise and practical experience, but also provided a great deal of knowledge for the project.

Last but not least, we would like to thank the funding bodies of the EU, the German Federal Ministry of Education and Research, represented by the project management organisation DLR (German Aerospace Centre), the Austrian Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK), represented by the Austrian Research Promotion Agency (FFG) and the Slovenian Research Agency (ARRS) for funding the research project.