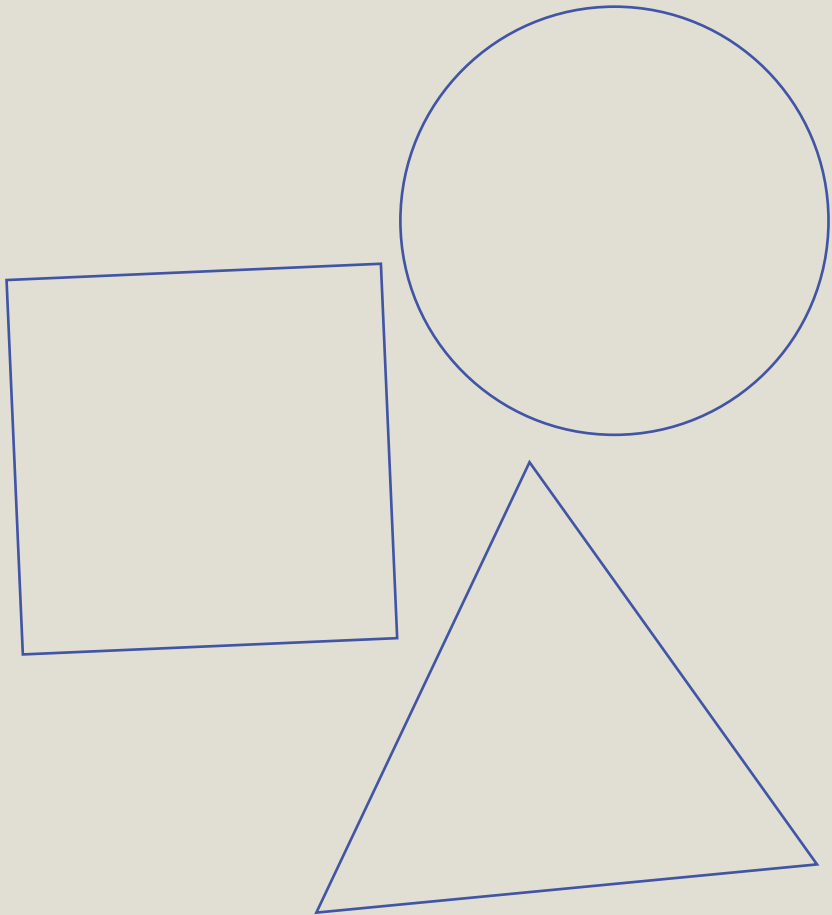


LET US MAKE A CITY – LOW-BUDGET SIMPLE-TO-IMPLEMENT INTERVENTIONS TO IMPROVE THE QUALITY OF THE LOCAL ENVIRONMENT

Guide for Local Authorities / Governments



CoMobility
(Co-Designing
Inclusive Mobility)

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The views and opinions presented are solely those of the authors and do not necessarily reflect the views of the funders or co-organisers of the project. Neither the City of Warsaw nor the granting authority is responsible for them.

The author team takes responsibility for any errors in the text of this Guide.

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INTRODUCTION

Ladies and Gentlemen,
this guide is primarily addressed to representatives of local government units and municipal organisational units.

The guide is based on our experience gained during the City Labs, which took place in selected Warsaw schools as part of the CoMobility project. City Labs provides an opportunity to co-create knowledge and ideas at a local level. In addition, they use co-design tools to do so, making their activities consistent with the spirit of deliberative democracy.

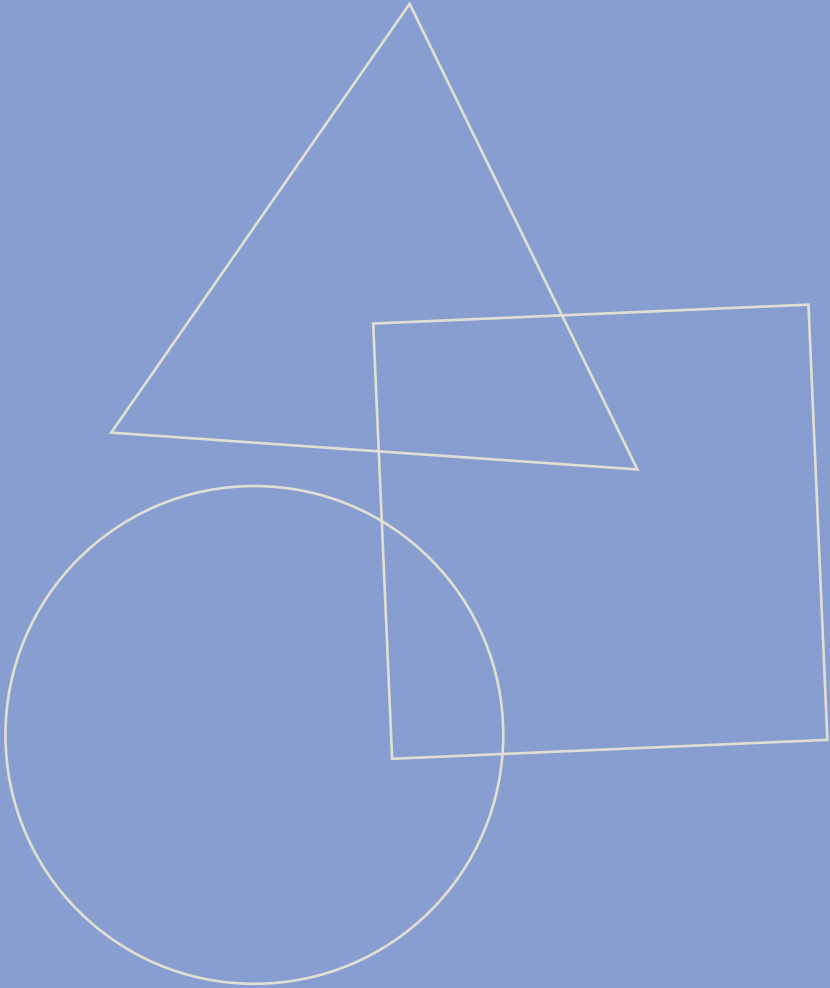
The results of the activities prompted us to share the knowledge gained and our thoughts on organizing such processes so that other local authorities could organize similar activities.

From this guide, you will learn how to plan co-creation activities, what to pay attention to when selecting participants, what is a challenge, and what sometimes is a barrier. In addition, as part of the case studies, we would like to present to you the outcomes of the work of the City Labs participants (mainly children), which have been realised and implemented in Warsaw in the form of urban interventions. Please consider them as inspiration and motivation for action in your local environments.

On behalf of the CoMobility project team
Anna Nicińska PhD
University of Warsaw

CHAPTER 1

BACKGROUND INFORMATION



1.1 PROJECT DESCRIPTION

"Co-Designing Inclusive Mobility" (CoMobility) was a transdisciplinary international research project that aimed to analyse attitudes and behaviours related to everyday mobility, particularly referring to services that are alternatives to private cars, asking the question: *What if people valued sustainable and safe urban mobility more than owning a car?* The project focused on understanding the links between mobility, air quality, urban infrastructure, and residents' needs. In addition to scientists (chemists, physicists, computer scientists, mathematicians, economists, psychologists, and anthropologists), the team actively involved local government employees and NGOs.

Using a process of co-creation, the project team was able to identify barriers and opportunities in the uptake of different modes of travel and co-create activities that facilitate a sustainable change in transport mode habits. These activities were conducted in extensive collaboration with resident groups, businesses, local government, and academics.

The outcome of the project was a set of methods for co-creating new transport solutions and tools for assessing their impact on air quality in Warsaw. The project also resulted in the creation of an integrated transport-environmental model to determine traffic and air quality concerning the characteristics of residents and transport infrastructure.

Both the model and the documentation of the co-creation process for mobility solutions have been made available to all interested, ensuring the universality of the tools for other local authorities allowing these solutions to be replicated.

1.2 PROJECT CONSORTIUM

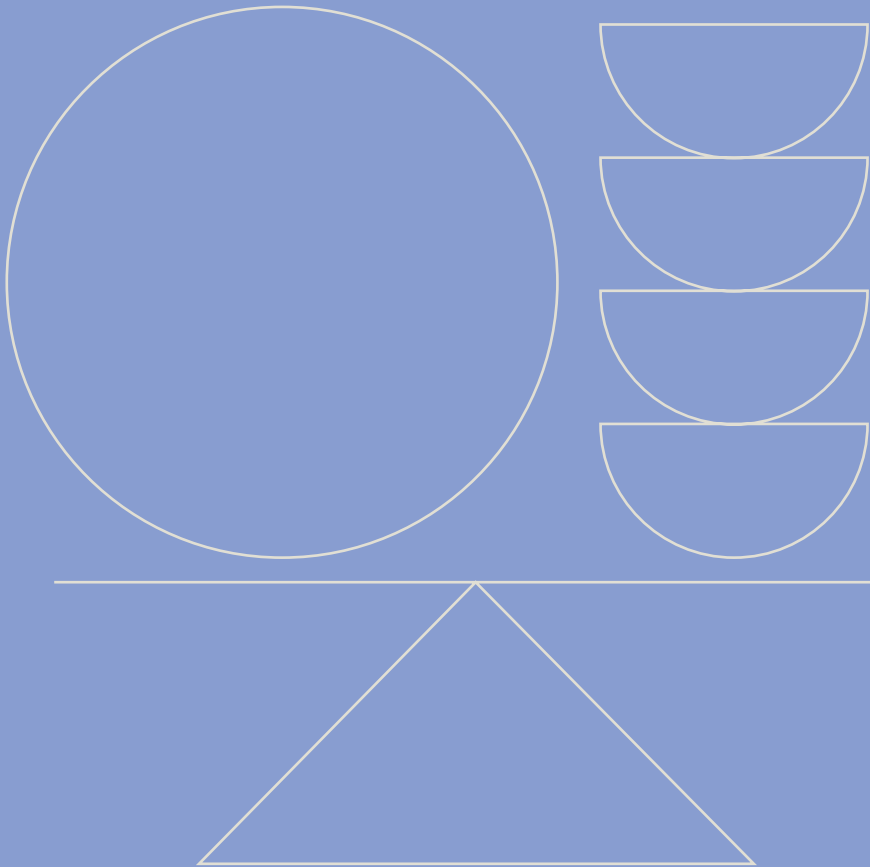
The project consortium consisted of universities, research institutes, as well as representatives of local governments and non-governmental organisations (NGOs). The project leader was the University of Warsaw. The university sector was also represented by researchers from the Warsaw University of Technology and the Warsaw School of Economics. The research institute sector was represented by the Norwegian Air Research Institute and the Fridtjof Nansen Foundation in Polhøgda. The NGO sector was represented by the 'In Place' Foundation, while the local government sector was represented by the City of Lublin, which functioned as evaluator of the activities undertaken as part of the 'Co-designing Inclusive Mobility' project.

The project consortium also worked closely with such entities as the City of Warsaw, the City of Krakow, the Association of Polish Cities, Krakow University of Technology, the Institute of Environmental Protection – National Research Institute, Airly, DAWIS IT, ARC Rynek and Opinia Sp. z o.o., Svantek and CitiesAI. Some of the mentioned entities supported the project consortium in organisational matters, others provided the necessary data to achieve the goals, and the rest provided technological support for the team. The partnership with the City of Warsaw was the key and at the same time the object of research, data provider, analysis partner and testing site for the proposed solutions.

Such selection of representatives positively influenced the ability to achieve the project's goals, not only preserving the professionalism of the activities but also enabling the analysis of selected issues from different perspectives, which brought an important added value to the overall project.

CHAPTER 2

THE PROCESS OF COCREATION OR CO-CREATION



2.1 COCREATION PARADIGM AS AN ADVANCED PROCESS OF SOCIAL PARTICIPATION

Cocreation is a new trend in modern social sciences, which focuses on the prosumer's cooperation with the company and his active participation in production and marketing processes. The idea of cocreation is directly related to crowdsourcing, which is a management concept based on sustained cooperation with consumer communities and using the knowledge and skills of their participants to achieve the goals of the enterprise more effectively and efficiently and to increase its competitiveness. In broader terms, cocreation is defined by V. Ramaswamy and K. Ozcan, as a co-creation model in which the demand and the supply sides cooperate in several areas to achieve better results than before, concurrently changing from a product orientation to a primarily consumer or otherwise service orientation.

Different from many economic models of production, the process of cocreation can be used in the activities of social economy entities. In the spirit of social economics, the process of social innovation is the result of cooperation with consumers, public authorities, and other stakeholders, creating "social value" in the process. This means that the activities, like cocreation, conducted by social entities are strongly consumer-oriented and focused on the creation of novel solutions.

In the area of local government operations, this approach, the use of the cocreation process, leads to:

- 1 M. Leszczyńska, K. Łopaciński, *Współdzielenie i kokreacja jako przejawy nowych trendów w ekonomii*, „Informatyka Ekonomiczna” 2017, nr 2 (44), 77-78. ¹
- 2 V. Ramaswamy, K. Ozcan, *The co-creation paradigm*, Stanford University Press, Stanford, 2014, <https://doi.org/10.1108/SD-10-2014-0141>.
- 3 N. Laurisz, *W kierunku komercjalizacji działalności społecznej – różnicowanie sposobu prowadzenia działalności przed podmioty ekonomii społecznej*, „Przedsiębiorczość – Edukacja” 2020, t. 16 nr 2, 191-193. ¹

- increased involvement of residents in the issue;
- building social trust between residents and public administration;
- opportunities for a wider exchange of knowledge, inspiration, or experience;
- more effective delivery of solutions;
- strengthening the role of citizens in the processes of co-determination about the city.

The co-creation process can also be used in many tools such as:

- workshops with stakeholders (discussions, debates);
- citizen panels and mini panels with residents;
- *Living Labs and sandboxes* – testing innovative solutions in real-world communities;
- Methods based on design thinking – *Design Thinking*;
- Other tools based on citizen science – *Citizen Science*.

Due to the success and active use of the concept of co-creation in the business sphere and the social economy – being a new tool for improving activity in social participation – the project consortium decided to use this idea in the process of building the City Labs.

City Labs are spaces/places for co-creating knowledge and solutions by conducting local experiments. In a broader sense, the concept of city labs is understood as a platform that includes various stakeholders who perceive the same problem, realize their interdependencies, and come together to agree on the best strategy to solve it. If we talk about the actors (participants) of city labs, they are not considered only as users or consumers in the narrow sense, but also as direct co-creators of a solution. For this reason, city labs are developing an innovative model of interaction, in which public institutions

4 E. Puerari, J. I.J.C De Koning, T. Von Wirth, P. M. Karre, I. J. Mulder, D. A. Loorbach, *Co-Creation Dynamics in Urban Living Labs*, „Sustainability”, 2018, vol. 10, nr 6, 3. ¹

and the academic sector not only cooperate with private entities but also interact jointly with the public.

In the CoMobility project, co-creation starts from the initial stage of the City Labs, that is, engaging a diverse group of people in developing a joint diagnosis of the situation and construction of a creative process which addresses the issue of children's safety while travelling to school. While doing so, elements of citizen science are being used during the field research and identification of problem areas, utilizing measurements and observations in the field.

You can read more about the City Labs process itself, its process and the results obtained in the form of urban interventions in the other subsections of this guide.

5 Ibidem.

2.2 PARTICIPANTS IN THE COCREATION PROCESS IN SOCIAL TERMS

The co-creation process naturally increases the opportunities for urban residents to participate in social issues by actively creating, implementing, and controlling individual initiatives. This approach redefines the role of the participants in the process as partners and co-creators. In urban social action, the following participants can be recognized:

- citizens (a broad group including both individuals and non-governmental organisations – NGOs and other social economy entities, etc.), among whom are the ultimate “consumers” of a given project / initiative;
- companies and entrepreneurs;
- public administration representation.

Each participant in the initiative may have several roles in the process, e.g. as project initiator, designer, implementer, beneficiary, evaluator/controller, etc. However, it is important to note that in the case of cocreation, the role of the leader of the activity, which is often assumed by public administration or decision-makers in the standard model, is not clearly distinguished. In the cocreation process, this role is more diffuse. Co-creation additionally emanates from the highest level of citizen participation according to Arnstein's participatory ladder model, where each entity involved in the process not only takes an active part at each level of the project but also shares responsibility for it.

Those responsible for inviting participants to the cocreation process also must deal with the issue of selecting them appropriately.

6 R.S. Arnstein, *A Ladder Of Citizen Participation*, „Journal of the American Institute of Planners” 1969, vol. 35, 216–224. '

The identification of stakeholders, when we are talking about typically social activities, is even more difficult, due to the nature of the work (pro-public bono) – people who do not receive a salary equivalent may not want to dedicate their time to such activities. Therefore, at the very beginning of planning the process, of inviting particular stakeholder groups, it is worth detailing the desired characteristics of the stakeholders as precisely as possible.

Identification of stakeholders based on characteristics can also be varied and based on practically any keys we define, such as:

- social and professional status;
- level of awareness of the topic under trial;
- degree of involvement in community initiatives;
- other distinctive or key characteristics (e.g. a particular social group, residents of a certain area, etc.).

By basing your selection of participants on their specific characteristics, it is much easier to select a particular group and target them via direct communication. It is also worth considering non-participants. By correctly identifying the reasons for this, you can try to find ways to encourage participation and social activation (e.g. by using a more interesting form of cooperation).

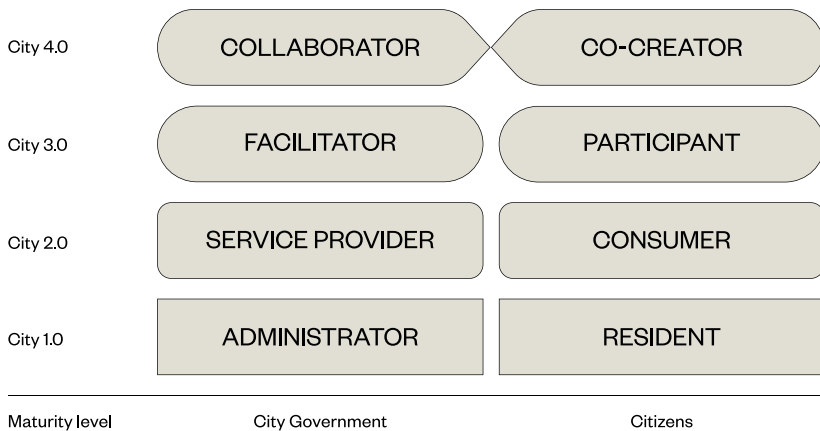
In addition to factors related to ensuring the representativeness of the group (age, gender, etc.) and the functions performed in the community, the relational aspect also plays a key role when conducting stakeholder selection. It is important to bear in mind that when inviting representatives from different parties into the process, there may be barriers due to relationships, which can have various causes – negative stereotypes, lack of goodwill or limited trust. Therefore, the

7 A. Bluj, M. Jagaciak, M. Perchuc-Zółtowska, K. Pliszczyńska, *ABC partycypacji obywatelskiej – poradnik dla organizatorów procesów partycypacyjnych*, Pracownia Badań i Innowacji Społecznych „Stocznia”, Warszawa, 2018, 18-19. ¹

organiser of the process should bear that in mind and be sensitive to the attitudes and emotions of the participants skilfully managing the social process to eliminate potential conflicts or actions within the framework of interests of individual groups.

This aspect of relationality between participants is also determined by the degree of so-called “urban maturity.”

Figure 1
Evolution of the relationship between city government and citizens



Source: M. Foth, *Participation, Co-Creation, and Public Space*, „The Journal of Public Space” 2017, vol. 2, nr 4, 22. ’

Table 1. shows the evolution of the relationship between local authorities (public administration) and the citizens. This relationship is determined by the degree of maturity of cities in the usage of participatory methods and the perception of citizens themselves.

At the lowest level of maturity, i.e. **1.0**, the authority is an administrator that manages the city based on the averaged and aggregated needs of citizens, meeting their basic demands. At **level 2.0**, the administrative authority assumes the role of a service provider, by which it examines, in more detail, the needs of consumers (in this case the residents), both to meet their expectations as well as to better manage the city and by doing so facilitate the process of “reconciliation” between the different parties of interest, and to better understand the socio-economic nuances occurring in urban interactions. At **Level 3.0**, participatory design is utilized with differentiated methods at each stage of the implementation of the initiative. The role of the public administration changes dramatically as it takes on the role of intermediary between stakeholders, bringing together and coordinating the implementation of suggestions from residents who actively participate in the process. **Level 4.0** is an emanation of the highest deliberative democracy where all stakeholders are equal partners and equally bear responsibility for the co-creation of the city.

Moving through the distinct levels of maturity, we can observe a corresponding change in the identity of the exchange. In the case of administrative authorities, this process is aggregative, as the responsibilities and obligations from the previous level continue. However, it is worth pointing out the qualitative change in the authority’s relationship with citizens, which is changing dramatically from seeing citizens only as ‘users’ to full co-partners in the city-making process..

8 M. Foth, *Participation, Co-Creation, and Public Space*, „The Journal of Public Space” 2017, vol. 2, nr 4, 23-30.’

2.3 CITIZEN SCIENCE AND ITS USE IN COCREATION FOR URBAN SOLUTIONS

The concept of citizen science has been in the literature since the 1970s, although the concept itself does not have a universally accepted definition. In summary, it can be defined as the participation of non-professionals in the implementation of scientific research. A similar definition is adopted by the European Commission, which defines citizen science as "the involvement of the public in research activity through intellectual effort or the provision of other resources".

Independent of the definition of citizen science adopted, academia views the two aspects of the phenomenon as:

- a resource or pathway to democratisation, participation, equality, and social justice in general scientific deliberation;
- a public engagement in scientific activity because of its partnership between scientists and amateurs, e.g. in a data collection and analysis project.

Each of these aspects is based on a scientific form and creates the conditions for collaboration on academic grounds. Over time, citizen science has evolved from an activity strictly defined as scientific into an activity that has increasingly taken the form of a social movement aimed

10 European Environment Agency, *Biodiversity Monitoring in Europe – The Value of Citizen Science*, Copenhagen, 2013, 1. ¹

11 A. Irwin, M. Horst, *Engaging in a decentered world: overflows, ambiguities and the governance of climate change, Remaking Participation*, Routledge, Abingdon-on-Thames 2016, 64. ¹

12 R. Bonney, C.B. Cooper, J. Dickinson, S. Kelling, T. Phillips, K.V. Rosenberg, J. Shrik, *Citizen Science: A Developing Tool for Expanding Science Knowledge and Scientific Literacy*, „BioScience”, V2009, vol. 59, nr 11, 978. ¹

at democratising politics or knowledge. This approach has resulted in it taking on the character of participatory science.

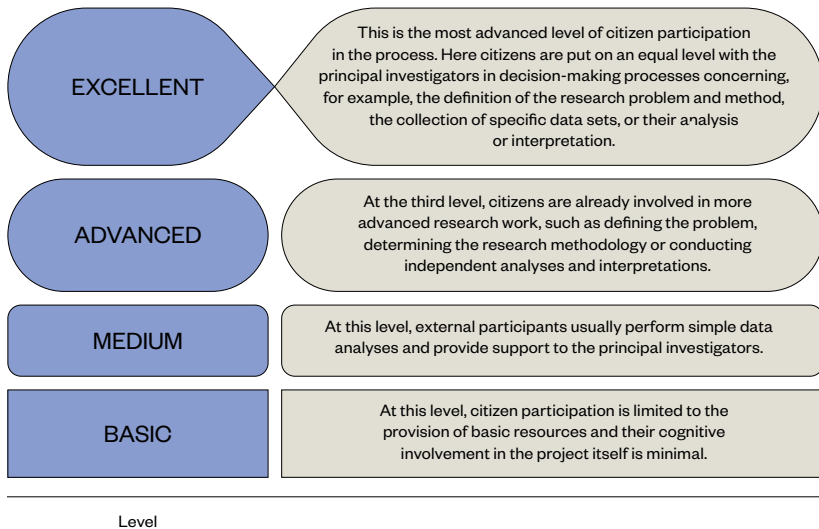
The adoption of a more open form of citizen science has certainly been fostered by the rapid development of information and telecommunications technologies. The advent of many devices that allow cheap, fast, and accurate observation of a given phenomenon in real-time, the possibility of sharing it indefinitely, has led to the emergence of a considerable number of people willing to engage in this type of project in an amateur way.

When talking about citizen involvement in the citizen learning process, it is worth outlining the extent to which citizens can participate.

13 M. Grodzińska-Jurczak, *Nauka obywatelska – zmiana paradygmatu nauki czy jedynie pomocnicza procedura badawcza?*, „Trzeci Sektor” 2019, nr 47, 17. '

14 Ibidem, 17-18. '

Figure 2
Level of Citizen Involvement
in the Citizen Learning Process



Source: M. Haklay, *Citizen Science and Volunteered Geographic Information – overview and typology of participation*, Crowdsourcing Geographic Knowledge: Volunteered Geographic Information (VGI) in Theory and Practice, Berlin, 2013, 11. '

Figure 2. shows the levels of involvement in the citizen science process from the perspective of citizens (amateurs).

At the most **basic level** of involvement, participation is limited solely to the provision of necessary resources – e.g. the provision of measurement data. This level is not effective because the potential of the participants and the possible cognitive contribution is not fully exploited.

Level 2, engagement is most common in projects that directly refer to citizen science. Within it, participants are much more involved, and their skills are used more widely – e.g. performing simple analyses.

At **level 3**, participants are already actively collaborating with researchers in the process of formulating the research problem, the scope for collecting the necessary data as well as in the research methodology, thus ensuring that the project responds to citizen science needs. Unfortunately, due to the level of knowledge required to draw scientific conclusions from the data, participants are not involved in the detailed analysis of the outcome of their efforts.

Level 4 is based on a fully integrated activity where professional scientists and amateurs are jointly involved in all decision-making.

This form of citizen science can be referred to as 'extreme citizen science' and requires scientists to additionally function as facilitators. This approach to learning also generates the possibility of using citizen science without professional scientists, in which the participants conduct the entire process themselves. This is precisely the route we used as a consortium in the CoMobility project to shape the City Labs.

15 M. Haklay, *Citizen Science and Volunteered Geographic Information – overview and typology of participation*, *Crowdsourcing Geographic Knowledge: Volunteered Geographic Information (VGI) in Theory and Practice*, Berlin, 2013, 11–12. '

2.4 SUBJECTIVITY OF COCREATION PARTICIPANTS – CHILDREN AND ADULTS

Childhood is an incredibly special and unique period, it creates a diverse and rich perspective of perceiving the world and experiencing it directly, which adults often find quite different and incomprehensible. For this reason, it is often the case that adults take over children's space, imposing a direction on their development. Children become a project of their parents or their guardians, who give them the characteristics of a desirable product, trying at all costs to mould them to the requirements of the modern world.

It also does not help those children, as a general social category, are marginalised because of their differences – e.g. height, emotional development, legal restrictions, etc. These problems mean that children's functioning within mainstream society, among adults, is limited even though children are capable of being the decision-makers.

However, a child is a citizen who is entitled to adequate living conditions, proper upbringing, and development. This is also emphasised by Manfred Liebel who represents a view that "children have their fundamental rights and are capable of taking part in all decisions that affect them and of ultimately determining their own lives".

This quote was the key inspiration for us as members of the CoMobility project team in the creation of the City Labs – a place where children as experts had the opportunity and conditions for self-realisation, respect for their decision-making and subjectivity,

16 Ł. Miś, K. Ornačka, *Podmiotowość dziecka w rodzinie i sferze publicznej*, Problemy Polityki Społecznej, Uniwersytet Jagielloński, Kraków, 2015, 68–73. ¹

17 Ibidem, 75. ¹

18 M. Liebel, *A Will of Their Own: Cross-Cultural Perspectives on Working Children*, Zed Books, Londyn, 25. ¹

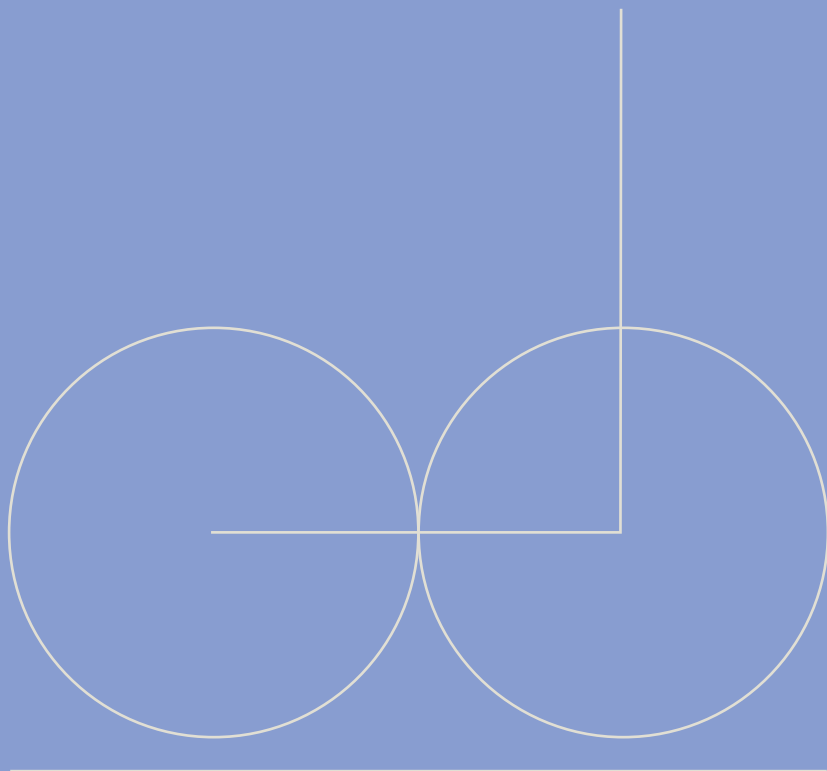
and they were able to develop their capacity to decide, organise themselves or take important social action for others.

All this, of course, with the support and ensuring that the whole City Labs was properly organised by adults, however, support did not mean 'doing the work' or 'imposing a way of thinking', but helping based on mutual understanding, respect and accompanying the children through the stages of the project. Our assumption in designing this process was to define clear boundaries between the children and the other participants and to assign them specific tasks and roles.

With an emphasis on inviting children into group processes, while reinforcing, considering children's needs and points of view, and finally leaving them the freedom in decision-making and freedom to formulate solutions, we managed to gather children who were highly involved in the activity and that the process of generating ideas (interventions) itself was not problematic. Recognising the children as socially empowered individuals in the Urban Labs process allowed the parents to perceive the children's perspective as well, differently than usual, which enriched the child-adult relationship.

CHAPTER 3

URBAN LABORATORY METHOD



3.1 CITY LABS IN THE COMOBILITY PROJECT – IDEA, FUNCTIONING, AND EXPERIENCES

In the CoMobility project, as a consortium, we have been investigating the relationships and analysing the mobility attitudes and behaviours of city residents in their daily journeys.

Travel preference research in everyday terms (considering the emergence of new travel options) has been a fairly new direction in the field of urban transport policy planning considerations. This type of research not only uses standard paths and patterns but also reaches for more modern and innovative methods. During our reflections on the design of the project, we, therefore, opted for the use of citizen science and the launch of the Urban Labs described in the previous chapters.

As a key objective of the laboratory, we took the development of multifaceted solutions that would encourage changes in attitudes and behaviour related to everyday travel. In addition, this objective was complemented by research aspects in the form of collecting data on air quality and noise levels. As a team, we wanted to explore the relationship between travel via different modes of transport and air quality, and then outline what opportunities or challenges arise from this relationship.

As our project was concerned with travel safety for school-aged children, we invited students, parents, the local community, officials, and urban mobility experts to join the co-creation process. Inviting such a wide range of experts allowed us to better diagnose barriers, opportunities, and threats.

The co-creation process was initiated during the selection of specific schools for our research. For reasons of competence, we asked the Education Office of the City of Warsaw for help. We managed to pre-select a list of ten primary schools whose profiles fit the

research context (we wanted to invite children attending grades 1-3 who do not travel to school on their own). In the subsequent selection stages, after a series of meetings with principals and site visits, we selected three schools: SP No. 34 at Kruczkowskiego Street, SP No. 377 at 4 Trocka Street and SP No. 218 at Michała Kajki Street, which agreed to cooperate with the research team. Specific classes of a given school were then selected by the school's management to participate in the Labs based on the openness, activity and commitment of the teachers leading the class.

With a defined range of stakeholders involved in the Urban Labs, we developed a fairly simple but effective operating model. This consisted of five main elements:

1. Research, field inventory and educational activities.

In this phase, we focused on preliminary research and going out into the field with the children to learn about local characteristics and collect basic data. The series included a series of educational and exploratory activities to make knowledge of the city, mobility, and environmental issues more coherent, using citizen science elements in the form of children taking measurements of traffic, noise, and air quality.

2. The cocreation process of working on solutions.

Having thoroughly researched and diagnosed the local problems and challenges, this phase proceeded to develop ideas and solutions together. These were generated during a creative process with the children and were then developed and commented on by teachers, school management, parents, officials, researchers, and experts. By involving all actors, we were able to make the children's ideas smoothly real and operationalise them..

3. **Interventions.** As part of the interventions, selected, developed, and validated ideas were prototyped and implemented – usually on a temporary, micro-scale. The individual interventions will be presented in detail in later chapters of this guide.
4. **Post-implementation analysis.** This stage consisted of observing the progress of each prototypically implemented intervention and analysing the functioning of the entire Urban Labs concept. For the analytical process, we also invited all the people who collaborated with us on the initiative (children, parents, experts, etc.).
5. **Evaluation.** As part of this phase, using the experience of the company Badania i Działania Sp. z o.o., we evaluated the process of working with male and female students at the City Laboratories. The main objective of this study was to assess the quality of the process of activity implementation and to identify success stories and challenges for the implementation of such activities (lessons learnt). The evaluation was also complemented by a diagnosis of strengths and weaknesses.

As can be seen, the scope of work conducted within the Urban Labs on the CoMobility project was comprehensive. Below we discuss the above stages in more detail with an extensive description of the working methods used.

RESEARCH, FIELD INVENTORY AND EDUCATIONAL ACTIVITIES

We started the labs by exploring the area around the primary schools and exploring our knowledge of the city and its transport. Together with the students, we audited the spaces around the schools and consolidated our knowledge of the city (its characteristic areas, features, and components – e.g. types of streets, intersections, bus stops, car parks and green spaces). This stage was an introduction to citizen science. The children functioned as researchers by assessing the quality of green spaces, transportation, pedestrian infrastructure, recreation, and leisure areas in terms of selected criteria. In addition to the issues mentioned above, the children investigated in detail the following:

- a. **traffic around the school** – by checking the speed of passing cars and the efficiency of the means of transport (how many private cars, public transport cars etc. drive through a given point).

- b. **walking and cycling** – by checking the availability of public transport in the area and its frequency, as well as travel times from the stops to the school and the number of children arriving at school by bicycle or scooter.

- c. **conditions for walking** – by checking the widths of the pavements, the distances of the pedestrian crossing from the school, and the duration of the green and red lights at the pedestrian crossing. The research was able to capture the observation that in some cases it takes longer for a child to cross a pedestrian crossing than the duration of the green light.

The involvement and professional approach of the children in the research work allowed us to capture their individual, childlike perspective on the city. Moreover, the children were able to see phenomena, which are difficult for adults to observe, thanks to their unconventional view of the city.

At the end of the research cycle, all observations were transferred onto professionally made mock-ups presenting the school and its immediate surroundings on a scale of 1:250. These mock-ups accompanied the children throughout the whole period of the City Labs, providing a valuable research and creative tool. The children drew on them to mark important points in the topography of the neighbourhood, to mark green areas, and to design ideas for change.

At the end of this guide, you will find annexes to all the documents, which contain not only detailed information but also ready-made materials to enable these activities to be recreated in order schools and educational groups.

COCREATION PROCESS OF WORKING ON SOLUTIONS TO LOCAL PROBLEMS

With the key local challenges from an environmental and transport perspective already well diagnosed, it was time to develop ideas to bring about positive change. From the outset, as a team, we decided that the process should be based on dynamic action, and co-participation, as well as make the maximum use of creative techniques. This has helped to keep the children engaged and build a sense of identity and action 'for a good cause'.

During this phase, it was also time to involve all possible actors. Since the main objective of the Urban Labs was to encourage active mobility on the way to school, we considered their parents to be the priority group to be involved in the process in addition to the children. After all, it is the parents and caregivers who organise the daily

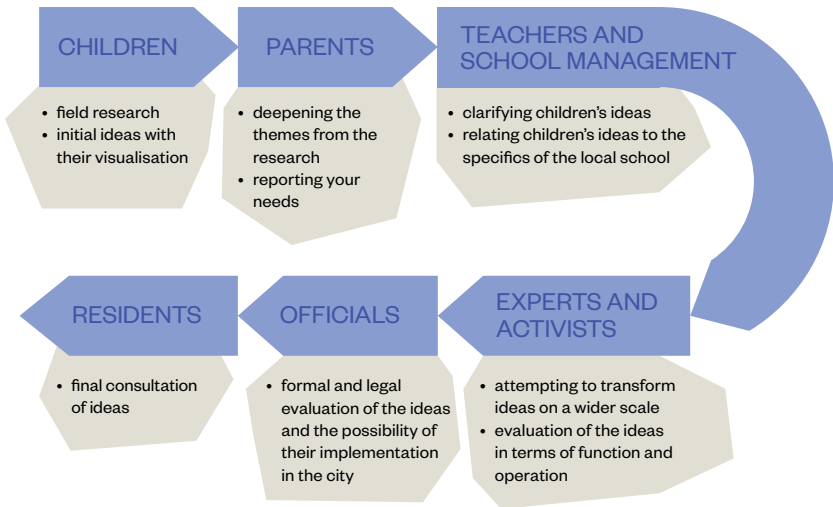
journeys of the little ones and it is they who have full knowledge of what this process looks like, as well as intuition about potential problems and how to eliminate them. Teachers and school management became a complementary group, which was feeling the need for change in the local space. We also invited urban activists, mobility experts and innovators. Their task was to refine the ideas generated and to develop concepts for extending implementation beyond the local scale. From the formal and legal assessment side, we were supported in this phase by Warsaw city officials and councillors, to ensure legal and safe implementations. We also should not forget to include residents and entrepreneurs living or operating in the area. Omitting their perspective in our cocreation process, solutions could have produced unintended and unwanted results.

Unfortunately, due to the continuing COVID-19 pandemic at that time, most of the meetings organised with external experts were conducted online, which affected the dynamics of group interaction. The advantage of remote meetings was the ease of their organisation and the opportunity for all involved to participate. Some of the meetings we were able to be held in person, e.g. at the sites of planned changes, which facilitated opportunities for 'visualisation' in the field. Despite these adversities, we always tried to maintain the formula of a neutral meeting place to ensure a sense of equality for all participants.

Even though our task force was extremely diverse in terms of the actors represented and the interests involved, it was able to move very quickly to a concrete, operational way of working together. Involving such a broad consortium made it possible to validate each other's ideas straight away, which saved us a lot of time by not debating solutions that would not realistically be feasible to implement in the space in terms of efficiency, procedure, or budget.

To better illustrate the mutual support and roles in the process, let us illustrate them with a model (Figure 3).

Figure 3
A model for the involvement of different stakeholders within the Urban Labs



Source: own study.

Figure 3 shows the involvement of actors in the co-creation process in the Urban Labs initiative on the CoMobility project. A worth noting fact is that the working group is not hierarchical. In the 'from top to bottom' model, everyone functions on an equal partnership basis. This promotes the quality of the ideas that are developed, as they are verified by all entities each time, so that the solutions created are effective, safe, respond to real needs, and are also legally and formally implementable.

The model for the operation of urban labs presented in this chapter has universal characteristics, which means that it can be used by any entity on any issue affecting local communities.

If the same method is used, the following elements should be kept in mind when planning the process:

1. It is worthwhile to precisely formulate the objective of the laboratory and define its scope of work. If we decide on a co-creation process, we must be aware that we are inviting a large number of diverse representatives from selected backgrounds, and that therefore there may be differences in perception of the problem, the objective, etc. This is why, for this mechanism to work well, it is advisable to ensure that everyone involved has a good understanding of the problems at the outset. Therefore, it is advisable to ensure at the outset that everyone involved has a good understanding of the issues.
2. It is worth inviting to the process a wide range of people, not only the ones who would be interested in working out solutions to a given problem but also people who may be affected by the effects of the planned actions, both negatively and positively. Building a broad consortium will, on the one hand, create a strong social committee for positive change and, on the other, allow all comments and needs to be considered, avoiding problems already at the stage of designing solutions.
3. It is useful to provide representatives who will verify the feasibility of the given solutions from a formal and legal point of view. People who work for the public and engage in this type of initiative are very often characterised by a high degree of creativity, which, when confronted with the legal order and the public administration environment, can lead to misunderstandings or even frustration. The presence of a validator from the beginning of the process results in better design of solutions considering the legal order and does

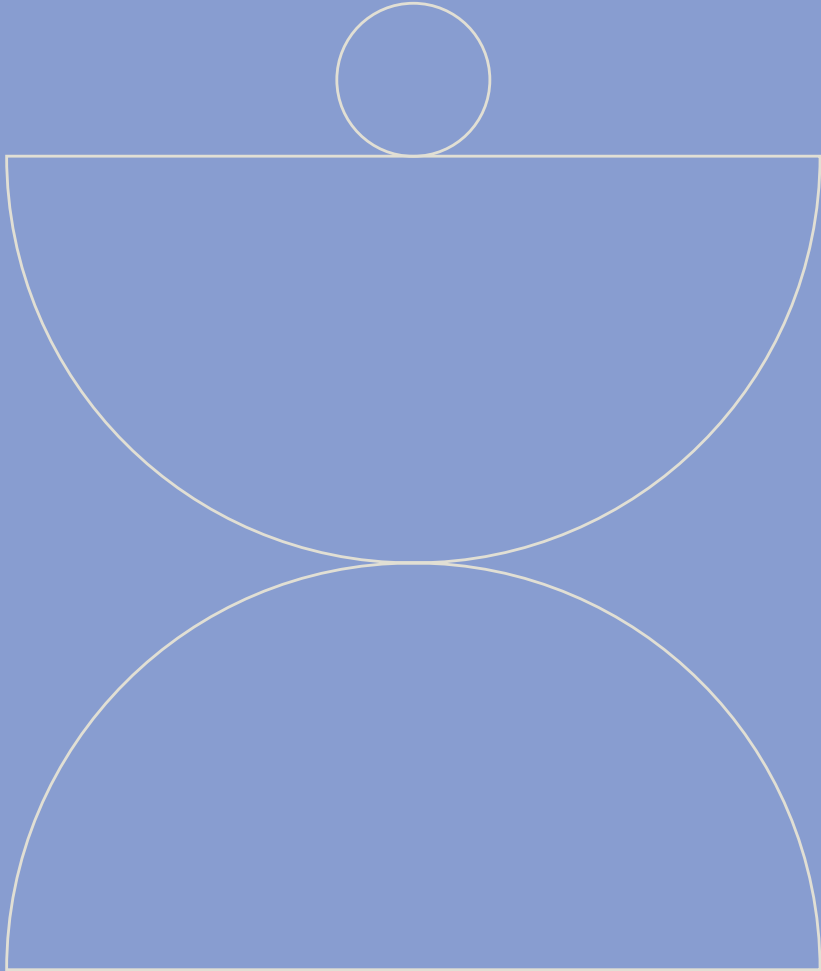
not lead to frustration and a decrease in the involvement of creative people.

4. It is useful to invite people with different perspectives and needs to the co-creation process. It is worth bearing in mind children, the elderly, people with varying degrees of fitness and mobility, the healthy and those with physical handicaps. A diverse perspective can add value to the process and ensure that the designed solutions follow the principle of universal design.

In the following chapters of this guide, you will get to know specific examples of implementations that we have applied in Warsaw, which were created during the co-creation within the framework of the City Labs. Based on our experience, we will guide you step by step through each stage of the implementation process, detailing the possible risks. All the implementations we present can serve as an inspiration for you and can be successfully implemented in your local 'homelands'.

CHAPTER 4

PROJECT RESULTS



4.1 INTERVENTIONS DEVELOPED AS PART OF THE URBAN LABS

Chapter 4 is devoted to the presentation of the solutions developed within City Labs, which were finally implemented on the territory of the City of Warsaw. The chapter presents each intervention in the form of case studies, providing the necessary information on the process and procedure of implementation, effectiveness, barriers encountered, entities involved, strengths and weaknesses as well as estimated costs.

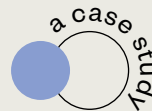
The interventions (implementations) in the project themselves are divided into:

- **Infrastructural interventions** – implementations involving changes to the infrastructure of a site, e.g. by adding new elements or upgrading existing ones. This group includes, for example, the installation of new infrastructure for micromobility, and changes to traffic organisation or the road surface.
- **Soft interventions** – this group includes all in-kind interventions that do not require major interventions in the urban infrastructure and are soft in nature – e.g. the creation of an anti-smog garden.
- **Educational interventions** – the last group, which includes all activities of an educational character that take the form of actions, events, and happenings. For this type of intervention, we can include, for example, the scooter festival.

Given that interventions of an infrastructural character are strongly location-specific and also conditioned by technical

specifications, as a consortium we decided not to publish them as model solutions for other cities.

Regardless of which group an intervention falls into and in which location in Warsaw it has been implemented, **the implementation mechanism and idea itself can also be successfully used in other local authorities, regardless of their size.** Therefore, we intend to provide information on interventions in the form of case studies to create universal guidelines for use in your regular work.



SCHOOL NATURE RESERVE WITH ANTI-SMOG GARDEN

Entities involved in the process:

students / school technicians / teachers /
the School Parents' Council / a group of female
educators ('Na miejscu' foundation) / the Warsaw
Greenery Management / a greenery expert /
a graphic designer who visualised the garden.

Project cost:

approx. PLN 4,000

As part of the City Labs activities at Primary School 377 in Targówek, students developed two ideas for improving local air quality by surrounding the school grounds with greenery protection – on a reserve basis – and creating an anti-smog garden.

As part of the school's nature reserve, pupils mapped the existing greenery at the school and designated the most valuable plantings from their perspective (in terms of use), naming them.

In the case of the school's anti-smog garden, plants were planted or replanted that are particularly effective at trapping airborne dust and thus combating smog. With the support of a professional horticulturist (educator), the following plantings were decided upon:

- climbers (common ivy, *grapevine*);
- perennials (Planting *large-flowered mullein*, *Echium vulgare*, *Ferns*);
- shrubs (*elderberry* – *bad muscau*, *Grey tawula*, *Nipponian tawula*, *Vanhotten's Tawula* and *alpine currant*);
- flowers (*rudbeckia*, *Sunflowers*).

In addition, flower meadows have also been established along the street to reduce noise.



STRENGTHS:

- high educational value for children (passing on knowledge of plants, and insects);
- activation of children, teachers;
- low cost of implementing the idea;
- low incidence of other risks preventing implementation of the idea (e.g. land ownership issues);
- possibility to conduct field lessons in the reserve;
- depending on the location, the garden can serve as isolation from the busy street.



WEAKNESSES:

- taking care of the sustainability of the plants (watering, maintenance);
- problems associated with the formal approval of the green space's status as a school reserve, making it impossible to enforce protection of a reserve nature.

BARRIERS:

- the difficulty of measuring the 'anti-smogginess' of plants; it is worth considering plants that are sensitive to air quality such as tobacco, which is a bio-indicator of ozone concentrations;
- looking after the garden e.g. during holidays.



photo by Magdalena Kubecka



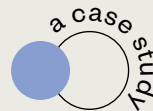
photo by Wiktoria Mockallo-Tenderenda



WHAT IS WORTH CONSIDERING WHEN REPLICATING THE PROJECT IN OTHER CITIES?

1. It is worth thinking about the location of this type of garden, considering factors such as sunlight and soil type.
2. It is worth discussing the choice of suitable plants with specialists. It is a good idea to bear in mind that one-year plants require more work, while two-year flowers are characterised by constant periods of sowing and transplanting.
3. It is worth remembering that children who are intended to look after the garden during the school year will not be able to look after the plants during the holidays. Therefore, it would be a good idea to provide someone to tend the garden during this time or decide on suitably hardy plants.
4. A common "school garden" is not only an activity to get children active with plants but also an opportunity to increase their knowledge of ecology. It is advisable to prepare interesting educational activities using the reserve – e.g. outdoor lessons on air purification by plants.

ECO-VEHICLE FESTIVAL AND 'GREETINGS FROM BOGOTA' ACTION



Entities involved in the process:

students / teachers / Primary School
management / a group of female educators
("Na miejscu" foundation) / artists – mimes.

Project cost:

PLN 2,800 + PLN 2,000
outdoor stand
for scooters

The 'Eco-vehicle' festival is the idea of the students at Primary School No. 218 on Michała Kajki Street in Warsaw to promote travelling to school not only by bus or bicycle but also by other means of transport such as scooters. As part of the festivities, the students prepared banners with slogans about safety and respect for the traffic rules and then drove in a procession around the school. They were also able to use the stand we had set up in front of the school to park their scooters there.

The celebration itself is not only a manifesto of children's needs in the context of mobility, i.e. travel safety and the promotion of environmentally friendly mobility, but also an attempt to affect change. Primary School 218 has for many years struggled with a poorly visible crosswalk and a dangerous stretch of street where many cars exceed their speed limit, and children must cross it to get to school.

To draw attention to the low level of safety at this pedestrian crossing near the school, it was decided to experiment with mimes

helping students cross the intersection in the morning. This action was inspired by activities in Bogotá, where Mayor Antanas Mockus invited twenty mimes to direct traffic on the streets in 1995. The action was a success and, a few weeks later, no longer twenty, but four hundred mimes were sent into the streets of the entire city. They directed traffic, handed out flowers to cultured drivers and ostentatiously showed a thumbs-down to those who broke the rules.

In the case of Primary School 218, the mimes directed traffic and drew attention to the 'problematic nature' of this crossing. Safety at this crossing is to be improved over the next few months through a road investment. The action with the mimes, as well as the eco-vehicle festival, are activities that bring residents closer to change, show that a lot can change here and highlight the importance of lasting change. It is a good idea to act when the local community is 'waiting' for a permanent change in traffic organisation. It sends out a message that a process of change is in progress.



photo by Maciej Gregorczyk



STRENGTHS:

- Activating children;
- Increasing the visibility of the youngest on their journey to school;
- Low cost of implementing the idea;
- Promoting micro-mobility among the youngest;
- Attention of drivers to the youngest traffic participants (awareness building).



WEAKNESSES:

- Actions of this type generally do not take place with a high frequency (usually once a year), making it difficult to generate any impact.



BARRIERS:

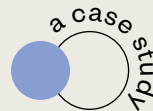
- Such initiatives depend heavily on children's involvement and enthusiasm.



WHAT IS WORTH CONSIDERING WHEN REPLICATING THE PROJECT IN OTHER CITIES?

1. This type of activity can be replicated one-to-one in any other city and there are no major considerations to be considered. The only obstacle to organising an "eco-vehicle festival" may be the timing and weather conditions. Organising the event in autumn, as we did, makes it possible to promote micromobility in a less obvious period and to convince people that with the right clothing, scooters and bicycles can in principle be ridden all year round.
2. Concerning the action with the involvement of mimes to "direct the traffic", you could also think of other interesting forms, not necessarily mimes, e.g. you could involve a school orchestra, a group of drummers or a theatre troupe to conduct a happening at a place of change. Another idea is to introduce a so-called 'school street', i.e. to involve the municipal police or the police, who would restrict traffic during children's commuting hours to school (e.g. 7:00-8:30 a.m.), as is done in school street projects (Wroclaw, Vienna, Warsaw).
3. In our case, we encountered concerns from the Warsaw City Hall about safety in the roadway lane during the organisation of this happening; it is worth keeping this in mind and providing the necessary security measures.

THE STATUE OF THE SCOOTERIST



Entities involved in the process:

students / teachers / School management /
Warsaw City Hall / Warsaw City Roads Authority /
artist Robert Czajka

Cost of the project:

approx. PLN 10,000

The 'scooterist' statue is an initiative conceived by the pupils of Primary School No. 377 in Warsaw. The very idea for such a monument was born during the co-creation activities of the Urban Labs, when the children found that getting to school by environmentally friendly means of transport sometimes required a certain 'heroism' on their part, and a monument should be erected for those pupils who travel by scooter, for example. The team from the 'On the Spot' foundation that ran the Urban Labs, teachers and parents were quick to see that this was a particularly good idea that would in addition be a manifesto for the needs of children in the space, as well as a message to drivers.

The main aim of this project was **to improve safety around the school by increasing the vigilance of drivers passing the institution.**

The monument was created as a result of a multifaceted collaboration between the "On the Spot" foundation and its partners from the CoMobility project, the City of Warsaw, and the Major H. Dobrzański "Hubal" Primary School No. 377 in Warsaw. The author of the

monument's form is Robert Czajka – an artist, illustrator, painter, and creator of scenery and toys.

The 'scooterist' statue is the only 'modern art' sculpture in Poland, whose concept was developed by children on the one hand and depicts the theme of the safety of their travels on the other.

photo by Maciej Eichelberger





STRENGTHS:

- promote micro-mobility among the youngest;
- drawing drivers' attention to the youngest participants in traffic (awareness building);
- the monument is tangible proof of children's "pro-activity" in the creation of common public space;
- it is a non-standard, out-of-the-box solution, thanks to which it can be an alternative to other typical road solutions aimed at improving safety (this is especially true in situations where it is not possible to implement typical solutions due to technical or formal-legal limitations).



WEAKNESSES:

- compared to other solutions proposed in the guide, this is the costliest.



BARRIERS:

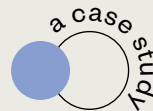
- a barrier to the implementation of this type of initiative may be the formal procedure, if we classify such an object as small architecture, the formal procedure requires only a notification to the office; however, if we want to place such an object in the neighbourhood of a road lane, formal permits must already be obtained from the competent entity (road manager).



WHAT IS WORTH CONSIDERING WHEN REPLICATING THE PROJECT IN OTHER CITIES?

1. All aspects related to the replication of this type of idea are limited to formal and legal issues.
2. First, it is worth characterising whether the planned object will fall into the category of monument or "small architecture" (a different procedure is required for each type).
3. If a monument is chosen, it is necessary to obtain, among other things, the consent of the land manager and the relevant authorities, such as the Board of Green Areas, environmental departments, sometimes the City Architect, etc. Next, it is necessary to obtain decisions on land development conditions issued by the departments of architecture and construction, and finally, after the approval of the project, to obtain a building permit. It is worth remembering that the procedure for raising monuments may require the approval of the local Town Council.
4. In the case of a small architectural object, the situation is much simpler, as it is based only on the notification of such an intention to the architectural construction administration body. However, it is worth remembering that other permits, arrangements, or opinions required by separate provisions of law may also be necessary in this variant.
5. Regardless of the chosen route, it is necessary to prepare a concept of the monument together with its description and design.

PAINTING 'ALONG THE WAY'



Entities involved in the process:

students / teachers / School management /
Warsaw City Hall / Warsaw City Roads
Authority / artist Robert Czajka /
housing cooperative RSM Praga

Cost of the project::

approx. PLN 3,600

Paintings 'along the way' is an art-infrastructure intervention that aims to make the children's journey to school more attractive with colourful paintings that encourage play and fun during the travel.

Through colourful graphics, simple tasks and games have been prepared for children, which on the one hand provide fun and on the other develop physically and intellectually e.g. in the form of icons with points to be stepped on, collecting, and counting points or a variation of the classic classroom game.

The very idea for the pavement games was developed together with the pupils of the schools participating in the CoMobility project and provides motivation for children to cover the road on foot or with vehicles classified as micromobility. In addition to the paintings on this route, there are also positive slogans such as "You look good on a bike", "Are you cycling today too?", which further reinforce this message.

Painter and children's book illustrator Robert Czajka designed the graphics.

What is extremely interesting from the perspective of implementing this intervention is the process. At the very beginning, the Warsaw City Roads Authority did not agree to the paintings because of the law, which prohibits the painting of commercial content on pavements (this is how they were initially classified). As the CoMobility project team did not want to give up on this intervention, they started trying to implement the measure in a unique way. It turned out that in Targówek, a large part of the land around the school belongs to the housing cooperative RSM Praga. The team therefore decided to persuade the cooperative to cooperate, which ultimately resulted in getting permission to paint parts of the route on land owned by RSM Praga. After implementing the paintings and seeing the effects, the Warsaw City Roads Authority decided to develop a new procedure for similar activities in other places in Warsaw, treating such activities as artistic. As a result, an agreement was signed between the City Roads Board and the "On the Spot" Foundation for the implementation of this type of initiative.

photo by Municipal Roads Authority in Warsaw



The whole situation shows that a certain persistence and the search for alternative solutions can even allow implementation despite formal and legal problems, and sometimes even have the effect of changing them.



STRENGTHS:

- Promoting micromobility among the youngest;
- Making travel to school more attractive;
- Simple, replicable, and scalable solution;
- Low cost of implementation;
- Development of creative thinking.



WEAKNESSES:

- Complex formal and legal requirements.



BARRIERS:

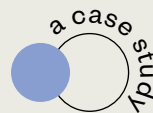
- a key issue for the implementation of this type of space intervention is the ownership structure of the land to be covered; if there are formal or legal obstacles or a lack of willingness to cooperate on the part of the managers, it will be exceedingly difficult to implement this type of intervention.



WHAT IS WORTH CONSIDERING WHEN REPLICATING THE PROJECT IN OTHER CITIES?

1. Despite the simplicity of the idea, its implementation may be difficult for formal and legal reasons, as it is necessary to obtain the relevant approvals and permits related to the occupation of the road lane.
2. A challenge is that some entities issuing such permits (road authorities) do not differentiate between artistic and commercial activities and may classify this type of action as "advertising".
3. In the case of the experience in Warsaw, it was possible to develop a different formal path and classify the idea as an artistic activity. This situation confirms how important dialogue with decision-makers is.
4. When obtaining permission, it is important to remember that the paintings should be placed at such a distance from the road that there are no concerns about distracting drivers.
5. In addition, it is worth remembering to use paints that meet certain guidelines – whether they wash off easily after a certain period of time or do not become too slippery after rainfall.

SMALL WHEEL FRIENDLY ROUTES AND CRITICAL MASS



Entities involved in the process:

students / teachers / School management /
Warsaw City Hall / Warsaw City Roads
Authority / artist Aga Pietrzykowska /
"Na Miejscu" Foundation / Open Bicycle
Workshop / "Wentylki" group.

Cost of the project:

approx. PLN 4,200

The idea to create and design child-friendly cycle routes was first raised during a meeting with the parents of students from the Stanisław Dubois Primary School No. 34 in Powiśle. During discussions, it emerged that students from this school very often travel to the school by bicycle.

Challenges related to children's travel were also identified together. One issue was parents' concerns about safety due to the insufficient network of attractive and convenient cycle routes in Powiśle. Parents indicated that there are many architectural barriers on the current routes and that the marked cycle paths, even if they exist in the area, are not designed for riders under the age of ten.

The answer to these challenges was a workshop and trial rides with the educators of the Open Bike Workshop. Those experienced

in organising cycling activities mapped out optimal routes around the school that children and parents can safely and comfortably ride as part of their daily commute.

For a better orientation in the area, these routes were marked in space by special graphics (made with stickers and chalk spray) and dedicated maps were created on the Internet.

Graphic signs, apart from a purely informative role, additionally introduce elements of competition, as they present fitness tasks or strengthening slogans, thus turning a typical cycling ride into an adventure and a challenge.

As part of the inauguration of the newly designated routes, a "Mass of Wheels" was organised, i.e. a joint mass ride by schoolchildren on bicycles and scooters. On the one hand assessing the routes, on the other manifesting the fact that schoolchildren can and want to travel to their schools and home in an ecological and balanced way – they just need to be given the right conditions to do so.

photo by Maciej Eichelberger



In addition to route marking, the initiative included a series of practical workshops for children, conducted by coaches from the Open Bike Workshop initiative and the 'Wentylki' group. The workshop aimed to strengthen the cycling competences of young cyclists by practising corrective riding techniques and learning how to cycle safely on pavements or cycle paths.



STRENGTHS:

- Promoting micromobility among the youngest;
- Making travel to school more attractive;
- Simple, replicable, and scalable solution;
- Strengthening of children's cycling competences;
- Designation of tested safe cycle routes for children (strengthening of their travel safety);
- Possibility to manifest children's needs to other road users in a straightforward way.



WEAKNESSES:

- Possible formal and legal requirements related to marking of cycling routes.



BARRIERS:

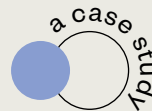
- Dedicated support from NGOs is required for the mapping of routes; it is important to bear in mind that the perspective of children's travel is radically different from that of adults, so it is worth involving experts in the process; in their absence, routes can be mapped in an urban efficient way..



WHAT IS WORTH CONSIDERING WHEN REPLICATING THE PROJECT IN OTHER CITIES?

1. In case of planning optimal and safe routes for children it is beneficial to make a detailed inventory of the condition of the current cycling infrastructure and to map well all architectural barriers, dangerous points, and passages.
2. It is worth to invite NGOs or informal groups, cycling clubs, which deal with the subject of cycling in each city, to this process.
3. When defining safe routes, it is best to consider the perspective of children, not adults. What may be easy for a 30-year-old, for example, may be an insurmountable barrier for an 8-year-old.
4. Through this measure it is also worth encouraging parents to cycle together with their children on daily basis, promoting environmentally friendly modes of transport and changing transport behaviour.

CHILDREN'S NEWSPAPER



Entities involved in the process:

students / "Na miejscu" Foundation /
artist Jaśmina Wójcik / "Gazeta Dzieci"

Cost of the project:

approx. PLN 5,000

"Gazeta Dzieci" is a space for the youngest to share or boast about their thoughts, ideas, but also a place to cover important topics or problems from the children's perspective. It is the idea of Jaśmina Wójcik and her young editorial team, inspired by the newspaper created by Janusz Korczak – 'Mały Przegląd' – in which children create content, ideas, drawings, cartoons, which are then published.

The newspaper comes out periodically and the topics of each issue are devoted to different issues; moreover, the newspaper is published in various places in Poland and has different editorial offices – in Warsaw, Choroszcz, Krynki or Białystok.

Entering collaboration with an artist and a school participating in the Urban Lab, an edition of the newspaper dedicated to mobility and ecology was created.



STRENGTHS:

- activating children by creating a space for them to express themselves;
- the creative nature of the process;
- the opportunity to outline the children's direct narrative in community life (from the perspective of successes, but also problems);
- opportunity for children to create children's material;
- gaining practical skills – honing the youngest's journalistic skills.



WEAKNESSES:

- requires systematic work, which can be difficult to maintain in the long term with children;
- the project also requires a person in the form of an editor-in-chief (an adult), who will approach the subject, with a strong commitment, being a signpost for the children, a support and not a censor.



BARRIERS:

- the project relies primarily on children's involvement, creativity, and systematic work, so if interest in the topic is not sustained and adequate support is not provided, the youngest children may feel bored;
- the need for adults to be open to children's language, perspective, and ideas – implementing the principle that we do not censor, we do not correct, we let the children do it their way.



photo by Magdalena Kubecka



WHAT IS WORTH CONSIDERING WHEN REPLICATING THE PROJECT IN OTHER CITIES?

1. If you want to do something similar with your children, decide on the frequency (or a one-off publication), the type of content and subject matter, the audience (older/younger children) and the form of publication (traditional or online).
2. It is also worth dividing the children into groups and giving them tasks and responsibilities (e.g. photojournalists, journalists, graphic designers, people responsible for devising topics and collecting information).
3. It is also an innovative idea to choose an editor in chief: this can be a child or an adult who, on one hand, will support the other children and, on the other hand, will ensure that the newspaper is 'professional'.
4. Consider promoting the newspaper not only within the children's local community, but also more widely – using Facebook, for example. It will not only generate more interest, but it will also have a motivating effect on the young reporters.

CHAPTER 5

EVALUATION



5.1 EVALUATION OF THE URBAN LABS INITIATIVE

While presenting cocreation as the most mature form of public participation, we would also like to present to you the results of the evaluation of the Urban Labs initiative on the CoMobility project. In this way, firstly, we will guide you through the process, providing you with the necessary knowledge and preparing you for possible replication in other activities. Secondly, we would like to share our conclusions on what has been done very well in this project and what needs to be improved and enhanced from our point of view.

In order to carry out as thorough an analysis as possible, to be transparent, but also to learn about different points of view, we decided that the evaluation of the Urban Labs initiative would be based on two main sources, and that the evaluation would be made on the basis of internal as well as external observations.

5.2 INTERNAL EVALUATION – REPORT OF THE COMPANY RESEARCH AND ACTION

The subject of the evaluation conducted by Research and Action Ltd. was the process of working with male and female students in schools as part of the activities ran in the City Labs. The research was conducted between October 2021 and January 2023. Their main objective was first of all to assess the quality of the process of activity implementation itself, to identify proven solutions (success stories)

that are worth developing, supporting further, promoting, and disseminating more widely. The second element of the evaluation was to identify challenges to the implementation of such activities (lessons learnt) and diagnose weaknesses. The evaluation was conducted by Magdalena Tędziągolska and Anna Biernat.

In consultation with the leadership team, Urban Labs has developed the following criteria for their evaluation:

- Effectiveness criterion – in relation of the implementation of the Urban Labs work model;
- The criterion of adequacy – in relation to the conducted activities to the needs of the project addressees;
- The criterion of replicability – in relation to the applicability of the developed solutions in other similar activities.

In undertaking the evaluation study, the team used the following methods: conducting observations of activities with children, conducting individual interviews (IDI) with teachers involved in the Urban Labs process and conducting an evaluation game "City Rescuers" for all students, teachers and selected parents participating in the Urban Labs.

Based on these methods, the authors of the report determined the strengths of the process and the difficulties and challenges, which are presented below.

STRENGTHS OF THE CITY LABORATORIES PROCESS

1. **A professionally prepared, well thought out programme with attractive materials**, which made it much easier for children and teachers to get involved and more likely to participate in the activities.
2. **Experienced trainers and educators led workshops.** Inviting people experienced in working with children into the process made the activities more “professional” and resulted in a better absorption material by the students.
3. **Learning through experience.** The activities conducted as part of the City Labs (in classrooms and in the area around the school building) were very practical. During those, children became active creators/researchers and were able to present their ideas.
4. **The dynamics of the activities.** The Urban Labs used diverse types of activities in a varied form – e.g. role play, prototyping in groups, actions, or manual work. As a result, the children were not bored by the material and were eager to participate in the activities.
5. **Supporting without challenging the children by the educators.** Workshops were conducted in such a way that as much of the children's work as possible was independent. The educators moderated the activities by asking problem questions and encouraging solutions. As a result, the ideas developed by the children are 100% original, giving a new perspective to the adults.

6. The opportunity to broaden teachers' competences.

Participation in the Urban Labs was a good opportunity to follow good practice in working with children in a slightly less templated format, giving teachers knowledge and tools for the future.

7. Embedding the activities in the local environment.

Embedding the themes of the workshops in the local environment made it possible to diagnose and look for solutions to themes present in the daily lives of students, teachers, and parents. This translated into greater involvement and identification with the project.

8. Tangible results in the form of interventions. The Urban Labs produced ready-made solutions that led in most cases to the implementation of changes in the physical environment of the school.

The evaluation conducted by Research and Action focused primarily on process evaluation. This is extremely important in the context of replicating such activities in other cities because implementations, although characterised by the possibility of being used in other places, are however a little dependent on local conditions as well as the will and willingness to change.

What is repeated, and resonated strongly in the study, relates to the learning aspect. The process planned by the CoMobility consortium is characterised by experiential learning, the use of unconventional methods and support every step of the way (rather than a handout). These strengths are also confirmed by the individual interviews conducted with teachers who participated in the process. Like any process, there were also some difficulties and challenges in this one. The team representing Research and Action identified the following problems.

DIFFICULTIES, PROBLEMS, AND CHALLENGES OF THE URBAN LABS PROCESS

1. **Substantial number of participants (children), many tasks and limited time.** The extensive process did not always allow for the presentation of ideas or results of all participants work. In addition, the considerable number of children involved meant that it was sometimes difficult to maintain an acceptable level of focus, e.g. during individual presentations.
2. **Presentation parts that were too long (from the children's perspective).** According to the children who participated in the workshops, some of the presentations made by the educators were too long despite the interesting material. The children in the research estimated that the stage related to the presentations was less interesting than the one related to prototyping or field activities.
3. **Not all instructions for the tasks that were given by the educators were understood by the children.**
4. **The role of the female teachers in the process was not always clearly defined.** It also happened that female teachers took on an 'undesirable' role from the point of view of the process. On one hand, the female teachers positively motivated their students to generate ideas, on the other hand, they unconsciously directed the children to their own ideas, stopping their creativity.
5. **Parents may have been unclear about the aims and possibilities of project intervention.** The themes of the project and its embeddedness in the local area became a 'promise' to deal

with local issues important to parents, raised expectations but also risked a 'wish list' from adults, impossible to fulfil.

6. **Meetings involving children and parents were an organisational challenge.** The number of tasks, the implementation of the planned objectives of the meeting due to the significant size of the group, the different expectations of children and adults, made the process exceedingly difficult and challenging to manage (especially as a large part of the activity fell during the COVID-19 pandemic period).

Similar to the strengths of the process, any difficulties and problems were also confirmed in individual interviews with children and teachers or parents.

The authors of the evaluation report additionally focused on examining the motivation in participation of children, teachers, and parents, but also diagnosed the challenges postulated by each of these groups. Based on individual interviews with teachers, the following positive factors were identified:

- attractive form and subject matter of activities for children;
- specific and attractive ideas for the development of activities;
- the feeling that the children's voice counts in an important project for a prominent issue;
- implementation within the project of many issues from the basic programme and going beyond the basic programme, which made the classes participating in the activities stand out from others;
- compliance with values and belief in the power of project work – learning through experience, the prestige of the project and the opportunity to cooperate with renowned universities, institutions.

On the other hand, in terms of project challenges that teachers articulated in the interviews, these were most often related to:

- concerns about the timeliness of the material set and whether it will affect the implementation of the basic programme;
- coping with the demands of the project;
- coordination of the parent survey; difficult communication due to the multiplicity of people involved in the project.

Analysing the teachers' answers, we can draw some remarkably interesting conclusions. Regarding the teachers' motivation to participate in the project, a large part of the answers was given from the perspective of the students' well-being. Teachers did not very often talk about their personal motivations in their statements.

This means that, in this case, concern for the children was more of a factor than personal aspirations. In terms of challenges, on the other hand, teachers articulated them in quite a unique way. Their responses were dominated by personal circumstances – teachers did not talk about *Can the children cope with the material?* but *Are they able to do it themselves?*

The author team also conducted analogous interviews with parents who actively participated in the Urban Labs process. In terms of parents' motivation to participate, the following aspects emerged most frequently:

- the opportunity to make a difference in the neighbourhood, to have an impact – improving safety and quality of life (expectation of concrete change);
- the desire to learn more about an initiative in which their child is involved with commitment;

- a desire to spend time with their child, an opportunity to build relationships;
- the need to pass on important values to the child;
- gaining knowledge;
- to learn about opportunities to act for change in the neighbourhood;
- to learn about other families' ways of working, lifestyles.

What differed between parents and teachers, however, in terms of motivation to participate, was that parents more often argued participation with a desire to broaden their competences. Although there were also responses from the perspective of the well-being of their children, parents were much more likely than among teachers to indicate that they were motivated by a desire for real change or opportunities for social action on a local scale.

The authors who prepared the report "Evaluation of the COMOBILITY project" were also tasked with evaluating the results developed/achieved through the Urban Labs process.

The results were grouped into three principal areas:

- knowledge area – increasing children's and their parents' knowledge of sustainable mobility, environmental protection, and safety;
- competence and skills area – children's gaining skills related to safe mobility, observing the weather, conducting experiments, measurements; students' creativity and critical thinking were also evaluated;
- attitudes area – shaping children's views on sustainable mobility issues.

Table 1
Evaluating the results
of the Urban Laboratories process

ATTITUDES	COMPETENCES AND SKILLS	KNOWLEDGE	NAME OF THE AREA	EXPECTED RESULT	DESCRIPTION, INDICATORS	HAS IT BEEN ACHIEVED?	WHAT IN THE PROJECT HELPED TO ACHIEVE THIS RESULT?	WHAT SHOULD BE NOTED?
<p>Shaping children's views on sustainable mobility issues</p>	<p>Gaining skills related to safe movement around the city, observing the weather, experimenting, measuring, and obtaining other soft skills</p>	<p>Gaining new knowledge by children on ecology, safety, healthy lifestyle</p>			<ul style="list-style-type: none"> learning about the many "indicator's" of pollution learning about what a city is made of and why it is important to be environmentally friendly learning about methods to reduce smog learning about dangerous places in the city 	<p>✓</p>	<ul style="list-style-type: none"> experiential learning teaching through play repeating important themes working in groups 	<ul style="list-style-type: none"> cognitive methods should not be too long complex task instructions should not be created
<ul style="list-style-type: none"> children are able to identify logical arguments for commuting to school by ecological means of transport to convince parents and other children children have an opinion about ecology, the superiority of one mode of transport over another and can justify it children explicitly declare that they can change their immediate environment, the area around their school and the way to school 	<ul style="list-style-type: none"> gaining the ability to work in groups learning to work in a design thinking methodology gaining practical skills related to travel safety developing creativity and critical thinking 			<p>✓</p>	<ul style="list-style-type: none"> consistent work of the educators with questions during the classes (problem-posing, opening questions) experiencing the effects of concrete activities (e.g. measurements, experiments, observations) giving space to make "small decisions" in class reminding of the final outcome – the intervention to be done implementing the intervention – involvement in the preparation of the intervention 	<p>✓</p>	<ul style="list-style-type: none"> repeating important themes field activities – experiential learning the process of transferring knowledge from teachers (educators) to children and then to parents 	<ul style="list-style-type: none"> too complicated a form of presenting the different workshop topics; lack of time/space for each student's voice in order for the basics to take root in children's daily lives they need to be followed up with parents – It can be difficult for children to break through with new practices – e.g. a unique way of getting to school – so this needs to be worked through with parents as well

Source: M. Tędziogolska, A. Biernat, *Ewaluacja projektu COMOBILITY – Raport, Badania i Działania*, Warszawa 2023

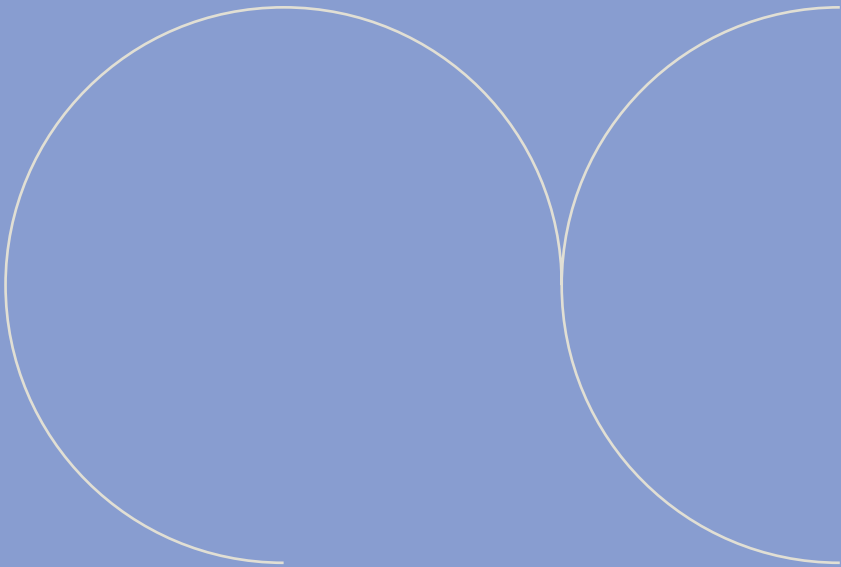
Based on the research, the authors of the report also defined problem questions about the process itself, which are worth considering for possible replication:

1. What can be done to, give space for all children to express themselves so that the rest of the group is interested?
2. What could be done to ensure that teachers are present in the process in a way that supports children's creativity and subjectivity as much as possible?
3. What could be done to help give the children maximum space for creativity and agency in the time available in the class / project?
4. How to organise joint work between children and parents to avoid chaos and make all parties feel comfortable working together?
5. What to do when the "main" intervention fails?
6. How to get teachers to use the CoMobility project methodology in their work?
7. How to communicate the "CoMobility offer" to directors, teachers? What should be emphasised in the message? What are the benefits?
8. How can we support the development of participatory attitudes towards sustainable mobility?
9. What can we "equip" children with to help them change / shape their family reality?

Even though these questions were not answered in the report produced, for the purpose of this handbook we have decided to take inspiration from them and prepare some universal guidelines to keep in mind when replicating this process in other cities, institutions, or entities (regardless of the subject matter, the number of actors involved or the nature of their activities). You will find the guidelines in the last chapter of the guide.

CHAPTER 6

CONCLUSIONS



6.1 CONCLUDING REMARKS – GUIDELINES FOR REPLICATION OF THE CO-CREATION PROCESS

Following our presentation of the specifics of co-creation activities using elements of citizen science, we would like to share some additional insights we gained during the CoMobility project activities. These experiences, like most of the content we presented, are universal in nature and can guide you in planning similar processes that make extensive use of civic engagement.

In our opinion, it is important that actors (local and regional authorities or their organisational units, as well as NGOs and social economy entities) who would like to use the co-creation process in their activities to solve local problems pay special attention to the following when designing their activities:

- If you want to create a similar process to Urban Labs aimed at children and young people, you should consider hiring experienced educators from outside the school. Although female teachers have a great deal of experience working with children, the arrival of a new person can cause a boost of creativity among the children and at the same time give rise to a greater desire to show off their ideas, etc. In the case of workshops aimed at adults or young people, it might be advisable to involve a facilitator, who will guide the group work, improve communication between the members and also support the coordination of the whole activity.
- It is worth remembering to prepare a good database of materials (e.g. source documents, work sheets, etc.) that will support the process participants from the very beginning of the work. However, if the process requires self-diagnosis – e.g.

as a result of new themes, events, etc. It is worthwhile to create something like a repository, so that participants can return to the documents/materials at any time, facilitating their subsequent work on solutions.

- It is worth ensuring an adequate level of communication between the project leader and the other participants. This communication should not be limited to "what?", "where?" and "when?". Keep in mind that no matter how detailed the process is and how timed it is, its participants often treat participation as something extra. Therefore, in the communication process it is important that at each stage there is a flow of information about what has been done so far, what is planned, how further work will be conducted and what results have been achieved at this point.
- The co-creation process is characterised by the inclusion of the voice of all participants. Therefore, at the design process stage, it is crucial to provide space for free expression and to present one's ideas, prototypes.
- It is worth bearing in mind that when facilitators/educators are involved, it is important to be clear about their role as supporting participants rather than bailing them out or imposing their own solutions.
- It is worth remembering to prepare alternative scenarios if, for several reasons, it is not possible to implement the planned activities developed during co-creation. In our experience, there is nothing worse than having grand expectations at the end of the process extinguished for unrelated reasons,

especially when it comes to children's sense of empowerment and motivation. Therefore, at the beginning of process programming, it is worth thinking about 'in case' alternatives.

- To ensure a certain sustainability of the process and to be able to use it also in other activities, it is worth thinking about preparing detailed documentation of the process in the form of workshop scenarios, work sheets. Such material will allow others to be inspired or to recall the process after time.
- Building a social community around the activities is especially important, so we encourage you to reach out to a wide range of stakeholders with your ideas for changing the local space through cocreation. This will ensure that the results will live on long after the process has ended, and perhaps be a trigger for further initiatives.

We hope that you will find our observations at least partly useful and that they will make co-creation part of your activities more widely and for a long time to come.

FINAL THOUGHTS

This guide is a compendium on how to use elements of cocreation to solve problems at the local level. Based on our own experience acquired during the implementation of the CoMobility project, we have presented the necessary information and tools to design the process of involving citizens in social action, using elements of co-creation or citizen science.

The guidelines and advice we have provided are universal and can be successfully replicated in any local authority regardless of the scale, complexity of the problem or the objectives that have been planned to be achieved.

As part of the guide, we have also presented successful local interventions to build child travel safety or to improve the quality of the environment in school settings. All these interventions were also created according to the principles of universal design and are therefore successfully adaptable in a wide range of ways without the need for specialised adaptation of the site, infrastructure, etc.

As the CoMobility project team, we hope that this guide has given you a better understanding of the use of the cocreation process in social action and will serve as a source of inspiration for implementing similar initiatives in your 'local homelands'.

The CoMobility team

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PROJECT INFORMATION

The CoMobility project received funding from Iceland, Liechtenstein, and Norway under EEA Grants. The project was operated by the National Centre for Research and Development in Poland (NCRD). The project was co-financed in 15% from the Polish budget. The project partners were:

NO	NAME	COUNTRY
1	University of Warsaw	Poland
2	Warsaw School of Economics	Poland
3	Warsaw University of Technology	Poland
4	Norwegian Institute for Air Research	Norway
5	"On the Spot" Foundation	Poland
6	Fridtjof Nansen Foundation	Norway
7	Municipality of Lublin	Poland

Project website:

www.comobility.edu.en

Materials on YT:

www.youtube.com/@comobility7943

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CoMobility is a transdisciplinary international research project in which we analysed behaviours and attitudes related to mobility, in particular, services as an alternative to private cars. In the co-creation process, we identified barriers and opportunities in the uptake of different modes of travel and found actions that facilitate a sustainable change in transport habits. Together with local communities, entrepreneurs, and officials, we have co-created climate-neutral solutions, and we share our Warsaw experience and research results with local governments and other cities in Poland and Europe. The result of the project is a set of methods for co-creating new transport solutions and tools for assessing and impacting air quality.

