Urban Doers Community

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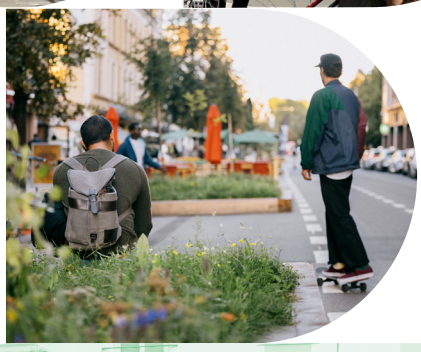


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Sustainable Mobility Interventions for Schools in Tallinn, Estonia

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Abstract

This text outlines an ongoing initiative aimed at promoting sustainable mobility among schoolchildren through diverse interventions involving urban design, behavioural science, and community engagement. Rooted in the imperative to reshape urban mobility behaviour, especially among children, the initiative seeks to establish a robust evidence base for future urban transformations.

Background and Objectives: The initiative, 'Sustainable Mobility Interventions for Schools,' emerged from the necessity to address urban mobility challenges with effective, evidence-based strategies. Its primary goal is to develop interventions that encourage sustainable modes of transportation, enhance safety and promote active lifestyles among students. The first intervention developed under the initiative involves transformation of school streets into pedestrian-friendly spaces that reduce reliance on motorised transport using tactical design measures.

Methodology: Employing rigorous methodologies from behavioural sciences and urban studies, the initiative conducted an initial feasibility study. This study evaluated the feasibility of various mobility interventions in a real-life setting. Initial findings identified several feasible interventions, including tactical urban design interventions for school streets.

Implementation and Progress: A pivotal milestone was the collaboration with local authorities to implement the tactical urban design intervention in 16 school streets. The intervention is initially mainly aimed at improving basic safety and accessibility around schools for pedestrians and cyclists. Current efforts focus on completing effectiveness measurements through surveys, observational studies, and stakeholder feedback, providing crucial insights into the intervention's impact on mobility behaviour and community perceptions.

Challenges and Future Directions: Despite progress, challenges remain in completing the effectiveness measurements and scaling successful interventions to broader contexts. Future opportunities lie in diversifying intervention types and conducting further studies on existing interventions implemented in new contexts. The initiative aims to consolidate its findings into practical guidelines for schools and municipalities, fostering a lasting impact on urban mobility planning.

Conclusion: The initiative represents a significant step towards integrating theory and practice in urban mobility studies to arrive at robust and evidence-based measures to bring about desired changes in urban mobility. By leveraging evidence-based approaches and practical guidelines, it lays the groundwork for transformative urban policies that prioritise safety, sustainability, and community well-being. As the project continues, its evolving methodologies and outcomes offer valuable insights for urban planners, policymakers, and educators committed to enhancing the health outcomes of children.

Based on the Telheiras Renewable Energy Community experience, we envisage an energy future aligned with the Positive Energy Districts pathway with multiple energy communities blooming across the European Union, not only increasing renewable energy generation and reducing greenhouse gas emissions but also mitigating energy poverty, strengthening community bonds, and promoting values of energy justice and energy democracy. This pathway remains, however, a mirage, and much more needs to be done to support local communities in developing their own energy-related initiatives. Sharing lessons, building capacity, and inspiring others in the context of European networks can be fundamental to leverage the community energy revolution.

Key Lessons:

1. Network, be bold in introducing your ideas. Unexpected opportunities for cooperation can present themselves if you are liberal with sharing your ideas and visions. Cooperation is crucial for an idea to grow into something tangible and potentially transformative.

2. Do your homework and make sure you have the necessary areas of expertise covered. Competence is the bestselling strategy. It is much easier (and more comfortable for yourself) to share your ideas and convince decision-makers to try them out if you know what you are talking about.

3. Be persistent: it has taken us 3 years and multiple previous initiatives to get to the point where we are today. Getting fresh ideas off the ground is not easy, but having a clear vision and working towards it opportunistically whenever a good opportunity presents itself, can really help the process.

4. Robust evidence base is a must-have for urban transformation initiatives. It is our view that the field of urban studies urgently needs to develop more robust evidence base for the transformative measures it seeks to implement if we are to convince the public and move towards our goals in an effective manner. By designing your initiative according to best available knowledge and rigorously measuring its effectiveness, you lend a hand to all other similar initiatives and advance the more general ambition for transformative change in urban living environment.

5. Celebrate the successes, even the small ones. The ultimate success of your initiative is probably going to take time and even when it arrives, it is always going to be incomplete and inconclusive as the process of urban transformation is necessarily an iterative and continuously evolving phenomenon. For your own sanity and well-being, it is important to be patient and take the long view while celebrating the small successes and enjoying the process of nurturing your own initiative that will hopefully one day meaningfully contribute to broader collective efforts for change.

The initiative 'Sustainable Mobility Interventions for Schools' emerged at the intersection of social sciences, urban studies, and behavioural sciences. It was driven by the urgent need for change in urban mobility behaviour, particularly among children, and the lack of effective measures to address this need that would also have a methodologically robust evidence base. The initiative is based in Tallinn, Estonia where children's declining levels of physical activity and related degrading health outcomes are of increasing public concern. We have identified the recent increase in car-based commuting practises as one of the key drivers of this concerning development. Simultaneously, we see great potential for lasting positive change in measures that address children's commuting practises and encourage the use of more active modes in the commute. These kinds of effective measures are precisely the end-goal of our initiative.

The initiative has employed rigorous methodological approaches from behavioural sciences to complement the diverse, yet methodologically uneven knowledge compiled in the fields of mobility and urban studies. We see robust evidence-base as an absolutely crucial precondition for creating effective measures that could be implemented in practice in a relatively new field of study dealing with complex situations and contested topics.

Our primary goal is to develop mobility interventions for schools aimed at shifting children's daily mobility behaviour towards sustainable modes. These interventions would be tested, and their effectiveness measured in real-life settings. The most effective interventions would then be compiled into a guide with detailed instructions for implementation and expected outcomes.

As of this writing, the initiative is still ongoing, and the plan is unfinished. However, the scale and success of the initiative thus far have exceeded our initial hopes and expectations. We have developed detailed interventions and conducted a feasibility study to assess their feasibility. Most notably, we convinced the local city government to implement and test school-based mobility interventions in 16 schools this year.

In the feasibility study, we implemented five separate mobility interventions in one school and assessed the feasibility of implementing them and measuring their effectiveness. The study concluded that three of the interventions were feasible, one was unfeasible, and one was potentially feasible with certain design modifications. Conducting a feasibility study is a crucial step in measuring the effectiveness of an intervention, though it is often skipped due to time or funding constraints. In our case, it saved us significant time and money by revealing that two of the five proposed interventions were not ready for wider implementation. It also gave us confidence in the three feasible interventions, allowing us to progress to the next step of measuring their effectiveness.

The most promising of the interventions deemed feasible in the initial study involved creating tactical urban design interventions on school streets to make the street safer for children and more conducive to walking and cycling. There is an urgent need to redesign school streets in Tallinn, as their design today does not prioritise the safety of children over the needs of car traffic. This is the legacy of decades of car-centric street design practices that have been prevalent in Tallinn until very recently.

The intervention was adopted by the local municipality and implemented in 16 schools. Questionnaires were distributed among parents of the 16 schools, as well as a control group of schools, before the intervention, with plans to repeat the survey after the interventions are implemented. This will form the data basis for measuring the effectiveness of the intervention.

As of this writing, extensive engagement activities with schools and parents have been conducted, and initial sketches for the interventions have been compiled. The engagement activities have involved site visits with main local stakeholders to observe and discuss the current issues with the design of the school streets,

feedback rounds with the school leadership for the new proposed designs and town hall meetings with school leadership and parents to discuss the new proposals and arrive at a collective decision to go ahead with the new designs. Detailed blueprints are currently being finalised, with the goal of implementing all 16 interventions by September 1, 2024. Following implementation, joint observational visits with local stakeholders and a second round of questionnaires are planned. Based on these two rounds of questionnaires, the effectiveness of the urban design interventions can be measured with a fairly large sample size. If found effective, the design and implementation principles can be detailed and compiled into a practical guide for other schools. This would be a major milestone for the initiative, demonstrating a successful evidence-based intervention with a robust assessment of its effectiveness.

A CONTRIBUTION TO CREATING SAFE, INCLUSIVE AND HUMAN SCALE CITIES

This initiative significantly contributes to urban transformation by strengthening the argument for creating safe, inclusive, and human scale cities. Currently, much of the societal debate around urban design is based on theoretical or anecdotal evidence. The findings from this test case would help shift the debate towards a foundation of evidence and facts. Given the complex nature of cities, it is not always possible to base every aspect of urban transformation on empirical evidence. However, it is crucial to inject a robust evidence base into the debate wherever possible.

School streets and the streets leading to schools constitute a significant portion of the urban fabric. Implementing urban design interventions on these streets can profoundly impact the transformation of public spaces in general. A school street often has other functions, featuring homes, local businesses and other amenities. Therefore, the intervention extends beyond just the school, affecting the broader community.

By demonstrating the effectiveness of these interventions, we not only enhance the safety and accessibility of streets around schools but also aim to set a precedent for similar transformations across the city and beyond. This evidence-based approach can inspire other municipalities to adopt and implement similar measures, ultimately leading to widespread contributions to urban transformation.

We also want to underscore the importance of integrating community needs and local context into urban planning. By engaging with parents, students, and local stakeholders, the project ensures that the interventions are tailored to the unique characteristics of each neighbourhood. This inclusive approach fosters a sense of ownership and pride among residents, encouraging them to actively participate in the ongoing transformation of their urban environment.

By transforming the public space, the intervention seeks to address a range of critical issues, including public health, economic, social and climate change challenges.

Enhancing the safety and attractiveness of street spaces encourages more children and their families to walk or cycle to school. This increase in physical activity can lead to significant health benefits, such as reduced rates of childhood obesity, improved cardiovascular health, and better mental well-being. Moreover, reducing the number of vehicles around schools lowers the exposure to air pollution, which is particularly harmful to young, developing lungs. This way the intervention aims to create a healthier, more active community, fostering lifelong habits of physical activity.

Economically, the intervention can lead to savings on several fronts. By promoting walking and cycling, families may reduce their reliance on cars, leading to lower transportation costs. For many people, transporting children is an important reason for owning and using a car. Additionally, safer and more attractive streets can boost local businesses, as more people are encouraged to walk and shop locally. In the long term, the reduction in healthcare costs due to a healthier population can result in significant economic savings for the community.

Addressing climate change is another critical goal of this intervention. By reducing the dependency on cars for school commutes, the intervention helps lower greenhouse gas emissions and pollution levels. Encouraging walking and cycling contributes to a reduction in the carbon footprint of the community.

The intervention also brings about numerous social benefits, which are vital for building stronger, more connected communities. By creating safer and more inviting street spaces, the intervention encourages more people to spend time outdoors. This increase in foot traffic naturally leads to more social interactions among students, parents, and community members. As families walk or cycle to school together, they have more opportunities to engage with one another and with their neighbours, fostering a greater sense of community and belonging.

The intervention promotes inclusivity by designing streets that are accessible and safe for everyone, regardless of age or ability. Features such as widened sidewalks, clearly marked bike lanes, and strategically placed plant boxes ensure that the environment is welcoming for children, the elderly, and individuals with disabilities. This inclusivity helps to break down barriers and encourages a diverse mix of people to use and enjoy the public spaces.

The intervention also provides educational benefits, particularly for students. By promoting sustainable transportation and environmental stewardship, the project can serve as a practical, real-world example of these concepts in action. Schools can incorporate lessons about urban planning, sustainability, and public health into their curricula, using the intervention as a living classroom. This hands-on learning can inspire students to become active participants in their communities and future advocates for sustainable practices.

EXPERIENCES THAT CAN BE USEFUL FOR OTHER INITIATIVES AND CONTEXTS

Some of the main experiences of the initiative revolve around networking and lobbying. We formed alliances with various like-minded practitioners in Tallinn to present the idea of the tactical urban design intervention to the city government within their participatory budget initiative. We were successful in attracting the attention of the city government, in fact, they were so interested that they decided to implement the intervention within their regular budget on a far larger scale than would have been possible within the participatory budget scheme. This was a significant milestone, largely resulting from the thorough development of the initiative and our active lobbying efforts. This experience underscores the importance of communication and networking with various actors in the field as it can open up opportunities to further develop one's ideas and implement them in practice.

While lobbying is important, we found that having actual expertise and doing one's homework is even more crucial for several reasons. One of the primary advantages is that it significantly enhances the effectiveness of lobbying efforts when the initiative is supported by thorough research and the insights of well-known and respected specialists.

Leveraging the expertise of specialists brings credibility and authority to the initiative. Policymakers, community leaders, and stakeholders are more likely to take the proposal seriously if it is backed by recognised experts in the field. Their endorsement can validate the project's objectives and methodologies, making it more compelling and trustworthy. In our case, our ability to secure the approval and visible support of top local experts in the field of urban mobility was likely one of the keys to getting our idea picked up by the city government.

More importantly, though, expertise ensures that the initiative is based on sound research and best practices. This comprehensive understanding allows for informed decision-making, helping to identify potential challenges and developing effective solutions. By doing thorough homework and consulting with specialists, the initiative can anticipate and address concerns that may arise during the lobbying and implementation processes. For us, one of our key points from early on was engaging thoroughly with the local stakeholders, as we knew from our own and our more experienced allies' experiences that it is not enough to base an initiative on sound expert knowledge if the initiative is not intuitive and simple to understand for the local stakeholders. This emphasis of engagement was instrumental in alleviating politicians' concerns over public backlash to a new and strange initiative.

FUTURE

Further opportunities to enhance the learnings of the initiative mainly lie in finishing the process of measuring the effectiveness of the urban design intervention. This is clearly the largest obstacle still to be overcome. After that, the focus should shift to other types of interventions to broaden the range of measures available to schools when trying to increase use of active modes among their students. A good starting point would be the other two interventions found feasible in the feasibility study.

More broadly speaking, the field of urban studies is in dire need of purposeful experimentation that results in a robust evidence base for implementing broader and more permanent measures. Although experimenting with urban spaces has garnered considerable interest from a wide range of actors, formalising the lessons learned and observed effects into methodologically sound pieces of evidence has been a challenge for the field. This is a critical issue, as the move towards sustainable mobility has thus far failed to gain enough momentum to rapidly address the multitude of connected societal challenges. For effective public communication and more impactful interventions, municipalities need a more detailed and well-supported knowledge base.

The discipline must embrace a more systematic approach to experimentation, where interventions are not only implemented but also meticulously evaluated. This involves setting clear objectives, using control groups where feasible, and employing robust data collection methods. By doing so, the field can produce reliable evidence on what works and what does not, providing a strong foundation for scaling up successful interventions.

The future of the initiative lies in its potential to pioneer the creation of these essential pieces of evidence. By adopting rigorous methodologies and embracing a culture of continuous learning and adaptation, the initiative can lead the way in demonstrating the value of evidence-based approaches to sustainable mobility. This can serve as a model for other projects, encouraging a shift towards more rigorous and impactful practices.