

In-migration for transforming peripheral locations through a real-world experiment?

Experiment insights on location decisions in the medium-sized city of Görlitz, Germany

A real-world experiment was implemented in the city of Görlitz to gain knowledge about the requirements for, and the opportunities of, in-migration to revitalize urban areas and increase local capacities for sustainability transformation.

Constanze Zöllter , Stefanie Rößler , Robert Knippschild 

In-migration for transforming peripheral locations through a real-world experiment? Experiment insights on location decisions in the medium-sized city of Görlitz, Germany

GAIA 33/3 (2024): 286–294

Abstract

Many cities, in particular those in peripheral locations, are dependent on in-migration to compensate for the negative population development often experienced due to demographic and economic change. In addition, the necessary transformation towards urban sustainability requires appropriate know-how and innovation potential. A real-world experiment to stimulate the revitalization of existing urban areas and to enhance the local potential for sustainability transformation through targeted in-migration was implemented in the city of Görlitz, Germany. The aim of this article is to reflect upon the impact of such an experiment with special regard to learning effects for individuals, municipalities, and transdisciplinary collaborations. It explains that there is great value for the future development of a city in the long-term consideration and co-productive work of various stakeholders, but this is also associated with challenges.

Keywords

migration, real-world experiment, real-world lab, transdisciplinary collaborations, transdisciplinary learning, urban revitalization

Dr. Constanze Zöllter (corresponding author) | Leibniz Institute of Ecological Urban and Regional Development (IOER) | Dresden | DE and Interdisciplinary Centre for Transformative Urban Regeneration (IZS) | Görlitz | DE | c.zoellter@ioer.de

Dr.-Ing. Stefanie Rößler | Leibniz Institute of Ecological Urban and Regional Development (IOER) | Dresden | DE and Interdisciplinary Centre for Transformative Urban Regeneration (IZS) | Görlitz | DE | s.roessler@ioer.de

Prof. Dr.-Ing. Robert Knippschild | Leibniz Institute of Ecological Urban and Regional Development (IOER) | Dresden | DE and Interdisciplinary Centre for Transformative Urban Regeneration (IZS) | Görlitz | DE and Technische Universität Dresden | Dresden | DE | r.knippschild@ioer.de

© 2024 by the authors; licensee oekom. This Open Access article is licensed under a Creative Commons Attribution 4.0 International License (CC BY).
<https://doi.org/10.14512/gaia.33.3.4>

Received April 9, 2024; revised version accepted September 4, 2024 (double-blind peer review).

Shrinking cities as challenges for sustainable development

Smaller cities across Europe, in particular in peripheral locations, are facing ongoing population declines due to demographic change and economically induced out-migration, or are struggling to cope with the impacts of shrinkage in the last decades (Hollander et al. 2009, Martinez-Fernandez et al. 2012, Wolff and Wiechmann 2017). This has led to the emergence of certain challenges for sustainable development. For example, vacant buildings and underutilized infrastructure have negative impacts on the resource and energy efficiency of urban structures (Blum et al. 2022, Umweltbundesamt 2023). Decreasing labor potential and brain drain can lead to socio-economic decay and an increased lack of a skilled workforce (Kühn 2018, Stein 2013). Moreover, imbalances in development and construction dynamics are often accompanied by social consequences, such as spatial polarization, increasing injustice, and a sense of marginalization (Chouraqi 2021, Haase et al. 2014). Conversely, a stable population development is the basis for revitalizing vacant historic buildings, providing attractive public infrastructure, as well as retaining labor potential, and maintaining a lively and engaged urban society (Ročak et al. 2019). Simultaneously, revitalizing existing cities and their urban structures also contributes to a reduction in increasing building demands, and therefore reduces the implications for land use, CO₂ emissions, resources, and energy consumption (Umweltbundesamt 2023).

Thus, affected cities are dependent on in-migration to compensate for the decreasing population, in order to bring existing vacancies and building resources back into use and to ensure a vibrant and innovative urban society. Many cities try to attract new people or bring back former residents through various marketing activities. Little research has been conducted on the expectations these potential residents have regarding the location or the desired urban conditions that incentivize their decision to relocate.

In light of the competition to attract skilled workers and residents, it is crucial to understand the requirements of potential

new residents, and which possibilities or constraints arise from the local conditions in order to be perceived as an attractive place to live and work. A number of migration studies focus on migration to agglomerations or their suburban surroundings and less on migration to peripheral cities (Sander 2014, Münter 2012). Most studies also focus on people who have already made the decision to migrate and analyze their reasons and motivations (Bauer et al. 2005, Buch et al. 2014, Ehrich and Werchosch 2022). Factors that have prevented people from deciding to move are not surveyed and individual factors that influence residents' decisions to move to a certain location are rarely addressed.

In the city of Görlitz, Germany, a new approach was implemented to gain more knowledge about the relevance of individual location factors based on experiences within a real-world experiment. By temporarily trying out a potential new location, people were able to make their decision based on individual first-hand impressions. Through scientific monitoring and evaluation, insights could be obtained on why people choose to come to Görlitz and how they perceived and evaluated local conditions (Knippschild et al. 2020, Zöllter et al. 2021). As an experiment in which real-life experiences are collected and analysed, the *Testing the City* project series also contributes to deriving operational strategies for local urban development. Furthermore, the long-

term implementation of such an experiment shows the many opportunities and challenges of knowledge generation in a real-world lab context.

The *Testing the City* project series

Görlitz is the easternmost city in Germany and lies directly on the border with Poland. It is known for its rich and well-preserved historical building stock. The city has been affected by demographic and economic change over the last 30 years, which continues until today. Between 1990 and 2005 Görlitz lost about a quarter of its population (Stadt Görlitz 2009). Currently the population has stabilized at around 56,000 people. To ensure the adherence to a sustainable development pathway, it is important for authorities in Görlitz to resolve vacancies in the inner city and foster the revitalization of the existing building stock (figure 1). From a socio-economic perspective, knowledge, skilled workers, and labor capacities are necessary to ensure a steady development and a vibrant community. As physical and societal revitalization goes beyond physical refurbishment, urban authorities need information about current and future requirements on residential locations and places of work in order to attract new

>

FIGURE 1: Historic building stock in Görlitz, Germany. Side by side of vacant, run-down buildings and renovated ones.



© Marcel Schröder / IOER media

TABLE 1: Overview of the finalized projects within the *Testing the City* project series in Görlitz, Germany, as of 2024. These projects were developed as individual experiments in order to gain knowledge about perceptions and experiences of outsiders looking to relocate to a medium sized city.

PROJECT WITHIN THE SERIES		TESTING THE CITY – living and working in Görlitz [Stadt auf Probe – Wohnen und Arbeiten in Görlitz]	TESTING THE CITY OF THE FUTURE – a living and working experiment for a climate neutral Görlitz [Stadt der Zukunft auf Probe – Ein Wohn- und Arbeitsexperiment für ein klimaneutrales Görlitz]
period	2015 – 2017	2018 – 2020	2020 – 2023
topic	living	living and working	living and working, as a contribution to sustainable urban development
knowledge interest	expectations and experiences of living in the historic old town of a medium-sized city	<ul style="list-style-type: none"> location requirements of remote employees focus on younger people/families expectations and experiences of living and working in a medium-sized city 	<ul style="list-style-type: none"> location requirements of employees in the field of climate neutrality and sustainability from various sectors experiences with the implementation of sustainable lifestyles receptivity within the urban society
approach	offer to live rent-free in an old town flat for one week	offer to live rent-free in a “Gründerzeit” apartment and to use a workspace free of charge (office desk in the co-working space, studio/exhibition space, workshop) for four weeks	offer to live rent-free in the city center for three months and to use a workspace free of charge (office workspace in the co-working space, studio/exhibition space, workshop), or a work opportunity in a participating institution
project partner	<ul style="list-style-type: none"> city of Görlitz municipal housing association Leibniz Institute of Ecological Urban and Regional Development (IOER) 	<ul style="list-style-type: none"> city of Görlitz municipal housing association IOER local initiatives/associations 	<ul style="list-style-type: none"> city of Görlitz municipal housing association IOER local initiatives/associations local companies and scientific institutions
project procedure		<ul style="list-style-type: none"> open call for applications for participation <ul style="list-style-type: none"> formal application process criteria-based selection according to suitability scientific monitoring 	
scientific research	questionnaires before and during the stay	<ul style="list-style-type: none"> questionnaires before and at the end of stay individual interviews at the end of the stay 	<ul style="list-style-type: none"> questionnaires before and at the end of the stay individual interviews at the end of the stay group discussion with participants and local actors during the stay
participants	<ul style="list-style-type: none"> 305 applications 227 participants 115 rounds 	<ul style="list-style-type: none"> 149 applications 47 participants 45 rounds* 	<ul style="list-style-type: none"> 77 applications 18 participants 18 rounds

* Only 45 of the originally planned 54 rounds (i.e., the number of “stays” during each project) could take place due to the pandemic.

residents and users, and to develop appropriate urban development strategies and measures.

To get insights into the needs and demands of potential new residents in a city affected by shrinkage, an experimental project approach has been implemented since 2008. By inviting people to live for one week in a historic building in the old town of Görlitz, the project aimed to raise attention to the historical building stock and to gain knowledge about the perception of the buildings, and the future needs for improvement (Pfeil 2014). Since 2015, the Leibniz Institute of Ecological Urban and Regional Development (IOER) has taken up this approach and continued with the *Testing the City* project series, which includes three distinct project phases to date. Selected participants are provided with furnished apartments free of charge by the municipal housing association for a certain time period. Additionally, in the last two project phases, working spaces have been provided by local civil society associations, research institutions, and enterprises (table 1). The research institution acted as an initiator (including the acquisition of funding) and a coordinator for the partner network.

In each project phase, people applied following an open call. They were asked to indicate why they wanted to participate, which connection(s) they potentially have to the city, and which expertise or ideas they want to bring to the city of Görlitz.

The selection of participants was based on criteria representing the objective of the individual projects. Primarily, the participant's intention to move, as well as a serious and plausible interest in testing a new location played a crucial role throughout the series. In the two most recent projects, which also covered the topic of working, the motivation, suitability, and feasibility of the envisaged activities were reviewed. Socio-demographic criteria and origins were also considered as additional criteria. The aim was to display a wide variety of demographic groups and cover people coming from both bigger and smaller cities, or even rural areas. As the prerequisites and operational issues increased (e.g., duration of stays), the recent project phase conducted interviews with the selected applicants to clarify opportunities and expectations, as well as practical issues. Based on this and together with practice partners, final decisions were made. Additionally, practical and coordination issues needed to be considered (e.g., preferred time, requirements of small children, etc.).

Each of the individual projects within the series attracted a lot of attention and interest nationwide and beyond. This open call was not based on a representative sample of participants, but it was possible to identify potential target groups for relocation through the applications.

In each project, approximately three times as many applications were received than there were spots for people to participate. The very high level of interest (up to 70% of applications) from people who currently live in a large city (above 100,000 inhabitants) was remarkable. Applicants often named their reasons for wanting to move were due to tight housing markets, worsened living conditions, as well as bad environmental conditions in their hometown. People wanting to start families or young

families (persons between 30 and 39 years old) were particularly interested in the projects. This was closely followed by people between 50 and 59 years old. In this age group, people had already established themselves professionally, and were looking to reorient themselves since their adult children had moved out (Zöllter et al. 2017, 2023, 2024, Zöllter 2023). Other socio-economic indicators of the applicants showed a wide range, so that no other specific conclusions can be drawn about the remaining groups interested in the *Testing the City* project series.

Scientific monitoring has provided insights into why people came to Görlitz and how they perceived and evaluated the local conditions based on their experiences during the stay. The scientific monitoring was enabled by a mix of quantitative and qualitative data collection methods. Questionnaires were used to ask the participants about their expectations at the beginning of their stay. During final, in-depth interviews, participants reported on their experiences and individual conclusions regarding a relocation decision to Görlitz. It was thus possible to scientifically evaluate the evolution of personal perspectives (Knippschild et al. 2020, Zöllter et al. 2021). In the most recent project (*Testing the City of the Future*) within the project series, the perspective of the local society was also included. Therefore, group discussions were organized between the participants, host initiatives, and selected stakeholders from the urban society in order to compare inside and outside perspectives. Here, it was possible to co-productively gain initial insights about the effect of the city's profiling towards climate neutrality, as well as the willingness of the local society to take up innovations. Being confronted with expectations and observations from outside, local stakeholders could re-evaluate their standard practices and solicit inputs from local perspectives, thereby triggering new discussions and proactive action.

The *Testing the City* project series as a real-world experiment

As part of the *Testing the City* project series, people from outside the city of Görlitz came to live and work in the city temporarily, thus gaining their own experiences and contributing to new perspectives and ideas towards urban development. By virtue of its experimental core, the projects can be considered as an example of a so-called real-world experiment, which has been discussed as a framework for knowledge generation in sustainability research for some years now (Schäpke et al. 2017, Parodi et al. 2016, Wagner and Grunwald 2015). The project series is implemented against the background of a strong transdisciplinary collaboration, initiated by the Interdisciplinary Centre for Transformative Urban Regeneration (IZS), a research and transfer facility located in Görlitz. The IZS, run by the IOER and the Dresden University of Technology, provides a long-term infrastructure for implementing real-world experiments. It follows the ambition to be a real-world lab. By understanding real-world experiments as one element or approach to implement real-world labs (Parodi et al. 2024),



we understand the project series as one core activity of the local real-world lab.

Within the framework of real-world labs, science and practice interact through a process in which knowledge from academia and practitioners is combined (co-design and co-production). Ideally, they work together through the steps of a scientific data collection process from the definition of the research question and the selection of methods, to the discussion and distribution of the research results. The two different perspectives should be continuously interlinked and reflect on each other (Schneidewind and Singer-Brodowski 2015).

The *Testing the City* project series focuses on inviting potential residents to try out the Görlitz location for a certain time period (table 1). Over the years, the approach has evolved from simply trying the residential location (Zöllter et al. 2017) to trying the location for both living and working (Zöllter et al. 2023), to finally combining the stays with a thematic focus (i. e., being a climate-neutral city until 2030). These further improvements were developed in close cooperation with the project partners – in particular the city of Görlitz and the housing association. The basis for this evolution were the results discussed here and the new topics arising from the previous projects.

According to Schneidewind (2014), real-world labs fulfil the following criteria: a transdisciplinary understanding of research with a broad disciplinary spectrum and a co-production of the research process with civil society actors, a long-term monitoring of the research design, as well as a continuous methodological reflection, and a coordinating support by institutions experienced in transdisciplinary processes. Beecroft and Parodi (2016) supplement the normative orientation towards sustainability and see real-world labs as an opportunity to implement sustainability experiments and initiate transformation processes in a geographically defined social context. These experiments can subsequently help to catalyse the establishment of scientific and social learning systems. Wanner and colleagues (2018) add to their defined eight key components of real-world labs a cyclical learning process, in which new insights are generated through continuous reflection. In the project series, the continuous further development resulted from the cooperation of all partners, who derived new questions and adaptations each time for a follow-up project from the knowledge and impulses of a previous project.

Learning, based on the *Berlin declaration on Education for Sustainable Development* (UNESCO 2023), means empowering people to make informed decisions. In the context of the project series, it is about taking individual and collective action to ensure a vibrant urban society in a medium-sized city affected by shrinkage. Therefore, we see learning as the translation of experiences from local projects into general knowledge (Smith and Raven 2012). People from different backgrounds and disciplines talk about their own experiences and respond to the opinions of others so that they can reach a common understanding of current challenges and how to address them. The source of learning and knowledge generation are the individual differences and experiences (Van Mierlo and Beers 2020).

Experiences on learning in a real-world experiment

In this paper, we refer to learning processes in a real-world experiment within the *Testing the City* project series carried out in Görlitz, Germany. The aim is to better understand the preconditions and barriers for in-migration into peripheral smaller cities and the subsequent impacts on individual decisions, as well as on urban development. We examine the findings of the co-designed project series from the perspective of learning on three different levels (based on Barth and Michelsen 2013):

- **Individual:** How can temporarily testing a location inform individual migration decisions?
- **Municipality:** What insights can cities and municipalities gain from the experiences and evaluations of in-migrants to improve their urban development strategies?
- **Transdisciplinary research projects:** What opportunities do transdisciplinary collaborations offer in the development and implementation of a real-world experiment?

Contributions to learning

In the following section we describe how the experiment of trying a location for a limited time period contributes to learning on the “individual” and “municipality” scales, and what we have learned from inter- and transdisciplinary collaborations in a real-world lab.¹

Individual scale

The *Testing the City* project series offered those willing to move the opportunity to try out a new location without immediately having to make a final decision. Many participants also used this opportunity as a personal discovery to gain more clarity about their housing needs and requirements in a location. Participants reported that the opportunity to live temporarily in one place enabled them to examine their own options, reduce possible prejudices, and rethink existing, long-established routines. After the stay, decisions for or against a new residential relocation could be made, based on much more detailed information than is typically the case in interregional migration processes.

The results have made clear that location decisions are personal and emotional decisions that are not exclusively made based on the presence of specific location factors and are always made consciously and thoughtfully. In this case, the individual decision process started with the application, which entailed the active exploration of a potential new location. After being selected, the participants showed a high level of willingness to take on this experiment, as many organizational and personal issues had to be clarified before participation. During their stay, the participants intensively analysed their location requirements and the

¹ Detailed results will not be presented here. They can be found in dedicated publications (Zöllter et al. 2017, 2023, 2024).

potential new Görlitz location. They often proved very willing to get actively involved in local networks, and thus gained a detailed insight into potential future fields of activity. Some participants described how their participation initiated a longer-term process of thinking about moving to a smaller town (which did not necessarily have to be Görlitz). The experience contributed to their desire to change their current living environment – particularly in terms of finding a more attractive environment with less pressure, noise, rush, and more access to green and recreational areas. Nevertheless, some participants described the periods as too short to really be able to make a relocation deci-

will consolidate the recommendations developed as a guideline for future urban development.

Furthermore, it has become clear that potential new inhabitants come from varied backgrounds, representing different habits, lifestyles, and models of living. Reflecting upon this variety and its associated requirements in an urban environment might help local policy makers and administrators open their minds to novel and unexpected demands, compared to the established local population. The research team can provide statements and information about the requirements of potential newcomers as a result of the long-term monitoring. Based on the findings, a

Our transdisciplinary approach generated new knowledge about complex socially relevant problems through a continuous exchange and cooperation between science and practice – mutual understanding was enhanced, methods were reflected upon, and experiences were incorporated into further project development.

sion. In addition, many individual factors, such as family status, age, or professional activity, played a role in the decision-making process. What was very often evident after the participants' stays was a connection to the location and the local people. Some participants (around 10% per project phase) decided to move permanently to Görlitz. Additionally, some participants returned to the city from time to time for project activities, to remain in contact with the local networks and the research institute, and they reported being open to imagining a second residence in Görlitz in the future.

Municipality scale

The individual projects within the series were developed against the background of necessary in-migration for physical and societal revitalization, to learn more about the demands for location factors and to derive conclusions for appropriate urban development strategies. The city administration and the housing association gained detailed insights into the expectations, perceptions, and experiences of outsiders regarding several aspects of urban development, such as the quality of public spaces, specific aspects of mobility, the provision of infrastructure and housing, and the quality of the urban environment and the surrounding landscape. Additionally, a greater awareness of the strengths and weaknesses of the city was created, which has become the basis for sustainable urban development policies through the implementation of tailored urban development measures. Based on the project experiences, all partners developed joint recommendations for urban development undertakings in Görlitz that are inner-city orientated and promote the in-migration of new residents (Projektverbund Stadt der Zukunft auf Probe 2024). These were presented at a city council meeting in January 2024 and stimulated an intensive debate among the city council members. A resolution has also been planned for the city council, which

workshop for interested people from the housing sector was organized together with the city's business development agency to reflect on future residential location requirements.

In 2019 the newly elected mayor claimed to make the city of Görlitz climate neutral until 2030, the recent *Testing the City of the Future* project was linked to this topic. Assuming that this objective would need innovation and human resources, potential participants were asked to provide a concept on how they would like to professionally support Görlitz on its pathway towards climate neutrality. Local initiatives, companies, research institutions, and the city's administration profit from this engagement by gaining knowledge, building networks, establishing concrete collaborations, and initiating joint activities. This showed that temporary stays as part of a real-world experiment can bring new inputs and ideas to the city. Nevertheless, it is clear that the implementation of these new inputs and ideas cannot be easily assimilated. In some cases, there is a lack of time, financial and human resources to continue ideas after the projects. In addition, the project team also observed differentiated levels of openness among the local urban society to embrace and try these new ideas. Even though the project concept was supported and developed by all participants, conflicting views emerged over its course, particularly between civil society actors and city administration, as to how generated data should be handled or what significance it should have in further urban development. Easier implementation of findings from co-produced projects, as described by Jahn et al. (2012), could therefore only be partially confirmed in the *Testing the City* project series.

Transdisciplinary research projects

The cooperation between science and practice (city administration and municipal housing associations), which has lasted for years, contributed to a common understanding of the project se-



ries' ideas and objectives. Through the continuous integration of further actors from civil society and the economic sector, it was possible to react to emerging challenges and to include their perspectives. This transdisciplinary collaboration is the precondition for the ambitious development of a real-world experiment as part of a real-world lab.

In addition to the many opportunities and broader perspectives that can be incorporated into such an approach, there are also limitations, particularly in terms of practical implementation (see *Conclusion*). Evaluations by all partners after each project on issues such as structure, process, and knowledge production, inspired the conception of the following projects. The partners were also involved in the development of further research questions, which were based on the knowledge previously gained. The experiments were also a learning process for the project team. Additionally, established discussion formats from the research institute were used to foster the debate around shaping future urban development pathways in Görlitz. This constant development of the real-world lab approach proved to be quite demanding. The role of science as the project initiator and coordinator presented the challenge of getting other participants to actively participate in the co-production of the projects. A joint exchange on research questions, approaches, and interpretations of the results must be learned over many years. In addition, framework conditions such as time and financial resources, both on the scientific side and on the side of the (partly) voluntary stakeholders, made intensive co-productive cooperation more difficult.

The opportunities and challenges of cooperation between academics, administrative staff, cultural workers, freelancers, and volunteers became apparent. These were reflected in terms of interpersonal dynamics and available human resources, but also with regard to one's own contribution and perceived benefits from the cooperation. Personal bonds and established trust between the project partners made it possible to overcome these hurdles.

The *Testing the City* project series has now been established in Görlitz since 2008. It has received great attention locally, nationally, and internationally. Further initiatives in Germany and in other European countries have been inspired by the project series (e.g., *Summer of Pioneers*²). But a comparative analysis showed that the scientific monitoring of the needs and demands of the participants, as well as on the effects within urban society, are unique so far (Rößler et al. 2023). This monitoring is challenging, but crucial to ensure that the knowledge gained in a real-world experiment can be used, implemented, and transferred to other contexts.

Ultimately, the project series shows that the real-world experiment approach has initiated a process that involves more than just knowledge building and learning. As proposed by Norström et al. (2020), the co-productive process was also able to build transformative capacities, form networks, strengthen social capital, and in some cases implement actions that contribute to increas-

ing sustainability in the city of Görlitz. However, the project series, which has now been running for nine years, also shows very clearly that this requires a long-term time frame in which sufficient trust in the cooperation must be fostered.

Conclusion

The *Testing the City* project series offered interested people the opportunity to try out a new location for a limited period of time.

The project series has the character of a real-world experiment within a real-world lab, as described in the literature, in which new knowledge is generated on a transdisciplinary basis and in long-term partnerships between science, city administration, businesses, and civil society associations. The experimental character of the individual projects is created by temporarily relocating people from outside Görlitz, to try the city as a potential place to live and work. The insights of "strangers" and the testing of something new (which in this case was testing the city of Görlitz as a potential place to live and work) are components that have not been addressed in other real-world lab approaches. The long-term collaboration between a research institution, city administration, and local initiatives is a unique selling point of such a real-world lab and significantly improves trust between all participants. However, the willingness to accept different perspectives is a precondition for the success of such approaches.

The project series created a variety of opportunities for learning processes and knowledge generation, assumed to be crucial for real-world labs, for all actors involved. First, the experimental situation – observing real time feelings and perceptions in a new location – allowed insights into individual assessments and decisions in terms of individual learning. Second, a wide spectrum of knowledge addressing the municipality and local communities could be identified and explored. Third, conclusions for transdisciplinary research could be derived through continuous co-productive exchange and reflection by and between all partners. Learning processes took place not only between science and local practitioners, but also among (and with) the external participants. Furthermore, it is a transdisciplinary approach in which new knowledge about complex socially relevant problems is generated through a continuous exchange and cooperation between science and practice. Through this constant exchange, mutual understanding was enhanced, methods were reflected upon, and experiences were incorporated into further project development. This is an important insight for future research to consider as well.

The knowledge being generated within the project series, regarding individual location decisions, significantly complements existing migration studies. Based on real-world experiences and in advance of the actual relocation decision, additional findings regarding factors preventing relocation, as well as individual and very personal reasons for location decisions can be identified.

Since the voluntary participation in the projects was based on an open call, followed by a criteria-based selection process, the

² <https://neulandia.de>

sample represents a group of people who are in general willing or interested in moving to the city or a comparable setting. Being an experiment, aspects such as actual opportunities for individuals to settle in Görlitz were not considered. Also, the projects did not favor somebody in terms of access to job or flats.

Nevertheless, insights from outsiders assessing the current situation provide valuable and uncommon knowledge which might improve urban development policies and decisions. Besides, approximately 10 % of the participants from each project phase decided to relocate to Görlitz, which means the project provided an active contribution to the housing stock revitalization.

Acknowledgements: The authors would like to thank three reviewers for the helpful comments. Thanks also to our colleague *Ritu George Kaliaden* for providing substantive feedback and language review.

Funding: This work was funded as part of the *National Urban Development Policy* by the German Federal Ministry for Housing, Urban Development and Building. The Leibniz Institute of Ecological Urban and Regional Development (IOER), represented by the Görlitz-based Interdisciplinary Center for Transformative Urban Regeneration (IZS), implemented the project together with local partners.

Competing interests: The authors declare no competing interests.

Authors' contributions: CZ, SR, RK: conceptualization, transdisciplinary design and reflection, developing research design, writing original draft; CZ, SR: revision; CZ: conducting and analyzing surveys, interviews, group discussions, editing.

References

- Barth, M., G. Michelsen. 2013. Learning for change: An educational contribution to sustainability science. *Sustainability Science* 8/1: 103–119. <https://doi.org/10.1007/s11625-012-0181-5>.
- Bauer, U., C. Holz-Rau, J. Scheiner. 2005. Standortpräferenzen, intraregionale Wanderungen und Verkehrsverhalten. *Raumforschung und Raumordnung* 63/4: 266–278. <https://doi.org/10.1007/BF03183813>.
- Beecroft, R., O. Parodi. 2016. Reallabore als Orte der Nachhaltigkeitsforschung und Transformation. *TATuP – Zeitschrift für Technikfolgenabschätzung in Theorie und Praxis* 25/3: 4–8. <https://doi.org/10.14512/tatup.25.3.4>.
- Blum, A., C. Deilmann, R. Gutting, K. Gruhler, N. Krauß, M. Matinsen. 2022. Auswirkungen des demographischen Wandels auf die Nutzung von natürlichen Ressourcen. *Szenarien und Handlungsansätze*. UBA-Texte 144/2022. Dessau-Roßlau: Umweltbundesamt.
- Buch, T., S. Hamann, A. Niebuhr, A. Rossen. 2014. What makes cities attractive? The determinants of urban labour migration in Germany. *Urban Studies* 51/9: 1960–1978. <https://doi.org/10.1177/0042098013499796>.
- Chouraqui, J. 2021. Medium-sized cities in decline in France: Between urban shrinkage and city centre devaluation. *Raumforschung und Raumordnung* 79/1: 3–20. <https://doi.org/10.14512/rur.26>.
- Ehrich, A., D. Werchosch. 2022. Standortfaktoren und Wanderungsbewegungen junger Menschen in der Lausitz. *Regionale Bildungssteuerung als Chance für Verbleib, Rückkehr und Zuzug*. Cottbus: Netzwerkbüro Bildung in der Lausitz/kobra.net GmbH.
- Haase, A., D. Rink, K. Grossmann, M. Bernt, V. Mykhnenko. 2014. Conceptualizing urban shrinkage. *Environment and Planning A: Economy and Space* 46/7: 1519–1534. <https://doi.org/10.1068/a46269>.
- Hollander, J. B., K. Pallagst, T. Schwarz, F. J. Popper. 2009. Planning shrinking cities. *Progress in Planning* 72/4: 223–232.
- Jahn, T., M. Bergmann, F. Keil. 2012. Transdisciplinarity: Between mainstreaming and marginalization. *Ecological Economics* 79: 1–10. <https://doi.org/10.1016/j.ecolecon.2012.04.017>.
- Knippschild, R., S. Rößler, C. Zöllter. 2020. Renaissance of third-tier cities through in-migration? Assumptions from “Trial Residencies” in Görlitz. *disP – The Planning Review* 56/1: 44–52. <https://doi.org/10.1080/02513625.2020.1756630>.
- Kühn, M. 2018. Immigration strategies of cities: Local growth policies and urban planning in Germany. *European Planning Studies* 26/9: 1747–1762. <https://doi.org/10.1080/09654313.2018.1484428>.
- Martinez-Fernandez, C., I. Audirac, S. Fol, E. Cunningham-Sabot. 2012. Shrinking cities: Urban challenges of globalization. *International Journal of Urban and Regional Research* 36/2: 213–225. <https://doi.org/10.1111/j.1468-2427.2011.01092.x>.
- Münter, A. 2012. *Wanderungsentscheidungen von Stadt-Umland-Wanderern. Regionaler Vergleich der Muster und Motive, Informations- und Wahrnehmungslücken sowie Beeinflussbarkeit der Wanderungsentscheidung in vier Stadtregionen*. Münster: MV-Wissenschaft.
- Norström, A. V. et al. 2020. Principles for knowledge co-production in sustainability research. *Nature Sustainability* 3/3: 182–190. <https://doi.org/10.1038/s41893-019-0448-2>.
- Parodi, O. et al. 2016. Von “Aktionsforschung” bis “Zielkonflikte”: Schlüsselbegriffe der Reallaborforschung. *TATuP – Zeitschrift für Technikfolgenabschätzung in Theorie und Praxis* 25/3: 9–18. <https://doi.org/10.14512/tatup.25.3.9>.
- Parodi, O., S. Ober, D. Lang, M. Albiez. 2024. Reallabor versus Realexperiment: Was macht den Unterschied? *GAIA* 33/2: 216–221. <https://doi.org/10.14512/gaia.33.2.4>.
- Pfeil, A. 2014. *Leerstand nutzen: Perspektivenwechsel im Umgang mit dem strukturellen Wohnungsleerstand in ostdeutschen Gründerzeitgebieten*. Berlin: Rhombos.
- Projektverbund Stadt der Zukunft auf Probe. 2024. *Innenstadt- und zuzugsorientierte Stadtentwicklung in Görlitz. Erkenntnisse und Ableitungen aus der Projektreihe Probewohnen*. Görlitz: Leibniz-Institut für ökologische Raumentwicklung e.V. <https://doi.org/10.5281/zenodo.10478864>.
- Ročák, M., G.-J. Hospers, N. Reverda. 2019. New horizons for old industrial areas: Urban shrinkage and social capital in Blaenau Gwent, Wales. *Urban Research and Practice* 13/4: 363–389. <https://doi.org/10.1080/17535069.2019.1568539>.
- Rößler, S., S. Rentsch, C. Zöllter, R. Knippschild. 2023. Probewohnen – eine Übersicht über Wohnexperimente in Deutschland. *Forum Wohnen und Stadtentwicklung* 3/2023: 151–155.
- Sander, N. 2014. Internal migration in Germany, 1995–2010: New insights into east-west migration and re-urbanisation. *Comparative Population Studies* 39/2: 217–246. <https://doi.org/10.12765/CPoS-2014-04>.
- Schäpke, N. et al. 2017. *Reallabore im Kontext transformativer Forschung. Ansatzpunkte zur Konzeption und Einbettung in den internationalen Forschungsstand*. IETSR Diskussion Papers in Transdisciplinary Sustainable Research 1. Lüneburg: Leuphana Universität Lüneburg.
- Schneidewind, U. 2014. Urbane Reallabore – ein Blick in die aktuelle Forschungswerkstatt. *pnd online* 2014/3: 1–7.
- Schneidewind, U., M. Singer-Brodowski. 2015. Vom experimentellen Lernen zum transformativen Experimentieren. Reallabore als Katalysator für eine lernende Gesellschaft auf dem Weg zu einer nachhaltigeren Entwicklung. *Zeitschrift für Wirtschafts- und Unternehmensethik* 16/1: 10–23. <https://doi.org/10.5771/1439-880X-2015-1-10>.
- Smith, A., R. Raven. 2012. What is protective space? Reconsidering niches in transitions to sustainability. *Research Policy* 41/6: 1025–1036. <https://doi.org/10.1016/j.respol.2011.12.012>.
- Stadt Görlitz. 2009. *Große Kreisstadt Görlitz – integriertes Stadtentwicklungskonzept INSEK. Demographie, Fachkonzepte Städtebau und Denkmalschutz, Wohnen – Fortschreibung 2009/2010*. Görlitz: Stadtplanungs- und Bauordnungsamt.
- Stein, A. 2013. Rural strategies for coping with the spatial unevenness in the knowledge society. *European Planning Studies* 22/10: 2116–2133. <https://doi.org/10.1080/09654313.2013.819734>.
- Umweltbundesamt (Ed.). 2023. *Umwelt und Klima schützen – Wohnraum schaffen – Lebensqualität verbessern. Empfehlungen von UBA und KNBau für einen nachhaltigen Wohnungs- und Städtebau*. Position Mai 2023. Dessau-Roßlau: Umweltbundesamt.

- UNESCO. 2023. *What you need to know about education for sustainable development*. UNESCO. www.unesco.org/en/education-sustainable-development/need-know (accessed November 24, 2023).
- Van Mierlo, B., P. J. Beers. 2020. Understanding and governing learning in sustainability transitions: A review. *Environmental Innovation and Societal Transitions* 34: 255–269. <https://doi.org/10.1016/j.eist.2018.08.002>.
- Wagner, F., A. Grunwald. 2015. Reallabore als Forschungs- und Transformationsinstrument. *Die Quadratur des hermeneutischen Zirkels. GAIA* 24/1: 26–31. <https://doi.org/10.14512/gaia.24.1.7>.
- Wanner, M., A. Hilger, J. Westerkowski, M. Rose, F. Stelzer, N. Schöpke. 2018. Towards a cyclical concept of real-world laboratories: A transdisciplinary research practice for sustainability transitions. *disP – The Planning Review* 54/2: 94–114. <https://doi.org/10.1080/02513625.2018.1487651>.
- Wolff, M., T. Wiechmann. 2017. Urban growth and decline: Europe's shrinking cities in a comparative perspective 1990–2010. *European Urban and Regional Studies* 25/2: 122–139. <https://doi.org/10.1177/0969776417694680>.
- Zöllter, C. 2023. *Attraktive Wohn- und Lebensstandorte – welche Stärken und Potenziale haben geschrumpfte Mittelstädte in peripheren Lagen? Eine Untersuchung von Standortentscheidungen anhand der Fallstudie Görlitz*. PhD diss., TU Dresden.
- Zöllter, C., S. Rößler, R. Knippschild. 2017. *Probewohnen Görlitz-Altstadt*. Berlin: Rhombos-Verlag.
- Zöllter, C., S. Rößler, R. Knippschild. 2021. Probieren als Entscheidungshilfe bei der Standortwahl. Das Projekt "Stadt auf Probe – Wohnen und Arbeiten in Görlitz". *Transforming Cities* 2021/4: 57–61.
- Zöllter, C., S. Rößler, R. Knippschild. 2023. *Stadt auf Probe – Wohnen und Arbeiten in Görlitz. Projektbericht*. Dresden: Leibniz-Institut für ökologische Raumentwicklung. <https://doi.org/10.5281/zenodo.8424507>.
- Zöllter, C., S. Rößler, R. Knippschild. 2024. *Stadt der Zukunft auf Probe – ein Wohn- und Arbeitsexperiment für ein klimaneutrales Görlitz. Ergebnisbericht*. Dresden: Leibniz-Institut für ökologische Raumentwicklung.



Constanze Zöllter

Studies in geography at Dresden University of Technology, DE and IUAV Università di Venezia, IT. Currently research associate at the Interdisciplinary Centre for Transformative Urban Regeneration at Leibniz Institute of Ecological Urban and Regional Development, Dresden. Research interests: urban and regional development of medium-sized cities and peripheral regions.



Stefanie Rößler

Studies in landscape architecture at Dresden University of Technology, DE. Senior researcher at the Interdisciplinary Centre for Transformative Urban Regeneration at Leibniz Institute of Ecological Urban and Regional Development, Dresden. Research interests: urban regeneration, formal and informal instruments of urban and landscape planning, urban sustainability transformation.



Robert Knippschild

Studies in spatial planning in Dortmund, DE, Liverpool, UK, Cracow and Warsaw, both PL. Head of the Interdisciplinary Centre for Transformative Urban Regeneration at Leibniz Institute of Ecological Urban and Regional Development, Dresden, DE. University professor at the International Institute Zittau of Dresden University of Technology. Research interests: small and medium-sized cities and peripheral regions, governance of urban and regional transformation processes.

GAIA Masters Student Paper Award

The international journal **GAIA – Ecological Perspectives for Science and Society** invites Masters students to participate in the **2025 GAIA Masters Student Paper Award**.

Masters students are encouraged to submit their results from research-based courses or from Masters theses in the field of **transdisciplinary environmental and sustainability science**.

Submission guidelines and more information:

www.oekom.de/zeitschriften/gaia/student-paper-award

Deadline for submission: **November 25, 2024**.

The winner will be selected by an international jury and will be granted a **prize money of EUR 1,500** endowed by the Selbach Umwelt Stiftung and Dialogik gGmbH, as well as a **free one-year subscription to GAIA**, including free online access. The winner may also be encouraged to submit his or her **paper for publication in GAIA**.

DIALOGIK
gemeinnützige Gesellschaft für Kommunikations- und Kooperationsforschung mbH

Selbach Umwelt Stiftung

GAIA