



Participation for Transformation

**Concepts, Approaches and Insights
for European Cities**

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Foreword

Dear Reader,

Cities are important for addressing today's global issues. Their importance goes beyond purely local concerns and underlines the need for broader, participatory change. To effectively address these challenges, international and especially European cooperation is of utmost importance. This is particularly valuable for cities that are of a comparable size or have similar structures while facing the enormous challenges of transforming society and infrastructure towards a sustainable, climate-neutral Europe.

The Federal Ministry of Education and Research strengthens joint European research and innovation and supports the development of European networks and knowledge transfer structures. Evidence of this commitment is the initiative "Zukunftsstadt goes Europe".

Based on longtime research of past national initiatives since 2015 like "Leitinitiative Zukunftsstadt" or "Wettbewerb Zukunftsstadt" the German cities of Bielefeld, Dortmund, Mannheim, Ulm and Zwickau were entrusted with the task to practically implement innovative strategies for sustainable urban development to and with their European partners. The initiative has two main goals: to strengthen the practical application of these strategies through cross-city cooperation and to share the knowledge with even more cities from all over Europe – and to learn from those cities.

The solutions developed and the networking activities contribute to making European cities more inclusive, safe, resilient and sustainable. The competences of our project cities have been expanded, which strongly contributes to the optimisation of municipal public services.

In this volume, the authors have compiled their most interesting observations.

We wish you an enjoyable read.

Christine Fey

Deputy head 721-Sustainable urban development,
Federal Ministry of Education and Research

Editors' Preface

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The dynamic evolution of urban landscapes in the 21st century comes with multifaceted challenges, particularly in the realm of citizen engagement. The quest for more inclusive, data-driven, and sustainable governance structures warrants an analytical deep dive into the nuances, methodologies, and paradoxes of citizen involvement. In this collection, each chapter systematically contributes to elucidating the complexity and potential of citizen participation in the modern urban context.

Section 1 – Concepts delves into the conceptual underpinnings of citizen participation.

Citizens' concerns often only come to a head at a time when there is no longer any formal room for decision-making. The opening chapter, **Chapter 1**, discusses a potential remedy for this well-known "participation paradox": Refraining from on-off-participation and adopting a strategy of continuous participation along the full project's life cycle instead. It presents a matrix of engagement methods tailored to "second-order participation" processes for different levels of involvement and stakeholder groups.

Subsequently, in **Chapter 2**, the focus moves to the role of urban data, that enable data-driven decision making, optimized internal processes and an increased service level for citizens and partners. The data-driven approach is being embraced in many cities as part of their Smart City initiatives, often with the help of data platforms. Since those initiatives have direct impacts on the everyday lives of citizens, civic participation is considered a crucial factor in the implementation and acceptance of these projects – and urban development projects in general. The chapter illustrates how participation takes new paths with data in terms of citizen empowerment, dialogue and co-development, using the example of Ulm.

Chapter 3 serves as a counterweight to the prevailing optimistic discourse on citizen participation by focusing on its inherent challenges and complexities. The work critically scrutinizes the universally accepted merits of citizen participation through an exploration of three challenges: representativeness, efficiency, and information asymmetries. The chapter contends that the normative celebration of citizen participation often overlooks these complexities and the related trade-offs, advocating for a more nuanced discourse that is aware of the limitations and costs associated with participatory democracy.

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In **Section 2 – Approaches**, the volume transitions from the theoretical to the pragmatic.

Chapter 4 reflects on new technologies and innovations for urban transformation, which pose new challenges on cities. Instead of local organizations or European cities developing solutions for these challenges alone, they maximise impact by cooperating. The chapter explains different approaches on how a municipality can kick-start cooperation activities at European level, mentioning methods, successes, obstacles and lessons learnt based on the city of Ulms' experiences.

The volume shifts into the importance of selecting the right methods for urban participation in municipal planning in **Chapter 5**. Traditional approaches often limit citizen engagement by relying on past experiences without considering the full range of available tools and the specific context or target groups. The article highlights five less-known citizen engagement methods - Dream Box, Home Gatherings, Polis, Planning with Limitations, and Silent Whispers - detailing their mechanics, applications, benefits, and challenges. Additionally, the article emphasizes the importance of considering the context and target audience when choosing a participation method and provides a comprehensive table of various toolboxes for further exploration.

The new format of urban living-labs for interdisciplinary cooperation and co-planning is being used in more and more European cities, including Dortmund and Cluj. In **Chapter 6**, a comparison of different understandings, diverse fields of application and topics of living-labs in the two cities showcases their potentials and challenges for municipalities.

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Section 3: Insights presents case studies that add depth to the concepts and methodologies previously explored. **Chapters 7** through 12 delve into a wide array of citizen engagement initiatives in different cities.

Mobility in areas that are not optimally connected to the public transport network is a difficult issue, especially for older people and people with impaired mobility. Chapter 7 describes the participatory development process of a mobility station

in the Zwickau residential quarter and living laboratory “Marienthal” for precisely these people, in order to enable them to live independently in their own residential environment for as long as possible.

The climate change crisis requires rapid action for sustainable and equitable change within civil society. Cities have an important role to play in this challenge. One approach cities can take, and that is discussed in **Chapter 8**, is to implement the European Green Deal at the local level: the Local Green Deal. As two of 112 selected cities with the goal of becoming climate neutral by 2030, Mannheim and Espoo are leading the way as Local Green Deal pilot cities. To initiate the change for the transformation process, cities need to build a governance structure to overcome silo thinking and involve their citizens.

In a similar vein, **Chapter 9** highlights that in order to achieve a transformation towards a sustainable and climate-friendly city, all actors are needed: this means not only the city administration, but also, with regard to lifestyle change, the entire urban society. The enormous challenge of the energy, heat and mobility transition is a joint task that everyone must tackle together. With the Local Green Deal, Mannheim and Espoo are taking a social-ecological path that leaves no one behind and ensures a broad resonance in civil society.

Chapter 10 focuses on the Zwickau’s internal initiatives, illuminating the municipal administration’s endeavors to harness participatory processes in order to exploit advantages of participative processes like increased employee satisfaction and motivation. The city wants to drive forward the development of the municipal company with the concentrated knowledge of the decision-makers. This article highlights a concrete use case of organizational participation within a municipal administration.

Chapter 11 argues that municipalities can enhance climate adaptation by establishing Local Action Groups as a new format, where residents, stakeholders, and experts collaborate to develop tailored solutions, as exemplified by Dortmund’s iResilience project, streamlining administration for effective local climate action.

How can City-to-City Learning help municipalities in the sustainable development of participatory offerings? How can time policies of municipalities change the lives of individual citizens? **Chapter 12** presents these and other questions, as well as the current approach that the city of Zwickau is taking to enable citizens to be more proactive.

Dear reader – this collected volume offers a panoramic view of the multifaceted nature of citizen engagement in contemporary urban settings. To policymakers, academics, and urban enthusiasts, it offers a guide on the journey towards more responsive and resilient urban futures.

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Concepts



Chapter 1

Harnessing continuous citizen engagement through the lifecycle of projects

Sven Steinkamp, City of Bielefeld

On-off participation and the participation paradox

There is a broad consensus on the importance of citizen participation at the local level (see also Chapter 3). Especially in larger planning measures, citizens are often involved somewhere along the project's progression. However, this involvement frequently takes the form of what can be termed 'on-off participation'. This refers to isolated instances of citizen engagement arranged to address specific issues or give input at pre-determined decision points. While such engagement approaches do offer platforms for citizens to voice their views, their sporadic nature frequently leads to a phenomenon known as the 'participation paradox'. Citizen concerns often peak at a stage where the formal decision-making has largely been concluded. Without any space for introducing fresh insights or concerns, conflicts arise.

From the perspective of the municipal administrations and politicians, citizens might be seen as a homogenous group that they have involved early on. Consequently, any resistance expressed at a later stage might come unexpectedly and be viewed with surprise. However, how certain individuals might be affected by the realisation of the planning often dawns late during the course of a project, and might involve different citizens than those who participated in the project's initial stages. Nevertheless, even those who did participate early may not see their input reflected in the broader project outcome.

This poses the question: How should cities navigate this dilemma? One approach might be to consider participation as concluded and leave decisions to the municipal council regardless of any late-stage resistance. From the citizens' perspective, though, this could render the participatory process insincere, giving the impression of pseudo-participation, even if the participation process was initiated with the best intentions.

Continuous participation and Arnstein's ladder

We suggest that the conflicts arising from on-off participation cannot be resolved by rethinking the communicative interaction following a participatory process, but rather lies in discarding the mere existence of a post-participation phase altogether. This section proposes the adoption of a continuous participation strategy throughout the project's lifecycle as an alternative. Instead of viewing participation linearly, it would be considered cyclically.

'Arnstein's Ladder' provides a framework to conceptualise this strategy. Sherry Arnstein's (1969) seminal work introduced the Ladder of Citizen Participation, a conceptual framework delineating the varying degrees of citizen engagement in decision-making processes. The ladder comprises eight rungs, ascending from non-participative levels, such as 'manipulation' and 'therapy,' to degrees of tokenism, including 'informing,' 'consultation,' and 'placation,' and finally culminating

in levels of genuine citizen power: ‘partnership,’ ‘delegated power,’ and ‘citizen control.’ Arnstein’s model critically assesses the depth and authenticity of participation, highlighting the potential disparity between the perceived and actual empowerment of citizens in participatory endeavours.

In considering how best to communicate citizen participation outcomes back to stakeholders, the underlying assumption is that information dissemination is the optimal strategy. However, ‘second-order participation’ could and should instead be conceptualised similarly to the initial participation processes.

Matrix of second-order participation

The design of second-order participatory processes should consider the form of prior engagement, the level of engagement, and the size of the participating group. The concept of second-order participation entails continuous engagement after any previous participation stages. Instead of merely informing stakeholders about outcomes, this phase can be as participatory as the previous stages.

| | | (Size of the) Target Group | | |
|---------------------|---|---|--|--|
| | | Individuals | Groups / former participants | Public |
| Level of Engagement | Inform | Central request management / Ticketing System | Targeted information to the participation team | Periodic participation report |
| | Feedback-Loop | Feedback talks / surveys | Second-round participation | Events to gather feedback and ideas |
| | (Partial) transfer of decision-making authority | Citizens/ politicians as project team members | Steering Committee as long-term engagement | Participatory budgeting (citizen projects) |

Table 1: Matrix of second-order participation. Source: Own.

Table 1 aids in selecting potential participation formats. It shows a matrix of practical citizen engagement approaches, classified according to the target group — ranging from individual stakeholders to the general public — and the levels of engagement, from mere information dissemination to partial transfer of decision-making authority. The methods listed exemplify methods focusing on second-order participation:

1. Inform

Informing people about the outcome of a participation process can be managed proactively. Some examples of how this can be done are discussed below.

Central request management or ticketing systems aim at informing individual stakeholders. This approach seeks to systematically gather concerns within moderated participation events or ad-hoc web forms. These concerns are integrated into the planning process and, more importantly, the concerns are monitored and individual feedback on the status of these concerns is given. Along with other cities, the City of Bielefeld uses a system called Mängelmelder, where statements from citizens are collected, allowing for a structured and organised integration of these concerns into the administrative processes.

Another approach, which is instead tailored to participants of former participation formats, is to disseminate targeted information to the participation team. This approach involves collecting contact details of participants and subsequently circulating information regarding the uptake of planning outcomes. Communication media can range from simple emails and letters to more comprehensive materials like fact sheets or event reports. A notable instance of this strategy in action is the project summary from the Ontario Parent Survey (Canada).

Finally, another informative measure is the (most often annual) publication of periodic participation reports, detailing participation procedures and summarising individual participatory measures. Often such reports not only retrospectively assess participation but also highlight upcoming opportunities for civic engagement. Examples are the City of Mannheim's Bürgerbeteiligung report, which monitors citizen participation, and the CobbForward report by Cobb County (USA), focusing on the mobility sector.

2. Feedback loop

One ladder rung higher, the outcome of the processes are put up for discussion and debate again after the initial completion.

To this end, feedback talks and surveys target individual participants. This involves collecting contact details as well as subsequently preparing and disseminating information on the uptake of process results. Afterward, feedback is gathered through interviews and surveys, either in person, by phone, or digitally.

Second-round participation targets former participants instead, in a two-tiered approach. Initially, an event is organised to gather input for planning. Once this feedback is incorporated, the same group is solicited for further feedback to ensure accurate interpretation and integration of their concerns. An example is the planning and development of Allmenningen, an outdoor space in the Haugerud neighbourhood in the Alna district in Oslo during 2020/21.

Instead of collecting feedback from former participants only, open events could be held to gather feedback and ideas from the public as well. This strategy seeks to sustain participation by organising events that present the results of previous participation processes. This enables participants to assess whether their contributions are reflected in policy or planning documents, and further ideas for implementation can be gathered. Again, Alna may serve as an example here.

3. (Partial) transfer of decision-making authority

The upper rungs of the engagement ladder include at least a partial transfer of decision-making authority to the citizens.

One way to achieve this is to include individual citizens and/or politicians as project team members from the start. They collaboratively develop the project ideas from the onset. Their recommendations, after possibly undergoing a feedback loop with a steering committee, are then directly presented to the municipal council. A notable implementation of this strategy can be seen in Korneuburg, Austria.

Another strategy involves establishing a steering committee comprised of various stakeholders, from civil society to politicians and the local administration. Such committees aim to foster long-term participation structures, often solidified by a charter for citizen participation or an agreement on future collaboration. This way, citizens do not only give input into the planning process, but they partially also decide on the rules for the participation processes. A prime example is the Korneuburger Charter of Citizen Participation.

An approach that has gained considerable traction in recent years and allows the public to exert a direct influence on a city's projects is participatory budgeting. With a certain portion of a city's budget designated for this purpose, citizens are invited to propose and vote on projects. Of course, feasibility and cost evaluations are integral and are contributed by the local administrations. Successful projects are then implemented and monitored. Paris, with a budget allocation of over 100 million euros for such initiatives, and Poland, with approximately 40% of its cities engaging in participatory budgeting, are exemplary in this regard.

Concluding remarks

The landscape of citizen participation is evolving. The traditional model of intermittent engagement falls short in addressing the dynamism of project lifecycles and the evolving concerns of citizens. As projects progress, so do citizens' understandings and concerns. A model of continuous engagement, underpinned by the principles of second-order participation, recognises this and offers a more responsive approach to project planning and implementation. It ensures that citizen voices are not just heard, but are integral throughout the lifecycle of projects, thereby fostering trust, collaboration, and better outcomes for all stakeholders.



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Chapter 2

Data and participation – what role do data play in participation?

Sindy Würffel, City of Ulm

Introduction

When it comes to data, alarm bells often go off. Initial associations often raise questions such as: Why does someone want my data? What will they do with it? Are my data secure? In terms of urban data, it refers to data that is generated and utilised within a city. It encompasses all data held, used, or provided by urban actors, including public administration, public institutions, and urban enterprises; private actors such as businesses, associations, and citizens; as well as other actors, regardless of the context or method of collection. The data are subject to certain framework conditions, but at the same time, they hold great potential: The creation of data infrastructure, the availability of urban data, the processing of that data using new methods, and the interconnection of data to ensure new applications for the common good enable cities to build a knowledge base based on data. This provides new insights and enables data-driven decision-making by administrations and policymakers.

Data are important for a municipality in two respects. Internally, at the administrative level, data helps optimise processes in terms of resource conservation and service orientation towards citizens and partners. Externally, data serves informational and application purposes for the administration, citizens, and the scientific community, often with the aid of data platforms.

The data-driven approach is being embraced in many municipalities as part of Smart City initiatives, including Ulm. Since Smart City initiatives have direct impacts on the everyday lives of citizens, their participation is considered a crucial factor in the implementation of these projects. This article will illustrate how citizen participation takes new paths with data, using the example of the City of Ulm.

Data in the urban context: What kind of data is actually meant?

Providing data poses a complex and demanding task for cities. In principle, infrastructure and technical conditions need to be created for dealing with urban data. Additionally, the effective use of urban data to support citizen participation requires a clear data strategy, data protection regulations, the delineation of ethical guidelines and adherence to them, as well as mechanisms to ensure data quality. A detailed description of this can be found in a paper published by the Fraunhofer Institutes: 'Urban data spaces – Opportunities for data sharing and collaboration in urban space' (Schieferdecker et al., 2018).

In terms of structuring urban data, the paper offers a gradation based on data availability. It distinguishes between freely available urban data, commercially available urban data, and internally available urban data. All three types can include both administrative data and data from third-party sources (companies, citizens, science, etc.), which can be used to make statements about all possible

urban domains (energy, mobility, health, etc.). 'Internal data generally refers to data that is available internally within authorities, companies, or privately and cannot or should not be made available to the public as raw data for various reasons' (Schieferdecker et al., 2018, p. 40), such as confidentiality requirements, personal data, as well as trade and business secrets. This concept paper by the Fraunhofer Institutes also provides an overview of the different types of data, classified by owner and data collection method.

A universally recognised goal in the context of increased transparency and participation opportunities in cities is the provision and management of open government data. The added value: 'If the selected open data sets are proactively provided by the responsible authorities in a structured and machine-readable format, they can be browsed, searched, filtered, processed, monitored, and further processed with reduced effort by multiple users simultaneously. This opens up diverse innovation opportunities through the possible development of data-based apps, data-based mapping and navigation services, and comprehensive search engines' (von Lucke and Gollasch, 2022).

A look at the City of Ulm provides an example of the types of data involved:

Examples of data sets in the narrower sense (German sources, georeferenced, standardised data points, statistics, etc.):

- SWU Echtzeitauskunft (SWU, 2023)
- Geoportal (City of Ulm, 2023)
- Environmental and weather data
- Solar potential register (State Institute for the Environment Baden-Württemberg, 2023) This map shows which roof areas in Baden-Württemberg are suitable for photovoltaics. Site analysis and potential calculation were conducted on the basis of laser scan data.
- Visitor trends: Ulm city centre (City of Ulm, 2023)

Examples of data sets in the broader sense, in terms of provision of information (German sources, texts, pictures, etc.)

- Spatial planning for urban areas
- Maps
- Laws, regulations
- Citizens' information portal – Citizens' information on the work of the committees and elected representatives of the municipal council (City of Ulm, 2023)

Particularly interesting in the Smart City context are dynamic or real-time data, for example from sensors and actuators in the urban areas. These can be part of the Internet of Things, comprising various applications to make urban areas more liveable. Sensors are used to collect measurements – for example, the water levels of bridge underpasses for pedestrians are monitored in Ulm (TTN Ulm, 2023). Actuators are used to trigger an automated response based on the data, such as the automated diversion of floodwater.

Data for optimising processes in terms of resource conservation and service orientation towards citizens and partners

With regard to process optimisation, the goal is generally to implement intelligent digital components to make the city administration more efficient and resource-efficient overall. From a citizen service perspective, optimisation means setting up the administration efficiently so that it can provide services quickly, securely, and economically for customers, including citizens.

Thus, data forms the basis for analysis and the derived optimisation of processes. Data can be the foundation of many services and systems in a municipality. By measuring and recording influencing factors assumptions can be tested, verified, or refuted and decisions guided based on values. Along with collecting, gathering, and visualising data, for example with the help of an urban data platform, it is also important to analyse the insights gained and use them to make processes more sustainable and efficient. In particular, new digital technology trends such as big data and artificial intelligence offer new potential through leveraging data. Linking data from different urban sources and identifying patterns leads to greater gains in knowledge.

For the City of Ulm, these generated data hold great potential for future-oriented urban development. The challenge for the municipal corporation lies in establishing efficient city-wide data management as well as identifying and valorising relevant municipal data. Responsible data handling (data security, data protection, and data sovereignty) and targeted data governance (regulations for managing data) play a central role in this (City of Ulm, 2021).

In addition to these more internally focused, process-oriented purposes, data and urban data spaces create incentives and conditions for greater participation by science, civil society, and the economy, and thus for an urban actor network. Along with the provision of information and applications, cities rely on the cooperation and participation potential of urban data spaces.

Data for empowered citizens

Urban data can contribute to increasing transparency in government affairs and provide citizens with access to important information. As illustrated above with the example of Ulm, this can be achieved by publishing data, such as municipal budgets, infrastructure projects, services, environmental quality, and other relevant information. Visualising data enables citizens to look for patterns, identify connections and recognise trends. By giving citizens access to this data and explaining this data, they can make more informed decisions and actively participate in discussions and decision-making processes. Actions and decisions in politics and administration should be understandable and comprehensible to citizens. The prerequisite for this is to make information, data, and knowledge accessible in a way that can be understood and used by as many people as possible in

a diverse society. The plan is to implement this in Ulm, for example, with a data platform and dashboard, providing access to different data sets, but excluding sensitive and personal data. This way administration, politics, citizens, businesses, and scientists can access the data that has been released. Therefore, not only the entity that generated the respective data set benefits, but every relevant actor as well. Data sources such as sensors or externally provided data are connected to the platform through suitable interfaces. In addition, other data from different sources or data-leading systems are also connected through appropriate interfaces. Interested citizens or companies can utilise the publicly available data and contribute their own data sets or services.

The planned dashboard for Ulm will present urban data in the form of interactive maps, charts, and other visual representations to provide citizens with a better understanding of complex urban challenges.

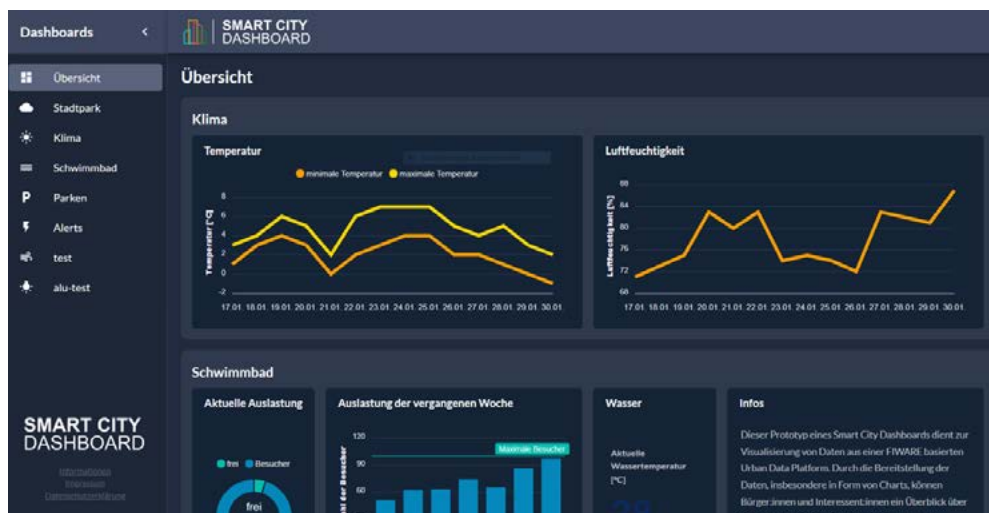


Figure 1: Demo of a Smart City dashboard by EDAG Engineering GmbH.
Source: exxcellent solutions GmbH.

This empowers them to make informed and knowledgeable contributions to urban planning and development. The counterparts to smart cities are 'smart citizens', individuals who contribute to making cities more liveable, sustainable, and democratic. The challenge for municipalities is to support a culture of smart citizens and create the conditions for it.

Excursus: Smart Citizen (Digital Mahbub, 2023)

The term 'smart citizen' refers to a person who is digitally literate and actively uses technology and data to engage in urban affairs and drive positive change in their community. A smart citizen is interested in improving the quality of life in urban areas by utilising technology, digital platforms, and urban data to make informed decisions, identify problems, and develop innovative solutions.

Smart citizens are characterised by their awareness of urban challenges and active participation in public life. They can use urban data to monitor their surroundings, express their opinions and concerns, participate in discussions and decision-making processes, and develop innovative projects to improve the city.

For example, smart citizens can use smart sensors to monitor environmental parameters such as air quality, noise pollution, and temperature and make the data publicly accessible. They can also use social media or online platforms to connect with like-minded individuals, share knowledge, and collaborate on urban projects.

Data for dialogue

Urban data can also be presented to initiate a dialogue between city administration, politics, and citizens and involve those affected. Immediately urban planning processes come into mind, but also further decision-making processes. By providing platforms or tools to citizens to express their opinions, concerns, and suggestions on specific urban issues, urban data can serve as the basis for informed discussions.



Figure 2: Participatory development process of the Ulm Wiblingen urban district development concept. Source: Timo Buff, Bürogemeinschaft Sippel | Buff.

In Ulm, this approach was used for the development of the Ulm Wiblingen district. For this purpose, some technological infrastructure was created in Ulm, including an online information system for researching decisions made by elected public bodies, available at the citizen's information portal (City of Ulm, 2023). Since 2016, the City of Ulm has also provided a digital participation platform as a way for citizens and the administration to facilitate the dialogue online (City of Ulm, 2023). Since then, analogue and digital participation options have been combined in a number of projects, such as the redesign of the central pedestrian zone and feedback on planned Smart City projects.

In the 'Information' section of the participation platform, the administration can present the participation process for a specific project such as 'parking in the city centre' with a timeline, so that citizens know what happens when and for how long in the participation process. It can explain the context and offer background information on the topic for download or as a link. In the 'Dialogues' section, the administration can post questions; in this case 'What are pros and cons of a parking time limit'?



Figure 3: Screenshot of an online dialogue on the replacement of a bridge.

Source: City of Ulm at beteiligedich.ulm.de.

Citizens can answer without registering and post their comments anonymously. Conversely, citizens can also pose questions to the moderator of the dialogue. During a live online meeting – in this context on the presentation of the city's parking concept – a live chat function can also be used, with the transcript being available afterwards to those interested. In this case, the feedback was integrated into the revision process of the parking concept. In addition, the public participation was evaluated in a report, adding additional transparency with respect to how citizens' ideas are dealt with. The lessons to be passed on from Ulm as regards online participation are:

- Online participation should be approached from the citizen's perspective and communicated well, in terms of both public communication and content on the website.
- Online dialogues or participation formats should complement on-site participation. Their potential lies in keeping dialogue channels open when, for example, in-person events cannot take place due to external circumstances or the risk that emotional sensitivity might lead to an escalation. They can help to objectify the dialogue again.
- Moderation is necessary; in Ulm, moderation was partly done by the participants themselves and partly outsourced.
- The questions posed online can be a good complement to an existing list of FAQ (Frequently Asked Questions) on a certain topic.

Data for co-development – example of business and operating models utilising open data

It might be challenging for many authorities to find, utilise, and provide open data. Additionally to publishing data, they also need to ensure that open data sets are actually used in the everyday routines of politics, administration, economy, science, and society, and that they serve as a basis for open policies, in areas such as health, transport or research. Therefore, the greatest challenge for public administration lies in the business development of open data sets from a governmental perspective. Together with the economy, science, artists, and the population, it is essential to tap into the economic, social, political, and cultural potential of open data and further develop them into large and intelligently interconnected data sets (von Lucke & OGD DACHLI, 2017, p. 11). As explained in the Smart City Strategy of Ulm (City of Ulm, 2021), data continues to gain rapid importance. Therefore, the availability of high-quality data is a crucial foundation for enabling innovative business and operating models. These new business models ultimately provide additional value for external stakeholders (such as citizens) and/or third-party organisations (such as companies). The complexity of building these novel business and operating models is heightened by collaborative approaches. The city administration is no longer able to provide all services and offerings by itself, and opening up data to third parties enables entirely new forms of operation by external entities.

As an example of data-based, cooperative operating models, the City of Ulm tested a cooperation agreement with private e-scooter providers. In 2019, German cities lacked a valid legal framework that empowered them to set requirements for e-scooter providers. Drawing on experiences from other countries, Ulm opted to create a collaborative pact (City of Ulm, 2019) featuring guidelines to ensure the harmonious coexistence of administration, public transport providers, and private e-scooter providers. This cooperative agreement governed aspects including land utilisation, the provision of data and interfaces according to certain standards, as well as interactions with public transportation. The objective of this

agreement was to evaluate and integrate these private services into Ulm's mobility spectrum with benefits for citizens based on access to certain data, such as vehicle conversions, number of users, or fault reports.

Despite having open data, it is necessary to define access rights, roles, and licensing models. As all data converges on a data platform, it is essential to establish collaboration within the city corporation, for example with the municipal utility companies responsible for operating city infrastructures, and make decisions regarding the reuse of open data. This includes specifying the applicable access and utilisation rights, as well as the guaranteed level of transparency and oversight with respect to the use of municipally-generated data. The collection, processing, sharing, and analysis of data should fundamentally serve the common good.

Summary

Urban data can help support citizen participation in a number of ways. As mentioned above, different resources and certain requirements need to be met in order to provide data to interested parties:

- Technical infrastructure
- Considerations on how to deal with data, e.g. referring to data ethics
- Data literacy in city administrations
- Data governance

Urban data can contribute to increasing transparency in government affairs by providing citizens with access to important information. By offering platforms or tools that citizens can use to express their opinions, concerns, and suggestions on specific urban issues, they serve as a basis for citizen feedback and participation. Hence, urban data facilitate informed citizen dialogues and decision-making. Presenting urban data in interactive maps, charts, and other visual representations helps citizens gain a better understanding of urban challenges, which are usually quite complex. Finally, such data can serve as a basis for collaboration and innovation by encouraging citizens, businesses, researchers, and non-profit organisations to work together on solutions for urban challenges. Open data platforms and competitions that utilise urban data for innovative projects promote collaboration and engagement among different interest groups.

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Chapter 3

What could possibly go wrong? A rebuttal to the naïve praise of citizen participation

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Introduction

Few concepts are as universally accepted and praised as that of citizen participation. For many, the merits of citizen engagement in the decision-making process, especially in representative systems of government, are axiomatic. The consensus is that citizens should not only be granted the occasional privilege of voting for their national, regional and local governments, but should also be actively encouraged to participate in a major part of decisions that affect them. This sentiment finds pronounced resonance and permeates various tiers of governance, from the European Union to decision-makers and administrations in municipalities.

However, this widespread endorsement is not without its caveats. As Burton (2009) put it aptly, summarising a concern that dates back at least to Cupps (1977): “For something that is held to be so important and to deliver a myriad of benefits, we know little of the extent to which the benefits of public participation are in fact delivered or of the balance of these benefits with any costs”. This ambiguity is exacerbated by the selective and, thus, often biased narratives propagated by cities, regions and institutional bodies. The escalating pressure to justify political and/or administrative actions has led to a professionalisation of external communication. The consequence? A discourse dominated by positive case studies, while failures and shortcomings in participatory projects are often overlooked or downplayed. Objective evaluations, though essential, are rare and even when pursued with genuine intent, present intricate challenges in conceptualisation and quantification.

While the academic literature does offer a more nuanced perspective, its insights often remain confined within ivory towers, scarcely influencing grassroots political dynamics. A handful of studies do shed light on the potential pitfalls of citizen participation: the resource-intensive nature of citizen involvement; the potential for such initiatives to be rendered futile if their outcomes are disregarded, or worse, to backfire, fostering distrust and antagonism; the disproportionate influence of articulate interest groups; and the implied erosion of decision-making authority from established entities (see, among others, Lowndes et al., 2006; Sun et al., 2009; Gusmano, 2013). A small subset of this literature even delves into the conditions for citizens’ engagement to be efficient enough to justify its inherent costs (e.g. Andersson et al., 2005; Michels and De Graaf, 2010; Ianniello et al., 2019).

However, Burton’s observation remains as pertinent as ever. Despite its significance, there persists a gap in our understanding of the tangible benefits of public participation versus its associated costs.

This article aims to serve as a counterweight to the prevailing discourse. By summarising the literature that leans towards the challenges, disadvantages, and

both conceptual and practical impediments of citizen participation, the intention is not to deliver a sweeping repudiation of the concept. The potential usefulness of such a reverse-ideation approach is instead twofold: to accentuate the lesser-acknowledged challenges and, in doing so, either to inspire innovation in designing participatory procedures that effectively mitigate these challenges, or to at least foster a balanced discourse that juxtaposes the pros and cons with more sobriety.

This article serves as an introduction to the topic and does not provide a comprehensive overview on the costs of citizen participation. It draws heavily on Irvin and Stansbury (2004), Ianniello et al. (2019), Schafer (2019), and references therein, which could be consulted for systematic reviews.

Lack of representativeness, inclusiveness and equality

The question of representativeness in citizen participation has long posed a challenge to both theorists and practitioners of democratic governance. At the core of the problem lies the tension between the normative ideals of participatory democracy and the empirical realities of its operationalisation. This dilemma is not merely a theoretical concern, but manifests in substantive ways that affect the quality and legitimacy of political decision-making processes.

A useful categorisation of participation processes regarding the topic of representativeness is by the design of the selection rules for participation (Ianniello et al., 2019), which are the main factors influencing the decision to actually participate (Edelenbos and Klijn, 2005; Ryfe, 2005).

The selection process is far from neutral – even if, or especially if, the process is widely known and open to all. Instead, the selection process may be highly controlled, such as an explicit selection of participants, it may be consciously but indirectly controlled through the selection of participation formats or information dissemination, or it may be unconsciously controlled by addressing the public in general.

Open-to-all formats

The total lack of steering of the selection process goes hand-in-hand with the issue of selection bias. Conventional modes of citizen participation, such as town hall meetings and public consultations, attract a self-selected group of participants who are often not representative of the wider population. Participation may thus result in the involvement of the ‘usual suspects’, leading to an overrepresentation of specific groups, overshadowing others (Sun et al. 2009; Irvin & Stansbury, 2004). Additionally, the participatory process may be hijacked by individuals or groups with specific vested interests, leading to outcomes that do not truly reflect the diverse needs and views of the community (Michels & De Graaf 2010).

The selection bias skews towards those with a higher socio-economic status, greater educational attainment and stronger political affiliations. The demographic and ideological homogeneity arising from such self-selection may engender a form of epistemic closure, undermining the deliberative quality of citizen engagement.

Open-to-all participatory formats may particularly piggyback on and amplify an already concerning trend: the sizable socio-economic status gap in political participation. Contrary to the optimistic view of universally enhanced civic engagement against the backdrop of the notable expansion in access points for citizens, the empirical reality suggests that the ability to engage in forms of participation is strongly affected by an individual's socio-economic status (e.g. Weber, 2000). However, this gap varies between participation approaches. Consider the most traditional form of civic engagement: voting. Voting is the form of participation where the social status gap is generally the smallest. There are several reasons for this: firstly, political parties and labour unions invest heavily in mobilising voters with a lower socio-economic status into casting their votes on election day. Secondly, and more importantly, engaging in activities such as drafting articulate political correspondence, collaborating with grassroots organisations, or contributing to the political discourse via digital platforms demands a higher set of skills and resources than the singular act of casting a vote. Lastly, the temporal dimension of citizen participation should not be ignored. In contrast to voting, citizen participation is not a one-time event, but a continual process. Most participatory mechanisms are episodic, oriented around specific issues or decision-points (see also Chapter 1). This episodic nature can exacerbate inequalities in representativeness over time, as only those with the resources to engage continually are likely to have their views consistently represented.

Consequently, expanding the frequency and breadth of citizen participation formats may increase the divergence in participation rates based on socio-economic status. Unlike voting, which inherently limits the influence of an individual, no such constraints exist for other forms of political action, creating a potential for disproportionate influence.

Thus, a participatory dilemma arises – the diversification of political participation may widen the gulf between the politically affluent and the politically marginalised. This trend challenges foundational democratic tenets and risks compromising the quality of policy outcomes, as it may not genuinely reflect the collective preferences (see Dalton, 2017; Parvin, 2020).

Steering the selection process

Given the above arguments, it may appear imperative to steer the selection process more tightly to avoid a self-selection bias (see Chapter 5 for methods targeted at specific groups). However, biases in the representativeness of participation processes are not easily solved by simply encouraging underrepresented

demographics to attend more. Even when citizens are invited to participate, not all feel capable of doing so in a meaningful way. This is particularly pertinent given the increasing complexity of public policy issues, which often require specialised knowledge. In such contexts, there is a propensity for expert knowledge to overshadow citizen input, leading to a “technocratic drift” that further marginalises lay perspectives. The culture, language and processes of bureaucracies can also be alienating, possibly deterring participation. (Schafer, 2019; and references therein).

However, even if citizens do feel they are capable, they may abstain from attending nevertheless, often unsure whether they can expect to influence the outcome in any meaningful way. Riccucci et al. (2016), e.g., found that women were more willing to participate in initiatives when they saw a greater representation of women in public official positions. Similarly, de Lancer Julnes and Johnson (2011) noted a reluctance among minorities to engage, primarily due to a lack of representation in governance. This highlights the potential influence of official representation in governance structures on participation rates.

Mini-publics or citizen juries

While voluntary participation can lead to biases, alternative models such as citizen juries or mini-publics, where participants are randomly selected, can offer a more representative approach, although they come with their own set of challenges (Irvin & Stansbury, 2004).

Quota systems and stratified sampling techniques attempt to ensure a modicum of representativeness oversimplify complex social identities and may inadvertently reify existing divisions. The very act of defining categories for inclusion must necessarily be laden with normative assumptions that can marginalise non-dominant perspectives.

Furthermore, even if those mini-publics meet normative standards of representativeness (e.g. Berner et al., 2011), this is not to be equated with a higher perceived legitimacy compared to self-selection-based approaches (Jacobs & Kaufmann, 2021).

Efficiency and resources

The discourse surrounding participatory processes seldom ventures into a rigorous assessment of the associated costs, both in terms of financial outlays and administrative resources. This oversight is not accidental, but stems from widespread normative beliefs about the intrinsic value of participation, from enhancing transparency to ensuring that policy decisions are more reflective of the public will. As Andersson et al. (2005) have noted, many observers consider participation too important to be reduced to a single financial measure, emphasising instead its transformative potential for policy and society.

While the normative value of citizen participation could itself be disputed, the public administration also has to grapple with economic realities. In a world of finite resources and binding budgeting constraints, public money cannot be allocated to multiple outlets simultaneously. This raises critical questions about the efficiency and resource allocation in citizen participatory processes.

It is undisputed that participatory processes require heavy time commitments and financial resources to enable them to function effectively (Irvin & Stansbury, 2004; Aycrigg, 1998). Participation is always at a disadvantage in terms of direct costs and speed compared to decisions made by a single, hopefully benevolent, agency administrator. However, this does not answer the questions of how much more expensive the measures are, whether they deliver decisions of the same quality and whether the additional costs may be amortised through lower costs in the long run. However, these questions defy quantification to an even greater extent than the pure consideration of direct costs.

While one of the more promising frameworks for cost-benefit analyses in participation is that of Andersson et al. (2005), even those acknowledge that there may be arguments for abstaining from the attempt to measure the net benefits/costs altogether. Some benefits may be intangible and some costs may arise from normative imperatives that could not be compared to other types of costs. An example of the latter are costs associated with the inclusiveness of participation events. More costs for the participation event often means less on the side of the citizens. In principle, people with mobility restrictions could arrange to be transported to the participation event on their own, but these costs would be prohibitively high for many and therefore exclusive.

Wang (2012) introduces another layer of complexity by demonstrating a potential non-linear relationship between the production costs of participation processes and participation quantity. An increase in production costs hardly affects participation quantity up to a tipping point from which costs are strongly associated with the number of participants. Increasing spending further may exceed a later stable point after which the close association breaks down again. Depending on the participation mechanism, the tipping and stable points may differ. Any spending below or above a certain threshold is inefficient, depending on the participation respective mechanism; i.e. it increases the average cost per participant. Interestingly, the study does not find a direct link between costs and participation quality. While the breadth of participation may be in a trade-off relationship with costs, quality may not. The quality may rely more on the selection of the participation mechanism instead.

Information asymmetries

While the notion of information asymmetry is conventionally attributed to economic theories (Akerlof, 1978), its application to political science also offers a

nuanced understanding of the disparities that exist between citizens and governing institutions. Here, information asymmetry refers to the unequal distribution of pertinent information, which impacts not only the efficacy, but also the quality of citizen participation.

The role of information is pivotal in democratic governance. As argued by Dahl (1989), effective participation presupposes that all citizens have equal and adequate information. In many instances, this is not the case, and leads to a misalignment of goals, unrealistic expectations, and a lack of focus during engagement (Ianniello et al., 2019). Government agencies and institutions, on the other hand, often possess a wealth of information not readily accessible to the citizenry. Moreover, the complexity of policy issues often requires specialised knowledge, creating a professional elite well-versed in the jargon and intricacies of such matters. Given the high cost of acquiring specialised knowledge and the low individual benefit, citizens may opt for a state of 'rational ignorance,' where they choose not to invest in information-gathering. This also affects the quality of their input participation processes. Citizens who are not well-informed are more susceptible to demagoguery and less capable of engaging in constructive discourse (Sunstein, 2018). Instead of democratising information the internet often has, paradoxically, exacerbated information asymmetries (Hindman, 2009). Algorithms and filter bubbles perpetuate existing beliefs and shield individuals from information that might challenge their viewpoints.

Moreover, information asymmetry not only influences the quality of citizen participation but also the power dynamics between participants. Those with access to information are better positioned to influence public policy, thereby contributing to a form of participatory inequality (Verba et al., 1995). This is particularly evident in the context of 'issue publics'; groups that are exceptionally informed and engaged in specific policy issues. These groups often dominate the discourse, thereby marginalising the voices of the less informed.

While the citizens often lack complete information, local governments are often unaware of the preferences of the citizens in a specific decision. The narrative is often that citizen participation can bridge this gap. The assumption that the outcomes of citizen participation reflect the wider public may be misleading. Personal or financial incentives may still drive the engagement of citizens, reflecting the persistence of self-interest over the broader public good. Decisions made could, e.g., unduly favour local economic interests at the expense of more extensive societal or environmental concerns. These outcomes, due to their citizen-driven mandate, could be difficult for government representatives to challenge (Irvin & Stansbury, 2004).

Information asymmetries serve as both a barrier and a filter to meaningful citizen participation. They skew the distribution of political power and influence, further entrenching existing social and political hierarchies. Addressing this imbalance is not merely a question of disseminating more information.

Conclusions

The discourse on citizen participation, while rich in aspirational rhetoric, is often insufficiently attentive to the manifold complexities and trade-offs inherent in the operationalisation of participatory democracy. This article has sought to examine these nuances, engaging with the challenges that lie beneath the laudable goals of enhancing democratic decision-making, improving the quality of decisions and achieving higher efficiency in governance.

One of the most salient challenges pertains to the tension between representativeness and the actual demographics of participants in participatory processes. This tension is not easily resolved through straightforward interventions such as the steering of selection processes. Even when participatory mechanisms aim for inclusivity—whether through open-to-all formats or specialised selection processes like citizen juries—each comes with its own set of representational biases and pitfalls. The representation dilemma is further complicated by the influence of the socio-economic status on participation rates, posing a risk to the democratic legitimacy of the process.

Efficiency, often overlooked in normative discussions about participation, emerges as another critical factor. The question of efficiency relates to the resource-intensive nature of citizen participation. Given that resources are finite, the costs associated with participatory processes cannot be disregarded. Economic considerations are not antithetical to democratic values but should inform the design of citizen participation to ensure its sustainability and effectiveness.

Information asymmetries constitute another significant obstacle. They not only affect the quality of citizen input, but also exacerbate existing social and political hierarchies and the power dynamics of participatory processes. While participatory mechanisms could theoretically serve as a bridge between citizens and local governments, the belief that citizen input necessarily reflects the preferences of the broader public is often misplaced.

Even if one were to conclude that the advantages of citizen participation outweigh the disadvantages in each of the three topics discussed, a prioritisation between competing aims would still be necessary.

It remains important to keep in mind, though, that these themes do not exist in distinct silos, but interact in intricate ways. For instance, a participatory process designed for maximum inclusiveness may require sacrifices in efficiency. Information asymmetries, however, could be reduced either by only selecting socio-economic elites for participating or by investing heavily in educating the participants. These trade-offs are real, and should be explicitly acknowledged in the design and implementation of participatory mechanisms.

Citizen participation requires a careful balancing of competing priorities. It is not sufficient to merely proclaim the virtues of citizen engagement; one must grapple with the tensions between democratic ideals and the messy realities of governance. Thus, the challenge lies not just in advocating for more citizen participation, but in crafting participatory processes that are both effective and equitable, cognizant of their inherent complexities and trade-offs.

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Approaches



Chapter 4

Kickstarting the participation of municipalities in European networks and cooperations on digitalisation and innovation

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Introduction

New transformative technologies and innovations not only pose new challenges to cities and towns, at the same time, 'due to their large concentration of population, urban areas consume the largest volumes of energy and have the highest levels of greenhouse gas emissions. As the fight against climate change increasingly involves the deployment of solutions at all levels and the participation of citizens, cities are well-placed to show leadership in the clean energy transition and can achieve significant benefits through the early adoption of policies aimed at achieving climate neutrality.' (EC Directorate-General for Energy, 2022). That is why the European Commission always looks at urban transformation from two perspectives: a smart, digital transformation must go hand in hand with a green transformation. The two are interdependent to make Europe climate neutral by 2050. Instead of local organisations or European cities developing solutions for digital, green challenges alone, they maximise impact by cooperating together. Coordinated efforts among urban ecosystems help to avoid developing the same solutions in parallel – and repeating the same mistakes. This article explains different approaches on how a municipality can kickstart cooperation activities on digitalisation and innovation at European level, mentioning methods, successes, obstacles, and lessons learnt based on some of the City of Ulm's experiences. First, let us take a brief look at the European Commissions' perspective, emphasising smart cities, expertise network exchanges and cooperation initiatives.

Smart cities across Europe and Europe's digital decade

As introduced above, the European Commission discusses the importance of European cities in the context of energy consumption and greenhouse gas emissions. Since the majority of the European Union population – 75% in 2022 (The World Bank, 2023) – resides in urban areas, they play a significant role in the transition towards clean energy and climate neutrality. Smart cities are highlighted as a key approach to integrating physical, digital, and human systems to optimise energy resources and reduce emissions for the benefit of citizens and businesses. Smart municipalities include the use of digital technologies, but not as a standalone component. They also involve energy-efficient buildings, integrated renewable energy sources, sustainable heating and cooling systems, smarter urban transport networks, and improved water supply, for example.

The European Commission actively promotes smart urban areas through various cooperation policies and initiatives. One such initiative is the Smart Cities Marketplace that was launched in 2012 as part of the European Innovation Partnership on Smart Cities and Communities. The platform facilitates the rollout of sustainable Smart City solutions by connecting project promoters with financing actors. It serves as a hub for practical knowledge, capacity-building support, and finance facilitation in areas such as districts and built environment, sustainable urban mobility, citizen-focused initiatives, and integrated infrastructures in energy, infor-

mation and communication technologies, and transport. Another initiative to be considered is the Scalable Cities Group hosted by the Smart Cities Marketplace. These municipalities have been involved in 18 Smart Cities and Communities lighthouse projects, funded by Horizon 2020, resulting in significant savings in energy and emissions. One of the latest initiatives is the Horizon Europe Mission on Climate-Neutral and Smart Cities, established in 2020. The mission aims to promote system innovation across various sectors in urban areas, including recycling, energy, governance, transport, and construction. It seeks to enable 100 European cities to become climate-neutral by 2030 and act as innovation hubs for others to follow by 2050. These examples reflect the importance of smart cities and the collaborative efforts among them in achieving climate neutrality and sustainability goals with the aid of technology (Directorate-General for Energy, 2022).

As for the technological and digital part, the European Commission set up a Digital Decade policy programme in summer 2021 with specific targets and objectives for 2030, which will guide Europe's digital transformation. The Digital Decade aims to ensure that digital technologies and innovations benefit all citizens while upholding European values of inclusivity, freedom, protection, and fairness. The Digital Decade framework is made up of several components, including measurable targets in areas such as digital public services, digital economy, connectivity, and digital skills. In particular, cities are asked to reinforce the digitalisation of public services and to contribute to secure and sustainable digital infrastructures. At the national level, Member States are guided by specific objectives, with their progress monitored through an annual report published by the Commission. Additionally, the Digital Decade policy programme facilitates cooperation between the EU and Member States in achieving the Digital Decade targets. In particular, multi-country projects are considered to facilitate cross-border collaborations and investments to accelerate progress, thus emphasising once more the importance of cooperation efforts (European Commission – Directorate-General for Communication, 2022).

Again, with these initiatives and programmes, Europe is supposed to reach common targets such as those set by the European Green Deal or the Digital Decade initiative more quickly due to shared work, e.g. as a result of cooperation efforts of different European cities. By collaborating, a group of cooperating municipalities can share their specific knowledge and expertise, allowing other cities to benefit from successful strategies and avoid repeating mistakes. Additionally, collaboration enables them to pool resources and investments, resulting in cost efficiencies and economies of scale. Joint projects and initiatives can be more affordable and impactful than single efforts of each city. Some challenges, such as migration, climate change and urbanisation, also do not stop at national borders. Different metropolitan areas across Europe can work together to tackle these common issues. With regards to standardisation and interoperability, it is more feasible for cities to adopt compatible technologies and stand-

ards. By making it easier for municipalities to access and share data, for example on central platforms, joint projects can promote standardisation. Cooperation among cities across Europe can thus lead to greater efficiency, effectiveness, and innovation, promoting sustainable and resilient urban environments that improve the lives of citizens.

After having emphasised the advantages of cooperation efforts, it is now time to present different approaches on how a municipality can kickstart cooperative activities in the areas of digitalisation and innovation in the sense of a digital, green transition at the local and European level, including a look at methods, successes, obstacles, and lessons learnt based on some of the City of Ulm's experiences.

Approach no. 1: Meeting people and building relationships

Meetings and relationships play a crucial role in encouraging cooperation and addressing digital challenges at European level. Actively participating in events, conferences, and seminars related to the driving topics of the cities (transformation, innovation, European cooperation, etc.) is an effective method to initiate collaboration. Special partnering events are often organised by EU programme entities, innovation centres, and research networks. These events aim to bring potential project partners together, giving them the opportunity to present their interests, capabilities and project ideas. A special type of such partnering events are brokerage events, for example organised by different national contact points of the Horizon Europe programme strands. They provide a structured, often online setting for engaging in short conversations with potential project partners and exploring synergies. Moreover, there are various online platforms and databases where organisations and individuals can upload their profile information and project ideas, sometimes provided by private enterprises, and sometimes by the funding programme themselves or their service providers. Municipalities could also attempt to reach out to one of the European research networks and clusters, which bring together organisations with similar interests and expertise. By participating in such networks, urban areas can increase their visibility and connect with experts and potential project partners with technical expertise.

Presenting public relations materials about your town or city helps create awareness about the municipality's capabilities and interests. As mentioned above, staying informed about relevant events through newsletters ensures timely participation. Additionally, support and mentoring programmes such as the Intelligent Cities Challenge initiative of the European Commission allow for exchanging knowledge with experienced cities.

Successful relationship building efforts offer various benefits. They enable the identification of potential partners who can contribute to joint projects and collaborations. Municipalities themselves are considered attractive partners due to

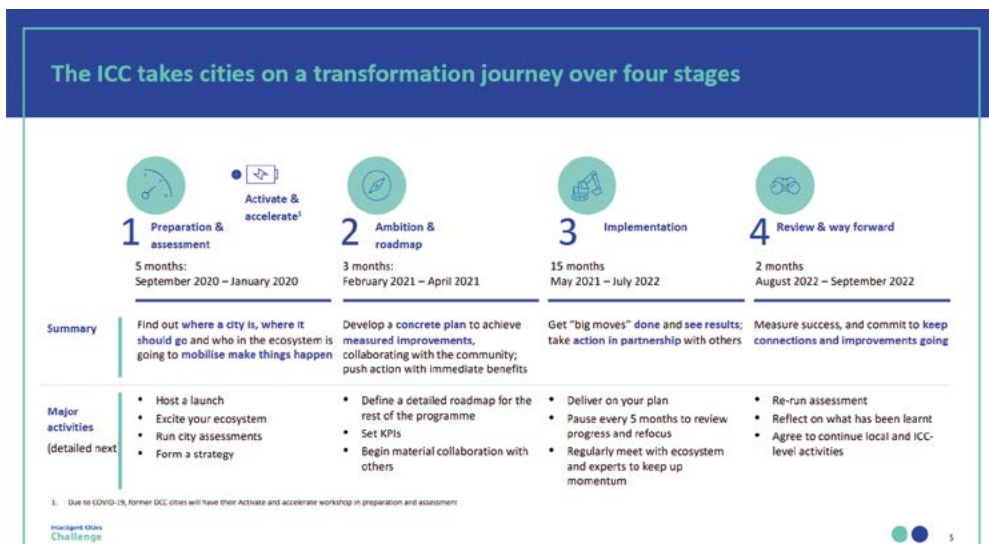


Figure 1: ICC cities transformation structure. Source: Intelligent Cities Challenge (Technopolis Group).

their expertise in public administration and policy support, as well as their ability to provide test fields for innovative solutions and knowledge transfer to citizens. Furthermore, municipalities can effectively integrate project outcomes into their urban strategies, establish partnerships, and organise workshops to share knowledge. The City of Ulm, for example, has leveraged its venue Verschoerhaus as an event and exchange space to work on digital topics for several target groups such as administrative staff, citizens, businesses, researchers, and non-profit organisations.

However, relationship building also comes along with challenges. Finding the right partners and building trust and cooperation takes time and effort. Staff and resources need to remain stable in order to maintain contact over a longer period. Language and cultural differences can pose communication challenges, where effective strategies need to be in place to overcome such barriers. In this case, it is helpful to work with communication routines as well as be aware and discuss, right at the beginning of a cooperation project, how the same concept can be seemingly understood and interpreted differently in different countries.

Approach no. 2: Participation in European networks and initiatives

Active participation in established European networks and initiatives requires more commitment, but can be a very effective method for municipalities to enhance their collaboration efforts. By joining networks that focus on specific themes or sectors relevant to the city, such as Eurocities, Eurotowns, Covenant of Mayors, living-in.eu movement, and INTERREG programmes, municipalities can tap into valuable resources and expertise. An overview of existing networks and their focus topics can be found in Appendix A.

Membership in European networks brings several advantages. It provides access to a range of expertise, resources, and funding opportunities that can support the municipality's initiatives and implementation of local strategies. Additionally, participation in these networks enables cooperation with cities sharing similar goals and enhances the municipality's visibility within the European context. To maximise the benefits, municipalities should ensure they are well equipped with materials, including current city concepts and strategies, preferably in English. For Ulm, engaging with the Intelligent Cities Challenge (ICC) provided the city access to external experts, consultants, and regional development agencies who could simplify the application process and help in finding suitable partners and funding opportunities.

Excursus: The ICC and its benefits for Ulm

The ICC has been successful in establishing a wide network of 136 cities, including Ulm. Furthermore, it has enabled 80 core municipalities across Europe to access policy advice and support, paving the way for a greener and more digitally advanced future. To achieve this transformative journey, cities formulated ambitious visions, devised targeted strategies with action plans, and actively implemented practical solutions. The selected participants, including Ulm, received valuable support and informational resources from experts to improve their digital capabilities, conduct pilot projects, and implement smart solutions. The ICC also provided a platform for sharing best practices and experiences among participating cities.

Ulm benefited from the ICC's city profiles, which helped identify other municipalities implementing solutions based on similar technologies or infrastructures, like LoRaWAN. For instance, Ulm showed interest in the approach used by Terrassa, Spain, as presented at the Smart City Expo in 2021. Additionally, Ulm reaped the benefits from the peer review sessions organised during the five ICC city lab events. These sessions allowed the city to identify potential 'knowledge carriers' for future collaboration projects, such as players in Cork, UK (municipality and university), which also focused on solutions for an ageing population and other issues.

Throughout the ICC, Ulm initiated an informal group with some of the ICC member cities, including Arad, Gliwice, Bistrita, and Las Rozas, aiming to explore intersections and common needs that could be addressed collaboratively. The group's purpose was to facilitate peer learning and identify financing opportunities for citizen-centred Smart City development. The ICC has provided added value to Ulm by presenting it as a Smart City and a city of the future in alignment with ongoing and funded activities. It also offered the city the opportunity to reflect on what is going well and where there are points for improvement as well as for sharing and learning.

However, there are obstacles municipalities need to keep in mind if they consider participating in European initiatives or networks. Some of them have certain criteria or prerequisites for becoming a member, which can pose challenges for municipalities. Limited resources and capacity can also limit active participation, especially for smaller or less experienced cities that may struggle to allocate the necessary resources and expertise to participate in networks and project consortia and, if necessary, to prepare a high-quality application.

Nevertheless, valuable lessons have been learnt from previous experiences. Choosing the right networks or initiatives that align with the municipality's priorities and actively engaging in their activities can lead to fruitful collaborations and increased visibility. Partnerships that start loosely need topic drivers and a proactive lead, who takes the responsibility for providing an organisational framework for the group. Furthermore, strong intrinsically-motivated ties and incentives or prospects are necessary to keep the group together. In the case of Ulm, partners could not see the direct benefits of the group work. At some point, some preferred national engagement over EU cooperation projects. For the group, it is also important to see some progress and transition from the rough ideation phase to concrete project outlines and from project outlines to a concrete application. This often requires seeking external support, which could be obtained through networks and municipal funds.

Approach no. 3: Participation in EU-funded projects

Actively participating in EU-funded initiatives represents the next level of commitment and can be a valuable avenue for municipalities to concretely access financial resources, technical expertise, and opportunities for innovation and learning. To engage in these projects, municipalities could actively seek out participation as a partner or lead partner. This approach allows them to collect experiences with regard to which funding programmes fit best. However, it also involves more effort in preparation, in terms of identifying relevant project calls, developing or co-developing project proposals, and establishing consortium partnerships.

One way is to identify 'low-hanging fruits' and start with small-scale programmes or those that are less competitive. This allows municipalities to gain experience, get the buy-in of stakeholders and build a track record of successful projects. It is crucial for municipalities to ensure sufficient financial resources to contribute to the project - usually a certain percentage between ten and twenty five percent - whether from their own funding, state grants, or other sources. Cross-financing options should be taken into account to meet these requirements.

Nonetheless, developing competitive project proposals can be demanding. It requires time, effort and specific expertise. Municipalities should engage relevant departments in the process, as digitalisation is not a goal in itself, but rather a means to achieve broader objectives. When preparing EU project proposals,

cities should involve colleagues from different stakeholders that can contribute diverse experiences and expertise. These can be employees from various municipal departments, researchers and other experts. Collaborating in a multidisciplinary team strengthens the project proposal and enhances the quality of submissions. Additionally, municipalities need to be aware that EU projects involve extensive reporting and evaluation obligations. Moreover, the sustainability of project solutions is often a long-term challenge. That means, ensuring that projects continue and receive financial support after their end is crucial, although not always feasible.

Lessons learnt from previous experiences emphasise the importance of investing in project development skills, establishing strong partnerships, and aligning project ideas with EU priorities. Municipalities can increase their chances of project success by submitting their own proposals and gaining experience with steering partnerships. It could also be beneficial to enter a consortium together with another local partner, such as a regional university. While participating in EU-funded projects, municipalities should address the challenge of workforce retention, as project-based hiring may contradict long-term personnel strategies. Understanding the goals, priorities, and funding conditions of EU programmes is essential for municipalities to be able to select the most suitable ones aligned with their objectives. It is equally important to understand pain points of the city and develop project ideas that offer innovative, but meaningful solutions in line with existing plans at different levels (department, subject area, or the entire city). Municipalities should also consider compliance with relevant EU regulations, including procurement rules, environmental protection, data privacy, etc., which in turn requires (legal) expertise and a transversal approach. To move through the application process more easily, municipalities can ask for assistance from national or regional contact points or authorities specialising in EU funding. They provide information, advice and support in project development and proposal submission. Establishing consultations and good connections with organisations like the National Contact Points for European funding programmes can prove beneficial. Finally, the involvement of stakeholders such as citizens, community organisations, businesses and other relevant actors is important. Cities should actively seek and maintain dialogue with stakeholders from the beginning and throughout the project planning process to incorporate their needs and perspectives in the sense of user-centricity. This enhances the relevance and success of the projects and strengthens community support.

Approach no. 4: Advocacy and lobbying

Engaging in advocacy and lobbying at European level can be a method for municipalities to influence policies, regulations, and funding opportunities. By actively participating in the dialogue of European agendas, municipalities can work towards their needs and perspectives being taken into account. This can be achieved through direct engagement with European institutions or by joining

advocacy platforms or associations, such as the Association of German Cities and its Europe and International Affairs Department, Eurocities, The Council of European Municipalities and Regions, etc.

However, it is an approach that suits larger urban areas or those cities with a regional centre function from an educational, political, mobility, or other standpoint. Navigating the complex decision-making processes at the European level and effectively communicating the municipality's needs and perspectives can be difficult to manage for a small or mid-sized city.

Lessons learnt from previous experiences emphasise the importance of building alliances with other municipalities or stakeholders. As a municipality, it is crucial to have clear objectives together with a certain self-understanding as a city. Based on its tradition, the City of Ulm, for example, sees itself as a civic city, meaning the city is shaped for and with its citizens. It is also embedded in the Danube region and wants to become a Smart City. Those perspectives resulted in strategic engagements such as the greater contribution to the Danube region strategy that makes Ulm an important stakeholder in the circle of the regions' representatives.

A Look North

To leave the reader with some food for thought, as we conclude, we want to take a look at a national model to learn more about successful cooperation and the resulting knowledge transfer between cities. The idea behind it: What works at national level could also work at European level.

In Finland, the six largest cities, Helsinki, Espoo, Vantaa, Tampere, Turku, and Oulu, set up a joint urban development programme in 2014 named 6Aika, also called the Six City Strategy. 'The goals of 6Aika, the Six City Strategy, have included boosting Finland's competitiveness and the productivity of its public sector, developing new service innovations, and promoting business and employment. [...] The Six Cities have served as development and testing environments for products and services' (Six City Strategy Office, 2022) in the smart mobility, learning, health, wellbeing, circular economy and energy efficiency sectors. With a total budget of approximately 95 million euros, around 60 projects have been launched as part of the strategy, funded by the European Regional Development Fund and the European Social Fund, with the last projects completed in 2022. Smaller pilot projects were established for core project topics, such as open innovation platforms, open data and interfaces, and open participation and customership.

6Aika has many parallels to cooperation activities and Smart City and innovation projects at the European level. Consequently, it can serve as a role model for transnational cooperation in terms of:

- Transversal goals: The Finnish cities share common goals such as achieving carbon neutrality.
- Resource pooling: By working together, the six major cities of Finland can effectively combine and utilise their resources and expertise. This allows them to undertake larger and more ambitious projects that bring advantages to all participating municipalities. They have also engaged in collective efforts like joint development initiatives and outsourcing processes, among other forms of cooperation.
- Sharing experiences: Collaboration facilitates the intensive exchange of experiences among these cities. They can learn from each other, share successful strategies, and collectively address challenges. This collaborative approach has an additional benefit of testing and applying operational methods, developed through various projects, across multiple urban areas simultaneously.
- Promotion of innovation: The 6Aika initiative nurtures the creation and application of innovative Smart City solutions. Through collaboration, ideas can spread and be evaluated more quickly, leading to faster progress and novel techniques. The smooth flow of information among the cities has prevented redundant development in similar topic areas. Moreover, experiences have been shared not only among project participants, but also extensively with the entire 6Aika project network and other urban developers in the country.
- New role in the business sector: The Six City Strategy has bestowed upon the cities a new role in the business sector. Previously, city-company cooperations were primarily related to procurement, but now municipalities also function as enablers for innovative solutions and active collaborators in the product and service development of companies.
- International visibility: The joint project elevates the global visibility of the participating cities. It positions Finland as a trailblazer in Smart City endeavours, attracting potential investors and collaborators. The Six City Strategy has aided the cities in forming new ties with worldwide Smart City networks and has empowered them to access international funding. As a result, Finnish municipalities have become sought-after partners on an international scale. This benefit could be replicated on a smaller level, for instance, by establishing connections to European Smart City networks and securing European funding, thus enhancing the external reputation of towns and cities (Six City Strategy Office, 2022).

Summary

Different approaches to initiate European cooperation activities were presented in the previous sections with the level of engagement and commitment and thus the necessary capacities and expertise increasing accordingly from approach number 1 to approach number 3. In particular, approach number 4 is considered more suitable for larger cities or those with an exposed role in their region.

It is also true that initiating cross-border, innovative cooperation projects is not always easy, as suitable calls for proposals have to be found. Sometimes complex

application procedures have to be gone through – and then approved. Set-backs in the form of unapproved project applications are not uncommon. When working with partners from different cultures, it is important to find a common language and build trust so that everyone pulls together. The projects should also fit well into the department's previous work and deliver sustainable results with added value. These ambitious endeavours for cities are subject to specific considerations: Do the cooperation activities align with the city's strategic direction or departmental goals? Can they facilitate the implementation of pre-existing plans or be meaningfully integrated into departmental subprojects? These considerations apply not only, but especially, to innovative project proposals.

However, it is undisputed that the innovative capacity of a municipality increases through its national and international networking with other urban areas. Despite the various challenging aspects of European cooperation, we want to emphasise the range of benefits of kickstarting and continuing European exchange, sharing, and collaboration on modern, Smart City development. In this respect, the Finnish initiative *6Aika* is a good demonstration of cooperation potential and can serve as a role model. The cross-border interaction with partners from other European municipalities in networks and the joint project work contribute significantly to not reinventing the wheel, but to pooling innovation capacities of different EU partners and also to creating financial leeway for the implementation of municipal projects. Cross-border activities contribute to a municipality's innovative capacity insofar as they integrate expertise that would otherwise not be involved (e.g. innovations from the start-up scene, EU universities, NGOs). They increase the knowledge of the employees involved and thus strengthen the in-house competence of the administration as a whole. As a contribution to the municipality's resilience, new knowledge flows into the city and best practices from other areas can be adapted. Finally, the European Community offers great potential on the way to a digital, sustainable future. It works as a catalyst for urban development, for example through European strategies and regulations and thus structures and additional resources. If you are interested in a concrete example of how to plan a European cooperation on digitalisation and innovation as a city, including vision, strategic background, and concrete measures, one example of a concept of the City of Ulm along with a toolbox can be found at https://t.ly/_bTkM.

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Appendix A: European City Networks

| Name | Thematic focus | | | |
|--|----------------|---------------------------|-----------------------------------|--|
| | Mobility | Energy and climate change | Environment and natural resources | Culture, tourism, and economic development |
| Alliance in the Alps | ✓ | ✓ | ✓ | ✓ |
| CiViNET DSR | ✓ | ✓ | ✓ | — |
| CIVITAS | ✓ | ✓ | ✓ | — |
| Covenant of Mayors for Climate and Energy | — | ✓ | — | — |
| ELTIS – Urban Mobility Observatory | ✓ | — | — | — |
| Energy Cities | — | ✓ | — | — |
| EUROCITIES | ✓ | — | ✓ | ✓ |
| European Forum for Urban Security | — | ✓ | — | — |
| European Green Capital Network | ✓ | ✓ | ✓ | — |
| European Green Leaf Network | ✓ | ✓ | ✓ | — |
| Eurotowns | ✓ | ✓ | ✓ | ✓ |
| ICC (100 Intelligent Cities Challenge) | ✓ | ✓ | ✓ | ✓ |
| ICLEI | ✓ | ✓ | ✓ | — |
| Climate Alliance | — | ✓ | — | — |
| Metrex - Network of European Metropolitan Regions and Areas | ✓ | ✓ | ✓ | — |
| POLIS | ✓ | — | — | — |
| PURPLE | — | — | — | — |
| CEMR | — | — | — | — |
| Sustainable Cities Platform | ✓ | ✓ | ✓ | — |
| European Innovation Partnership on Smart Cities and Municipalities | ✓ | ✓ | ✓ | — |
| European Rural Community Alliance (ERCA) | — | — | — | — |
| Union of Baltic Cities | ✓ | ✓ | ✓ | — |
| URBACT | ✓ | ✓ | ✓ | ✓ |
| Urban Development Network | ✓ | ✓ | ✓ | ✓ |
| Urban Agenda Partnership – Urban Mobility | ✓ | — | — | — |

Figure 2: European City Networks. Source: Moro (2019); updated and expanded in 2022 by the City of Bielefeld.

| | | | | Members |
|---|--|------------|-----------------|-------------------------------------|
| Infrastructure, general interest, and social services | Spatial development and governance, security | Smart City | European policy | |
| ✓ | ✓ | ✓ | — | Municipalities of the Alpine region |
| — | — | ✓ | — | Municipalities |
| — | — | ✓ | — | Municipalities |
| — | — | — | — | Municipalities & Regions |
| — | — | ✓ | — | Individuals |
| — | — | — | — | Municipalities & Regions |
| ✓ | ✓ | ✓ | — | Cities > 250 K Inhabitants |
| — | — | ✓ | — | Municipalities & Regions |
| — | ✓ | — | — | Previous Award Winners |
| — | ✓ | — | — | Previous Award Winners |
| ✓ | ✓ | ✓ | — | Municipalities with 50-250 K Inhab. |
| ✓ | ✓ | ✓ | — | Previous Award Winners |
| ✓ | ✓ | ✓ | — | Municipalities & Regions |
| — | — | — | ✓ | Municipalities & Regions |
| ✓ | ✓ | — | ✓ | Metropolitan Regions |
| — | — | — | — | Municipalities & Regions |
| — | ✓ | — | ✓ | Regions |
| — | — | — | ✓ | Municipalities & Regions |
| ✓ | — | ✓ | — | Municipalities |
| ✓ | — | ✓ | — | Municipalities, etc. |
| — | ✓ | — | ✓ | Regions |
| ✓ | ✓ | ✓ | — | Municipalities |
| ✓ | ✓ | ✓ | — | Municipalities |
| ✓ | ✓ | ✓ | — | Municipalities |
| — | — | — | — | Stakeholder Mobility |



Chapter 5

Beyond the usual suspects: Expanding the toolbox for urban participation

Sven Steinkamp, City of Bielefeld

Introduction

How do municipalities decide which methods of participation to use in urban planning? In numerous cases, the decision is made reactively based on previous experiences of the respective city or consulting firm, without proactively considering the full range of available tools or the context or target groups. However, a method that has been successfully applied in one context may prove unsuitable in another. It is therefore imperative to evaluate and specifically choose the tools for each case.

Limiting the available options to a narrow subset can be just as counterproductive to the citizen engagement process as neglecting the initial context in which participation occurs.

This article aims to offer insights and tools to enhance the quality and breadth of public participation in various initiatives. First, the article explores innovative citizen engagement methods by highlighting five exemplary tools that, despite being widely unrecognised, hold the potential for fostering citizen participation and span a broad spectrum, encompassing both online and offline platforms and catering to diverse demographics, e.g., from the young to the elderly. These methods, namely Dream Box, Home Gatherings, Polis, Planning with Limitations, and Silent Whispers, are discussed, highlighting their mechanics, applications, benefits, and challenges. Second, the article stresses the significance of context, objectives, and audience when selecting an appropriate participation method. Third, it offers a valuable resource in the form of a table, which provides a detailed description of the various available citizen participation toolboxes, serving as a gateway for readers to further explore the world of public engagement.

Five participation methods you have probably never used

Tool 1: Dream Box

The Dream Box, also referred to as the 'Drømmeboks' in Norway, is an innovative and resourceful way to involve citizens in discussions, especially those who may be hesitant to participate in more formal or direct methods. Through the widespread access to technology and the anonymity it provides, the Dream Box accesses a broad range of perspectives, which in turn enhances the dialogue surrounding community matters.

Fundamentally, the Dream Box is a portable video booth created to record the opinions and aspirations of citizens. It is a simple tool that can be set up in almost any location, including parks and shopping centres, during community events, and in transport hubs. The Dream Box offers a more accessible and less intimidating option for citizen engagement compared to traditional methods, such as town hall meetings or surveys. This encourages a wide range of voices to be heard.

The Dream Box has been successfully implemented in urban development projects in Silkeborg, Denmark, and Sarpsborg, Norway. It has offered residents, and particularly specific groups, the opportunity to contribute their ideas and perspectives toward the development of their cities. In Silkeborg, the Dream Box was used to gather input from residents on the design of the town square and the library. This initiative enabled citizens to directly contribute to the aesthetic and functional aspects of these public spaces, which fostered a sense of ownership and connection within the community. Similarly, in Sarpsborg, the Dream Box was used as part of the municipality's innovation program and a new city centre plan (See Guribye & Iversen, 2020). This gave residents a voice in the development and revitalization of their city centre.

The Dream Box method can be implemented with minimal resources, which makes it an attractive option for communities of all sizes. To utilise the Dream Box method, all you need is a Dream Box or a DIY substitute like a cardboard box and a mobile phone for video recording. The box should be set up in a safe and visible spot where citizens are invited to step in and share their ideas for their community. The recorded entries are reviewed and analysed to identify common themes and aspirations. Interestingly, the principles of the Dream Box method can be adapted to an even less resource-intensive format. The use of hashtags on social media platforms can replicate the function of the Dream Box, offering a platform for citizens to share their ideas and suggestions for urban development. This approach can not only reduce the resources required to collect and analyse input but also extend the reach of the initiative to a larger audience.

It is important to note that, while the Dream Box method is easy to set up, it does require substantial resources to review and systematise the collected input. This process can be labour-intensive and time-consuming, but it is essential to ensure that all voices are heard and that the collected data is effectively utilised in the planning work.

The effectiveness of the Dream Box largely depends on its location, as it determines the target group. For example, setting up the box in a high school or university can capture the views of young people, while a location in a shopping centre or community event can attract a broader demographic. The Dream Box can be particularly effective when used during the analysis phase of a project, as it can provide valuable insights that can help shape the direction of the initiative. The Dream Box method exemplifies the evolution of citizen participation methods, moving away from formal, often intimidating spaces towards more accessible and inclusive platforms. By providing a safe and inviting space for citizens to express their views, the Dream Box not only broadens the scope of participation but also captures the diverse aspirations and dreams of the community, thereby fostering a more inclusive and comprehensive dialogue.

In conclusion, the Dream Box is a unique and resourceful tool for citizen engagement. It offers a less formal and more accessible alternative to traditional methods, thus encouraging a wider range of target groups to be heard. Its flexibility and low resource requirements make it an attractive option for communities of all sizes. While the method does require resources for the data analysis, its adaptability and success in engaging typically underrepresented groups make it a powerful tool for inclusive urban development.

Tool 2: Polis

Polis offers a distinct approach. It operates as an online platform tailored for interactive surveying and debate among substantial groups, utilising machine learning to navigate the challenges of large-scale feedback collection. Usually, as the number of participants in a citizen participation initiative grows, the depth and expressiveness of individual input often diminish. Large groups can complicate the process of obtaining detailed and meaningful feedback. Polis, enabled by machine learning, seeks to address this limitation by scaling participation without sacrificing the depth of individual input. The primary functionalities of Polis include:

1. Categorisation of statements:

At its core, Polis categorises participant feedback into statements that garner consensus and those that provoke division. This division is pivotal because it allows policymakers, facilitators, or any user to immediately discern areas of common agreement and contention.

In situations where time is of the essence or when there is a need to prioritise topics for discussion, being able to instantly pinpoint consensus statements can be invaluable. Conversely, knowing what issues are divisive can guide further discussions, ensuring they are tackled with care and thoroughness. For instance, in town hall meetings or community-based discussions, organisers can employ this feature to structure the agenda, leading with consensus topics to foster a collaborative spirit before delving into more contentious issues.

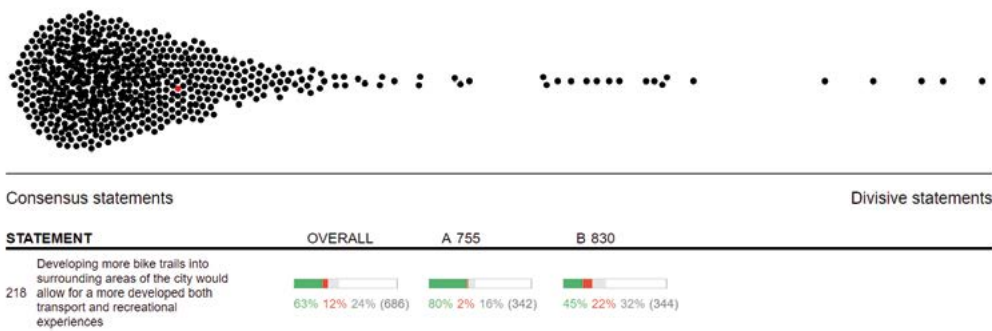


Figure 1: Statements (circles) to the left were voted on the same way. Statements to the right were divisive, i.e. participants were split between agreement and disagreement. Source: The Computational Democracy Project (2023).

2. Identification of opinion clusters:

Beyond individual statements, Polis also aims to consolidate feedback to recognise and present distinct opinion clusters. This clustering aims to offer a multi-dimensional view of the group's dynamics and the various perspectives prevalent within a discussion.

The ability to visualise distinct opinion clusters can aid facilitators in understanding the depth and breadth of viewpoints. For instance, if a topic elicits three distinct opinion clusters, this knowledge can guide subsequent discussions or interventions. Knowing the dominant clusters can also prevent a 'majority rules' scenario, ensuring that minority voices are not overshadowed.

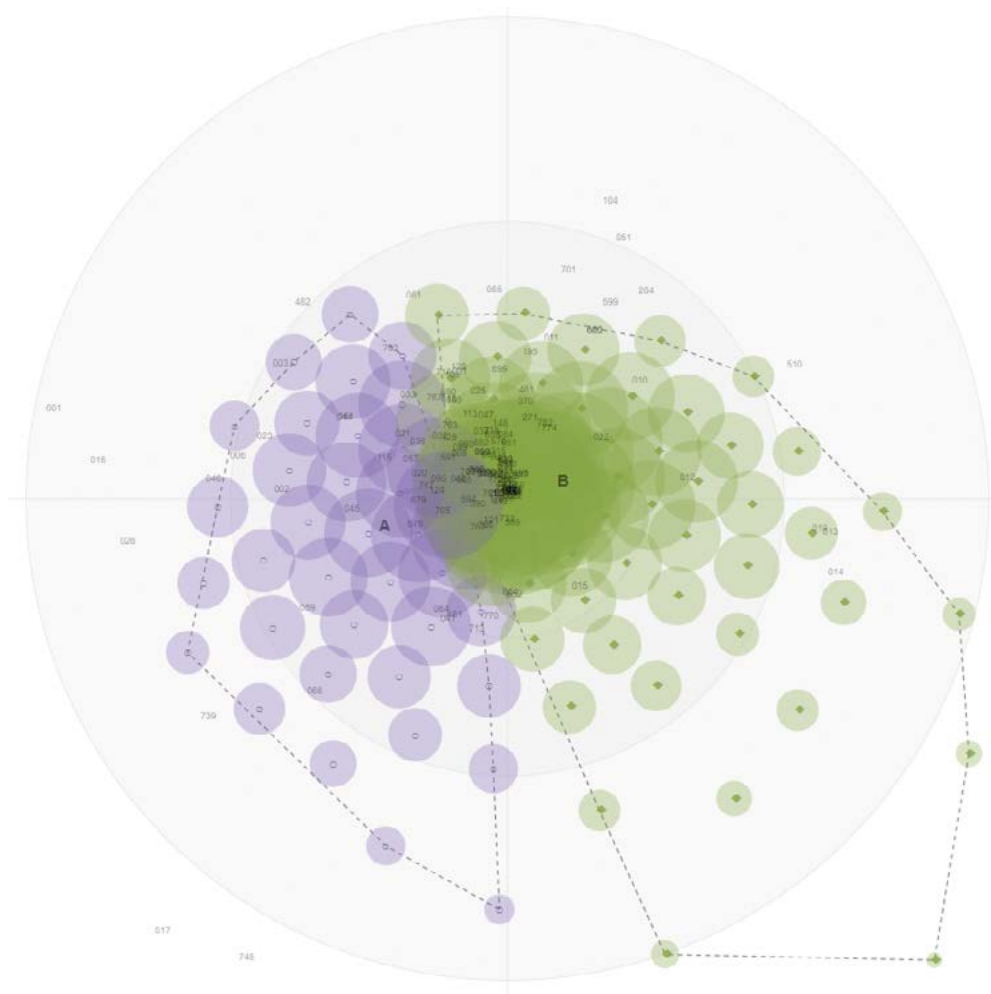


Figure 2: Statements are depicted more closely to statements which were voted on similarly. Participants are positioned more closely to statements on which they agreed, and further from statements on which they disagreed. Source: The Computational Democracy Project (2023).

In public consultations on urban planning, identifying clusters can help city planners understand the diverse needs of the population. If one cluster prioritises green spaces and another emphasises public transport, planners can craft a more holistic urban design incorporating both inputs.

3. Highlighting consensus across groups:

A pioneering feature of Polis is its focus on uncovering intersections of agreement between differing opinion clusters. This is not just about identifying unanimous or majority consensus but about understanding nuances in agreement across diverse groups.

In polarised discussions, finding common ground can be the first step towards reconciliation or compromise. By highlighting these intersections, Polis can act as a bridge, encouraging dialogue between disparate groups.

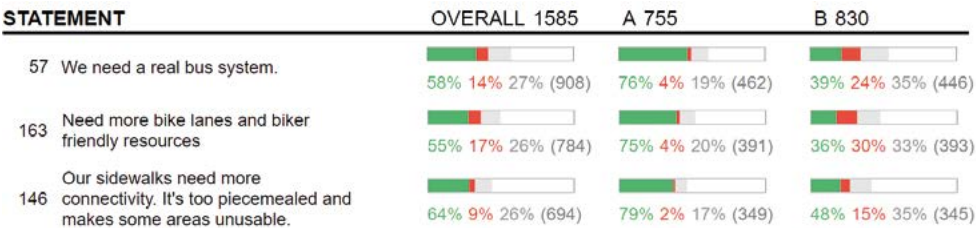


Figure 3: Voting results within the identified groups.
Source: The Computational Democracy Project (2023).

Consider national-level discussions on healthcare reforms. If two distinct clusters emerge — one advocating for complete government control and another for private-sector leadership — finding areas of mutual agreement (e.g., the need for emergency care standardisation) can guide policymaking towards solutions that address shared concerns.

What resources are needed to implement the tool? Polis is open source and needs to be integrated into a website. This integration aims to make the platform accessible to a diverse audience. As users can add new statements, a moderation process is necessary to ensure the relevance and appropriateness of these contributions.

While Polis is designed to be user friendly, it is important to acknowledge the issue of the digital divide. Despite increasing internet accessibility, there remain demographics, often in less-developed regions or among older populations, that may not have regular internet access or the skills to navigate digital platforms. Therefore, while Polis offers a platform for broad engagement, supplementary offline methods might be needed to ensure comprehensive participation.

Several case studies shed light on the practical applications of Polis. The case studies collected by the developer illustrate some of these applications (The Computational Democracy Project, 2023).

One of the most notable implementations of the Polis platform was in Taiwan, dubbed a pioneer in 'digital democracy'. In 2014, Taiwan was embroiled in the Sunflower Student Movement, where a vast number of students protested against a trade pact with China, leading to social upheaval. There was a demand for greater transparency and public involvement in political decisions. Amid this backdrop, Taiwan sought innovative ways to foster public discourse, and Polis emerged as one of the solutions. Taiwan's government utilised Polis nationwide to solicit public opinions on various contentious issues, one of which was the regulatory landscape for ride-sharing apps like Uber. Through Polis, tens of thousands of citizens had the chance to voice their perspectives. The platform's machine-learning capabilities segmented these inputs into discernible opinion clusters, providing policymakers with a visual representation of public sentiment. The inputs from the process directly shaped the resultant regulatory frameworks. Statements that received significant consensus were integrated into the policy drafts, ensuring that the resulting regulations resonated with the desires and concerns of the public. Taiwan's journey with Polis stands as a testament to the transformative potential of digital tools in reshaping the landscape of public participation and democratic governance (see Miller, 2020, for example).

Polis represents one of many tools available in the realm of digital citizen participation. Its design and features are tailored to tackle the challenges of engaging large groups in detailed feedback collection. While it provides solutions to some traditional limitations of citizen engagement, potential users should consider its challenges and limitations, especially concerning the digital divide. As with many digital tools, its utility will often depend on the specific context and objectives of its deployment.

Tool 3: Home Gatherings

The Home Gathering method, also known as 'Gjestebud' in Norwegian, represents a unique approach for fostering public participation, especially designed to engage those hard-to-reach groups in the community. With a focus on gathering insights from specific groups that may otherwise be challenging to engage, this approach has been successfully implemented in various municipalities, including in Svelvik, Norway (e.g., Guribye & Iversen, 2020; Distriktssenteret, 2023).

At the heart of the Home Gathering method are dedicated individuals who agree to act as hosts for smaller, more intimate events. These hosts are strategically chosen to represent a broad cross-section of the population, including different age groups, professions, and areas of residence. They are responsible for arranging and conducting the gatherings, often taking place at the host's home or a location of their choosing, providing an informal setting that fosters open and relaxed discussions.

The methodology begins with the selection of a theme and the preparation of questions that will guide the discussion. The theme and questions should be closely aligned with what the municipality aims to learn from the gatherings. The hosts are briefed on the theme, supplied with the questions, and also given instructions on how to gather and submit the inputs from their guests.

The success of the Home Gathering method is evident in the domino effect it creates. The participants at the gatherings often become so engaged that they start attending other events in the municipal planning process as well, such as open public meetings. This demonstrates that the method not only collects valuable input but also stimulates broader community involvement in the planning process by lowering the initial barriers to entry.

However, the method is quite resource-intensive, requiring substantial effort from the hosts and possibly some incentives to motivate them. Furthermore, the choice of hosts can greatly influence the demographics of the participants, so careful consideration is needed to ensure a broad representation.

Despite these challenges, the Home Gathering method has proven to be an effective alternative to traditional public meetings, particularly for those who might not feel comfortable attending larger, more formal events. This innovative approach to public participation continues to gain traction in Norway and has the potential to be adopted in other contexts and regions, contributing to more inclusive and participatory decision-making processes.

Tool 4: Planning with Limitations

In the dynamic world of project management and policy implementation, balancing a plethora of ideas with constraints of time and resources is a perennial challenge. This is precisely where the 'Planning with Limitations' method comes into play. Designed as a compass to navigate through numerous measures and prioritise the most viable ones, it is an essential blueprint for constructing an effective and realistic implementation plan.

At its heart, 'Planning with Limitations' serves a pivotal role: identifying and focusing on the most feasible measures from a larger pool. This ensures that an implementation plan is not just actionable, but also resonates with the overarching objectives. It becomes particularly crucial when teams are constrained by budgets or timelines, pushing them to focus on what truly matters and ensuring that the broader vision and its objectives are not buried under a multitude of ideas.

This method is visually driven and anchored in a two-dimensional matrix, usually illustrated on expansive canvases. This matrix acts as a strategic map. One axis, representing time, can be segmented into years or months, depending on the nature of the project. For instance, while a street redesign might require monthly

breakdowns, broader initiatives like a Sustainable Urban Mobility Plan could span years. The second axis, signifying available resources, is versatile. Instead of being strictly monetary, it accounts for the broad spectrum of resources necessary for the implementation. This could range from labour to equipment, making the method flexible and adaptable to varied project needs.

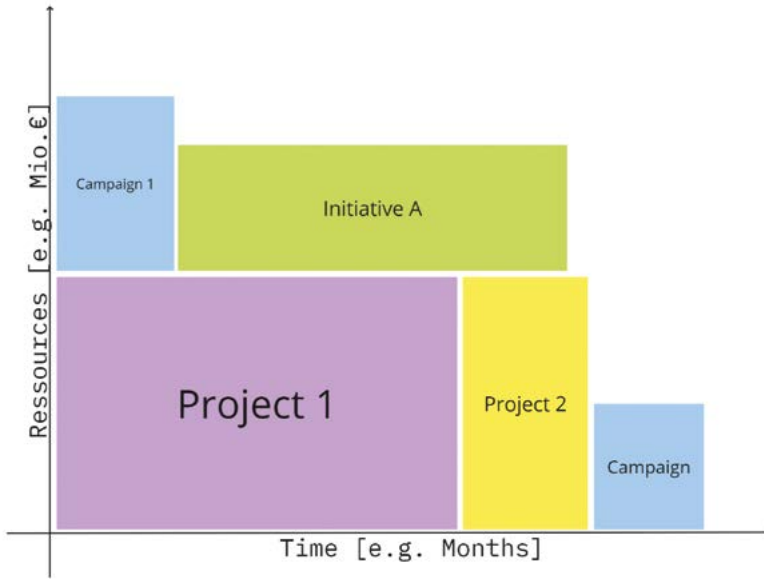


Figure 4: Example matrix for Planning with Limitations. Source: Own.

With this matrix as the foundation, the subsequent step revolves around the measures. Each measure is listed on separate pieces of paper, whose size is indicative of the time and resources required. Using the matrix as a guide, teams position these measures, determining their feasibility, priority, and timing.

To heighten the method's accuracy, several strategies can be employed. Teams can delve into historical data from previous or similar projects for insights. Engaging domain experts can provide a layer of realism while harnessing the collective intelligence of stakeholders and residents can provide a broad view of perspectives and values. The very essence of 'Planning with Limitations' is its flexibility, seen clearly in its adaptability to either broad estimates or precise project values. However, while traditionally a tactile, paper-based method, the digital era has nevertheless welcomed 'Planning with Limitations' with open arms. Virtual platforms such as Mural, Miro, and even Google Docs, equipped with interactive whiteboard features, have facilitated its online execution. This not only caters to geographically dispersed teams but also introduces dynamic real-time collaboration. The method's true strength is its adaptability. Depending on the project, the resource dimension can be customised. Some might lean on labour, while others

are bound by budgets. Regardless of the specifics, 'Planning with Limitations' is a pragmatic approach to decision-making. By juxtaposing measures against time and resources, it grounds project planning in reality, paving the way for successful outcomes.

Tool 5: Silent Whispers

In the vast landscape of tools and methods designed to foster citizen participation, Silent Whispers emerges as another unique and intriguing technique. This method is centred on collecting knowledge and insights about individual challenges, questions, or ideas within a participation workshop. Its effectiveness is underscored by its capacity to generate a diverse range of responses to single questions or ideas within a condensed timeframe.

The premise of Silent Whispers is simple, yet its results can be illuminating. The process begins with each individual posing a question or presenting an idea, subsequently transcribing it onto a piece of paper. This physical act of writing has a twofold significance. First, it provides clarity to the individual framing the question, motivating them to distil their thoughts into tangible words. Second, it serves as the medium through which knowledge is collected.

Once the question or idea is written down, it is handed over to the person seated immediately to the right. This individual then spends a specific amount of time reflecting upon and responding to the question or idea. After providing their insights, the paper is again passed to the right, and the process continues in a cyclical fashion. As the paper journey progresses, it accumulates perspectives, each adding layers of depth to the original question or idea. The cycle concludes when the paper, now full of collective insights, returns to its original author.

Silent Whispers can aptly be described as a confluence of brainstorming and Chinese whispers (albeit without the distortion of the original message, of course). It combines the focused introspection of individual reflection with the synergy of group collaboration. This method can be executed 'in the field,' in physical, face-to-face settings. Yet, it is also seamlessly translatable to the digital realm, making it conducive for virtual engagements.

The equipment required for Silent Whispers is minimal, reinforcing its accessibility. Tables are arranged to facilitate passing the papers easily, and participants are provided with A4 sheets of paper and pens. The tangible nature of writing and passing the papers introduces an element of kinaesthetic engagement, which can enhance retention and involvement.

Moreover, the versatility of Silent Whispers extends beyond its physical and digital adaptability. It is a method that fits into any stage of a process, whether the inception of a project, the mid-phase of deliberation, or the concluding stages of reflection. Its structure, which is intended for small group settings,

ensures that every voice has an opportunity to be heard and every perspective is acknowledged.

From a practical standpoint, Silent Whispers can be employed in an array of scenarios. It could serve as a tool to solicit community feedback on urban planning initiatives, gather stakeholder insights on policy reforms, or collate resident perspectives on local governance challenges. Regardless of the context, it promotes holistic knowledge collection, bridging the gap between individual introspection and collective discourse.

A noteworthy attribute of this method is its inherent promotion of active listening. As participants engage with and respond to questions and ideas, they are simultaneously absorbing diverse viewpoints. This fosters a deeper understanding of the community's pulse, often revealing nuances that might remain veiled in more conventional discussion formats.

Choosing a suitable method

In the evolving landscape of citizen participation, the plethora of methods available can be both a boon and a challenge. While having a diverse toolkit is undoubtedly beneficial, the real art lies in selecting the method that aligns best with the specific objectives, stakeholders, and context of a given initiative.

Understanding the objectives: Before diving into the methods, it is paramount to have a clear understanding of the aim. Are you looking to gather diverse opinions on a contentious issue? Or you are aiming to foster a sense of community and collaboration? Different methods cater to different objectives. For instance, while Dream Box might be excellent for gathering input from those hesitant to attend official meetings, Polis would be more suited for interactive debates among large groups.

Know the audience: The efficacy of a method is intertwined with the audience it targets. Younger demographics might be more receptive to digital tools like Polis, whereas older or less tech-savvy groups might resonate more with the Home Gatherings or Silent Whispers methods. It is essential to gauge the familiarity, comfort, and accessibility of your target audience with the chosen method.

Context matters: The environment and context in which you are operating can significantly influence the method's success. For instance, Planning with Limitations might be more effective in a setting where resource constraints are a pressing concern. Similarly, if you are operating in a context where trust in formal institutions is low, methods like Dream Box that are used 'in the field' might be more effective in bridging the trust gap.

Flexibility and scalability: While some methods are rigid in their application, others offer more flexibility. Consider whether the method can be adapted to

various scales — from local community discussions to national debates. Tools like Polis are inherently scalable, while Home Gatherings might be more suited for localised, intimate discussions.

Feedback loop: Consider how the method allows for feedback to be looped back to the participants. Ensuring that participants see the tangible impact or outcome of their participation can enhance trust and encourage future engagement (See Chapter 1).

Navigating the methodological landscape of citizen participation

In addition to the deductive search for the right method based on the systematic responses to the above-mentioned questions, it is advisable to gain a broad overview of possible specific methods and tools in a parallel inductive approach. The realm of citizen participation is ever-evolving, with new techniques emerging regularly. Many books and platforms offer a treasure trove of resources, case studies, and methods. An overview of many of these participation toolboxes is provided in Table 1 below. Engaging with these sources can open doors to innovative participation techniques.

While the array of methods available is vast, the key lies in choosing with intention. Aligning the method with the objectives, audience, and context ensures not just participation, but meaningful engagement. As the landscape of citizen participation continues to evolve, staying curious, adaptable, and open to new techniques will be the cornerstone of fostering vibrant, inclusive, and impactful public engagement.

Table 1: Citizen Participation Toolboxes

| Name | Source |
|--|---|
| Child Engagement Toolkit | City of Toronto, (2019) |
| Citizen Participation and Co-Creation | Guribye & Iversen (2020) |
| Community Engagement Toolkit For Planning | State of Queensland (2017) |
| Community Planning Toolkit | Community Places (2023) |
| Comprehensive Planning and Citizen Participation Guide | Grabow et al. (2006) |
| Engagement Toolkit | European Food Safety Authority (2021) |
| Engage Your Stakeholders Toolkit | Aaltonen & Kreutz (2009) |
| Including Citizen Participation Formats for Drafting and Implementing Local Sustainable Development Strategies | Meschede & Mainka (2020) |
| Liberating Structures | McCandless & Lipmanowicz (2023) |
| Online Or Offline Communication | Aaltonen (2012) |
| Participedia.net | Participedia (2023) |
| Public Participation Guide | US Environmental Protection Agency (2021) |
| Seeds For Change Guides | Seeds for Change (2023) |
| The Council Of Europe Toolbox On Civil Participation | Council of Europe (2020) |
| URBACT Toolbox | URBACT (2023) |
| For digital tools only | For digital tools only |
| Digital Participation Platforms | People Powered (2022) |
| Next Level Participation | Grazian & Nahr (2020) |

Description

Includes best practices, ideas, resources and tools for planning and implementing engagement opportunities for children aged 12 and under

Presents a selection of 40 tools or methodologies for citizen involvement in the form of meeting places, participation in planning processes, dialogue through digital tools, knowledge acquisition and new approaches to mobilise volunteers and promote engagement

Large collection of methods and tools for community engagement, including various checklists for different phases of the participation process

List of links to resources for community engagement

Discusses commonly used methods and techniques for involving citizens in comprehensive planning

40+ methods, tips and best practices to design effective participatory processes

Describes the full process of stakeholder involvement and discusses around 20 methods for citizen participation

Gives overview on several global participation formats and summarises their goals and typical fields of application. In particular, each method of participation is assigned to objectives and desired effects of the process

Set of methods and tools supporting participation and group work

Discusses different channels of both traditional offline communication and online channels and networks

Global crowdsourcing platform for public participation and democratic innovations, featuring more than 300 methods and 2,400 case studies

24 tools or techniques to implement public participation processes categorised by level of engagement

Guides and tools for collaborative work, consensus decision making, campaigns, and meetings

Presentation of nine tools or methods for civil participation

Guide on integrated planning processes with tools to use and instructions for them. Covers the entire process, including financing and getting ready for implementation

For digital tools only

Guide to and ratings of digital participation platforms

Presentation of citizen-driven e-democracy tools

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Chapter 6

Living labs for the city of the future – A comparison of different understandings and experiences in the context of resilient urban development

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More and more municipalities in Germany and other countries are using living labs as a new approach to address future issues such as climate change adaptation, mobility, and urban development. But what exactly is a 'living lab' and what are the benefits for municipalities? Living labs are formats of collaboration between various actors used to jointly develop a solution to a problem, often related to the transformation of cities. Due to the laboratory nature, the focus is mostly on experimenting and testing new approaches, ideas, and measures. However, a variety of understandings can be found, which is inherent in its very nature, because living labs are often very openly designed, as the entire process from defining the challenge to testing solutions is jointly designed by the actors involved.

- This chapter highlights the benefits of living labs for municipalities from the perspective of two cities: Dortmund, Germany and Cluj-Napoca, Romania. As part of the iResilience goes Europe project between the City of Dortmund, Office for International Relations, and the City of Cluj-Napoca, an exchange of knowledge and experience on living labs and co-planning formats took place in the two cities. From the perspective of Dortmund, the focus was on sharing and discussing experiences from the underlying iResilience project, a living lab project being implemented in three neighbourhoods. On the part of Cluj, diverse experiences from a participation tool, the Center for Innovation and Civic Imagination, was brought into the exchange. These two approaches, which categorise themselves as living labs, will be contrasted in the following. The different understandings, diverse fields of application, and topics of living labs and their potentials and challenges for the municipality will be compared with examples from the cities of Dortmund and Cluj-Napoca. The input for this comparison was compiled with the aid of living labs and co-planning workshops, bilateral discussions, online research and reports as well as an expert interview.

iResilience in Dortmund and Cologne

The iResilience research project was funded by the German Federal Ministry of Education and Research from 2018 to 2022 and established local living labs in a total of three neighbourhoods in Dortmund and Cologne, Germany. The aim was to test new approaches and innovative formats of collaborative planning for the development of climate adaptation measures. The project encompassed an interdisciplinary team of scientists from universities and research institutes, practitioners from two municipalities, and an engineering office. The main topics of the project in the broad field of climate adaptation were heavy rainfall and flood prevention, heat prevention and health, and strengthening the climate function of urban green space (Welling et al., 2022: 9).

The collected experiences and project results regarding the establishment and process of a living lab were compiled in the form of a 'toolbox'. It is intended to be a practical working aid for municipalities interested in implementing their own living labs. The toolbox can be downloaded in German and English at the website of the City of Dortmund.



Figure 1: Toolbox for living labs. Source: City of Dortmund (2022).

Center for Innovation and Civic Imagination (CIIC) in Cluj-Napoca

The Center for Innovation and Civic Imagination (CIIC) in Cluj started in 2017 as a participatory tool in cooperation between the municipality of Cluj and the Urban Innovation Unit in the Cluj Cultural Centre. CIIC sees itself as a 'research and development program that brings together ideas, knowledge, resources from civil society, academia, culture, business, and government to propose alternative solutions to the city's strategic challenges' (Divizia de Inovare Urbană, 2022: 2).

In a year-long co-design process with several stakeholder workshops, the division was fully transferred to the CIIC in the Cluj mayoral office (ibid.). In the course of this process, a board was also established to serve in an advisory role and accompany the strategic further development of projects and partnerships (CIIC interview 27-03-2023). The nominated board is composed of volunteers from science, business, NGOs, and initiatives. The goals of CIIC are manifold: in addition to cooperation and participation formats, international cooperation with cities and networks is also strived for. Furthermore, CIIC aims to implement the 17 Sustainable Development Goals of the United Nations in its projects and to support the European Commission's '100 climate neutral and smart cities by 2030' mission. Another concrete goal is the implementation of support for young entrepreneurs and their ideas, with impact in their neighbourhoods, in order to integrate young people in decision-making and public policy development (ibid.).

In terms of structure, the way the living labs were implemented differed significantly. In Dortmund, a temporary project structure was created for four years, with the municipality being one of the main actors, while the interdisciplinary consortium was led by the Technical University of Dortmund. In this case, there was clearly a focus on science. In Cluj, on the other hand, it is a permanently established division at the municipality, which works on individual projects over two to five years depending on the scope and has so far held more than 40 events on a wide range of topics. The spatial frame of reference in the iResilience project is also smaller and focuses on neighbourhoods in contrast to CIIC's emphasis on the city as a whole.

Application

In the iResilience project, the main topics were set based on the logic of the funding programs, whereby the design and measures were then openly determined in the project by the participants. Under the theme of climate change adaptation in all neighbourhoods, the project addressed the topics of heavy rain and flooding, heat prevention, and health, as well as strengthening the climate function of urban green spaces (Welling et al., 2022: 14). Within these topics, however, the actions and measures were broadly scaled, ranging from the cooperative development of a future vision for a climate resilient neighbourhood to local actions such as neighbourhood walks, action days focusing on heavy rain and urban greening, the creation of urban gardening areas, an urban network for water filling stations, and campaign work to make vulnerable groups aware of behavioural changes to make in the heat (ibid.). The iResilience project also revealed that stakeholder interest can vary depending on the topic. In the topic of climate impact adaptation, it was therefore important to raise awareness of the issues and create publicity (ibid.: 10).

In the CIIC, the range of topics is larger than in the iResilience project due to

the diverse objectives and because both projects on urban planning, such as park redevelopment and the development of the municipal urban development strategy, as well as the participation of young people or the examination of labour policy issues and much more take place (CIIC, interview 27-03-2023, City of Cluj-Napoca, n.d.). In addition to topics and projects that are initiated by the city administration, there is also the possibility that other actors or civil society can bring in topics.



Figure 2: Creation of a common vision.
Source: iResilience (2019)



Figure 3: Heavy rain action day.
Source: iResilience (2020)



Figure 4: Pedestrian zone in Cluj.
Source: Horea Soica (2020)



Figure 5: Event at CIIC.
Source: Antoanela Vasileica Sandu (2022)

Understandings of living labs and co-planning

The iResilience project based its understanding of a living lab on transdisciplinary research and the generation of transdisciplinary knowledge (Welling et al., 2022: 7 ff.). The collaboration of different groups of stakeholders in the project aimed to generate solution-oriented knowledge in the form of measures for climate change adaptation in the neighbourhood. Furthermore, the stakeholders also cooperatively designed the project in terms of the concrete local challenges, the questions that arise, and the processes of how solutions are reached. These processes are also called co-design and co-planning and are an important part

of the living lab project (ibid.: 15). To this end, it was particularly important that the actors involved worked together on an equal footing with each other and that the knowledge of all actors was brought in and accepted so that learning was made possible. This higher degree of participation in planning processes can be understood as social innovation (ibid.: 10). In addition, social innovation may be created in two ways in the living lab: by testing innovative measures for local climate change adaptation and in a processual way by deliberately changing practices of action. Social innovation in the form of co-planning is an important component for transforming the cities of the future (ibid.).

The CIIC also has a self-understanding as a 'permanent laboratory in which to develop the different forms of collaboration between the actors in the city', in line with the slogan 'We imagine the future of the city' (City of Cluj-Napoca, n.d.). On this basis, it emphasises and values that the transformation to the city of the future is to be created and shaped through a collaborative process and decision-making. Events and projects typically present issues and projects to a diverse group of participants for discussion. CIIC provides a kind of agora and forum where participants contribute their knowledge and attitudes and thus also engage in discussion with each other (CIIC, interview 27-03-2023). An example from the interview about redesigning a street into a pedestrian zone showed that the redesign caused some resentment among citizens, but during the discussions and interactions among each other, the perspectives of other participants who saw an improvement in the quality of stay in these urban areas and a higher quality of life due to the redesign were heard and understood (ibid.). This process of negotiating what a city of the future should look like is given a forum in co-planning formats. By their very nature, living labs offer space for experimentation, for example in the form of temporary spatial interventions in which future plans can be materialized for a short time (and then removed again) in order to experience and discuss the concrete solution and its future viability on site.

Both of the living labs approaches compared here offer an infrastructure with both personnel and content resources for projects and topics from the city administration as well as from civil society and other groups of actors. This includes the conception and implementation of events, the matching and inviting of topic-specific relevant actors, and continuous support. In the iResilience approach, a diverse project consortium openly entered the vision and action development process and coordinated appropriately emerging working groups during the course of the project. The role of the project team is therefore initially to support the process and project, but in some cases, it is also more active as a change agent, contributing its own attitudes and interests and actively driving the development and implementation of measures (Welling et al., 2022: 55). During the process, the role can also change, which is what distinguishes transdisciplinary work (ibid.). Moreover, ideas should not be formed in advance and the participants should actually start the process with an open mind and not strive to impose their own ideas (CIIC, interview 27-03-2023). Here, the different understandings

of roles and desired degrees of team participation between the two living lab approaches become clear.

Concerning the spatial and organisational framework for successful co-planning, both projects held events directly in planning areas and in a less formal way (CIIC, interview 27-03-2023; Welling et al., 2022: 44). Low-threshold offerings are particularly best suited for reaching citizens. In addition, the visibility of the project and the active project staff in the neighbourhood are beneficial for the acceptance of the planning process and in terms of getting the citizens interested in participating. Continuity of actions and, ideally, visible progress are also important for acceptance and motivation. During the COVID pandemic, digital participation with the help of online tools, surveys, and mappings also played an important role and complemented the formats (ibid.).

Continuation

The iResilience project serves two levels of continuation: through the local continuation of measures in the pilot neighbourhoods and through knowledge transfer in the international 'iResilience goes Europe' follow-up project.

At the end of the project period, the living labs in Dortmund and Cologne ended accordingly, although individual working groups formed within the framework of the projects continue to exist and work beyond that point. It is primarily the institutionalized actors who deal with the topics in their work context that continue and further develop the initiated working groups, e.g. on heat communication for vulnerable groups. In the municipalities, the topics related to climate adaptation continue to be pursued, and for some actors, e.g. in the social sector, the topic of climate impacts and health has received an initial impetus through the project. In Dortmund, some of the developed measures and ideas from the visioning process were also included in the city's parallel climate adaptation concept. With this approach, the next step in the implementation of the Integrated Climate Adaptation Master Plan ('Masterplan integrierte Klimaanpassung', translation by author) can partly draw on initial testing and experiences, and the measures can be pursued in the long term by integrating them into the plan (City of Dortmund, Environmental Office, 2021).

The follow-up project 'iResilience goes Europe' in Dortmund started in 2021 and focused on the international transfer of the results and experiences of the underlying iResilience project (City of Dortmund, n.d.). The project is led by the Office for International Relations in Dortmund, which coordinates the international, European, and sustainable work of the city's administration and manages international project partnerships. The connection to Cluj-Napoca already existed and the topics for cooperation were set out in a joint letter of intent. Together with Cluj-Napoca, the project partner city for the iResilience goes Europe project, bilateral exchanges and a peer learning workshop took place here.

Imparting knowledge to other municipalities and sharing experience with them can contribute to the transfer and, to this extent, to the continuation of the project. This project was also funded by the German Federal Ministry of Education and Research for two years.

Due to the structure of CIIC as a division in the mayoral office, the continuity of the infrastructure is ensured. The unit has developed further since its establishment in 2017, and new tasks such as the international perspective have been added (CIIC, interview 27-03-2023). In the context of the EU '100 Climate Neutral and Smart Cities' mission, the CIIC is also used for workshops with various stakeholders in order to cooperate and contribute to achieving the mission of climate neutrality by 2030 (ibid.). This shows that the format cannot only be used for public debates, but also for strategic stakeholder dialogues. The piloting of a traffic calming measure for an area in a neighbourhood was mentioned as another project example for continuation (ibid.). As part of the CIIC, a street was temporarily reused as a pedestrian zone, which served as a test run and allowed for a concrete discussion of the planning and design of the permanent reuse. Following this pilot activity, Cluj launched a 'Walkable City' funding programme. Pilots that can be tested and iteratively adapted with relative freedom in the living lab thus become an important tool to increase the chance of permanence and acceptance.

Potentials & challenges of municipal living labs

| Potentials | Challenges |
|---|--|
| <ul style="list-style-type: none"> · Tool for interdisciplinary cooperation and participation · Framework to test and experiment with new approaches, formats, and methods · Close cooperation between science and practice · Transparency of the decision-making process | <ul style="list-style-type: none"> · Openness in contrast to formal processes · New role of practitioner as participant and possibly idea driver · Managing expectations and trust in the process · Pressure for successful implementation |

The great potential of living labs for municipalities lies in their usefulness as a tool for the participation of diverse stakeholders (CIIC, interview 27-03-2023; Welling et al., 2022: 90). Moreover, living labs do not have a rigid definition and are therefore understood and interpreted differently. For municipal work, this open approach can be a challenge, as it is contrary to otherwise clearly regulated

(planning) processes, but living labs also provide freedom to test new approaches and solutions.

In the iResilience project, the collaboration between practice and science was seen as the main potential (Welling et al., 2022: 8). In living labs, scientific research can be used to gain a different approach to the topics, and new research methods and techniques can be applied (ibid.). The scientists are also able to take a more analytical view and reflect from both inside and outside the team (ibid.). However, a challenge of transdisciplinary research is that the living lab team leaves its observational function and instead participates itself in the development of measures and thus actively drives the process (ibid.: 88). Moreover, within a living lab approach, even controversial or costly methods can be tested due to the relative methodological freedom (ibid.). With the help of different and perhaps unconventional methods and formats, it is possible to address different groups of actors and thus promote democracy and participation of diverse actors in the context of co-planning. For the city administration, these experimental techniques are a good opportunity to test approaches and channels that are far from formal participation. The acceptance of measures among the population is also strengthened by a high level of transparency of the process and decision-making, true to the motto 'There's never enough transparency' (CIIC, interview 27-03-2023; Welling et al., 2022: 54). The living lab formats also offer the possibility, and even require, that not only experts from a professional perspective contribute their views and knowledge, but citizens also contribute their experiential knowledge of local conditions and that it is valued and taken into account (ibid.).

Another aspect that plays an ambivalent role in living labs is dealing with different expectations. Basically, citizens often have the habitual attitude that the city administration is responsible for a variety of circumstances in the city, and therefore the living lab team is also confronted with this expectation and has to find a way to deal with it. The design of the collaboration, as well as expectations and the motivations of the actors have to be defined (Welling et al., 2022: 18). In the interview with CIIC, it became clear that transparency in the process can provide understanding in complex planning processes (CIIC, interview 27-03-2023). However, the different perspectives brought in by the various actors, which may also be less accepted or cause delays in the process, can also lower the pressure that expectations put on the city administration (ibid.). The municipality must be aware of the necessary expectation management when implementing a living lab, and political will and backing are also necessary.

Now that CIIC has proven itself and developed over its duration, the citizens sometimes even demand that projects be discussed in public debates, and there is pressure for high-quality projects to be developed (ibid.). Participants also need to engage in the open process and have confidence in the process in order to participate in the long term. From the experiences of the iResilience project, it also became clear that for the participants, especially from the administration and

the local community, the implementation or the initiated transformation process is more relevant than the generation of knowledge (Welling et al., 2022: 88). The continuation of measures and initiated processes is therefore a challenge for living lab formats such as iResilience. To ensure that projects continue beyond the funded period, it is advisable to find local actors who continue the work. Experience has shown that these should either be people with a high level of personal motivation or people who are involved in a professional institutional context (ibid.).

In a peer learning workshop within the iResilience goes Europe project, the potentials and challenges of co-planning for municipalities were also discussed with participants from the municipalities of Cluj and Dortmund, scientists from three universities in Cluj and Dortmund, and representatives of NGOs from Cluj. In addition to the aspects already mentioned, it became clear that the degree of possibility for co-planning can vary depending on the measures, since, for example, technical measures provide only limited flexibility for adaptation, so that adaptation through co-planning must be within the bounds of what is possible.

Conclusion

Finally, the comparison of the different understandings, designs, and applications of living labs shows the potential of the format to explore new and unconventional paths and to bring experimentation into a methodological form. It also becomes clear that living labs are very individual and dependent on specific local conditions. There will hardly be a living lab that can be fully replicated in another city or even in another neighbourhood within the same city. Exchanges of experience like those in the iResilience goes Europe project and toolboxes for formats are nevertheless a good opportunity for cities to learn from each other and be inspired for their own work. The areas of application are very diverse in living labs and formats and processes are widely transferable, as the comparison of two international projects alone shows.

In addition to experimentation, the focus in living labs is on interdisciplinary collaboration. On the way to the city of the future, co-planning plays an important role due to its high level of transparency and appreciation of an array of different knowledge. Beyond participation, co-planning can promote democracy and be an important component for a long-term, accepted transformation of cities. Co-planning formats give a forum to the negotiation process of what a city of the future should look like. In addition to the transformation knowledge that can be generated in living labs, the concrete implementation of individual measures can also trigger initial transformation processes in the neighbourhoods.

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Insights

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Chapter 7

A participatory approach to shaping the local mobility transition for the elderly

Erik Höhne, Pauline Ziegert, City of Zwickau

Within the neighbourhood concept developed in the course of Zwickau's ZED Lighthouse project, the actors involved were trying to meet the growing demand for sustainable local mobility. The idea was to design a unique mobility station which offers age-appropriate e-scooters as well as a neighbourhood caretaker to manage it. Furthermore, the concept offers all the necessary aids to enable the elderly to live in their familiar neighbourhood as long as possible – and thus keep the district itself structurally stable. With the aid of user-friendly technology developed in a participatory approach, those who are living in this neighbourhood and are therefore affected the most by the coming changes are involved in the creation of new (socio-)technical solutions. The blueprint from Zwickau's 'Marienthal' district creates new perspectives, especially for large housing estates with homogeneous age structures, to tie their residents to the neighbourhood in the long term and to keep estates liveable and lively into old age.

Introduction and project background

From 2017 until 2022, the lighthouse project 'Zwickauer Energiewende demonstrieren' (ZED, 'Demonstrating the Zwickau Energy Transition'), funded by two German federal ministries, not only developed holistic solutions for concrete social and technical problems related to the energy and mobility transition, but also tested them on a real scale at the neighbourhood level: How can energy consumption be reduced in a neighbourhood? How can renewable energies be integrated into the energy supply in a socially acceptable way, and how can smart coupling of electricity, heat, and mobility be successfully achieved? In short: How can urban districts become climate-neutral – without ignoring social aspects? ZED involved numerous actors from local politics and administration, companies, science, and civil society in the research process from the very beginning, and also used a wide range of different participation formats – from focus groups and discussion forums to test drives and measurement campaigns and a research mobility station. The jointly developed solutions were then tested and continuously adapted to the requirements of users and operators in a living lab, the urban district of Zwickau-Marienthal.

Zwickau-Marienthal, with its 8,000 residents, is characterised by Wilhelminian style architecture structures and small housing estates that were built around its former (village) centre in the 1920s to 1940s. In the 1950s and '60s, the large housing Marienthal-Ost (Marienthal-East) and Marienthal-West housing estates were built in the row construction style common at the time. According to the 'Integrated Urban Development Concept Zwickau 2030' (Stadt Zwickau 2022), these large housing estates are deemed to be areas in need of consolidation. This means that, among other measures, a reduction in the number of flats, 'cautious' deconstruction, but also a (family-friendly) consolidation of smaller flats is necessary (Stadt Zwickau 2022). This is needed to promote the influx of young families, to introduce targeted measures for 'the significantly increasing proportion of residents older than 65 years', and to counteract 'higher housing vacancy rates' (Stadt Zwickau 2022).

In fact, Marienthal is almost paradigmatic of the rapidly advancing ageing in eastern Germany. While the German Federal Statistical Office (destatis 2021) noted a 5% higher proportion of people aged 65 and older in eastern Germany than in western Germany for 2020 (26% vs. 21% of total population), the municipal administration of Zwickau reported that this age group made up 29.4% of the population of the entire urban area (Stadt Zwickau 2021). In Marienthal-East, the proportion of residents aged 65 and older was significantly higher again: it was about 35.9% there and in Marienthal-West, at 28.5%, the proportion was roughly in line with the eastern German average (Stadt Zwickau 2022).

In the Marienthal living lab, we were dealing with a predominantly older population, for whom the INSEK 2030 integrated urban development concept already names several important urban development projects: In addition to barrier-free and accessible design of development and renovation measures in the public sector, it also lists measures of action in senior citizen facilities, the traffic area, and for the further identification of residents with their district.

This chapter focuses particularly on those activities of the ZED Lighthouse that were carried out together with and for the older residents of the Marienthal living lab. The aim was to open up perspectives for senior citizens and offer them all the necessary building blocks they need to be able to live in the neighbourhood they are accustomed to.

The approach used in ZED was based on the concept of participatory and user-oriented technology development, i.e. those affected become participants in the development of new (socio-)technical solutions (Schneidewind 2014, Heite/Rüßler/Stiel 2015).

User-oriented technology development

In *Umwelten des Alterns* ('The Environments of Ageing'), Claßen/Oswald/Doh et al. (2014) state that neighbourhoods are of central importance for the quality of life of older people; because of the 'distance sensitivity of old age', older people are not only 'constant and critical users and connoisseurs of their neighbourhood' (ibid.), they also engage more intensively with their local environment than more mobile young people (see Heite/Rüßler/Stiel 2015). In part because their mobility resources are different, for example, some do not have a driving licence, have reduced access to a car, and a lower mobility rate and daily travel distance, older people are more firmly anchored in their neighbourhood than younger people. Innovations and changes in this regard must therefore be particularly well designed and justified. In the best-case scenario, older people are involved in the development of innovative solutions in order to be able to use their everyday expertise, their experiences, and their knowledge.

A requirement for this is that the network of professionals have to listen to the

needs and interests of potential users. Moreover, a new technology is often only tested in the laboratory or as a prototype, but not under practical conditions, so that potential users may shy away from the 'risk of the new'. For these reasons alone, the success of a new technology cannot be explained by supply and demand factors alone.

For the technology providers, actually hearing the opinions of residents in citizen participation formats offers the opportunity to not only adapt their developments to the requirements of the potential users, but also to systematically include their idea potential and the context of use in the innovation process.

The participatory development of local mobility offers in the Marienthal living lab

The development and testing of local offers from the municipality of Zwickau for older people took place in a multi-stage process, which can be described clearly with the three phases of the technology genesis model by Weyer (1997). The idea of creating such offers and developing corresponding technologies or services for them thus emerged outside of the established structures – not 'classic' mobility providers or product developers, but rather a medical supply store in Zwickau, which serves many customers in Marienthal, raised awareness of the problem of only limited (local) mobility in the scope of interviews and focus groups with actors and proposed first neighbourhood solutions based on electric scooters (e-scooters) for seniors.

In the 'stabilisation phase', the original ideas along with their technical and social components were further developed within the scope of an iterative process that included household surveys, test drives, and creative workshops. New 'strategically capable' actors were integrated into the innovation network and the development of a prototype. In the 'implementation' phase, adjustments were made to the requirements of the potential target groups, recursive social learning processes were initiated, thereby generating the social need for these innovative socio-technical solutions. In the following, the innovation process is outlined along these three phases of the technology genesis model.

Emergence phase (2017)

The 'generators of idea' were neither traditional mobility actors, such as the local public transport provider, nor established product developers who designed this new mobility approach. Rather, the residents themselves reflected on the location qualities of their neighbourhood and provided creative input for a 'future-oriented Marienthal' with the help of a medical supply store in Zwickau. And it was the special project constellation comprising actors from the municipality, civil society, research, and two service providers from the health sector (a nursing service and the medical supply store) that together set the further course of the innovation process.

At the beginning of the ZED Lighthouse project, in-depth explorations were carried out with residents (N =10) and actors (N = 16) of Marienthal with the aim of not only to survey the image and other location characteristics of this neighbourhood from the respondents' point of view, but to also develop ideas and visions for a 'future-oriented Marienthal'. For many respondents, Marienthal is still a 'place to feel good', a 'very green', 'great district' in a 'good location', with a 'great sense of belonging' and a high level of identification among the residents: 'We are Marienthalers'. Nevertheless, due to the 'loss of jobs' as well as 'shopping facilities', the neighbourhood has increasingly become a 'purely residential neighbourhood', a 'mere place to sleep'. Due to the 'slow ageing' and the 'influx of people from other areas' and with 'different views' ('you don't want people like that as neighbours'), 'ever greater areas of conflict' had also arisen, the 'sense of community and cohesion' had greatly decreased. It was therefore particularly important to strengthen the community again ('everything that promotes relationships is to be supported'), to 'make the neighbourhood more lively again', i.e. to 'combine living and working', but also to secure 'the supply of trade' and the 'accessibility of shopping facilities', especially for older people. It is therefore necessary that 'urban planning and development no longer abandon planning' and instead of 'demolition and deconstruction', actively work on the 'future of Marienthal', e.g. do something against 'traffic noise' and 'vacancies', but also implement measures for 'affordable housing' and for a 'life suitable for the elderly'.

The respondents' expectations of the ZED Lighthouse were mainly directed towards the two topics 'We are Marienthal' and 'more environmental protection'. While visions such as 'e-mobility for all Marienthalers', 'mobility on demand' or in the building sector, 'zero emissions with recognisable added value for the residents' were developed for the environmental part, the 'We are Marienthal' topic was about 'strengthening the community', for example through participatory processes or the 'development of committed networks' (instead of 'all-round state provision').

In a second step, the interview results were presented in three focus groups, again with interested Marienthalers. Concrete 'technology projects' (Weyer 1997) for the two topics were developed together with ZED Lighthouse partners. In all focus groups it became apparent that 'We are Marienthal' and 'more environmental protection' can not only be combined, but also fit into the overall aim of ZED to demonstrate a climate-neutral neighbourhood with smart sector coupling without neglecting social aspects.

The core of the new socio-technical project favoured by all participants is based on the fact that 'e-mobility for all' can shorten distances and increase activity radii, especially for older people, and in combination with a contact person ('neighbourhood caretaker') can also contribute to 'strengthening the community'.

Specifically, since the large housing estates in the living lab do not have demand-responsive access to public transport and everyday activities such as shopping or doctor's visits are not within walking distance for everyone, cars were used as the main means of transport for many of these purposes.

From ZED's point of view, the use or even an increase of motorised individual transport was not sustainable due to the consumption of fossil energy and CO₂ emissions. In contrast, the idea of establishing an alternative form of local mobility based on electric mobility is more sustainable, especially since it serves the interests of the residents (securing their mobility in the neighbourhood) and the project goals (decarbonisation and sector coupling). To ensure that all residents in the living lab have access to it, from the developer's standpoint it seemed appropriate to develop a kind of sharing system with intelligent networking. In addition to such a sharing system, it must also be ensured that all interested parties are instructed in operating the vehicles and systems at the mobility hubs that were still to be set up, so that they can also use the system and e-vehicles properly. This should be the task of the neighbourhood caretaker.

As a result of the in-depth explorations on the neighbourhood conditions at the beginning, a neighbourhood caretaker whose function goes far beyond instructing the users could also be a useful element of the project. In this sense they would not only provide support in securing local mobility, but rather act as promoters and facilitators of social provision – with the aim of creating an offer with low-threshold access, identifying needs, and initiating chains of help for early intervention of problem situations. Neighbourhood caretakers, who are provided and paid by a ZED project partner, serve as an interface in the residential area for the utilisation of supportive services. They may act as a confidant for all residents in the neighbourhood, support referrals for professional help, and help the residents to help themselves. By providing information and being a regular presence in the neighbourhood, the caretaker actively shapes the social space of the residential area with the involvement of the residents.

The mobility station as a socio-technical core based on age-appropriate electric scooters for senior citizens and a neighbourhood caretaker was made accessible for other actors from the user context during the 'stabilisation phase' up to the 'prototype development'.

Stabilisation phase (2018-2019)

In a first step, test drives followed by interviews with twelve senior citizens (see Figure 1) about their spontaneous impressions, expectations, and general (mobility) needs showed that despite some structural and road traffic-related difficulties, the e-scooter is an enormous relief and an enrichment to day-to-day life, especially for the health-impaired drivers.

In combination with the neighbourhood caretaker system and smart sector coupling, the e-scooters can also make a contribution to the development of an age-structured and energy-efficient neighbourhood. Nevertheless, in the early stabilisation phase, there was still a lack of parking and charging options as well as booking, payment and support systems. In addition, there was a lack of valid information about the existing movement patterns of the neighbourhood residents, their mobility behaviour, and their needs for new mobility options.



Figure 1: Test drives with senior citizens in the neighbourhood and subsequent survey (source: ZED project (2019))

For the implementation of possible options such as ‘e-scooters for all’, further (market) analyses, concept developments, and participation steps with new strategy-aligned actors were therefore necessary. Accordingly, in the course of the project, corresponding concepts were developed in (creative) workshops and public discussion forums such as the ‘ZED Forum’. Discussions were also held with potential sponsors, such as housing associations, operators of senior citizen homes, associations and voluntary services, as well as the (licensing) authorities.

At the second ZED Forum titled ‘Marienthal – sustainably mobile’, more than 60 visitors discussed fundamental issues of the mobility transition and satisfaction with the local traffic situation (see Figure 2). At various moderated topic tables, people then considered what mobility in the neighbourhood could and should



Figure 2: Discussion forum on mobility (source: ZED Project (2019))

look like in the future in order to make it as attractive as possible for every citizen – whether young or old.

In the opinion of the participants, options such as ‘e-scooters for all’ should ideally be implemented in such a way that the station for renting vehicles is easily accessible (max. 500 metres from

the home) and that there are also return points at exposed destinations (e.g. doctors' offices, supermarkets, allotment gardens). It was also suggested in the ZED Forum that the range of vehicles must be usable for all age groups, and thus additional types of vehicles such as e-bikes and e-cargo bikes were introduced. Furthermore, the station itself should not only be a lending station, but also serve as a meeting point in the neighbourhood through an appealing green exterior design with seating options. Finally, the participants preferred payment per use (no monthly flat rate). The costs should be based on those of public transport and at most be only slightly higher. Flexible borrowing times without set opening hours would be desirable.

Key questions, such as the further development of the new mobility approach and the size of the potential market, were also integrated into the various waves of the ZED Lighthouse household surveys that were conducted in 2018 and 2019. The assessments made and new ideas formulated there by the respondents (number of cases > 1,300) were embedded in the further development process.

Overall, the results of the discussion forums and actor and household surveys showed that the idea of setting up a mobility station in the Marienthal neighbourhood met with a wide response, both from residents and potential users as well as from actors from the (local) business community and the city administration. The information gained in this way was iteratively integrated into the new mobility concept, which was created as part of the project through the coordination of the City of Zwickau together with the innovation network.

All in all, the aim of this concept is therefore to ensure (local) mobility for all residents of the neighbourhood and to offer target group-specific environmentally friendly vehicles (e-scooters, e-bikes, etc.). In addition, the designated station is not limited to only mobility purposes: it is also intended to be a place for meeting and strengthening the community. The 'neighbourhood caretaker' helps people to help themselves, enables participation, and at the same time provides information about the ZED Lighthouse.

The questions already raised in the ZED Forum about the location of the station, about creating a design that is as appealing as possible and fits in with Marienthal, and about the e-vehicles to actually be provided for different target groups were finally put to the vote in further participation formats (focus groups and surveys).

The decision was again based on the open and transparent project approach and was made in favour of a flexible, open, and modern container solution. Containers offer the advantage of being barrier-free and accessible, and if necessary, they can be moved to other locations almost at will. It was also decided to equip the e-scooters with GPS tracking modules in order to learn about particularly frequently travelled routes and the destinations of the users. This could, for example,

lead to the creation of further service or rental stations at highly frequented locations, or conversely, conclusions could be drawn about the structural or traffic condition of routes and paths that are hardly used, and measures for change could be suggested. This makes it clear that the development of the mobility offer is never complete just with the completion of a station, but that the users, whether directly or indirectly, will always have a say in the further development through their information and tips.

A first important step towards stabilising the offer was taken with the opening of a prototype in summer 2020 (see Figure 3).

To promote the visibility of the station, a communication concept was developed in advance by the project partners. Both the opening ceremony itself, to which all neighbourhood residents received invitations, and the subsequent campaign week with topics related to the new mobility service were well attended and received a lot of attention from local media. The mere fact that a mobility station is something new for Zwickau encouraged a positive response. In particular, its permanent presence (the station is open from 8 a.m. to 6 p.m. during the week) and the ongoing presence of ZED project staff and a neighbourhood caretaker sparked curiosity and led to countless conversations, especially with those residents who at first were not interested in borrowing an e-scooter. In a short time, the residents of the neighbourhood accepted the station as a new meeting place and space for conversations – among themselves and/or with project staff.



Figure 3: The research mobility station opened in summer 2020 (source: ZED project (2020))

Through these discussions with the residents and the first users, as well as through accompanying systematic surveys, numerous insights to further improve the service were gained in the first weeks. As a result of the feedback, for example, the opening and break times were adapted to the demand and the rental offer was expanded to include a transport option with e-cargo bikes. In particular, the data collected on reasons for borrowing, frequency, and duration of use, as well as the willingness to pay for the service, which was initially still free of charge, was intended to optimise the operation in the long term. However, this data and the results from the surveys are not only aimed at improving the mobility offer, but are also meant to make a contribution to sustainable neighbourhood development. The focus is on the following topics:

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- What are the barriers to use among users? What are the preconditions for (improved) acceptance of the services by the users? How could the offer be developed further?
- What other types of vehicles could come into question and thereby expand the range?
- Can additional added value (neighbourhood pilot, information opportunities) strengthen the basic function of a lending station for sustainable, alternative mobility in the neighbourhood and thus push the transport transition as a component of the energy transition?
- Beyond its function as a meeting place, how else can the research mobility station contribute to 'strengthening the community'?
- Which professional services are necessary/desired to enable a long and self-determined life in the home environment?

During the first months of trial operation, it became apparent that the strict limitation on lending and return times could prevent some borrowing opportunities: For example, some doctor's appointments could not be kept and summer evening activities, such as garden visits, were not possible as a result. However, extending opening hours is a challenge, as staff expenses are a major cost factor in running such a station.

Against this background, the project consortium developed the idea of creating an autonomous, digital lending facility. A 'mobility box' to be operated by the users themselves (see Figure 4) makes it possible to borrow a scooter around the clock.

After a one-time registration, people can utilise a user card to independently borrow and return their e-scooter. At the same time, the operators record the user and the borrowing times via a digital interface.



The design of this box was also created in an iterative process with the participation of the users. This made it possible to organise the entire lending process in a target group-specific and user-friendly manner as simply as possible. The feedback from the users also led to further improvements of the 'Mobilbox' itself: illustrative instructions for use and audio-visual accompaniment were developed and an automatic light for borrowing the vehicles in the dark and a traffic light solution that indicates the availability of vehicles have now also been imple-

Figure 4: Autonomous 'Mobilbox' and e-cargo bicycles as a further development of the mobility concept (source: ZED project (2022))

mented in the system. This feedback on findings and experiences from the user context were also enormously helpful for the hardware and software developers from the participating university.

Implementation phase (2020-2022)

Lighthouse projects like ZED have the chance to develop new ideas and also test them extensively in the living lab. Economic viability plays only a subordinate role, and hardly needs to be considered during the R&D process. But for the operators, the financing of the now 'finished' technology is fundamental for continuation after the project completion, and in terms of a permanent implementation of the mobility concept in Marienthal – but possibly also elsewhere – the existence of a market is a decisive factor. On the part of the actors, there are various options and considerations that can play a role in financing the offer and creating markets:

- Refinancing through different rates for users
- Cross-financing of the mobility offer by sponsors of the neighbourhood (housing industry as well as entrepreneurs and service providers who profit directly or indirectly through an increase in customers)
- Cross-financing as a component of a neighbourhood service that can be booked via smart home tools of the surrounding flats
- Financing of a staff-operated mobility station by integrating different uses (neighbourhood pilot, parcel station, sales opportunities for products, etc.)
- Economies of scale of 'mobility boxes' and associated cross-financing of staff-operated mobility stations

The integration of further locations and the associated expansion of the network of actors is also crucial for the long-term success of the concept. A mobility offer is only a concrete option for use if mobility is permanently available for the users and their mobility purposes (shopping, errands, stops) and is close enough to their homes. With the end of the ZED project, the responsibility for it is divided between the city of Zwickau and the initiating Zwickau-based medical supply company.

In perspective, it is therefore a consideration for those involved in the project as well as subsequent operators to create a network of mobility points where e-scooters can be rented. The already existing research mobility station could be the 'spider in the web', so to speak, where expertise, instruction and registration are bundled and backed up by permanent staff. The many mobility points are then populated by the 'mobility boxes', so that through their economies of scale, mobility stations also become profitable. As this approach is also a possibility for other districts with similar needs, initial impetuses have already been integrated into urban mobility concepts based on the experiences of the Marienthal research mobility station and box. The adoption of the project results into urban planning guidelines and concepts is also a major goal of the ZED Lighthouse.

Currently, there are three active mobility stations available in Zwickau: the first mobile station as well as two mobile boxes as mobility points in other neighbourhoods.

Summary and outlook

Far-reaching demographic changes and the individualisation of lifestyles are making the population more diverse – including into old age. Cities and neighbourhoods are facing growing challenges in this regard, as age-related changes in demand and supply are also taking place: for example, demographically-induced housing vacancies can destabilise neighbourhoods. As a result, new forms of social infrastructure provision are needed to make society and municipalities more robust and age appropriate.

The residents are involved in the development of new (socio-)technical solutions within the scope of user-friendly and participatory technology development. To ensure the acceptance and thus the success of the mobility product, a solution that is as tailored and as low-threshold as possible is necessary, especially for the older target groups – a solution in which the necessary digital elements are integrated in a user-friendly way and which also meets the market and sustainability requirements. Such a research and development process leverages the experience and creative potential of the users as well as the expertise of the developers to continuously optimise the product so that its handling in operation is as simple and safe as possible. In practice, the technology genesis model has proven fruitful: The need has been identified, and the offer was continuously adapted to it in recursive loops. The changing constellation of actors from science and practice proved to be conducive to this.

Nevertheless, it must also be critically noted that innovations can also fail, and therefore it is crucial to transfer the results into a sustainable business model. The fact that payment for the services has not yet been possible due to funding modalities, combined with the comparatively high fixed costs of the mobility station and boxes compared to established app-based sharing services, leads to unanswered questions regarding refinancing outside of the project context. User-friendly and participative technology developments, as practised in the ZED project with the mobility station and the autonomous mobility boxes, are not straightforward. On the one hand, the offer must be designed to be as useful, convincing, and simple as possible for users, which was achieved through elaborate, iterative adjustment loops used in the approach. On the other hand, innovations in the neighbourhood require great efforts to promote the offer, especially at the beginning. The target group-specific approach as well as free use of the e-scooters demonstrate the effort and the low hurdles. In general, this can often only be covered by funding projects.

However, the blueprint from Zwickau-Marienthal creates new perspectives, especially for large housing estates with homogeneous age structures, to keep their residents in the neighbourhood in the long term and keep the estates liveable and lively into old age. In cooperation with the housing associations, smaller decentralised solutions in front of the entrance areas of flat blocks, such as the mobile boxes developed in Zwickau, in particular offer enormous potential. They provide mobility to the residents in an even closer and more targeted way, while also opening up new sales opportunities for the operators themselves due to economies of scale, as mobility from and to the doorstep is now possible for everyone. Enquiries from other cities demonstrate the need municipalities have to create age-appropriate services in neighbourhoods, so that the actors involved are confident that this solution can remain established after the project period.

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¹ In total, there were three household surveys (two via postal mail and one face-to-face survey – N: 740; 485; 103) and three focus groups (topics: old and young / economic actors / social services and neighbourhood caretakers – N: 15 each).





Chapter 8

The Local Green Deal – A new governance structure helps transform a global vision into an urban vision in Mannheim and Espoo

Claudia Mauser, Agnes Schönfelder, City of Mannheim,
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The climate crisis requires quick action in terms of a sustainable and just transition of cities. This transformation process needs a clear vision of what the future of urban development should look like. As more and more people live in urban areas, city governments face the challenge of involving politics, administration, civil society, businesses, and universities to take concrete steps towards this vision. This chapter describes the Local Green Deal (LGD) approach used by the cities of Mannheim (Germany) and Espoo (Finland). For this purpose, a transition team is installed as part of the EU mission '100 Climate-Neutral and Smart Cities by 2030'.

How a global vision became a city vision

The Local Green Deal vision was neither primarily invented by the City of Mannheim nor the city of Espoo. Rather, it is the logical step of pursuing the goals of several commitments already made by cities at the global and European level:

- The 17 Sustainable Development Goals (SDGs) of the United Nations under the 2030 Agenda promote sustainable peace and prosperity to protect our planet.
- At the UN Climate Change Conference in Paris in December 2015, 197 countries agreed on a global climate change agreement. The Paris Agreement sets a global framework to limit global warming to below two degrees Celsius and preferably below 1.5 degrees Celsius.
- The European Commission presented the European Green Deal at the end of 2019 to start the transition to a modern, resource-efficient, and competitive economy. The goal is to emit net zero greenhouse gases by 2050, decouple growth from resource use, and leave neither people nor regions behind.
- The European Union's 'Mission for 100 climate-neutral and smart cities by 2030' has been launched. The selected cities, including Mannheim and Espoo, aim to become climate-neutral by 2030. In doing so, they should provide information on their current situation, ongoing work, and future plans to become climate-neutral (Horizon Europe, 2021-2027).

The City of Mannheim responded to these commitments and drafted the mission statement 'Mannheim 2030', which takes up the global Sustainable Development Goals and shows what Mannheim should look like in 2030. This document was developed together with more than 2,500 Mannheim residents, companies, institutions, initiatives and associations, universities, and others. Since then, the seven strategic goals derived from this document have determined the decisions of the city council and the city budget.

Shortly afterwards, the 'Mannheim Message' (see Box 1 below) was published at the 9th European Conference on Sustainable Cities and Towns in 2020. Since then, Mannheim has seen itself as a pilot city for the Local Green Deal. After celebrating the successful application for the EU mission as one of the 100 climate-neutral cities by 2030, Mannheim started combining the commitments

made at different levels: The city systematically concretises the sustainability and climate goals of the ‘Mannheim 2030’ mission statement as well as the ‘Mannheim Message’ and the climate-neutrality target of the EU mission through the Local Green Deal (see Figure 1).



Figure 1: Background to the development of the Local Green Deal. Source: City of Mannheim.

The goal is clear: a socially just transformation of a highly industrialised city; the entire urban system is being developed towards this ambitious goal, with the intention of improving the quality of life in the city at the same time.

Box 1: Mannheim Message

The Mannheim Message – the collective response to the European Green Deal – was officially presented to the European Commission in October 2020 at the 9th European Conference on Sustainable Cities and Towns, organised by ICLEI Europe and the City of Mannheim. Mayors, organisations, and individuals from across Europe are invited to endorse the Mannheim Message and drive the change towards a resilient, inclusive, and sustainable Europe through the implementation of Local Green Deals (ICLEI, 2020).

A look to Espoo: The Espoo story

Participation cannot be only a ‘buzzword’ – you need to ‘walk the talk’, starting with the largest steering document of the municipal organisation, which is the strategy, and turn it into a participative process. The Espoo Story is the city strategy, a narrative created together with city employees, citizens, communities, and companies. In the endeavour to engage citizens for the ‘My Espoo’ strategy process, surveys were conducted and over 10,000 responses were received. The Espoo VLR2020 (voluntary local review) process, during which the Espoo Story was reviewed in relation to the UN Agenda 2030 and the 17 Sustainable Development Goals, involved more than 1,000 participants from all parts of the Espoo community, ranging from school students to industry leaders.

This tool for strategic and participatory leadership was introduced in 2012 by the mayor and has since evolved and expanded. This approach of leading the city’s strategy and political action based on a co-created narrative is unique – and has proven to be impactful. As an example, surveys show that 95% of managers working at the city organisation believe that the Espoo Story is visible in their day-to-day work. The Espoo Story, the related cross-administrative development programmes and the goals for the council term are always updated at the start of a new council term. The current council term runs from 2021 to 2025. The Espoo Story is the umbrella of everything and also states some of the sustainability goals for the city, e.g. carbon neutrality by 2030 and becoming a Sustainable Development Goals forerunner city by 2025.

Espoo is known as Finland’s safest and most vibrant pioneer city of education and culture, expertise, innovation, and business with strong international connections. In Espoo, nature is always close by. The city takes care of biodiversity and will achieve carbon neutrality by 2030 through determined cooperation with businesses, universities, and the whole city community as well as residents.

More than climate-neutrality – what is the Local Green Deal about?

To support cities and municipalities, the Intelligent Cities Challenge (ICC) has published the guide ‘Local Green Deals – A Blueprint for Action’. It states that ‘all LGDs should share key common principles, aiming to build upon existing best practice models of integrated sustainability strategy (...) and turn them into action’ (Intelligent Cities Challenge, 2023, p. 12). These principles include among others: ‘think big’, ‘lead by example and show commitment’, and take an ‘integrated and collaborative approach’. For better integration and participation of a city’s stakeholders, it is helpful to clarify the meaning, i.e. Mannheim’s definition of the Local Green Deal. It is explained and described in the following figure:



Figure 2: Definition of Mannheim's Local Green Deal. Source: City of Mannheim.

In terms of content, the Local Green Deal in Mannheim is based on the eight fields of action of the European Green Deal and is not only concerned with more ambitious climate protection goals and the supply of clean, affordable, and secure energy. It is equally about a clean and circular economy, about fair, healthy and sustainable food systems, sustainable agriculture and energy as well as resource-efficient building and housing. It is about the sustainable and intelligent development of our mobility. And that cannot be achieved without strengthening ecosystems and biodiversity as well as the zero-pollution goal for a clean environment:

- 1. Committed to climate goals** – The City of Mannheim has set itself the goal of becoming climate-neutral by 2030.
- 2. Release clean energy** – clean, i.e. renewable energies, such as solar energy or wind power, should be expanded. The focus is on affordable and secure energy supply.
- 3. Boost sustainable economy** – Industry, trade, commerce, and services in Mannheim should also protect nature and the climate, for example by designing products that can be reused.
- 4. Make mobility climate friendly** – Mannheim is committed to intelligent mobility for more flexibility, health, and well-being. All citizens can contribute to this.

5. Building for the future – In building construction, as few primary raw materials as possible should be used and the energy efficiency of the buildings should be as high as possible. At the same time, sustainable houses and flats in Mannheim should remain affordable.

6. Providing healthy freshness, from farm to fork – Fair, healthy and environmentally friendly food from the region becomes available to the population. To achieve this, the city wants to review its entire food system and make it more sustainable.

7. Revive natural diversity – Nature should be protected in such a way that Mannheim offers a diverse plant and animal world that provides space for recreation in the middle of the city and that everyone can enjoy.

8. Protect a liveable environment – environmental pollution is avoided or reduced as far as possible. In this way, together we create a healthy urban environment with clean water in the rivers and the lakes, intact soils, and fresh air.



Figure 3: The eight fields of action in Mannheim's Local Green Deal. Source: City of Mannheim

However, the whole process will only lead to a socially just transformation if it takes into account the following aspects: 1. the comprehensive involvement of all actors as well as the strengthening of co-creative civic engagement, 2. a socially just transformation, and 3. knowledge exchange and innovation in all areas. As all fields of action are interlinked and cannot be considered in isolation, a new governance structure is needed as a framework to overcome traditional silo thinking in city governance in order to achieve a sustainable transformation (see Figure 3).

A look to Espoo: Sustainable Espoo programme

One way of making the city's strategy – the Espoo Story – come alive is with cross-administrative development programmes. These programmes are enablers of participation because they act as cooperation platforms allowing the city, together with its partners and stakeholders, to develop innovative solutions through experiments and pilot projects aligned with the Espoo Story. The city has four cross-administrative programmes, and Sustainable Espoo is the one that promotes sustainability throughout the entire city administration and with its partners.

In the Sustainable Espoo programme, sustainable development is understood as a multi-dimensional concept that includes economic, environmental, social, and cultural sustainability. Active development work and an ecosystem-based approach allows the city to promote business activities, the green transition, employment, and the economy in Espoo and throughout the capital region, for example in relation to the themes of smart cities, circular economy, energy, and mobility, and reduce emissions, safeguard natural values and increase wellbeing. Key partners have been actively involved in the preparation of programme planning. Well over 200 people participated in preparing the programme plan in various workshops and meetings.

The Sustainable Espoo programme has the following goals:

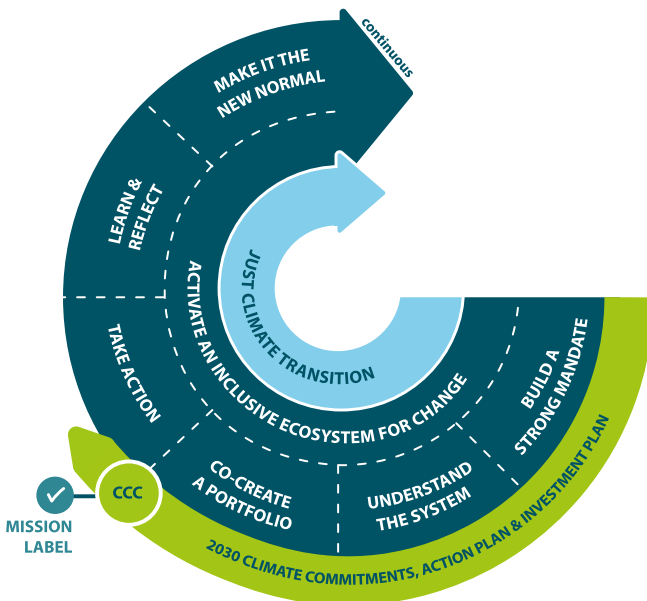
- Contribute to strengthening all aspects of sustainable development in the city corporate group's operations and create solutions to ensure that the UN's Sustainable Development Goals are achieved in Espoo and other cities
- Create a roadmap for the climate work done by the city and together with the Espoo community, assess and strengthen its carbon handprint and support, to a significant extent, the achievement of the carbon neutrality goal included in the Espoo Story
- Develop and spread activities that will open up Espoo, its developing areas, and nature solutions as an increasingly interesting research and development area for companies and research institutes
- Implement, through extensive cooperation with partners, innovative, local, and sustainable urban solutions that will serve as global examples of how to achieve carbon neutrality and protect biodiversity

These goals are promoted in practice via five development entities that are well-aligned with the European Green Deal.

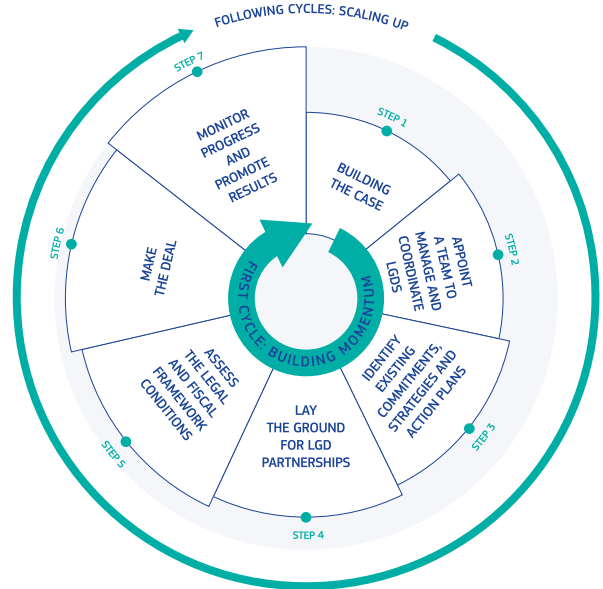
A new governmental structure to overcome silo thinking

In general, the steps towards a Local Green Deal are described in the 'Blueprint for Action' (ICC 2021, updated 2023): In addition to integrated goals (step 1) – for example in the Mannheim 2030 mission statement – and jointly developed, concrete measures (step 6), the authors of the blueprint recommend an administrative structure that is multidisciplinary and enables interdisciplinary work – also to break down silo thinking.

At the same time, the City of Mannheim was selected in April 2022 as one of nine German cities in the EU mission for '100 climate-neutral and smart cities by 2030'. In its application, the city stated that it would follow the required climate transition map with the Local Green Deal approach. (The Sustainable Energy and Climate Action Plan (SECAP) has overlaps in content with the Local Green Deal as well as the Climate City Contract of the EU Mission). For a successful transformation process, a city needs everything at the same time: a change in behavioural culture, a change in strategic planning as well as a change in structure. Therefore, Mannheim worked with the seven steps described in the 'Blueprint for Action' (2023), combining the suggestions of the EU Mission 'Transition Team Playbook' (2022) as follows:



The journey to change for climate-neutrality will be an **iterative process**, operating at different levels at the same time. It will focus on **building 7 core elements for the transition**: a strong mandate, a good understanding of the system, a strong local ecosystem, a coherent portfolio, transformative action, learning and reflection, normalised 'net zero' practice. (Source: NetZeroCities)



Seven key steps steps to develop a Local Green Deal
(Source: Blueprint for Action, Figure 2)

Figure 4: Iterative process by building seven core elements for the transition (left) & Seven key steps to develop a Local Green Deal (right). Source: NetZeroCities (2022) (left) & ICC (2023) (right).

Building the case (step 1)/Appoint a team to manage and coordinate LGDs

(step 2): The goal of climate-neutrality was given the highest political priority within the framework of the Mannheim 2030 mission statement and the Local Green Deal. The Transition Team Mannheim (according to the mission statement), which consists of 14 members of the Local Green Deal Core Team and a working group within the city administration, works across departments and with stakeholders from the city (see Figure 5 below). The Transition Team is an innovative governance structure that operates between the municipality and the urban society, cooperating with networks and multi-level structures (local, regional, national).

Identify existing commitments, strategies and action plans (step 3): The conception phase is immediately followed by the implementation phase, in which the details of the content are further refined, concrete deals in the LGD are negotiated with different stakeholders, the financing of the implementation of measures is concretised, and impact monitoring is established. The implementation of the measures is decentralised and carried out in cooperation with relevant actors and in close alignment with the activities of the Local Green Deal in an appropriate form.

Lay the ground for LGD partnerships (step 4)/Assess the legal and fiscal framework conditions (step 5)/Make the deal (step 6)/Monitor progress and promote results (step 7): The transformation process can only be shaped through the active engagement of our citizens and stakeholders. For more on the Mannheim and Espoo approach, see Chapter 9 in this book. In detail, the new matrix organisation is based on a flat hierarchical structure and comprises the following bodies:



Figure 5: The Local Green Deal Structure in Mannheim. Source: City of Mannheim.

Steering Group

The Steering Group bears overall strategic and political responsibility, i.e.:

- Deciding on the most important goals and measures
- Decisions on the measures developed
- Acceptance of individual milestones, approval of project planning

The Local Green Deal office reports regularly to the departmental conference.

Clearing Group

The Clearing Group is composed of the relevant departments and is responsible for strategic management. It is the contact point for the Local Green Deal office in day-to-day matters outside the Steering Group.

Working Group

Members of the Working Group are office managers and representatives of the relevant departments who meet regularly with the Local Green Deal office. The tasks of the Working Group include:

- Multiplier and networker in the city administration and contact persons for the Local Green Deal managers
- Interdepartmental quality assurance in the initiation and implementation of transactions
- Preparation of decision-making issues

Local Green Deal Office

The Local Green Deal Office forms the organisational basis for the Local Green Deal team to fulfil its tasks. It reports directly to the city leadership – i.e. the Lord Mayor – and

- is responsible for personnel management,
- represents the Local Green Deal internally and externally,
- develops and expands the Local Green Deal platform and public relations work,
- oversees the Local Green Deal's ongoing funding projects and strengthens international networking, and
- is responsible for organising and controlling appointments and the preparation and follow-up of appointments, especially of the committees.

The eight Local Green Deal managers work in their field of action at the interface between city administration and civil society. They initiate specific actions, projects, measures and agreements, support actors, and accompany the implementation of measures. In order to use synergies and ensure good networking, they are decentrally located in the respective departments or services. Administratively, however, the Local Green Deal managers report to the Local Green Deal office. They therefore work independently for their respective field of action and at the same time interact with the other Local Green Deal managers as well as with the district orientation of the administration.

Advisory Panel

The Advisory Panel serves as a source of advice and impetus and is composed of external experts from the fields of action and cross-sections of the Local Green Deal as well as from arts and culture. It is organised by the Local Green Deal office. It

- contributes innovative ideas and new insights and experiences
- (e.g. from research or practice),
- advises on applications for funding and,
- communicates Mannheim's successes externally.

A look to Espoo: Sustainable Espoo programme and The Centre of Excellence for Sustainable Development

The Sustainable Espoo programme will implement, in a cross-administrative manner within the city organisation and the Espoo community, the Espoo Story goals approved by the city council concerning sustainability and climate change. The Sustainable Espoo Programme's Steering Group consists half of political leaders representing all eight different political groups of the city council and half of sectoral leaders from the different city organisation departments. It provides a platform for ongoing dialogue between political decision-makers and city department managers. The group is independent from the city's regular hierarchical structure, thus allowing for horizontal, silo-breaking forms of governance needed for systemic change.

Operating under the Strategy and Development unit, the Centre of Excellence for Sustainable Development is a unit responsible for the forerunner work of the UN Sustainable Development Goals and for promoting and steering the city-level sustainable development and climate work. This is implemented via the coordination and implementation of the cross-sectoral Sustainable Espoo programme, working with city departments and stakeholders, creating partnerships for sustainable development and climate action, supporting the mayor's climate action Steering Group, and developing international visibility and cooperation. The team supports the city's sustainability goals and facilitates multi-level cooperation with the city organisation, Espoo community, and diverse stakeholders. It helps to connect the different spheres of local governance and actors.

Conclusion

Transformation requires commitment, action, and investment. Through the Local Green Deal, cities can bring together all strategies and goals in an integrated way and even improve urban strategies. The ecological transformation of a city requires not only a strategy but also a new culture and new structures. Therefore, in both cities – Mannheim and Espoo – a new permanent matrix governance structure was established under the mayor to be used for the EU mission. This transition team is now driving the process to concretise the vision for change – involving all local stakeholders.

However, breaking new ground is never easy and many people do not like change. Cities have learnt their lessons from implementing the Local Green Deal and have come to the following conclusions:

- **Involve all departments and politicians from the very beginning:** Start with a core transition team and involve all others continuously. When planning strategies, think about building collective action and co-creative collaboration from the beginning. In Mannheim, for example, locating the Local Green Deal managers in the technically related departments (Department of Mobility, Climate Protection Office, etc.) ensures that the various planning processes are thought together. The Working Group, which is made up of the heads of almost all the city's departments, meets regularly with the Local Green Deal team to align all strategies and goals with each other in order to optimally prepare the groundwork for deal-making.
- **Good communication is important:** Speak at 'eye level' with the administration and community stakeholders as equals. Go out and talk about the vision using internal training, regular staff meetings in other departments or via the intranet. You will reach people's hearts when you talk about success stories and their values, not just facts and CO2 reduction. Think about the benefits and a shared vision that reaches beyond the administration into the city community. The city, as a supportive administration, should not take credit for the deals made. Rather, the deals and their success belong to the stakeholders.
- **It is a marathon, not a sprint:** Sustainability transformation will not happen overnight and requires persistence and an integrated and systematic approach. For example, the Sustainable Espoo cross-administrative development programme has been successful in already maintaining its position for three consecutive council terms, which is a prerequisite for long-term development of sustainability work as well as for creating trust in meaningful partnerships with the local stakeholders and citizens in order to make Local Green Deals.
- **Sustainability must be considered as a holistic and interconnected whole in the work:** This translates into action in the city's work with regard to decisions that take into account all the sustainability dimensions at the same time. The UN Agenda 2030 and its 17 Sustainable Development Goals serve as a useful framework for taking a holistic approach to the work. Wide stakeholder participation is an end goal for sustainability, but it is also a tool to implement sustainability because it brings along a multi-perspective approach that helps to achieve sustainability goals.

And last but not least: do not give up! Rapid change is necessary, but it takes time. It is a huge task that needs to be done step by step. Peer-to-peer learning with other cities helps to share knowledge about implementation. It is worth the effort: the Local Green Deal, with its city-wide commitments, can help strengthen trust in public administration, the local economy, and ultimately local democracy.

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Chapter 9

The Local Green Deal – How can a city administration involve civil society and encourage it to act more sustainably?

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To shape the future and become climate-neutral, it is helpful to have a clear picture of the several steps it necessitates, including societal transitions as well as new processes to stabilise or things to let go (see the X-curve framework by Hebinck et al., 2022). Along the way, one approach can be to implement Local Green Deal (LGD) measures – towards a sustainable city. This chapter describes examples and the approaches used in Mannheim (Germany) and Espoo (Finland), which show that it is important to follow both paths: a top-down and a bottom-up approach. The transformation is only successful with both the strategy and the support of politics and the involvement and participation of the citizens (Sommer, 2021).

Getting into action – How to make a deal and overcome the action gap

To start: What is a deal anyway? Mannheim's answer to this question goes hand in hand with the following definition: Wherever an actor in Mannheim – this can be the city administration and its own companies and municipal operations, industrial companies, small and medium-sized enterprises (SMEs), an institution, an initiative, or an individual – makes a contribution (concrete action, measure, project, or self-commitment) to the implementation of a climate-neutral, sustainable, and inclusive city within the framework of global responsibility, the City of Mannheim terms it a deal within the 'Local Green Deal'.

Criteria for a deal

Who?

- At least one actor is specifically defined (municipal corporation, company, association, citizen(s), etc.).
- Must be carried out in Mannheim or out of Mannheim.

What?

- Concrete contribution / commitment with proof of implementation or that implementation is ensured.
- To be assigned to at least one field of action and measurably contributes to the respective sub-goals of the field of action.
- Is consistent with the cross-sectional fields.
- Strengthens the implementation of municipal goals and specialised strategies.

How?

- Registration at the Local Green Deal office with binding commitment via a standardised profile.

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How can the communication of the Local Green Deal lead to a shared vision?

Commitment is essential for the Local Green Deal, because it thrives on its local presence – joint top-down and bottom-up approaches are important so that the impetuses from urban society can be leveraged. To address the public and make the Local Green Deal a shared vision, a meaningful brand was therefore created for the Mannheim LGD: 'iDEAL for Mannheim' (see the logo shown here) is when we succeed in jointly shaping a liveable (ideal) city for all! The 'i' inverted as an exclamation mark in the logo underlines that every individual can contribute to the ideal city (I deal).



Figure 1: Logo of Mannheim's Local Green Deal. Source: City of Mannheim.

The entire Local Green Deal team continuously uses events and the media to present the logo. Nine posters and postcards show the eight thematic fields of action of the Local Green Deal (climate ambition, energy, circular economy, mobility, buildings, food system, biodiversity, zero pollution) in a charming and inspiring way along with one image which unites all statements of the Local Green Deal in one picture. It is helpful to think of the Local Green Deal together with the many actions of the city and in the neighbourhoods that already exist – such as Christopher Street Day, the Urban Thinkers Campus, or the new year's reception held for the citizens. But just because there is a great logo does not automatically mean that citizens are aware of it and share the vision as their own. A communication campaign, an explanatory and motivating video, or even a brochure are helpful tools to spread the word. However, it is not enough for a change in mind to simply disseminate more and more facts, as Christopher Schrader (2021) points out, for example. Cities should rather create a community spirit for a more liveable city. Key tools for this are strong, positive narratives and images communicated for different target groups. These should address individual wishes and desires, using humour as well (see also El Ouassil & Karig, 2021, and Sippel et al., 2022, to name but a few), supported by descriptive visuals, such as graphics and in the form of hidden picture puzzles (see Figure 2).



Figure 2: Hidden picture puzzle for the 'biodiversity' field of action. Source: City of Mannheim.

Deals for all, from industrial companies to citizens' initiatives

The Local Green Deal belongs to all, and everyone may, can, and should participate. To address the different target groups, tailored formats are needed for everyone who lives and works in the city. Businesses need a different approach than citizens, for example. Different cultures and lifestyles also play a major role. That is why Mannheim also includes culture as a driver of transformation in the Local Green Deal.

Business deals

As a major industrial city with the largest coal-fired power plant in Germany, Mannheim places a special focus on projects that transform both industry and energy production as part of a socially just transformation. Business and industry are therefore special target groups.

The Climate Alliance was founded back in 2015 and is an alliance of Mannheim businesses and the City of Mannheim. Since the alliance was established, the number of participating companies has been growing steadily. The aim is to win over industrial companies, small and medium-sized enterprises, and the city's own businesses for strong environmental and climate protection and make the commitment of the active companies visible. By signing the certificate, the companies commit to making a responsible contribution to the city-wide goal

of climate-neutrality as part of the Local Green Deal Mannheim, and it is also a contribution to the Climate Action Plan (SECAP) 2030. Some of the companies actively participated in the development of the SECAP. Mannheim signed 19 contracts with local industry and businesses committing to implement and support the Local Green Deal and contribute to the European Union's mission for 100 climate-neutral and smart cities by 2030. Some examples of Local Green Deals are:

- The MVV Energy utility company is decarbonising district heating completely by 2030 in the network that supplies 65 % of the city.
- The GBG will housing company refurbish around 500 flats from its stock each year, and by 2030 this figure should be around 4,000 flats.
- Project developer Innovatio realises 'Franklin Village', the largest timber construction project in Mannheim.
- Mannheim project development company MWSP has the new 'Spinelli' quarter certified as a sustainable quarter (DGNB).
- The Rhein-Neckar Verkehrsbetriebe (RNV) public transport company will convert its entire vehicle fleet to alternative drives by 2032.
- At Roche, all intermediate areas are planted with wildflowers to increase biodiversity.
- The Smart City company is making all city-owned buildings climate-neutral in terms of electricity supply by 2027 by installing 40 MWp of solar cells.

Networking and visibility service: the Local Green Deal platform and an award

To further develop the EU Mission's Climate City Contract based on multi-level governance and multi-stakeholder approaches, the LGD office is establishing a stakeholder mapping and LGD platform (part of a 'House of Change' within the pilot city project CoLAB (Committed to Local Climate Action Building), running from June 2023 to May 2025). The aim is to develop innovative services and offers for CO₂-related individual behavioural changes, especially with regard to the '1.5 degree lifestyle' in the areas of energy, buildings, mobility, nutrition, and consumption. Mannheim aims for strong political and civil society engagement in the EU mission's climate city contracts, e.g. by highlighting and making the deals visible.

Deals should also be celebrated and visible to the public – as a benefit for the stakeholder(s) as well as a good example and inspiration for others. In addition to the Local Green Deal platform, the iDEAL Environmental Award recognises outstanding deals each year. The award started in 1985 as the Environmental Award of the City of Mannheim and distinguished projects of an exemplary nature in the areas of environmental, climate, and nature protection. With the positioning of Mannheim as a Local Green Deal pilot city, the Environmental Award was given a new name. It recognises concrete actions, projects, and measures that make a special contribution in one or more of the eight fields of action of the Local Green Deal. Individuals, initiatives, associations, companies, and public institutions can apply and receive financial recognition to support the further implementation of their projects.

Citizen engagement through local funding programmes and expert consultancy

The Local Green Deal team receives support from the city's own Climate Action Agency, which was founded in 2009. The agency has 15 employees (as of 2023) and advises citizens free of charge on the topics of energy-efficient refurbishment, renewable energies, climate protection, climate change, and sustainable nutrition and consumption. It is financed by the City of Mannheim, the energy supplier MVV, and the GBG housing association. In addition, the City of Mannheim financially supports the municipal subsidy programme for energy renovation, the expansion of photovoltaic systems, and the greening of buildings. For low-income households, there are special offers for energy-saving measures, e.g. for the replacement of old refrigerators, and for renewable energies such as solar panel systems on the balcony. Through the free advisory programme and the financial incentives, more than 300 measures are implemented in private households every year.

The Climate Protection Agency draws attention to climate change and its impact on life in the city in very creative ways: at street events, with the model flat as an exhibition for sustainable living, the Green Mobile Space, and the installation and replica of the Climate Change Warming Stripes at a tram stop in the middle of the city, to name just a few of the highlights.

The Local Green Deals meet the innovative power of citizens

Citizens have so many ideas for exciting deals. Since Mannheim prides itself on being a city of citizen participation, the city has tried different formats to involve people as idea generators. A concrete example following the decision to become a pilot city for the Local Green Deal is the participatory budget 2022, which took up this theme: Citizens were called upon to contribute ideas for shaping the city that serve one of the eight fields of action of the Local Green Deal. Over 120 ideas were submitted, competing for a total of over 500,000 euros. After a public voting phase, the amount was awarded to ten winning projects, for example for the purchase of cargo bikes, the creation of small forests in the city centre, and the development of a Local Green Deal hackathon.

Mannheim's Climate Action Plan 2030 (within the scope of the EU Mission's Climate City Contract) was also developed



Figure 3: Poster for the 'increasing climate action' field of action. Source: City of Mannheim.

in a broad-based participation process together with the administration, citizens (including children), chambers, initiatives, companies, science, and politics. A total of around 1,000 people participated with more than 20 different online participation options and offline formats, such as a volunteer Citizens' Climate Council. Other projects, including the development of the Sustainable Urban Mobility Plan (SUMP) and the Sustainable Urban Development Plan (SUDG) were created with the aid of more than ten public co-creative workshops and several online participation initiatives. Internally, a group of ten employees from the city administration, chosen by a call of interest, met regularly for half a year in design thinking workshops (called 'innovation motors') to develop sustainable deal prototypes.

A look to Espoo: 'Deals' take many forms

Engaging the whole city community, with its different stakeholders, to commit to sustainability can take many forms. In Espoo, it is implemented via partnerships, commitments and deals, facilitation of ecosystems, and from the role of enablers. For instance, for the Espoo Clean Heat decarbonisation project, the local utility company Fortum and the City of Espoo were both committed to carbon-neutral district heating by 2030 in the region and to local self-sufficient heating on a large scale. The city has invited its partners with an open invitation to jointly draft Espoo's Climate City Contract and join the effort with commitments to climate-neutrality from each actor. The work began in March 2023 with the mayor's invitation to a high-level event called 'Let's create a climate-neutral Espoo together' that drew together 70 representatives of the city and its partners.

In the Kera district, sustainability partnership is consolidated with a sustainability commitment in the land use agreements with stakeholders and landowners aiming to build and operate in the district; and in the Finnoo area, the constructors are committed to pioneering clean energy solutions. European Green Deal Policy areas can also be promoted in partnerships with different stakeholders working together in projects piloting the sustainability solutions. In Espoo, one of the recent examples is a project called 'Closed Plastic Circle – from Pilots into Practice', where the city of Espoo works together with seven partners representing Research & Development institutions and universities, municipal companies, and non-governmental organisations (NGOs).

Facilitation of ecosystems can help to grow the Local Green Deal momentum in the city. Ecosystems help different actors to join forces and cooperate towards achieving sustainability goals. When the city is involved in ecosystem work, it can strengthen the collaboration between the public and private sectors to promote innovation and sustainable business. Espoo is building an effective ecosystem together with 100 companies and developers related to the development of low-carbon transport, energy, the circular economy as well as clean and smart urban solutions.

Integrating more sustainability into operations requires knowledge. Supporting the capacity building of different actors is one example of enabling local sustainability work. Sustainability and green transition are cross-cutting principles in the recently updated economic development and employment policy priorities. This will translate into action by enabling companies and other actors to develop and commercialise their green solutions and supporting SMEs in incorporating sustainability into their daily operations more actively.

Partnership with citizens were piloted with a diverse group of 25 motivated changemaker citizens to co-create sustainable solutions together with the city in a citizen panel on sustainability. The citizen group was empowered to spread knowledge about sustainability in their own networks and inspire local action. They also co-designed ways to engage citizens in the Local Green Deals together with the city experts from various city departments and areas of work.

Conclusion – Just get started!

The Local Green Deal brings global goals to the local level, where change really needs to happen. To create a just transition and leave no one behind, stakeholder involvement and participation as well as a mandate from politics and citizenship play an important role. Concrete and easy-to-replicate actions by neighbours or friends show that everyone can do something to create a carbon-neutral, sustainable, and inclusive city – an ideal city where everyone wants to live. Mannheim has therefore started to set up a success room, where all good examples of deals already completed are displayed to celebrate what has already been done and to motivate others.

Mannheim is a co-author of the ‘Mannheim Message’ and the ‘Blueprint for Action’ (see Chapter 8) as well as a mentor city in the European Commission’s Intelligent Cities Challenge (ICC). Since the city council adopted the Local Green Deal approach in 2021, over 100 deals have been collected to date (as of 01 September 2023). They range from ‘insect hotels’ installed by a sports club and a kitchen garden created by a children’s home up to nine ‘voting ashtrays’ set up in the city centre by a German-French youth group. But citizens still need to become more aware of the Local Green Deal approach. There are many good ideas, but people need a push and it takes time to get the change going. Multipliers can help speed up the process. Cooperation with universities, children, and migrants is important. Consider SMEs as well, which



Figure 4: Seeds as a giveaway for the 2023 Christopher Street Day parade in Mannheim (“iDEAL is colourful”). Source: City of Mannheim.

do not have as many resources and knowledge as large companies. What are the benefits of participation for the population, and for businesses? Cities can offer networks, expertise through the municipality, or some kind of marketing by introducing the business to the public, but intrinsic motivation is also needed. In the coming years, the variety of the deals will become increasingly clear. The question of how smaller deals, such as giving up your own car and using public transport instead or planting insect-friendly greenery in the front garden, can be publicly represented and counted but is not fully resolved yet. This will also be part of the aspect of developing uniform indicators and success factors for monitoring purposes.

However, it does not really matter how a city defines a deal, as long as it helps close the gap between changed attitudes to life and the resulting necessary measures by turning talk into action – collectively, innovatively, and equitably.

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Future-oriented transformation of a municipal administration through organisational participation

Participative processes can bring numerous advantages for companies, especially within an organisational framework, if they are used sensibly and managed in a targeted manner. In addition to innovative strength and agility, these include increased employee satisfaction and improved employee loyalty to the company. (Unternehmensdemokraten, 2022)

The municipal administration of Zwickau, a medium-sized Saxon city in Germany, has conducted a series of workshops as a participatory element with all department heads in order to both leverage these advantages and drive forward the development of the municipal company by utilising the concentrated knowledge of the decision-makers.

This chapter highlights a specific use case of organisational participation within a municipal administration.

Basics for using organisational participation

The meaningful and beneficial use of participation formats within an administration can only be achieved through precise prior planning and clear definitions of objectives. First, the scope of the work processes to be rethought in a participation format must be defined.

Operational processes that mainly ensure the co-design of the workplace can be addressed. These include working hours, location, the work equipment used, and other aspects. The next level concerns tactical work decisions, such as the selection of new projects and the staffing of them. More far-reaching are the strategic elements – these include corporate mission statements and strategy development for the administration, such as a digitisation or workforce acquisition strategy. Outside of these scope terms, there are additional normative decision fields in which values and ethics of the organisation are determined. There is also a broad spectrum at the level of participation of the members of a company. For example, employees can remain completely uninformed, at least receive information about certain further developments, be consulted about important decisions, be given a right of co-determination, or even work in a self-determined manner. (Unternehmensdemokraten, 2022)

Both the scope and extent of co-determination should be determined using a goal-oriented approach prior to any organisational participation format in order to support a promising transformation within the administration.

Starting position and initial objective of the Zwickau administration

In the medium-sized city of Zwickau with just under 90,000 inhabitants (Stadt Zwickau, 2022), 20 heads of office manage around 1,200 employees of the municipal administration. The city's top management is formed by the mayor,

flanked by the mayor for construction and the mayor for finance and order. According to this structure, the offices are assigned to the three departments of the mayors.

Since the municipality is facing enormous challenges due to demographic change, recently increasing migration of residents and skilled workers, and the growing pressure for a meaningful digitisation strategy, the goal must be a future-oriented transformation of the administration. In order to incorporate the experience of long-serving employees and the expertise of heads of office into the transformation process, participation formats are intended to support the city's leadership in this endeavour.

Under the motto 'Designing instead of managing', ('Gestalten statt Verwalten'), the aim is for the management team of the municipality to meaningfully optimise internal and external processes and create more leeway to 'design' department-related work tasks. The focus here is on raising awareness of modern employee management and motivation, as well as the demands of urban society, and enabling department heads to rethink ingrained structures, processes, and behaviours and jointly develop targeted solutions. The series of workshops for department heads planned for this purpose is intended to support this dynamic process. Two external experts were commissioned to conduct the workshop in order to prevent participants from being afraid of making false or risky statements. This goal here is to reinforce the innovative power and open exchange in the workshop series. The two moderators are supported in the planning, preparation, and implementation of the workshops by a project employee of the city of Zwickau, who is still unknown to most of the participants and whose presence does not lead to any distortion of the results.

In the original planning, the following objectives were set for the workshops:

- Through telephone interviews with the approximately 20 participants, which comprise all heads of office and the three mayors, a targeted and needs-based planning of the workshops is carried out by systematically collecting initial assessments of the priorities and needs of the workshop participants and the mayors.
- Analysis of the main changes in the environment of the administration of the city of Zwickau from the perspective of the workshop participants as well as the resulting challenges, the necessary internal adjustments, and the internal barriers that hinder the adaptation of administrative action.
- Developing an improved understanding and contemporary methodological knowledge of employee leadership (e.g., agile leadership) in light of changing conditions and challenges to the work of city government, including developing effective ways to overcome barriers.
- The participants will improve their understanding of the opportunities offered through more effective cooperation within the city administration as well as

externally. They will systematically address barriers and develop strategies to deal with them. They will develop insights into the importance of different perspectives of their potential cooperation partners and methods for successful cooperation.

- The attendees will develop proposals on how effective cooperation can be facilitated by adapting internal administrative framework conditions. The proposals are then discussed and prioritised with the involvement of the mayors. In addition, initial steps and responsibilities for further action are agreed.

These processes are to be initiated in a total of four full-day workshops, which will take place from April to October of 2023. It is clear from the outset that the exact content of the respective workshop days cannot be rigidly planned and need to be flexible, as the actual desired topics of the participants will influence the planning. This agile approach to the workshop design should lead to better cooperation among the participants as well as to overcoming truly relevant obstacles in the day-to-day work of the executives.

The workshops take place monthly in three consecutive months – the fourth and thus final workshop is held following the summer break, three months after the third workshop. On this last day of the participation format, the participating managers have the opportunity to present the concepts they have developed to the city leadership, i.e. the three mayors, to jointly find ways of implementation and discuss any open questions.

The soccer arena in Zwickau was chosen as the venue. Small rooms for group work as well as a large plenary hall where results can be discussed with all participants are available in the rooms of the grandstand.

Methodological approach

In this paragraph, we highlight the methods used in each workshop and share experiences in conducting them.

Telephone interviews

In preparation for the first workshop, telephone interviews were conducted by the two external workshop facilitators with the 20 participants and the three mayors. All interviewees were asked the same five questions.

Question 1: Do you see a need for change in the way Zwickau city government operates?

Question 2: Where do you see new challenges for the administration and also specifically for your work?

Question 3: What do you see as the most important goals of the planned series of workshops?

Question 4: What are your wishes for the city of Zwickau and its administration?

Question 5: What would you like the facilitators to take with them into the workshop series?

The answers given by the respondents gave the workshop moderators a fairly accurate picture of the mood of the employees and also of the city leadership of the Zwickau city administration. In addition, this step serves to 'vent frustrations' before the first meeting of all the department heads, so that the workshops can be more constructive and targeted from the start.

Workshop 1: Old routines and new challenges – from managing to designing

The workshop started with a short introduction of the moderator team, consisting of the two external workshop experts and a municipal project staff member. In the first content-related step, the previously listed results of the telephone interviews were presented at the kick-off event.

The participants were asked to work on the first task in three small groups. Pairs were formed within the groups to conduct interviews in which participants asked each other the following questions:

- Where will Zwickau's municipal administration be in 20 years if nothing changes?
- Imagine travelling into the future and finding that the problems of Zwickau's municipal administration have been solved. How did this improvement happen?

Afterwards, the interview pairs got back together in the groups and worked on the following questions on whiteboards:

- What are the key problems arising from 'persistence' when management does not change? (Goal: inventory of problems)
- Prioritise these problems by their importance to the city government. Put the most important at the top, the least important at the bottom.
- Collect problem-solving building blocks and rate them with sticky dots according to their feasibility (green = very feasible, yellow = partly feasible, red = not very feasible).

The results were documented on the whiteboards in the three groups and then presented in plenary to the other two groups by a group member.

The next work assignment dealt with the following problem: The participants were to return to their initial groups and develop a 'wish scenario' for the city in which a positive image of the future was achieved. What would the administration have to look like? What would have to have changed? Likewise, concrete measures should then be named that lead to achieving this positive image of the future. Actors as well as hindering and supporting factors were to be assigned to these measures.

Afterwards, all results were discussed and evaluated in the plenary session. At the end, wishes for the follow-up workshop had to be expressed from the topics that had been raised to that point. The participants were asked to select three areas that they would like to examine more closely at the next meeting. Topics that were often mentioned in the telephone interviews as well as newly raised issues from the workshop were named.

The areas selected were:

1. An adapted bonus system for outstanding performance
2. Improve the corporate culture / create a mission statement
3. Development and implementation of a human resources development concept

For each of these three areas, two topic mentors from the plenum were then designated, who were to specifically deal with the following question again (analogous to the workshop method already applied) by the follow-up date:

- Which actors are important for the implementation of the proposed measures?
- How can these actors be won over with regard to implementation?
- How can obstructive factors be reduced?
- How can conducive factors be strengthened?

Workshop 2:

At the beginning of the second workshop, a short review of the previous event was given along with an outlook on the upcoming topics.

The results prepared by the topic mentors were sent to the moderators in advance and were then presented by them. Summaries of these three elaborations were provided on three whiteboards (one topic per whiteboard). These formed the basis for the first work assignment in the workshop.

Three new groups are formed. The inputs of the topic mentors are discussed, supplemented, or commented on at the three stations. After 15 minutes each, the groups switch to the next station.

In the following step, the three groups were given 60 minutes to work out a schedule for implementing the ideas for measures. The first step was to divide the process into steps that had to be completed in order to implement the measure. The following process steps were provided as a basis:

- Phase 1: Work assignment
- Phase 2: Analysis / problem definition
- Phase 3: Concept design
- Phase 4: Formation of opinions and decisions
- Phase 5: Implementation

Phase 6: Routinization / further development

The participants were encouraged to add supplementary process steps or delete irrelevant ones.

For this purpose, the following questions should be discussed:

- Which actors are to be involved in which project phase, who can do what and when so that the measure can be implemented and have the desired effect?
- Where are the obstacles to implementing the measure? How can they be removed?
- Using a timeline, indicate the approximate expected timeline.

In addition, discuss on a second whiteboard:

- Promote your measure: What are the core idea and benefits for the city? List three strong advertising slogans to answer the question: 'Why do it?'.
- What essential requirements must the measure absolutely meet?

The results were then presented in the plenary session.

In the second part of the workshop, the focus shifted to 'employee management', another topic that had been strongly addressed in the first workshop. The participants were given the following work assignment:

'For many of the ideas for measures discussed today and others named in Workshop 1, it is important to have the most committed participation of employees as possible. Most employees do a good job and are constructive in their dealings. However, there are always difficult management situations and there are employees who present special challenges for your manager.

We will now use three fictitious employees as examples to explore their attitudes and expectations and try to understand them better. To do this, you have seven stereotypes to choose from. Of course, these employees do not exist in reality. They are extreme and exaggerated invented examples.

Please think briefly about which of these seven types you would most like to explore in more detail in the workshop. We will then select three types by a show of hands.'

The following three employee stereotypes were selected by participants:

The Palavernudel (Chatterbox)

The Palavernudel is a long-serving employee, but she still has a few years of service ahead of her. She has seen many mayors and heads of offices come and go. She has a very good relationship with her colleagues. The Palavernudel works

reasonably well, but she tends to be slow, often tired, and always sick for a day or two. She does not like innovation. When she can chat with colleagues, she really comes alive.

Typical leadership problems: She does not keep appointments. She is difficult to win over for new things. Her chatting keeps other employees away from work.

The Erbsenzählerin (Nitpicker)

The Erbsenzählerin attaches great importance to nothing other than perfection in herself and others. She knows better than her superiors how to work properly and what the results must look like. Whatever others is present to her, she checks immediately and with great dedication to finding errors and inaccuracies. The Erbsenzählerin works conscientiously, accurately, and delivers results on time – unless she finds errors in preliminary work received from others. Deviations from rules and regulations, pragmatism, or even improvisation are deeply abhorrent to her.

Typical leadership problems: She annoys colleagues with her bossiness. She sabotages pragmatic action. She annoys superiors by pointing out marginal inadequacies.

The Wegducker (Slacker)

The Wegducker is an experienced, but completely enfeebled employee. He prefers to hide in his office and work at a leisurely pace. His work is of good quality and low volume. He prefers to work on things that come easily to him rather than those that are important and urgent. When new tasks are being distributed, he makes himself invisible. The Wegducker always has good reasons why he can't take on a job under any circumstances. The highlight of his working day is when he can finally go home.

Typical leadership problems: He shirks new tasks. He sets wrong priorities. He doesn't perform well.

In three groups, the participants are to put themselves in the role of the respective stereotype and answer the following questions from this unfamiliar perspective within 30 minutes:

- What annoys you about your supervisor?
- What annoys you about your colleagues?
- What do you not like at all during work?
- What motivates you to work particularly hard?
- What do you want from your supervisor?

The second step of this task is to answer this question:

'Remember, competition for workers is fierce. You need to strengthen the moti-

vation and productivity of experienced employees and motivate and retain young employees. Your goal is to manage this employee so that he or she becomes even more motivated and even more productive, fits in well with the team, and enjoys working for the Zwickau city administration.

Now discuss the following question: 'How can this goal be achieved through leadership behaviour?'

The results were presented again in plenary after the time for the task had expired and supplemented in a moderated discussion using the fishbowl method.

Following the discussion, the topics for the next (third) workshop were determined. This time, the participants decided on the topic of 'digitisation in municipal administration' and 'optimisation of employee recruitment process' (approaching potential employees – pre-selection – interview – decision – welcome culture – orientation).

A total of five topic mentors were designated this time and given the following task:

Each topic mentor will interview at least three randomly selected employees from other city administrations on the following questions about digitisation and document the answers in anonymous form.

- When I think about the digitisation of the city administration, I...
- The digitisation of the city administration is important above all because...
- If the digitisation of the city administration is driven forward, then it is particularly important that...
- When digitising the city administration, it is essential to avoid...

Workshop 3:

The topic mentors from the previous workshop began by presenting their own results from the survey of other administration staff on the topic of digitisation. They were informed in advance that they would be presenting the results themselves. Following the evaluation of the work assignment, the moderators presented some studies and statistics on digitisation in German municipalities. After this introduction, two working groups were assigned, each of which in turn formed three subgroups with two to three participants. This division was necessary in line with the gallery method being used.

Each group had three pinboards at its disposal, and each pinboard was worked on by two to three group members.

Then the participants receive the following work assignment:

In the 'Zwickau digital' gallery, each subgroup worked on one of the following questions on a pinboard.

- The friendly look: What can we build on (experiences, knowledge carriers,...)?
- The critical view: our weaknesses / failures, etc.
- Our optimistic vision for 2030 (with concrete examples)
-

15 minutes were allotted for this. Subsequently, the subgroups switched in two steps to the other two question pinboards to complete and comment on them. Ten minutes were allotted for each step.

Each subgroup used pens of the same colour throughout the process so that it was apparent who made which additions and comments. Each subgroup was also able to use symbols (lightning bolt = objection; ! = agreement; ? = unclear) to evaluate each other's entries on the whiteboards.

This was followed by a discussion of the three pinboards in each of the two large gallery groups and the derivation of central goals for 'Zwickau digital 2030' on another pinboard. 15 minutes were allotted for this.

In the plenary session, there was first a brief presentation of the two group results from the previous step. Next, the target lists of the two groups were combined into one list and initial implementation steps were defined.

In the second half of the day, the second desired topic of the participants was dealt with: the question of how the recruitment and integration of new employees can be improved. For this purpose, the process of employee recruitment was divided into six steps:

1. Job advertisements (design and dissemination)
2. Pre-selection of applications
3. Interviews
4. Decision / applicant selection
5. Welcome culture
6. Orientation

In groups, each step was tackled on a whiteboard that dealt exclusively with that step. On the left side of the whiteboard, each step was recorded in the way it is currently typically handled in the Zwickau city administration. On the right side, possible optimisation measures were listed. Time for this task: 15 minutes.

Subsequently, the results were presented in plenary, discussed and, if necessary, supplemented and adjusted. This discussion was particularly well received by the participants and lasted more than 60 minutes.

Following the finalisation in the discussion, the fourth and thus last workshop was prepared.

The participants received printouts of the pinboards for the proposed measures worked on in more depth in Workshop 2 (bonus system / corporate culture / personnel development concept). A vote was held on each of these suggested measures and the proposals defined in Workshop 1 but not yet worked on in depth, as well as on the topics of today's workshop (digitisation and employee recruitment), to determine whether they should be the subject of Workshop 4. The aim was to select around three to four ideas for measures. The voting was done by voting card (red/yellow/green). Each participant rated each proposed measure (without discussion).

The result of the topic selection for the fourth workshop includes the following areas that had already been worked on:

- Digitisation in combination with office equipment
 - Process optimisation of employee recruitment
- as well as the topic that had not been tackled yet:
- Improvement of internal processes

These topics will be discussed again in the first part of the fourth concluding workshop, especially the still open topic of internal processes, of course, and then the results developed for the three areas will be presented to the three mayors.

The goal is to have an open exchange between the city leadership and the departments heads on how various problems can be tackled and concretely dealt with. In preparation for Workshop 4, two topic mentors per topic agreed to undertake one of the following tasks:

- Presentation of the proposed 'digitisation measure' (in combination with the office equipment aspect)
- Presentation of the proposed 'optimisation for employee recruitment process' measure
- Identification and brief description of three exemplary administrative processes to be examined in Workshop 4 for opportunities to streamline them.

This final workshop will not take place until after the publication of this article, so it cannot be documented yet. However, the workshop conducted within the ExPEERienceEUROPE project will be completed and finally documented within the still ongoing project duration of five months.

Conclusion

In the first three workshops, the general picture was always similar. Some participants (usually the same ones each time) were always the driving forces in the group work and plenary discussions, expressing experiences, opinions and asking questions, while other participants tended to be silent observers. Overall, very good results were achieved, especially in the group work. Some participants found the tasks that had to be solved in pairs rather difficult. The homework assigned to the topic mentors was always worked on very precisely and thoroughly and in each case offered a great basis for the start of the next workshop.

In general, it was noticeable that the participants had to be strongly motivated at the beginning to make it clear to them that here in the workshops, they actually have the opportunity to help shape their own workplace and a large part of the administration.

In terms of day-to-day work, the sustainability of the workshops has so far been reflected in an improved interaction and sharing between the heads of office and more questioning of established processes. The innovative spirit of some department heads has increased, and some outdated processes have been independently re-planned. The experience of actually being able to influence the design of this process landscape definitely touched some of the participants and motivated them to take a fresh look at their own management tasks.

It remains to be seen how the final workshop, in which all the elaborated ideas will be presented to the three mayors, and how the mood and self-initiative of the department heads will ultimately turn out to be.

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Local action groups – How Dortmund engages local communities in heat prevention

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Climate impacts such as persistent heat waves and extreme weather events are increasingly affecting cities. To raise citizens' awareness of the need to adapt to changing climate conditions and to increase their options for action and personal responsibility, municipalities can take an active and cooperative approach to the challenge. With the format of a local action group, local residents and diverse stakeholders who are either affected by a climate impact, have ideas, or are responsible in the municipality for this topic come together to create an individualised process to find a solution to local challenges. Dortmund has tried this format within the iResilience research project as a shortcut through administration to address local climate adaptation in a transdisciplinary way.

Living lab process in the iResilience project

The iResilience research project, funded by the German Federal Ministry of Education and Research from 2018 to 2022, established local living labs in three neighbourhoods in the German cities of Dortmund and Cologne. The aim was to test new approaches and innovative formats of collaborative planning for the development of climate adaptation measures and trigger the transformation of the neighbourhoods. The main topics of the project in the broad field of climate adaptation were heavy rainfall and flood prevention, heat prevention and health, and strengthening the climate function of urban green spaces (Welling et al., 2022b: 9).

The iResilience research project tested a new format of cooperation between different actors as an approach to co-planning. This format was termed 'local action groups', or LAGs for short. The LAGs were a central component of a process and working structure in the living lab and will be the subject of this chapter. The illustrative diagram in Figure 1 on the following page shows the different working levels and formats of the living lab. At the top level, several plenary sessions were held in the neighbourhood during the almost 3-year period of the project duration, to which all stakeholders and interested people in the neighbourhoods were invited. The plenaries served to share information and raise awareness on the topic of climate adaptation and the three focus topics, as well as to develop and discuss a common vision of how a climate-resilient neighbourhood of the future should look like. The creation of the vision included brainstorming and developing actions related to the focus themes. On the next working level, following the first plenary, thematic focus groups were held for each of the three focus topics. There, the measures of the thematic field were discussed in their entirety and in interaction with each other. Experts as well as interested citizens and local residents took part. At the lowest level, the local action groups were established, which address an individual measure, a specific topic, or a location in the neighbourhood in great detail. This level offers the greatest opportunity for co-planning measures and testing new constellations and modes of cooperation (Welling et al., 2022b: 14 f.). The measures can be public-private, collaborative, or private solutions (Roth et al., 2022: 185).

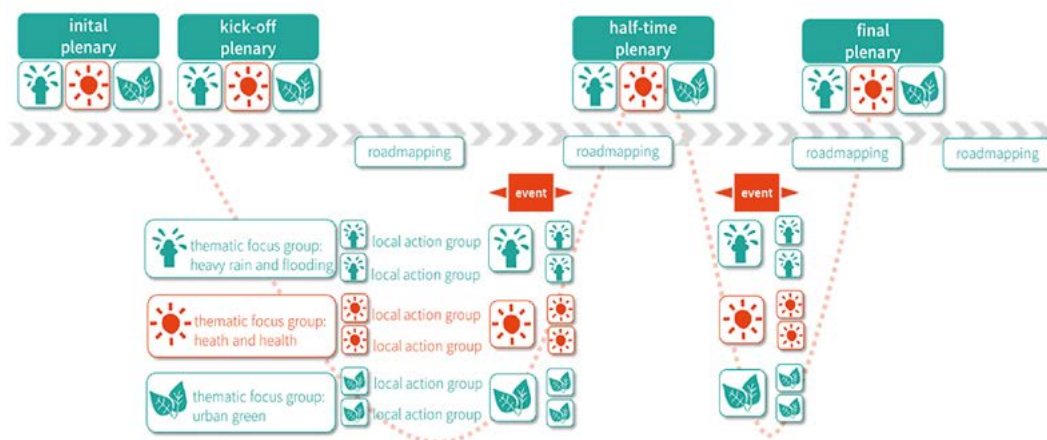


Figure 1: iResilience co-planning formats in the project process. Source: Welling et al. (2022b).

Format of local action groups

Within the research project, the format of local action groups was developed as a central element of the living labs (Welling et al., 2022b: 15). These offer the opportunity to work on a specific question or topic, e.g. on how people can be made more aware of heat-related health consequences or a local risk situation, such as potential flooding in the event of heavy rain, and to develop solutions as answers to this question. LAGs follow the understanding that different actors, professional experts as well as residents and others discuss the issue, concern, or need and the process together and develop a solution. Accordingly, LAGs reflect this process at the lowest level of the living lab and are composed in an interdisciplinary way, depending on the topic. Once the group was formed and included representatives from at least two different stakeholder groups, they started their working process. Typically, a working group proceeds through the following steps to co-plan the climate adaptation measure: agreement on a common topic, the need to act, and a question or challenge to work on; analysis of the local situation; developing a solution; and test the solution, or in the best case, implement it. The working process in detail is co-designed individually and over time the group is able to grow if necessary and be expanded with missing (experts') perspectives.

The role of the living lab team can differ in individual LAGs: in some, they have the role of a coordinator or organiser, whereas in others a participant takes the lead and acts as a 'driver' for the topic out of their own motivation (ibid.: 54 f.). The groups were very diverse, and the project aimed to identify a 'driver' from within the group to share responsibility and create more social engagement, e.g. someone who is intrinsically motivated. The project experience reflects that 'more

often than had been planned, it was the project team that became the driver and took over the organisation' (ibid.). Either way, a task for the project team was to manage the expectations of the stakeholders. This could influence the methods that are used, the type of meetings, and their intervals according to the needs and mode of work of the participants. Another aspect that helps the process, according to the living lab structure, is the involvement of a municipal employee who is in charge of the living labs and LAGs on a full-time basis and who can act as a multiplier and voice in the various specialised departments of the municipality and integrate the relevant experts into the LAG.

Learnings on co-planning in the iResilience project

In the project, co-planning means that all actors are equally involved in the design of the process for developing climate adaptation measures and plan and design it collaboratively (Welling et al., 2022b: 9). The objectives of collaborative planning are also the freedom of self-experimentation and learning about the process (Roth et al., 2022: 184). In reflecting on the LAGs in the project, the team found that they were very diverse thematically and structurally and reached different levels of realisation (ibid.: 186). The team identified the following lessons learnt from the LAGs, which should be considered when transferring the format to other cities (ibid.: 192 ff.):

Affectedness by climate impacts as motivation to participate

Affectedness is the reason and the unifying element of the participants of the LAG, whether it is, for example, the greater vulnerability of older people to heat or the professional responsibility for the topic in the daily work context of specialised senior citizens' office employees.

Necessary implementability

In the overall view of the LAGs, it became clear that the implementation perspective of the measures to be developed is of great importance for motivating people. Accordingly, transparent communication of this aspect is important from the beginning. The testing of new processes is often accompanied by the fact that LAGs encounter hurdles, may need more time or are not successful, so that a certain amount of patience and trust in the process is required from the participants in order to bring about long-term changes in practice based on the learnings. A successful pilot with implementation can serve as an initial success for the process.

Co-planning needs intermediaries

Simultaneous cooperation between the various actors, such as city planners, local citizens, and scientists, is (still) unusual in current planning practice, so an intermediary can be helpful in creating a structured way of working. In the context of the living lab, the project team fulfilled this role and provided the framework for collaborative planning with the LAGs. Besides the mediating role as an 'enabler', the active role as 'driver' can also be undertaken.

In the neighbourhood, the LAG format can bridge a gap in current planning practice, as the actor composition and common collaborative approach are unique (ibid.). In the LAG, all actors come together on an equal footing, instead of being given the opportunity to participate successively, as is the case in conventional informal planning processes. Moreover, by coming together at the same time, everyone's knowledge can be valued and taken into account, and communication can be improved (Bund et al., 2023: 69). Residents or locally active actors from associations, etc. are also valued as experts due to their local knowledge and expertise, and the distribution of roles in the cooperation is less hierarchical than in top-down planning processes (ibid.). In the long term, a local anchoring of the LAGs is also desirable beyond the living lab process during the project period (Roth et al., 2022: 195). Anchoring a measure and the working group can mean, for example, that new forms of operation, maintenance, and continuation of the measures are found (ibid.).

Example: LAG heat etiquette and heat prevention for vulnerable groups

The example of the development of a heat etiquette guide for vulnerable people in Dortmund shows how a successful local action group can be built up and consolidated. In Dortmund, a LAG was established around the topic of heat-related health risks for vulnerable groups (Welling et al., 2022b: 66). As high temperatures can affect people's health, some groups of the population are particularly sensitive, including the elderly, young children, pregnant women, and people with (chronic) diseases.

The aim of the local action group was to raise awareness on this topic and to develop formats and ways of communication to reach the target groups as well as to provide information such as behavioural tips and offer services. In Dortmund, the LAG focused on the group of senior citizens, since it was formed by civil servants of the municipality from the social department and workers from social welfare institutions. The group consisted of the municipal senior citizens' offices, two social welfare institutions, the environmental department, and the local consumer advice centre. Due to the circumstance that the LAG worked during the COVID-19 pandemic, the public health department was not able to participate as they were fully occupied with the pandemic response. The participants collaborating in the LAG functioned as multipliers as they already had good contact with the target group of senior citizens and their established ways of communication could be used.

The group created several outputs. First, they curated a guide with information on the health risks of heat and heat stress as well as behavioural tips in a heat etiquette guide. A blueprint for heat etiquette created by the German Federal Environment Agency was expanded with Dortmund's locally specific information and offers. The group also developed services such as a heat hotline, a help

telephone line for elderly people who wanted to get information about heat and, if necessary, request support. This service was provided by the senior citizens' office. In addition, the Verbraucherzentrale (consumers' organisation) offered a 'drinking water advice session', where drinking tap water was encouraged and people could learn about the high-quality standards of drinking water. For the risk group of children, a comprehensive flyer was created with tips for children in hot weather in two languages. These were sent to all kindergartens in the northern part of the city (Welling et al., 2022a: 46).

Figure 2 on the following pages shows the process over almost one year and the activities and roles of the local actors and the project team. On the content level of the project (shown in orange), the development of the products from the collection of ideas to the focus on heat etiquette and from the elaboration phase to the final product is shown. Both the interdisciplinary actors (shown in green) and the research team (shown in blue) are involved in all process steps. The research team played an intermediary role in the process by forming the organisational framework, but at the same time provided input into the development of measures, which was then discussed, supplemented, and finally implemented in the products and services by the entire LAG. In addition to the products and services, the contact and experience of the cooperation as the beginning of a network and the generated process knowledge can also be considered outputs.

At the end of the project, the group expressed their intention to continue their work in this constellation and aim to create an updated version of the heat etiquette guide in the following summer and establish it as a continuous activity for local climate change adaptation (Welling et al., 2022a: 46 f.). In addition, they wanted to maintain and expand the heat hotline to the entire city and to integrate the health department as a relevant actor in the activities. Furthermore, they aimed to expand the information offers and services to other target groups and to include more social institutions (ibid.).

From today's perspective, in summer 2023, about one year after the iResilience project and about two years after the end of the LAG's support, it can be seen that the actors have implemented their aspirations. At the neighbourhood level in the northern part of the city centre, the action group continues to work as the local working group 'Climate Change in the Neighbourhood'. In addition, an internal administrative working group was formed, which further developed the heat etiquette guide under the leadership of the Environmental Department. In summer 2023, the group published the heat etiquette guide in its own form and layout, called the 'Dortmund Heat Helper', and distributed 25,000 copies throughout the city.

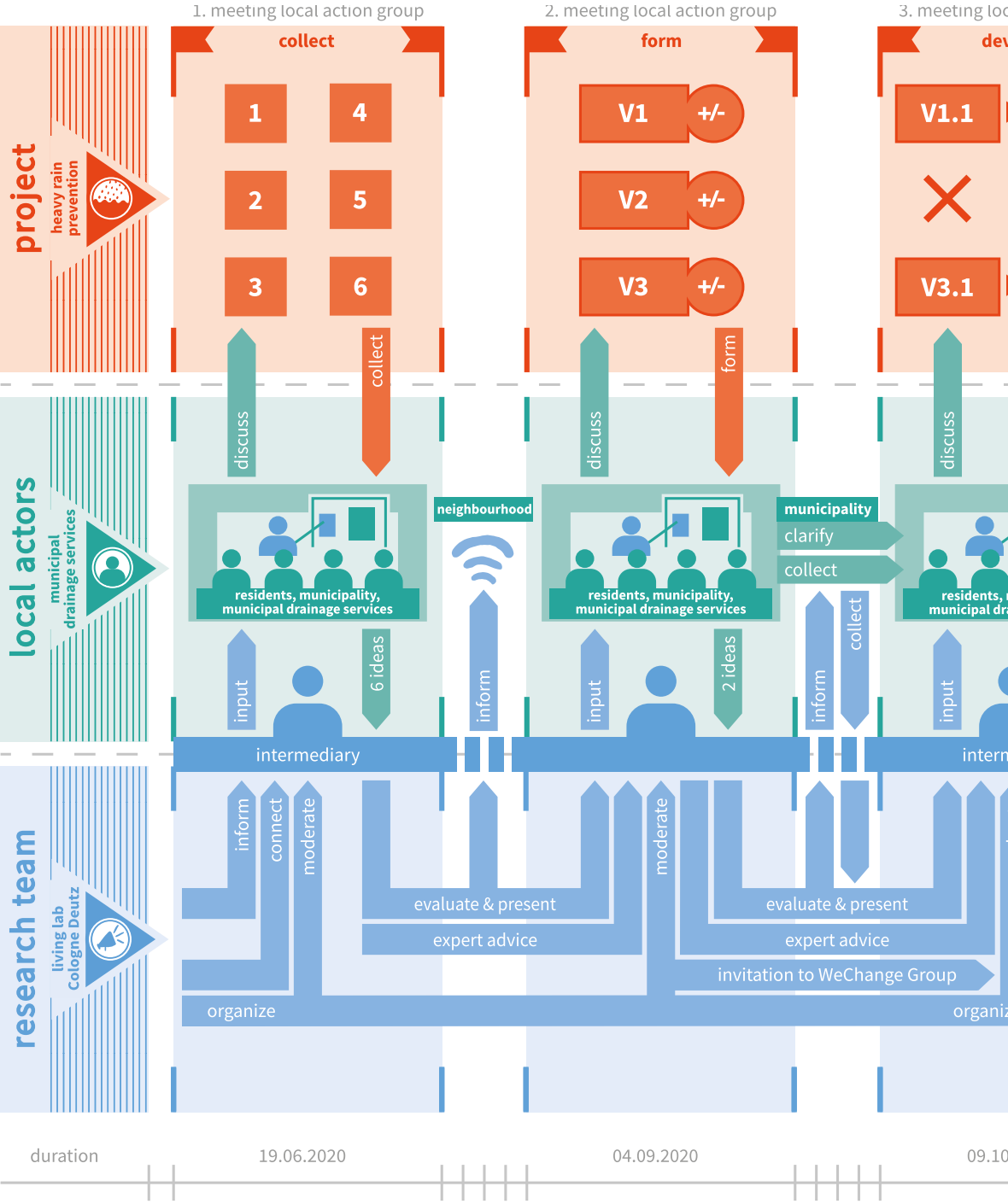
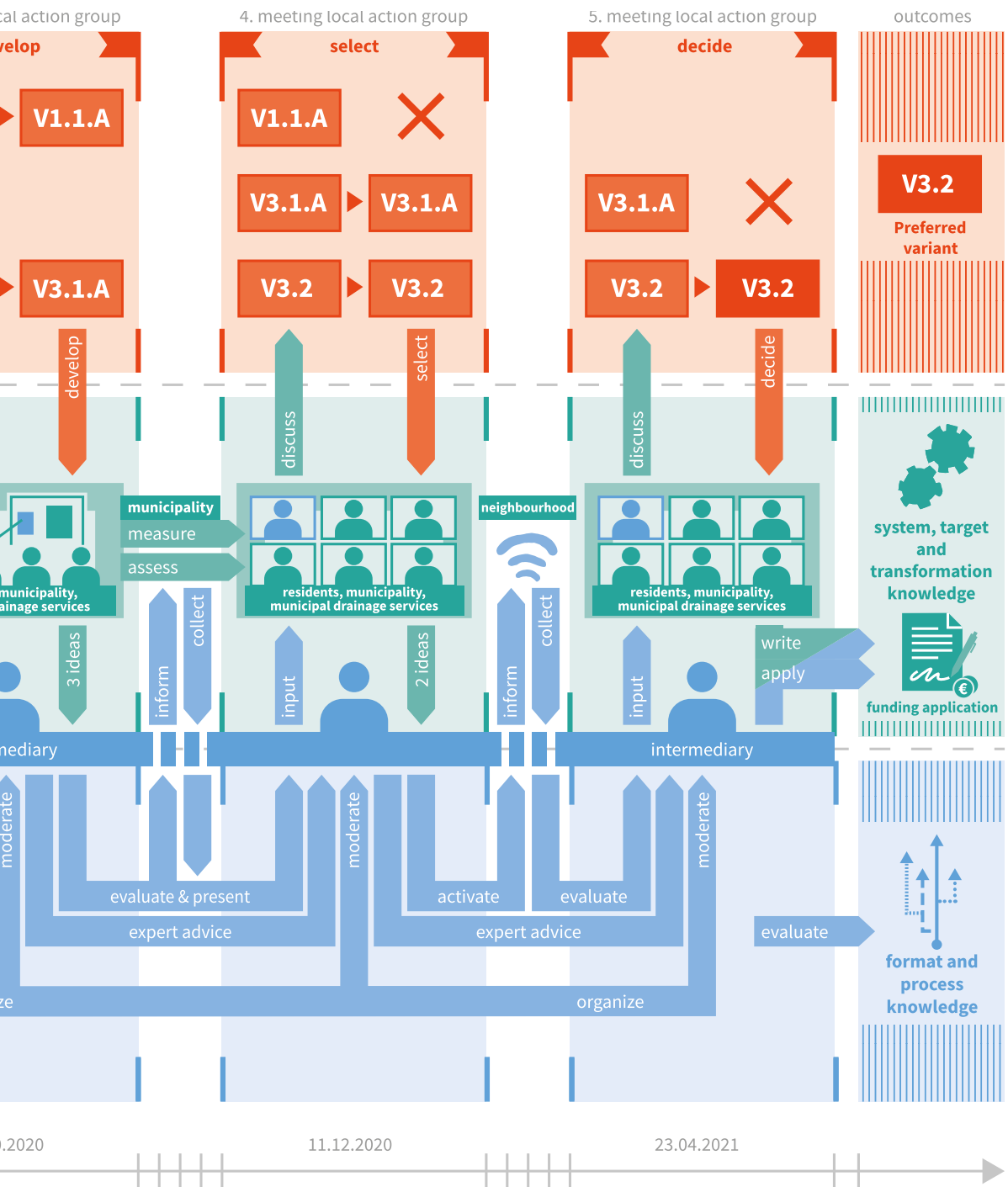


Figure 2: Working process of the 'heat etiquette' LAG in Dortmund. Source: iResilience (2022).



Dortmund Heat Helper: Tips, advice, and assistance in dealing with heat in Dortmund

The Heat Helper is an easy-to-understand brochure for the general public on how to handle hot weather correctly. It serves as a comprehensive source of information and offers practical support options to counteract the challenges of hot periods. It was developed within the framework of the 'Heat Action Plan' working group in 2022 and published jointly by the Public Health Department and the Environment Department of the City of Dortmund in 2023.

Available for download at the website of the City of Dortmund.

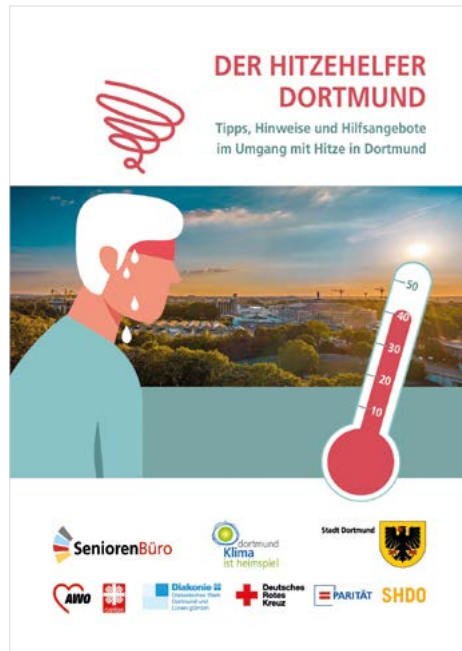


Figure 3: Brochure 'Dortmund Heat Helper'.
Source: City of Dortmund (2023).

In addition, the City of Dortmund is currently developing a heat action plan, a collection of measures to protect the population from and during heat events. The action plan is being developed across various departments and includes measures such as the 'Heat Helper', a campaign, and public relations work as well as measures for the acute protection of the population during heat periods and long-term adaptation measures. The heat action plan is a dynamic document and is continuously implemented, evaluated, adapted, and expanded.

Conclusion

Referring back to the lessons learnt on success factors for LAGs, it becomes clear that these can also be confirmed by the case study of the 'Heat etiquette' LAG described here, and that the factors were also beneficial for the continuation of the project group. The actors' own concern from a professional perspective as a motivation for participation and the new constellation of actors also brought with it a great perspective for implementation (Roth et al., 2022: 192 ff.). Many of the actors were multipliers who, through their channels to the target group and their local expert knowledge, were able to develop and offer needs-based support services. The project team took on the role of mediator, bringing the actors together. After the

end of the project, this role was taken over by the environmental department, and a high level of self-motivation on the part of the active participants was already evident at the end of the project, which would be affirmed afterwards. This LAG can be cited as a successful example of continuation.

LAGs can be set up in diverse contexts and offer municipalities the opportunity to work in depth on locally specific as well as thematic issues in an interdisciplinary way and to bring together diverse knowledge and input. From the citizens' perspective, the LAG can be a format that, with the support of the municipality as the structure provider and coordinator of the LAG, brings together all relevant actors and experts and thus offers a shortcut through the often difficult-to-overlook complex responsibilities in the municipality (Welling et al., 2022b: 81 ff.). Bringing the actors together is an important factor in enabling interdisciplinary work, and thus co-planning. In the process of co-planning, the actors work out measures together using an interdisciplinary approach and on an equal footing over a longer period, which is a good prerequisite for promoting ownership of the measures and ideas. Formats such as the LAG can thus be a way to involve and integrate diverse actors for the transformation of cities.

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Chapter 12

Local time offers developed by citizens

Pauline Ziegert, City of Zwickau

From its inception in 2021, the European exchange project ExPEERienceEUROPE, funded through the Federal Ministry of Education and Research's 'Future City Goes Europe' funding guideline, aimed to leverage the benefits of peer learning between European cities.

City-to-city learning

Intercommunity learning has been further defined for the UNESCO-IHE Institute of Water Education by Dutch researchers Dr. Chris Zevenbergen, Dr. Berry Gersonius, and Dr.ir. Sebastiaan van Herk under the banner 'City-to-City Learning for Disaster Resilience' (Zevenbergen, Gersonius, Van Herk 2016) with the aim of defining and studying it in more detail. According to the researchers' findings, some of the advantages of City-to-City Learning include the acceleration of knowledge transfer between cities, the collaborative creation of new knowledge, and the generally increased learning capacity of municipalities. Furthermore, van Herk et al. understand intercultural learning as a continuous process that begins with the city's self-reviewing to uncover individual challenges and identifying knowledge needs to fill knowledge gaps. Subsequently, initiatives, such as joining a city network, must be taken to establish connections with other municipalities that can address the identified knowledge needs through experience. Then, the learning process is stimulated through discussions, forums, and/or workshops, and the transfer of knowledge can take place through sharing experience. In the next step, a continuous development and adaptation process must be initiated in the learning municipality in order to transfer what has been learnt to its own structures. When scaling the solutions, the supporting municipality can provide assistance in order to achieve the best possible success – in this process, both municipalities benefit from the jointly generated increase in knowledge. The implementation phase is followed by the evaluation of the implementation as well as the revision and possible adaptation of the City-to-City Learning process in order to make the next intermunicipal exchange even more efficient.

In addition to the desired knowledge of urban development and adaptation, the municipalities also gain knowledge about the intermunicipal learning process itself during the course of each exchange process, and can benefit from it in the long term.

The City of Zwickau's membership in the 'Time4All' project

Through this intermunicipal learning process, time policy was one area in which the city of Zwickau became aware of many new approaches to measures, some of which already existed or had already been started.

Zwickau, a medium-sized Saxon city, was the only German city to become a member of the 'Local and Regional Governments TIME Network' as part of the 'Time4All' project. The network brings together European cities and regions that

are implementing time policy measures. In addition to Zwickau, its members are cities and regions from Spain, France, Belgium, Austria, Greece and, of course, Italy.

The TimeUse Network from Barcelona describes time policies with the following central points:

- Acknowledging that time is a political issue and can be conceptualised as a right for all citizens
- Attesting that the right to time is currently unequally distributed amongst citizens and time poverty in its different forms exists
- Accepting that the use of time and social organisation of time directly impact the health of individuals
- Noting that the organisation of time can positively affect sustainability and decrease our collective carbon footprint
- Considering that public institutions, social stakeholders, civil society, and the private sector have major roles to play in defining and implementing effective time policies

These points and several more can be found in the 'Barcelona Declaration on Time Policies' (Barcelona 2023).

The previously described network is a meeting point aimed at sharing and promoting implementable time policies generated at the local and regional level. The Local and Regional Governments Time Network is composed by municipalities, metropolises, and other local and regional governments interested on fostering time policies. Its goals are to:

- Share knowledge among its members by exchanging experiences, lessons learnt, and good practices on local and regional time policies and studying the possibility to carry out joint projects.
- Develop the Local and Regional Time Policies Agenda by elaborating an integrated and coordinated approach to deal with the local, metropolitan, and regional dimension of time policies, which includes concrete recommendations and examples of time policies to improve the quality of life and health of the citizens under their area of competence, and to facilitate local and regional institutions in implementing time policies. It is conceived as a 'white book for the second generation of time policies'.
- Promote the 'right to time' by agreeing on common demands to enhance the visibility of local, metropolitan, and regional time policies and the networks those institutions are part of, and strengthening the legitimacy of time policies at the national, regional, and local level.
- Enhance the network by fostering the collaboration of the current members and looking for new adhesions. (TimeUsePolicies, 2022)

The aim of the Time4All project under the European Commission's 'Citizens, Equality, Rights and Values' programme is to disseminate time policies in Europe. Time policy promotes better organisation of time to improve the health, equality, productivity, and sustainability of citizens and increase civic participation. The project has a duration of two years and ends in December 2024. (City of Bolzano 2023 / Stadt Bozen 2023)

'Time bank' model

One approach that project staff from the city of Zwickau learnt about through this exchange in the city of Bolzano is the time bank. The concept resembles a mixed form of neighbourhood assistance, learning opportunities, and the promotion of social networks.

Time banks emerged in Italy in the mid-nineties and now number about 300 throughout the country. They help establish contacts between people who need services to solve small everyday problems and those who offer them. Enrolled members provide knowledge, skills, and abilities to other members for free in their spare time and can use their credit in hours to get what they need from others in exchange. Unlike traditional banks, in time banks you do not pay money, but rather provide time. Each hour worked is worth one hour, whatever the service provided. The services can include areas such as languages, computers, crafts, household, health, animals, companionship and care, organisation, and others, depending on availability or by agreement at the time of enrolment. Regular office hours, general meetings, and social events complete the offer. (Timebank 2022)

In this approach, the municipality supports the initiation and implementation of the time bank, provides premises, promotes the measure, and organises events, but the members themselves design the actual offer. The city thus offers the citizens a platform through which they can organise themselves and freely develop their own network with individual offers, needs, and relationships – a very open opportunity for citizens to shape their time as well as private local offers in their hometown.

As cooperation partners, various associations, colleges, and universities can put together an initial group of time bank members who complete prepared forms to list the skills they offer as well as the knowledge they need. These are disseminated at the time bank's premises, but also at multiplier points such as bulletin boards throughout the city. Over time, the time bank requires less and less intervention and control by the municipality and runs almost by itself through the involvement of active members.

Potential implementation in Zwickau

In Zwickau, this concept is currently being discussed and reviewed with various relevant stakeholders and will possibly be implemented in 2024. The city of Bolzano, as a network city, is supporting the initiative with know-how, working materials, and knowledge gained so far in the implementation of the time bank. Another consideration is to connect the project spatially to the already existing neighbourhood meeting point at the Marienthal Mobility Station (see Chapter 7). Since this small social district centre has already established itself, citizens could at least attend events held by the time bank at this location and become familiar with the new concept this way.

The mayor, municipal employees, and independent sponsors with contact to various groups of people and association representatives are currently in discussions on the development of a time bank in Zwickau. As soon as the possibility of implementing the approach has been established, the idea is to be developed in a participatory manner in upcoming citizens' forums in the city and its districts, analogous to the process of developing the mobile station (see Chapter 7). For this purpose, the above-mentioned actors from Zwickau University and active association members of different institutions will be invited to create an offer based on the wishes of the future members from the very beginning. Elderly citizens from assisted living facilities are also to be addressed. For older people in particular, social activities are an important element in counteracting age-related isolation and loneliness. Offerings such as this one provide a connection to people of other ages as well as a mutually beneficial exchange of skills and knowledge available among the residents.

All in all, with this approach, the city of Zwickau wants to give citizens the opportunity to provide their own community with a platform for exchange and support. The form and composition of this community is created by the participants themselves and grows in the process. It is also up to the participants to decide what events are desired and carried out in the spaces provided. The municipality merely supports the implementation and acts as an enabler, while the members themselves design the content of the time bank.

Every municipality worldwide has the opportunity to open a time bank for its own community. Information and materials can easily be requested from already established time bank cities, as in Zwickau's case, from the city of Bolzano, Italy.

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Background

City of Bielefeld

Project: BIEaktiv – Mobility shaped by the urban society

Partner Cities: City of Turku (Finland), City of Parma (Italy)

An early participation of the citizens in mobility planning is often seen as an effective way to foster understanding among the opposing positions in urban society. Many European cities – among them Bielefeld, Parma, and Turku – have conducted experiments with innovative forms of citizen participation in recent years, sometimes including a transfer of responsibility and decision-making authority to the stakeholders. The BIEaktiv knowledge exchange serves as a platform for cities to share their experiences, learn from each other's mistakes and successes, and identify strategies and best practices for citizen participation processes to support mobility turnaround measures.



Stadt Dortmund

City of Dortmund

Project: iResilience goes Europe

Partner City: City of Cluj-Napoca (Romania)

The iResilience goes Europe project aims at an international exchange of experience and knowledge on climate change adaptation and resilience between the cities of Dortmund and Cluj-Napoca. The underlying iResilience project (funded by the BMBF, grant number 01LR1701) took part in Dortmund and Cologne and established living labs in local neighbourhoods to test new approaches and innovative formats of collaborative planning. The experience gained from the project is compiled in a toolbox for living labs and is the focus of the international transfer. In peer learning workshops between the municipalities and other stakeholders, ideas and experiences on managing municipal climate adaptation and co-planning were discussed.

STADTMANNHEIM²

City of Mannheim

Project: EVERGREEN – European Cities reviewing environmental and resilient governance models for Local Green Deals

Partner City: Espoo (Finland)

Good solutions for innovative governance models are already available in many places in Europe. The aim of the EVERGREEN research project was to identify concrete approaches for a city along the fields of action of the Local Green Deal and to localise their potentials within the governance structure as well as for citizen participation. International networking was important in order to contribute to the transfer to other European cities the knowledge gained in Mannheim in the process of developing a Local Green Deal.

Stadt Ulm

ulm

City of Ulm

Project: IOT4EU – Internet of Things for Europe: Shaping Digital Sustainability Together in Europe

Partners: City networks of the Intelligent Cities Challenge and Eurotowns

The IOT4EU project aimed to expand previous digital solutions to urban challenges through an exchange among EU network members (ICC and Eurotowns) and the initiation of new cross-border cooperation projects. In particular, it focused on the Internet of Things, Smart City, and innovation domains. Through joint events, peer-to-peer formats, and other knowledge transfer, the City of Ulm (Germany) benefited from the experiences of other cities and passed on the knowledge it has gained in recent years. The project activities resulted in a European concept for networking and cooperation on smart urban development, a complementary toolbox, and numerous submissions of project applications as a member of various transnational consortia.



STADT ZWICKAU

City of Zwickau

Project: ExPEERienceEUROPE

Partner Cities: Cities from the Time4All Network, especially Bozen (Italy) and Barcelona (Spain), as well as Szeged (Hungary) and Verona (Italy)”

The project aims to establish a Europe-wide peer-to-peer learning network for transferring experience in research results, mainly in the areas of climate adaptation, the energy and mobility transition, and demographic change – but also beyond these. The resulting network of municipalities across Europe will help to connect different regions facing similar challenges and to achieve savings of resources such as planning time or human and financial resources by shortening individual learning processes.

Acknowledgments

This work stands as a testament not just to the ideas contained within its pages, but to the collective spirit of all who were involved.

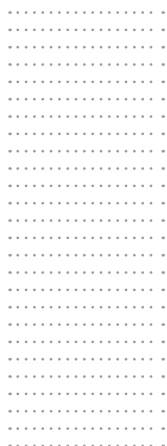
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With warm regards,
The Editors





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