



D3.2 – Impact assessment and transferability report

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Executive summary

The StreetForum impact assessment and transferability report is the implementation of the evaluation framework developed in deliverable 3.1. The objective was to measure the impact of the different tools in terms of their ability to facilitate street transformation through consensus-building, supporting negotiation capacities, and ensuring continuous engagement from citizens and other relevant stakeholders. The framework was applied and demonstrated in four European Living Labs in collaboration with citizens, NGOs, local authorities, and businesses. It applied two out of the three levels of the framework: a comparison between individual tools and Living Labs.

While the framework included indicators for both direct impacts and indirect or long-term impacts, its practical implementation in the Living Labs focused on the former, i.e. the process and outcome of the tools. Indicators for impact assessment included process quality, capacity for trust-building, creating a common understanding of the issues surrounding street transformation, empowerment of local communities, raising awareness of the impacts of street transformation, and quality of the outcome. The applicability and transferability assessment investigated the barriers and enablers to using the tools, as well as the extent to which they could be successfully applied in other settings beyond the Living Labs. For this, indicators regarding the context and stakeholders, user acceptance, necessary resources, and organisational factors were used.

The evaluation is based on surveys and structured observations collected from 298 participants, facilitators, and tool developers in the four StreetForum Living Labs. Findings demonstrate that creative approaches (e.g., visual support, gamification, and role-play) can be beneficial in overcoming language barriers, sparking engagement, or encouraging reflection. On-street activities lower the threshold to participate and support the imagination of a new use of the street. Digital tools can be an important asset to scale up the number of participants, but they need a hybrid support to involve certain groups. Overall, combining multiple formats increases the diversity among participating stakeholders. Finally, the Living Lab activities led mostly to non-conclusive outcomes. Agreements of participants focused on how the street should be used, proposals for activities organised by citizens and local governments, and for small or temporary interventions improving the street.

The impact assessment offers a comprehensive view of the toolkit's efficacy in fostering consensus-oriented street transformations and identifies features for achieving higher impact. Furthermore, the applicability and transferability assessment guide the use of the tools in diverse social and cultural contexts. The findings aim to advance knowledge on participatory methodologies and to provide actionable insights for local governments and citizens on the verge of a street transformation process.

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1. Introduction

1.1. Aim of the deliverable

This deliverable relates to Work Package 3 (WP3) of the StreetForum project. This work package, titled 'Evaluation and transferability assessment', monitors and evaluates the demonstration of tools (developed in WP1) in the Living Lab (set up in WP2). The aim of the evaluation is to assess the extent to which the tools developed in WP1 can facilitate decision-making during street transformations. In this regard, an evaluation framework was developed in task 3.1 and explained in D3.1 'StreetForum Evaluation framework'. This evaluation framework includes three levels of assessment and two sets of indicators: one for measuring impact and one for applicability and transferability. The evaluation had associated evaluation tasks in WP3. Data for process monitoring and ex-post evaluation were collected in T3.2 Impact Assessment and T3.3 Transferability and Applicability Assessment. The data was processed and analysed as part of this deliverable – D3.2 'Impact Assessment and Transferability Report'.

The aim of this report is to summarise the data collected in the Living Labs. As set out in D3.1 StreetForum Evaluation framework, data was collected for both assessments: impact of the tools and their applicability and transferability. The data from the impact assessment was used to further develop the StreetForum tools in WP1. Insights from the analysis regarding transferability and applicability are used as content for the 'Lessons Learned' section in the StreetForum Guide in WP5.

1.2. Authors and contributors

Tasks 3.2 and 3.3, to which this deliverable relates, were led by Vrije Universiteit Brussel with contributions from Spacescape in the role of reviewer. Data collection was carried out by the Living Lab coordinators Vrije Universiteit Brussel and Cultureghem in Brussels; Istanbul Metropolitan Municipality and Boğaziçi University in Istanbul; Spacescape in Stockholm; and Space and place and the Technische Universität Wien in Vienna. The design of evaluation materials (survey questionnaires and observation sheets), as well as the processing and analysis of the data, were done by the researchers from the Vrije Universiteit Brussel.

1.3. Structure of the deliverable

The deliverable is structured as follows:

- Section 1: introduction of the aim, contributors and structure of the deliverable.
- Section 2: presentation of the methodology and application of the StreetForum evaluation framework as set out in D3.1.

- Section 3: results of the data collected for the impact assessment. The insights from participants, facilitators and observers are presented simultaneously to maintain the ordering and aid comparison of findings.
- Section 4: findings of the applicability and transferability assessment. The insights from the monitoring process and interviews with tool developers are presented together.
- Section 5: conclusions and lessons learnt for research and the use of the tools by local communities and citizens.

2. Methodology

An evaluation framework and methodology were developed in deliverable 3.1. The following section is a summary of the framework and elaborates on its practical application.

2.1. Research questions

The impact assessment aimed to answer the following research questions:

- How did each tool impact consensus-building, the level of participation, social learning and diversity of participants?
- How did the overall Living Lab programs impact consensus-building?

The applicability and transferability assessment aimed to answer the following questions:

- What barriers and drivers impacted the tool’s applicability for consensus-building?
- How can the tools be made transferable in different contexts?

2.2. Scope of the evaluation

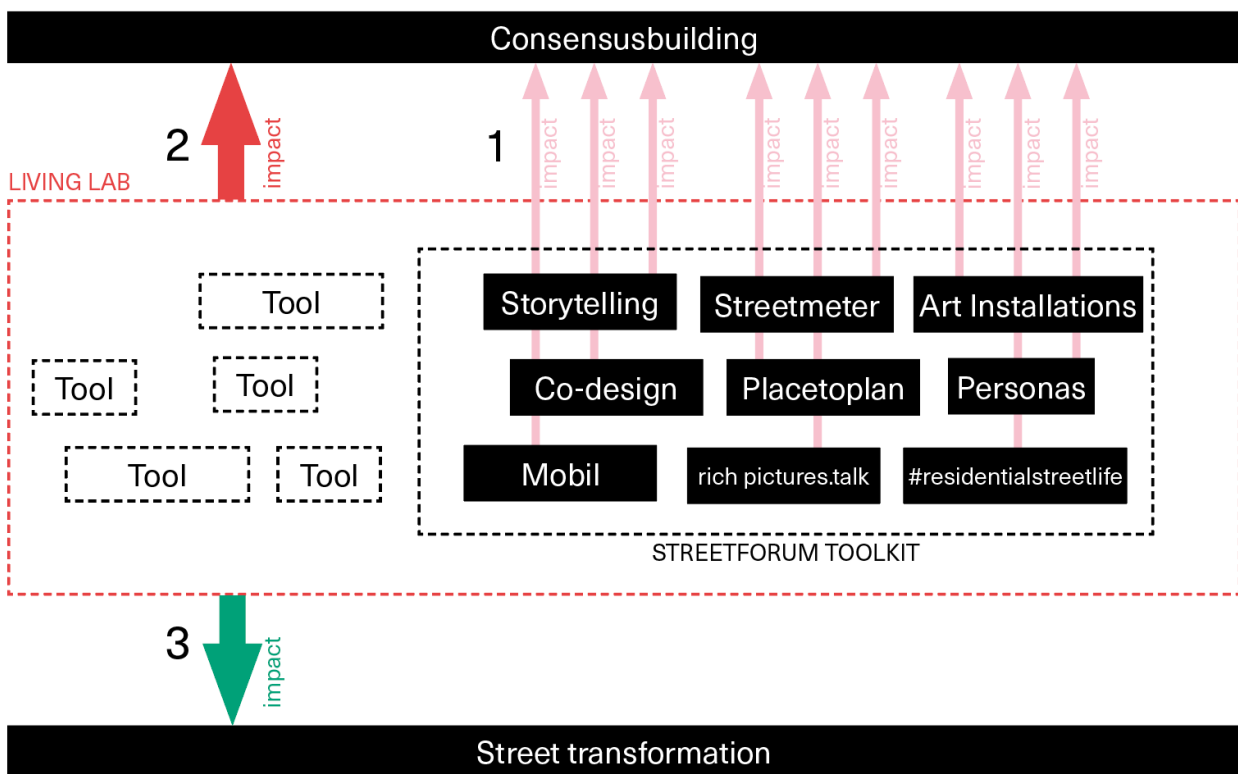


Figure 1 StreetForum Evaluation Framework - three levels of assessment

The evaluation of the impact of the StreetForum Toolkit and Living Labs consists of three assessment levels (Figure 1). Firstly, Individual Tool Evaluation (1) measures the impact of each tool and questions how the StreetForum tools separately serve as a support for

consensus-building and how they can be improved in terms of applicability and transferability, i.e. how they can function optimally in different social, political, and cultural contexts. Secondly, the overall impact of the Living Labs on consensus-building is measured. In the Living Lab evaluation (2), the combined set of activities of the Living Labs were considered, both formally, i.e. as a part of the StreetForum toolkit, and non-formally organised. This allowed ad hoc activities to be included in the assessment, bearing in mind that these types of activities are intrinsic to bottom-up or citizen-organised street initiatives. Since the implementation of a physical street transformation was not part of the project, the third layer, Street transformation evaluation (3), was not applied.

2.3. Evaluation design

The evaluation of each Living Lab was implemented throughout three phases.

- Before the activities – Assessment of the current situation

A street transformation project begins with identifying stakeholders and gathering data about the area. The street, in its current state, was evaluated to support the design process and to compare it with the post-phase.

- During the Living Lab activities – Assessment of the process quality and impact of tools

The capacity of the tools on consensus-making (i.e. enabling common understanding of issues, building trust, empowering, raising awareness, learning, problem identification and understanding of alternatives...) was measured together with the quality of the process (i.e. engagement and representativity).

- After the activities – Assessment of the quality of the outcome and impact of the tools

The quality of the outcome and possible impact of the tools in the longer term (i.e. common agreements reached, solutions proposed and new relations built) was assessed.

The project was applied in the four StreetForum Living Labs in Brussels, Istanbul, Stockholm and Vienna. Although all Living Labs operated in different contexts, scales, and time frames but were evaluated in the three stages.

The data was collected through questionnaire surveys and observation protocols. To ensure triangulation, both the participants and facilitators filled out surveys, and an observation protocol was set up by a third (external) person during all activities. Additionally, the tool developers were interviewed to gain insight into the applicability and transferability, and

feedback from practitioners on how to apply the tools was collected during a webinar organised by the StreetForum project.

The StreetForum toolkit was categorised into three groups: tools in a workshop-like setting, digital tools and on-street activities (Figure 2). For each group of tools, a slightly different survey template and observation protocol were developed that correspond with each group's characteristics. This relates to the stages of evaluation, for example administering both a before- and after survey during on-street activities is too much of a threshold, on-street activities were therefore only evaluated by participants after the activity. It also impacted the actors involved in the evaluation, for example, structured observation by an external observer is not possible when participants use a digital tool at home and was not applied to digital tools.

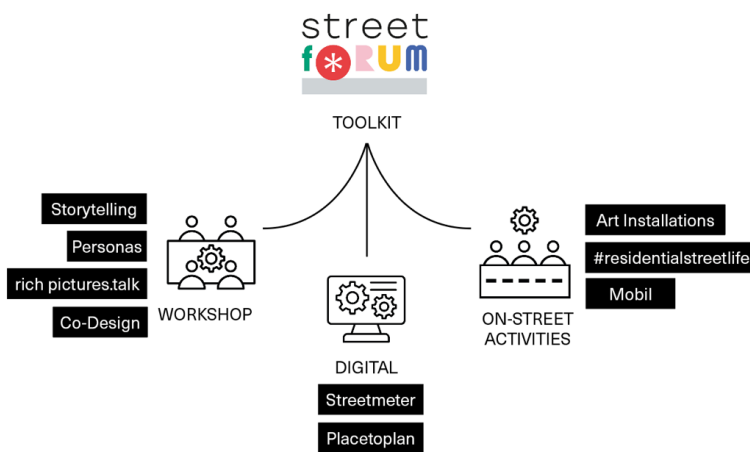


Figure 2 Tool assessment - three types of evaluation

2.4. Key elements of consensus building

In the evaluation framework, four key concepts for consensus-building were identified: building a common understanding of the issues in a street, raising awareness of the different impacts on and needs of stakeholders, building trust within local communities, and empowering stakeholders. These concepts structured the list of indicators used for evaluating the tool's impact on consensus-building and were studied together with the evaluation of the process and outcome quality. Table 1 shows an overview of all indicators for the impact assessment, and whether they were applied to compare Living Labs or separate tools. A detailed description of the indicators can be found in Deliverable 3.1 Evaluation Framework (Stähle et al., 2024).

Category	Indicator	Assessment level
Process quality	Representativity	Living Lab
	Engagement	Tools
Building a common understanding	Common problems	Living Lab and Tools
	Shared values	Living Lab and Tools
	Clarity of purpose	Tools
Trust building	Trusted information	Tools
	Trust in facilitator	Tools
	Time to express own view	Tools
Empowerment	Ease of use	Tools
	Ability to address conflict	Tools
Raising awareness	Understand impact on others	Tools
	Societal learning	Tools
Outcome quality	Agreement and satisfaction	Tools
	New relationships	Tools

Table 1 Indicator list, adapted by author from D3.1 Evaluation Framework (Ståhle et al., 2024)

2.4.1. Tool developers' expectations for consensus-building

The tool developers indicated in which of the four key concepts of consensus-building (see section 2.4), they expected their tool to be impactful, based on their previous experiences from using the tools. This initial assumption, as shown in Table 2, was used to select the combination of tools for each Living Lab, in order to address all four elements of consensus-building (section 2.5.1).

The tool developers were the following:

Spacescape (SpS) is a business in Stockholm, spaceandplace (SP) is an NGO in Vienna and collaborated with Allain Tisserand Architects (AT). The University of Vienna (TUW) developed the Design Game and the Free University of Brussels (VUB) developed Stakeholder Personas

and the Storytelling Game. Finally, Keep the Balance OPEN AIR was an existing game on consent developed by SozioKratie and adapted for on-street use by spaceandplace (SP).

Tool	Key element of consensus-building that is addressed
Streetmeter (SpS)	Build common understanding; Raise awareness
Placetoplan (SpS)	Build common understanding; Build trust
#residentialstreetlife (SP)	Raise awareness; Build common understanding; Empower
rich picture.talk (SP)	Build common understanding; Build trust
Art Installations: umbrella blossoms, car.iage (AT)	Raise awareness; Empower
Design game (TUW)	Raise awareness; Build common understanding; Empower
Stakeholder personas (VUB)	Build common understanding
Storytelling game (VUB)	Build common understanding; Empower; Build trust
MoBil, a MoBile co-design cart (CG)	Raise awareness; Empower
Keep the Balance OPEN AIR	N/A

Table 2 Tools and elements of consensus-building.

2.5. Key elements of applicability and transferability

To assess the applicability of the tools, we considered the political and social environment, the local political context, the regulatory framework, the necessity to involve specific political and social actors, and language requirements. Additionally, we investigated the user acceptance of street transformation and Mobility policies, and whether participants had adequate resources to understand and effectively use the tools. Required resources such as human, time, and economic resources were also key indicators, as these factors directly influence the feasibility of implementing the toolkit. Finally, we assessed any organisational and structural barriers, considering the local organisations' structure and potential obstacles, alongside the experience and expectations of facilitators involved in the process.

To assess the transferability of the tools, we asked the facilitators to elaborate on the estimated impact on consensus, and we examined the contextual conditions, particularly assessing the level of conflict present within the local environment, as this could affect the effectiveness of the tool. We also looked at the mutual interdependence of stakeholders and their commitment to joint action, to determine if they could collaborate effectively. These indicators allowed us to understand the context in which the tools were used and identify whether the outcome of the tool was solely context-dependent or could be reproduced in diverse locations.

Lastly, a webinar was organised on November 14, 2024, to present the tools to practitioners and collect their feedback regarding the applicability and transferability of the tools. The insights obtained during this event are presented in a dedicated subsection.

2.6. Data collection

2.6.1. Application of the tools in real-world contexts

Each tool was tested in at least two locations. The Living Labs organisers could indicate which tools they found most useful for their context. The aim of the selected toolset per Living Lab was to address all dimensions of consensus-building according to the initial assumption of the tool developers (see section 2.4.1). In the table below (Table 3), an overview of applied tools per location is shown, referring to the assumed impact on consensus-building for each tool: (CU) build a common understanding; (EM) empowerment; (TB) trust building; (RA) raising awareness.

	Brussels Ropsy C.	Brussels Revision	Istanbul Yoğurtçu	Istanbul Centre	Stock- holm	Vienna Lambertg	Vienna Rahlg.
Streetmeter (CU, RA)		(CU, RA)	(CU, RA)				
Placetoplan (CU, BT)	(CU, BT)				(CU, BT)	(CU, BT)	(CU, BT)
#residential streetlife (CU, EM, RA)			(CU, EM, RA)	(CU, EM, RA)	(CU, EM, RA)	(CU, EM, RA)	(CU, EM, RA)
rich picture.talk (BU, BT)	(BU, BT)					(BU, BT)	(BU, BT)
Art installations (RA, EM)			(RA, EM)			(RA, EM)	(RA, EM)
Design game (RA, BU, EM)		(RA, BU, EM)	(RA, BU, EM)				
Stakeholder personas (BU)		(BU)	(BU)				
Storytelling game (BU, EM, BT)	(BU, EM, BT)				(BU, EM, BT)		
MoBil (RA, EM)	(RA, EM)	(RA, EM)	(RA, EM)				
Keep the Balance OPEN AIR (N/A)							

Table 3 Application of tools in Living Labs

2.6.2. Impact assessment

The data collection for the impact assessment consisted of the following steps:

- Baseline data collection:
 - Living Labs Evaluation: ex-ante assessment of the street by participants
- Process monitoring:
 - Living Labs and Tool Evaluation: structured observations

- Ex-post data collection:
 - Living Labs Evaluation: ex-post survey by facilitators of the Living Lab activities
 - Tool Evaluation: ex-post survey on consensus-building for participants and facilitators

Note on the application of the evaluation framework: The ex-ante assessment of the street was only applied in workshop-like tools. It was not possible to implement structured observation while participants were testing digital tools. An ex-post assessment of the street by participants was incomplete and therefore excluded from analysis. The ex-post data collection from a core group of participants was only collected in Brussels and was not included in this report, due to the lack of comparative material.

2.6.3. Applicability and transferability assessment

The data collection for the applicability and transferability assessment consisted of the following steps:

- Process monitoring through surveys and structured observation in Living Labs
- Interviews with Living Lab coordinators

2.7. Sample of participants

Overall, in the Living Labs, 230 participants filled out an evaluation for one or as many tools as they tested. Table 8 in Annex 1 shows an overview of participants' demographics. Overall, the gender distribution was balanced and in terms of age groups, most participants were under 50 years old. Only 24% of respondents indicated that they use motorised transport as one of their main modes of transport (car, e-scooter or motorbike), most of the participants indicated they walk (70%) or travel by public transport (66%), and almost half of the participants (45%) use a bike. Participants could indicate multiple main modes of transport. Furthermore, car ownership is limited to 31% of participants (private or company car).

Regarding the stakeholder groups to which participants belonged, most participants indicated that they were inhabitants. Civic associations (13%) and public authorities (8%) were less present (13 and 8% respectively). Finally, businesses and public institutions each made up less than 5% of the group.

In Brussels, the gender distribution among participants was equal. Participants were predominantly 30-39 years old, making up 40% of the participants, while those aged 18-29 and 40-49 each represented around 20%. The majority of participants were using active Mobility as a main transport mode, with 67% being pedestrians, 36% cyclists, and 69% public transport users. Notably, 75% of participants did not own a car. The sample mainly consisted of inhabitants (73%) and civic associations (19%).

In Stockholm, the gender distribution was also equal among participants. Participants aged 30-39 years old were the biggest group (36%), followed by the 40-49 and 50-59 age groups, which together accounted for 39% of the participants. Car drivers were more represented in this living lab, with 36% of participants driving cars, and a significant number of cyclists (69%). Almost half of the participants owned a car. The sample mainly consisted of inhabitants (86%), and people representing public authorities accounted for 11%.

In Istanbul, women were more present, making up 62% of participants, compared to 34% of men and 4% of other genders. Almost half of the participants were between 18 and 29 years old, and a third were aged 30-39. Most participants were pedestrians (72%) and public transport users (58%), with few cyclists (6%) and car drivers (20%). Interestingly, despite 32% owning a private or company car, only 20% indicated it as one of their main transport modes. Almost all participants indicated they were inhabitants (94%).

In Vienna, the gender distribution was equal between men and women, with other genders making up 8%. The 18-29 age group comprised almost half of the participants, and the rest were fairly distributed among the other age groups up to 69 years old. The majority of participants were pedestrians (85%), cyclists (79%), and public transport users (79%). Vienna had the lowest percentage of car drivers among all Living Labs at 13%, although 32% still owned a car. Almost all participants indicated they were inhabitants (87%), and public institutions accounted for 8%.

2.8. Living Labs Facilitators

For triangulation, facilitators of the tools were surveyed alongside participants. The 'End of Living Lab' survey template can be found in Annex 5. Often, they also provided the independent observer for evaluation. Facilitation was handled differently across Living Labs. In Brussels, the Living Lab organizer was a local NGO. Since they did not have a skilled facilitator within their team, they opted to hire an external one, who led the testing of workshop-like tools together with the researchers' team of the VUB. In other Living Labs, the facilitation was done by the Living Lab organisers, which were the Istanbul Metropolitan Municipality and researchers from the Boğaziçi University (Istanbul), the business and architectural office Spacescape (Stockholm), and the NGO Space and Place (Vienna).

3. Impact assessment

3.1. Perception of representativity

Participants of workshop-like tools and on-street activities were asked in a ex-post survey to indicate if the group was representative and, if their answer was “no”, which groups were missing. Results show the percentage of participants who found the group representative (Table 4) and, if they did not find it representative, which were the missing stakeholder groups. Facilitators were also asked at the end of all Living Lab activities if they found it overall representative.

In Brussels and Vienna, less than half of the participants found the group representative. Stockholm had a smaller respondent group, but a little over half found the group representative. In Istanbul, the group was perceived as representing all stakeholders by most of the participants.

Facilitators’ responses related to the overall Living Lab and went beyond representativity at the tool level. This might explain why they are not in line with participants’ perception of representativity. In Brussels (Revision) and Vienna, facilitators found their participant group representative. In the two other Labs, facilitators did not experience that all stakeholders were present.

	Total	Brussels	Stockholm	Istanbul	Vienna
Number	177	65	17	42	53
Share that found the group to be representative	50%	40%	53%	81%	38%

Table 4 Representativity as perceived by participants

Participants that replied negatively to the question on representativity could indicate which stakeholders were missing.

In Brussels, participants (n=21) found the following groups to be missing in some occasions: people from immigrant origin, vulnerable persons (at-risk families, homeless...), women, children and young people and their parents, inhabitants (of the street), commercial stakeholders like street vendors, shop- and business owners, landlords and home owners, public institutions and authorities such as police and local government, car drivers and civic associations. Some respondents found the participant’ group too small to be representative. At the end of the Living Lab activities, there was no agreement on representativity among

facilitators (n=3). Some found that certain stakeholder groups were missing such as shop owners, business owners, representatives of local schools and kindergartens and police officers.

In Istanbul, there were no responses from participants (n=0) on missing stakeholders. At the end of the Living Lab activities, the facilitator (n=1) found that certain users were missing due to the absence of online tools, in particular with features like gamification.

In Stockholm, participants (n=4) found that passers-by, car drivers, residents and local businesses were missing stakeholders. Facilitators (n=2) found that car drivers passing through were missing at the end of the Living Lab activities.

In Vienna, participants (n=24) found the following stakeholders missing: residents, children, youth and elderly; professional actors such as the local school, doctor's office or cinema, police. Some mentioned specific users of the street, such as people who live, work or go to school there, walk their dog or spend free time in the street. At the end of the Living Lab activities, there was no agreement on representativeness among facilitators (n=2). In Lambertgasse, they thought all groups were represented, but in Rahlgasse, some stakeholder groups did not try out the tools (e.g., restaurant and café owners or doctors).

3.2. Participants' street value assessment

When setting up a decision-making process around street transformation, it is important to assess the starting conditions. Ansell & Gash (2008) state that those conditions, present at the start of the process, can either facilitate or discourage cooperation among stakeholders. Within the StreetForum project, analysing these starting conditions was important to support a contextualised approach in reaching or building capacity for consensus. This involved an identification of the key stakeholders that should be engaged in the process, and their power relations (see D1.1 Stakeholder Analysis; Martinez et. al, 2024). This showed, for example, that in the Brussels' Living Lab, a lack of trust or a shared vision on the Regional Mobility Plan might have to be overcome before moving forward to a consensus. Secondly, stakeholders' street assessment could support the organisers to map out the key topics for discussion. Therefore, prior to using the workshop-like tools, participants evaluated their street (see survey in Annex 2). The assessment included 16 topics through a 5-point Likert scale ranging from 5 '*problematic*' to 1 '*very satisfied*'. We asked how participants would evaluate each theme in this street on a normal day (see results in Table 5). Parallely, during the testing of workshop-like tools, an observer took notes on topics related to the assessment of values and problems in the street that participants expressed in the workshop discussions. In the following paragraphs, the results are listed per Living Lab street.

Living Lab	Brussels: Ropsy	Brussels: Revision	Istanbul	Stockholm	Vienna: Lambert	Vienna: Rahl
n	26	28	10	7	5	6
Average	3,4	3,3	3,8	3,0	1,8	2,4
Noise Level	3,5	3,9	4,0	3,6	1,4	2,8
Air quality	3,7	3,9	3,6	3,4	1,4	3,2
Greenery	4,2	2,2	2,3	3,9	1,6	2,2
Pedestrian comfort	3,3	2,6	4,4	2,0	1,0	2,6
Cyclist comfort	4,1	3,5	4,7	2,6	1,0	3,0
Possibility to meet people	2,3	3,1	2,0	3,1	1,4	2,6
Streetlights	2,1	2,7	3,4	2,6	1,8	1,6
Outdoor seating	3,8	3,1	3,6	4,4	2,4	3,0
Access to public	1,7	2,1	3,5	4,4	2,2	1,2
Traffic safety	3,2	3,7	4,3	3,9	1,6	1,8
Availability of On-street	3,3	3,1	4,3	1,9	1,6	1,6
Availability of On-street	3,3	3,6	4,7	2,0	2,8	3,0
Wheelchair accessibility	4,0	3,9	5,0	2,3	1,8	3,2
Fear of crime	3,8	3,9	3,5	2,4	3,2	1,2
Protection from summer	4,1	2,8	3,5	3,3	1,4	3,2
Cleanliness	4,2	4,3	3,5	2,8	1,6	1,8

Table 5 Participants' assessment of the street (ex-ante) using a Likert scale from '5' problematic to '1' very satisfied.

3.2.1. Assessment of Ropsy Chaudron street in Brussels

Participants (n=26) scored the Ropsy Chaudron street on average '*neutral*' (3,4). Half of the topics were indicated as '*slightly problematic*' to '*problematic*' (noise level, air quality, greenery, cyclist comfort, outdoor seating, wheelchair accessibility, fear of crime, protection from summer heat and cleanliness), of which cleanliness was scored the most '*problematic*' (4,2). For access to public transport, the possibility to meet people and street lighting, participants indicated on average '*slightly satisfied*' (see detailed results in Table 5).

Observers (n=4) made notes of the discussion between participants. The presence of a primary school (Kameleon) was valued as positive by participants. This contrasted with participants' general concern for safety and security: children's safety is at risk (e.g. double parked cars in front of the school, pedestrian crossing and traffic lights are missing at the school gate) but there was also a concern about traffic safety (e.g. cars not following rules, speeding and traffic not being separated) and about security issues (e.g. pickpocketing, the area is little used by people outside of neighbourhood, harassment and criminalization). Furthermore, observers identified a need for better access for pedestrians (e.g. shop displays block or narrow the passage for strollers and wheelchairs and the street is too narrow for a busy commercial street). Furthermore, the quality of the street was considered lacking in terms of street hygiene, public toilets and maintenance of the street and sidewalk (e.g. holes and uneven surfaces resulting in people tripping). Lastly, a lack of certain infrastructure like green space and public open spaces, for e.g. playgrounds, and bicycle storage was identified. Participants perceived Ropsy Chaudron street too narrow for a commercial street although it is heavily used by pedestrians. In terms of positive values, participants appreciated the liveliness and atmosphere and the smells, charm and music at the market. On the other hand, participants found that there is too little peacekeeping/order keeping by police and city guards in this area. Summarising, common problems recognised by most participants in Ropsy Chaudron street were the lack of traffic safety (especially for children), security problems and poor cleanliness of the street.

Facilitators (n=2) confirmed, in the end of the Living Lab survey, that the discussion between participants was focused on security, drugs and trash, their concerns on impact on children, and maintenance of the street.

3.2.2. Assessment of Boulevard de la Revision in Brussels

Participants (n=28) scored the Revision Boulevard on average as '*neutral*' (3,2). Half of the topics were indicated as '*problematic*' (noise level, air quality, cyclist comfort, traffic safety, wheelchair accessibility, fear of crime, and cleanliness), of which cleanliness was scored the most '*problematic*' (4,2). In terms of greenery and access to public transport, participants indicated on average '*slightly satisfied*' (see detailed results in Table 5).

Observers (n=5) made notes of the discussion between participants. Observers most mentioned discussion on a lack of public cleanliness, followed by issues on traffic safety, maintenance and a need to reduce space for motorised traffic. Furthermore, car-related topics such as people's dependency on cars, speeding, and a lack of rules by drivers were mentioned. Children also played an important role. Children's safety, a lack of places to play or of a multi-use space and the poor use of the (central) green area were brought up. Besides children, observers noted that the safety of cyclists and the lack of cycling infrastructure were found important. Finally, one participant expressed a concern about economic feasibility.

The facilitator (n=1) confirmed the discussion and frustrations on trash in the street at the end of Living Lab survey.

3.2.3. Assessment of Yoğurtçu Park Street in Istanbul

Participants (n=10) scored the Istanbul Living Lab on average as '*slightly problematic*' (3,8). Half of the topics were scored problematic: noise level, air quality, greenery, pedestrian comfort, cyclist comfort, traffic safety, availability of on-street car, bike parking and wheelchair accessibility, from which the latter was scored the most '*problematic*' (5,0). Regarding greenery and the possibility to meet people, the participants indicated on average to be '*slightly satisfied*' (see detailed results in Table 5).

Observers (n=1) made notes of the discussion between participants. They noted that there are parking issues (e.g. the parking spaces for cars are too long), noise problems and road congestion can be problematic, and the streets are crowded on match and event days.

The facilitator (n=1) confirmed the discussion on accessibility, car park problems, and security problems in the end of Living Lab survey.

3.2.4. Assessment of the Söder Mälarstrand quay in Stockholm

Participants (n=7) scored the Stockholm Living Lab on average as '*neutral*' (3,0). The overall neutrality stems from an average of topics that were rated as '*slightly problematic*' (noise level, greenery, outdoor seating, access to public transport and traffic safety) and '*slightly satisfied*' (pedestrian comfort, availability of on-street car and bike parking, wheelchair accessibility and fear of crime). A third of the topics were scored as '*neutral*' (air quality, cyclist comfort, possibility to meet people, street lighting, protection from summer heat and cleanliness) (see detailed results in Table 5).

Observers (n=2) made notes of the discussion between participants. They took note of individually expressed issues such as noise pollution and space allocation and the fact that parking lots and traffic barriers are dominating the quayside, and that this leads to a lack of places to enjoy the view over the water. Common problems were the importance of pedestrian safety and comfort, the need to prioritise them as users of the public space and the lack of

meeting areas. According to the observers, no shared values were expressed, but the needs between younger and older street users were considered to have similarities.

Facilitators (=2) did not express discussed topics in the end of Living Lab survey.

3.2.5. Assessment of the Lambertgasse in Vienna

Participants (n=5) scored the Lambertgasse on average as '*slightly satisfied*' (1,8). Half of the topics were scored as '*slightly satisfied*' (pedestrian comfort, street lighting, traffic safety, availability of on-street car parking, wheelchair accessibility and cleanliness) and four more as '*satisfied*' (noise level, air quality, pedestrian and cyclists' comfort, possibility to meet people, protection from the summer heat). Availability of on-street bike parking and fear of crime were scored as '*neutral*' and therefore the lowest (see detailed results in Table 5).

Observers (n=1) made notes of the discussion between participants. They noted issues regarding motorised traffic, such as speeding of cars, concerns on the street becoming a one-way street and, lack of parking spaces. On the other hand, the need for more peace, quietness, and opportunities to meet people were raised. Lastly, participants mention a need for more surveillance of the street to counter drug use or theft of plants from the common garden.

The facilitator (n=1) did not express discussed topics in the end of Living Lab survey.

3.2.6. Assessment of the Rahlgasse in Vienna

Participants (n=6) scored the Rahlgasse on average as '*slightly satisfied*'(2,4). Two topics were highly rated as '*satisfied*' (fear of crime and access to public transport), followed by topics scored as '*slightly satisfied*' (street lighting, traffic safety, availability of on-street car parking and cleanliness). All other topics were rated as '*neutral*'.

Observers (n=1) made notes of the discussion between participants. They noted issues regarding motorised traffic, such as an excessive number of vehicles on the road, a need to reduce parking spaces and a wish to install a speed bump to slow cars down. The lack of a drinking fountain was also mentioned.

The facilitator (n=1) did not express discussed topics in the end of Living Lab survey.

3.2.7. Facilitators' evaluations of the Living Labs

At the end of all Living Lab activities, facilitators (n=8) were asked to make an overall evaluation of the Living Lab activities across the indicators for impact assessment of consensus-building. The results are shortly summarised below; however, they were mostly used for tool development and project evaluation. The survey templates can be found in Annex 5.

Indicator: Engagement

In Ropsy Chaudron street (Brussels), there were varying levels of engagement across the activities. Participants were restricted by time but were very enthusiastic in their contributions. In Revision Boulevard, there was a good turnout with key stakeholders. That remained present until the end. In Istanbul, engagement was hampered by questions from participants about the relevance of expressing their opinion. In Stockholm, the organisers focused on short activities and aimed to focus on discussion for higher engagement. They mentioned that Placetoplan received higher engagement since it was faster to implement and had a clear objective due to its setup in cooperation with the municipality. Recurring activities were key in Vienna. Therefore, they attracted a variety of people. Some had time constraints, others engaged for a long time. Several participants returned, especially students.

Indicator: Identification of common problems and shared values

In all Living Labs, common issues and shared values were identified. StreetForum created a platform for discussion on street transformation. The interactive aspect was most valued by conversations, shared thoughts and reflection. Both the current situation of the street, personal, common problems, and solutions were addressed. Facilitators found it important to give everyone a chance to speak, with enough time and where the facilitator created a safe space for expression. Some facilitators mentioned the importance of different types of discussion: in group, online contributions, and informal conversations.

Art.interview triggered conversations. With rich pictures.talk, values were visualised. Storytelling Game helped identify areas of agreement and divergence and Keep the Balance OPEN AIR was found useful for solutions. Finally, MoBil was found less interesting for identifying what issues participants share.

Indicator: Trusted information

No distrust in the shared information was identified, although organisers had a few concerns in Istanbul and in Vienna about residents' reporting the behaviour of other stakeholders.

Indicator: Ability to address conflict

All Living Labs addressed and explored conflicts but the ability to address conflict depended on which tool was employed. In Stockholm, the facilitators found digital platforms (Placetoplan) more suited for nuanced and forward opinions rather than in-person discussion where people presented their opinions with caution (note: the Living Lab organiser is the tool developer of Placetoplan). People were also found to be more receptive to others' opinions while working in smaller groups. In Vienna, facilitators found that the tool #residentialstreetlife temporarily changed the street layout by turning car parking into a seating area and was therefore a direct subject of discussion. In Brussels, facilitators found rich pictures.talk most

appropriate to put conflicts to the front and allowed solving them and building consensus. However, the facilitators indicated that the absence of certain stakeholder groups might have left some conflicts undiscussed. For example, in Brussels, a facilitator mentioned a discussion with a passerby who had a previous conflict with the municipality after the failure of the GoodMove plan, a local circulation plan. This person said they lost trust in the municipality and could not be convinced to join the table. In Vienna, facilitators noticed some differences in opinions were present, but those were not discussed between stakeholders since they were not present at the same time. However, participants were found to be interacting #residentialstreetlife in an informal or indirect manner. Therefore, the facilitator mediated the difference in opinions.

Indicator: **Societal learning**

All facilitators reported learnings at the end of the Living Labs. Facilitators from Vienna mentioned in particular gaining insight about the importance of discussion and in-person (informal) conversations between multiple stakeholders. In Ropsy Chaudron street in Brussels, facilitators only identified learnings through rich pictures.talk, because topics were discussed in depth and reflections on the reality and participants' proposals were included. While in none of the streets there was any permanent transformation, facilitators reported participants gaining awareness of possibilities for change and experienced a different use for the street in #residentialstreetlife. Additionally, information from organisers and links to official websites were useful for participants' increased learnings on street transformation in Stockholm according to facilitators.

Indicator: **Agreement and satisfaction**

In terms of outcomes related to opinions and agreements, there were differences between the Living Labs. In Brussels, some participants became in favour of change regarding the street, while before they did not see the value in a street transformation. There were partial agreements reached, and suggestions proposed for Ropsy Chaudron street but none for Revision Boulevard. In Ropsy Chaudron street, participants agreed on the installation of a speedbump and zebra crossing in front of the school. In Istanbul, a zebra crossing in Yoğurtçu Park Street was added following the discussion on safety due to cars speeding and further prioritising pedestrians in this area. Overall, as organisers of the Living Lab, the department of Transportation will consider the insights of StreetForum in their planning process. In Stockholm, participants agreed on the need for limitation of through-traffic and high speeding. Furthermore, they found the quay too narrow for all desired functions, but they would like to enrich the space with greenery, restaurants and seating. Finally, StreetForum strengthened the local community and their voice towards the municipality. The reduction of parking was partially agreed on by participants. According to facilitators, the lack of decisionmakers among the group prevented an actionable outcome (e.g. a physical street transformation). In

Vienna, facilitators emphasised the role of rich pictures.talk and Keep the Balance OPEN AIR to facilitate agreements. In Lambertgasse, participants agreed on smaller elements like the reduction of the number of parking places, the location of a tree, seatings, streetlights and incentives for cars to slow down, the regulation of littering. In Rahlgasse, the main result was a green parklet in front of the local school. Agreements were reached on maintenance of the parklet in summertime when the students are not present to take care of it, but inhabitants could take over. Secondly, the way that students could change their behaviour in accordance with the needs of other users in the street was agreed on.

Indicator: **New relationships**

Facilitators experienced the creation of new relationships through StreetForum. In Brussels, they compiled a list of contacts for future projects, became better acquainted with stakeholders, other organisations and research institutions. The handover moment, where results were communicated, played an important role for this indicator for the relationship with the municipality. In Istanbul, the departments (e.g. of Transportation and Sport) within the municipality recognised the value of joint work on tactical urbanism. In Stockholm, the municipality was inspired by the StreetForum methodology and might replicate it in the same location. In Vienna, new stakeholders were reached, such as the district council and other members of the administration, and the municipality and inhabitants. In the Lambertgasse, this led to a joint collective for the community garden. In the Rahlgasse, the new network set up a collaboration with the local school and a development agency to build a parklet in the street. The results will be presented to the district council, and the district would like to further use the art and culture-based tools from StreetForum.

Note: There might have been a bias in their responses since the Living Lab organisers were doubling roles as facilitators and tool developers and therefore, wished for the tools to succeed. Furthermore, only one or two facilitators per Living Lab answered the survey for this assessment.

3.3. Evaluation of the tools

In this section, the data that was collected through surveys with stakeholders and facilitators is introduced, complemented with structured observations related to the testing of the StreetForum tools in four different locations. All indicators have been assessed. Some specific indicators correspond only to some tools but not to others. In those cases, the information will only be presented for the tools in which the indicator was applied.

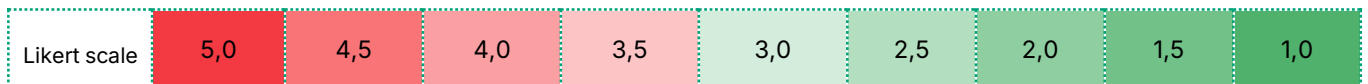
The analysis will be carried out following the three groups of tools as shown in the Evaluation Design (see section 2.3) and presented in an aggregated way. Implying that all available data will be presented simultaneously, thus indicator by indicator for all tools.

The results are presented as follows:

Table 6 shows the numerical data on the cross-comparison of tools. Through a colour code, the table shows an overall assessment of the tools.

- the number of surveys/observations that were collected for each dataset by participants (Pa), facilitators (Fa) and observers (Ob).
- the percentage of each subgroup that experienced the participants' group as representative for relevant stakeholders.
- the averages of given assessment values through a 5-point Likert-scale, ranging from positive (1) to negative (5) (see legend below and detailed text labels in the surveys in Annex 2,3 and 4).

In sections 3.4.1 to 3.4.6, the results from Table 6 are presented together with the analysis of coded responses of open questions by participants, facilitators and observers. The summary of coded responses from the open questions helps to better understand the nuances in the perceptions and attitudes of each tool from Table 6. This results in barriers, drivers and notes on the impact of the tools on the respective indicators.



Legenda for Table 6; Likert-scale; '5' negative impact, to '1' positive impact)



Indicators	Storytelling Game			Stakeholder Personas			Design Game			rich pictures. talk			#residentialst reetlife			Art Installations			Keep the Balance OPEN AIR			MoBil			Streetm eter		Placetopl an					
	Pa	Fa	Ob	Pa	Fa	Ob	Pa	Fa	Ob	Pa	Fa	Ob	Pa	Fa	Ob	Pa	Fa	Ob	Pa	Fa	Ob	Pa	Fa	Ob	Pa	Fa	Pa	Fa				
n =	18	4	5	7	3	1	35	5	5	22	7	4	44	7	5	18	2	2	14	3	4	25	3	4	13	2	38	2				
Process quality																																
Representativity (%)	29			57			44			75			60			67			57			65										
Engagement	1,8			1,2			1,8			1,5			1,5			1,3			2,4			1,7			2,7			2,0				
Common understanding																																
Common problems/ values													1,9			1,8			1,7			2,5			3,0			1,8				
Clarity of purpose		1,8			1,3			2,0			1,6			1,9			2,5			1,3			2,3									
Trust building																																
Trusted info																									3,1			2,2				
Trust in facilitator/ digital tool	1,3			1,4			1,4			1,2			1,3			1,4			1,4			1,5			3,0			1,8				
Trust in activity installation													1,6			1,9			2,1			2,1										
Time to express own view	3,1	2,5		2,4	3,0		2,7	3,0		2,6	2,6			2,4			2,5			2,7			4,0									
Empowerment																																
Ease of use for (Pa)	2,5			1,3			2,2			2,0			1,7			1,5			2,6			2,2			2,2			1,8				
Ease of use for (Fa)																												1,8				
Raising awareness																																
Understand impact on others	2,4			1,6			2,2			1,8															2,6			2,4				
Outcome quality																																
Agreement and satisfaction	1,9			1,6			2,1			1,6																						
New relationships	2,2			1,4			2,2			2,6			2,3			1,9			2,2			2,2										

Table 6 Cross comparison tool evaluation (Likert-scale; '1' positive to '5' negative impact)

3.3.1. Process quality

Indicator: **Representativity**

Representativity is defined as the degree to which participants perceive that all identifiable stakeholder groups (with significantly different interests within these groups) are included. This is also measured on the Living Lab level through demographics of participants (see section 2.6).

While using the digital tools, participants did not interact with other participants. Therefore, perceived representativity is only assessed for workshop-like tools and on-street activities.

Participants' perception of representativity ranges between 29% to 75% of the stakeholders that found the group representative. Tools in the category of on-street activities (#residentialstreetlife, Art Installations, Keep the Balance OPEN AIR, MoBil; 57-67%) and two workshop-like tools (rich pictures.talk and stakeholder personas; 57-75%) show the highest ratings and validate that key stakeholders were covered, while Storytelling and Design Game are rated lowest (29-44%).

Indicator: **Engagement**

Participants' engagement throughout the process is defined as the capacity to keep all groups around the table interested and learning.

Both participants and observers (workshop-like tools, on-street activities), facilitators (digital tools) gave input for this indicator. Overall, the results show that all tools generated engagement from participants. Stakeholder Personas and Art Installations were rated highest ("very interesting"), while Keep the Balance OPEN AIR and Streetmeter were perceived as less engaging ("some parts were interesting, some parts boring"). The other tools were rated on average as "interesting".

During workshop-like tools, observers noted drivers and barriers for engagement. In highly engaging tools, engagement was driven through joyful interaction (Stakeholder Personas, Design Game) and facilitated discussion (Storytelling Game). Barriers for engagement were lengthy sessions, too high a number of participants, unmet expectations (Storytelling and Co-Design Game) or language barriers (all workshop-like tools except rich pictures.talk) and unclear instructions (Co-Design and Storytelling Game).

3.3.2. Building a common understanding

Indicator: **Identification of common problems + Identification of shared values**

Identification of common problems and values is defined as the capacity to support the development of a shared common definition of problems or values, which is perceived as true or correct.

Participants gave input on this indicator for on-street activities and digital tools, but not for workshop-like tools. In the latter, evaluation was done at Living Lab level (section 3.3).

Participants indicated that during on-street activities, they learned less about the impact of street transformation on others while using MoBil than during other on-street activities.

Participants using digital tools indicated to what extent they agreed with the problems that other participants explored. In Streetmeter, other users' feedback is not visible for participants when used without a workshop, this might explain the low score of participants on whether they agreed with others (3,0=undecided).

According to observers (workshop-like tools and on-street activities) and facilitators (digital tools), most tools helped reflecting upon and identifying problems and values.

In case of workshop-like tools, a better understanding of street transformation was attributed to aspects like a structural discussion of individual then common problems and values (Storytelling Game, Design Game), role-playing (Stakeholder Personas), gamification (Design Game), visually bringing individual desires together in one drawing (rich pictures.talk). The possible lack of a direct link with the reality of the street transformation during roleplaying or a neglect of issues that were not targeted in a structured discussion emerged as barriers to identifying common problems and shared values. According to several observers, the role of the facilitator is key to include reflection on the impacts on diverse people.

Participants noted that, during on-street activities, tools that provide a physical space with meeting infrastructure and (playful) activities could help and accommodate conversations and activate the space (#residentialstreetlife, art installations, MoBil). Installations can also stimulate the imagination of possibilities for the future use of the street (#residentialstreetlife). There can, however, be a lack of discussion on street-related topics if it is not facilitated. According to observers, MoBil did not help identify problems or values but merely focused on building the tool's structure. Keep the Balance OPEN AIR, on the other hand, was by some observers evaluated as highlighting differences rather than what is in common. Art Installations led to discussion with one or two people, which meant that only the facilitator could identify the common issue.

While using digital tools, facilitators noted that the graphic design and colour codes (Streetmeter); the neutrality of the tool for identifying problems and values (Streetmeter) and possibilities to react to other users in the online environment (Placetoplan) supported the identification of common problems and shared values. Streetmeter is seen as a support during discussions, while Placetoplan is rather seen as useful for ex-ante impact analysis.

In all three tool categories, structural discussion was identified as a driver for impact. Predefinition of themes for discussion can prevent the raising other important problems or values.

Indicator: Clarity of purpose

Clarity of purpose is defined as the perception of the shared mission of participants.

Facilitators rated the clarity of the tool's goal for them, observers investigated if the goal was clear for participants. This indicator was not assessed for digital tools.

For facilitators, clarity was scored high for Stakeholder personas and Keep the Balance Open Air ('1,3' very clear), followed by Storytelling Game, rich pictures.talk, #residentialstreetlife, MoBil and Design Game ('1,6-2,3', clear), and Art Installations was scored lowest in terms of clarity ('2,5' neither clear nor unclear).

For workshop-like tools, instructions were evaluated as easy to follow. According to observers, a lengthy process can diminish clarity, and lower the engagement of participants (Storytelling Game). Discussion can at times drift away from the objective, and the output of the tool may not be clear (Design Game). As certain tools are open-ended, the clarity of the tools' aim can depend highly on the facilitator (rich.pictures talk, Stakeholder Personas). Facilitation skills are emphasised in the final stage of the Storytelling Game, where a common story should be created, which can be challenging according to a facilitator.

Observers and facilitators did not agree on the clarity of purpose for on-street activities. Installations like Art Installations and MoBil are seen as having a rather practical approach, like creating a seating space for idea exchange or building the construction rather than a goal on their own. There was ambiguity on the role division, like the active or counselling role of the facilitator in building MoBil and who should take a leading role in organising the tool in #residentialstreetlife. The game guidelines for facilitators in Keep the Balance OPEN AIR were not sufficiently explained. And an explicit invitation to participate from the organisers, such as going to talk directly to passersby or adding inviting signage, can be beneficial (#residentialstreetlife, Art Installations).

3.3.3. Trust building between the different stakeholders

Indicator: Trusted information

Trusted information is defined as the perception of participants on the value and level of truth of the shared information while using a tool.

Users gave a rating for the digital tools. For all three tool categories, observers and facilitators detected (dis)trust in participants.

In workshop-like tools, generally no distrusted information was reported by observers. However, the (ir)relevance of the tool's materials regarding the local context (Design Game) can spark mistrust. Observers of on-street activities indicated that this question was not applicable for these tools. Facilitators of digital tools noted differences in personal values and interests (Streetmeter) and only encountered trusted information since personal experiences

are shared (Placetoplan). Users rate Streetmeter as *"I don't particularly trust or distrust them"* information, and Placetoplan as *"I somewhat trust them"*.

Indicator: Trust in the facilitator / Digital environment / On-street context

Trust in the facilitator is defined as the level of trust that is extended to the person in charge of the activity, to the digital tool environment or the on-street context.

All participants scored their trust in the facilitator/activity, or installation. Observers and facilitators evaluated why there was (dis)trust. During workshop-like tools and on-street activities, participants rated whether they felt supported by the facilitator and/or organisers to express their point of view during the installation or activity.

Overall, trust in the facilitator or in the tool was scored high, and participants felt *"supported"* to *"very supported"* to express their own view. Except for Streetmeter, where participants felt on average *"not comfortable"* or *"uncomfortable"* to express themselves through the tool.

Reasons for distrust of participants differed and occurred for example when individuals dominated the discussion due to personality of differences in language proficiency (Design Game), when the purpose of the tool in relation to street transformation was not entirely clear (Storytelling Game and MoBil), when taking photos or recordings (Keep the Balance OPEN AIR). Distrust can be associated with non-action of the city or the relevance of the process timeline (#residentialstreetlife, Art Installations) and the possibility that their participation will be used to legitimize choices in policy that they might not support (MoBil). For digital tools, participants had concerns about the relevance of publishing their opinions online (Placetoplan); the invisibility of the underlying algorithm and simplification of parameters was distrusted (Streetmeter). Some barriers can be mediated through facilitation.

Indicator: Time to express own view

Time to express one's own views is defined as the perception of participants if they had enough time available to explore all issues and thus propose creative responses.

As user of digital tools had unlimited time, this indicator was not evaluated for those users. Facilitators of workshop-like tools and on-street activities, as well as participants and observers of workshop-like tools scored and evaluated

Overall, this indicator was rated by participants as being successful, having *"just enough time"*. Except for MoBil, here the score was lower on average, *"not enough time"*. When we compare the average activity time that was taken for testing of on-street activities, the average length for MoBil was 2,5 hours while #residentialstreetlife and Art Installations lasted longer, 4,5 hours. Keep the Balance OPEN AIR lasted only 45 minutes on average.

A lower language proficiency in the local language, for example, when it is used only as a participant's second language or if there is a lower language literacy, was indicated as an

important barrier for equal distribution of self-expression. (Storytelling Game, Stakeholder Personas, Design Game). Only the rich.pictures talk, language proficiency was not mentioned. The on-street activities generally lasted for longer periods of time. In #residentialstreetlife, a facilitator mentioned that people might be busy, but they can pass by when it suits them. The facilitator of Keep the Balance OPEN AIR noted that the tool is designed for an equal distribution of participants' speaking time. (Note, this facilitator was also the tool developer)

3.3.4. Empowerment

Indicator: Ease of use

Ease of use is defined as the capacity of the tool to be used without special expertise.

Across all tool categories, participants scored the user-friendliness and were asked for the reason for their score. Additionally, participants of on-street activities were asked if they would like to use the tools again on their own. Facilitators and observers evaluated or scored how easy it was for them to employ the tools.

Participants found most tools "easy to use". Some tools had a lower average score, leaning towards "not easy, not difficult" (Storytelling Game and Keep the Balance OPEN AIR). Only one tool was rated as "very easy to use" (Stakeholder Personas). Participants appreciated visual support (Placetoplan) and aesthetics (Art Installations) as well as a short time to participate (Placetoplan). However, not all participants found the tools user-friendly. In the open questions, some difficulties in tool formats and materials were discussed. The lack of contextualisation of tools and materials was highlighted. For example, in Design Game, the game board was found to be misleading, which demanded additional facilitation and was time-consuming. In the Storytelling Game, the instructions and game structure were found unclear. And while using MoBil, participants found the building elements too large and complex and therefore difficult to use. In digital tools, participants found collecting information for Streetmeter time-consuming and difficult and encountered some technical issues in Placetoplan. It must be noted that only 49% of respondents elaborated on the reasons for their score on user-friendliness.

For the on-street activities, participants mentioned several reasons to use the tool again: the potential for re-imagining the street (#residentialstreetlife, Art Installations) or developing group dynamics (MoBil).

Facilitators found the preparation and materials easy to use (Storytelling Game, Stakeholder Personas), some tools were called intuitive or self-explanatory (rich pictures, talk, #residentialstreetlife, Art Installations), and visuals helped understanding the tool's instructions (MoBil). Even though #residentialstreetlife was scored as easy to use, facilitators indicated a need for additional encouragement for some to participate (e.g., a clear, inviting message/sign). The logistics and installation of furniture were evaluated as time-consuming

by facilitators (#residentialstreetlife). Some instructions were found to be missing intermediary steps (MoBil) or too long to explain according to observers (Art Installations). Some rules were found to be difficult, and the discussion structure was too long and tiring (Keep the Balance OPEN AIR). Facilitators also found that certain tools (Keep the Balance OPEN AIR, MoBil) have a learning curve. Further challenges for facilitation are maintaining neutrality while interviewing people (#residentialstreetlife). The open-ended character of the tool can be unclear for the facilitator (Stakeholder Personas, rich pictures.talk), but versatility was also perceived positively (MoBil).

Both observers and participants indicated that the skills of the facilitator are helpful or even key to success (e.g. drawing in rich pictures.talk, supervision/moderation of #residentialstreetlife, support in using Placetoplan)

Observers noted that language proficiency poses difficulties in the Storytelling Game (there was too much difference in the time needed for participants to write each part of the story), Stakeholder Personas (a lot of text to read). According to the observer, being in the street enhances clarity (Design Game).

Indicator: **Ability to address conflicts**

The ability to address conflicts is the degree to which participants experience that the tool allows for (underlying) conflict to have a place in the discussions. Participants (workshop-like tools), observers (workshop-like tools and on-street activities) and facilitators (all tools) were surveyed.

All workshop-like and digital tools were found to be useful for addressing conflicts, but only some of the on-street activities addressed them (e.g. discussions on the use of the street as usual in #residentialstreetlife). Observers pointed out the role of the facilitator and reflection to support addressing conflicts.

3.3.5. Raising awareness

Indicator: **Understand impact on others**

Understanding impact on others is defined as the degree to which participants have an enhanced understanding of how a street transformation could affect others and their concerns, behaviour or choices.

Participants of workshop-like and digital tools were asked to rate the extent to which the activity helped them to better understand street transformation. For workshop-like tools and on-street activities, an observer evaluated the learning of participants.

According to participants, Stakeholder personas and rich pictures.talk stimulated the most understanding of impact on others, followed by Storytelling Game, Design Game, Streetmeter and Placetoplan.

Participants found encouraging discussion (Storytelling Game), listening to others' needs (Stakeholder Personas, Design Game), exploring (alternative) uses for the street (Design Game, rich pictures.talk) useful.

Observers noted that supporting exchange between participants (Storytelling Game), sharing lived experiences (Stakeholder Personas) and stating individual needs and active reflection of the facilitator (rich pictures.talk) are helpful. Strong opinions of participants may lead them to be less receptive to understanding (Design Game). In on-street activities, both discussion (Art Installations), listening in turns (Keep the Balance OPEN AIR), a team activity (MoBil) and interactive games or panels (#residentialstreetlife) enhanced understanding.

Indicator: **Societal learning**

Societal learning is defined as the capacity of the tool to develop a better understanding of the technical and social issues around street transformation.

Participants (n=174) evaluated this indicator for all tools (26% of participants did not answer this question). Observers evaluated workshop-like tools and on-street activities (n=30).

All participants reported learning, except while using MoBil, where most participants indicated they did not learn about street transformation. The lack of learning in MoBil was confirmed by the observer. However, for #residentialstreetlife, an observer also reported that no learning occurred, contrary to the participants. Participants found the following tool characteristics helpful for learning: sharing lived experiences (Storytelling Game), active listening to recognise others' needs and diverse viewpoints (Storytelling Game, Stakeholder personas, Design Game), exploring alternative uses of the street (Design game) and exploring negotiation and seeking agreements through the tool format (Design Game, rich pictures.talk). On-street activities helped to temporarily change the environment and support getting involved in conversations and discussions with other people (Art Installations).

Observers noted that certain tools supported knowledge exchange between participants (Stakeholder Personas). However, other tools (Storytelling Game) did not foster sufficient discussion. They found that a temporary installation could set an example for an alternative use of the street, which contributes to learning (#residentialstreetlife, Art Installations). A lack of diversity among participants can decrease knowledge exchange.

Below is a summary of the observed topics of participants' learning. (see Figure 3)

Societal learning was addressed in a broader awareness among participants. They were able to recognise diverse needs, viewpoints, and new possibilities for street use (socialising, playing, traffic calming, liveability). Secondly, the value of a participatory process was highlighted through the need for community involvement. At the same time, political disinterest and regulatory gaps were mentioned. Participants identified potential conflicts

regarding street transformation, such as tensions on the perception of a noisy street versus a lively street, on parking loss... They stressed the importance of balancing diverse interests. Key learnings on street transformation were that simple actions can transform public spaces, local involvement eases acceptance of changes, street impacts vary across different user groups, and that communication, teamwork, and active listening are critical. Participants gained methodological skills, for example, the ability to set up a street analysis, evaluation, and a better understanding of interconnected street factors.



Figure 3 Participants' reported learnings. Image created with support of AI.

3.3.6. Outcome quality

Indicator: Agreement and satisfaction

Agreement and satisfaction are defined as the extent to which high-quality agreements are made through the tool. A high-quality agreement offers a significant improvement in solving the initial problems and thus has a high level of participant satisfaction.

Agreements were evaluated by participants and observers in workshop-like tools and by observers during on-street activities. In digital tools, users worked individually, therefore, the indicator was not applicable.

In workshop-like tools, participants indicated on average that they were "strongly satisfied" to "satisfied" with agreements made. A lack of diversity of participants negatively impacted the satisfaction with agreements (Storytelling Game), but participants showed higher satisfaction when proposals incorporated multiple stakeholders' views or had broader community relevance (rich pictures, talk). Observers noted agreements on small interventions but only partial agreements and less support for bigger interventions. Agreements were of a preliminary character, non-conclusive and sometimes did not relate to the topic of street transformation. Time constraints limited the ability to reach agreements (Design Game)

On-street activities: Observers noted that no agreements were reached through MoBil and Art Installations. Keep the Balance OPEN AIR enabled, partial agreements. On #residentialstreetlife, too little input was gathered for analysis of barriers and drivers. Agreements from the latter two focused rather on a trial or temporary installation and communication or next steps in the process than physical transformation.

Indicator: New relationships

New relations are defined as whether the tool supported the creation of new relationships between stakeholders and/or further collaborations and the opportunity to meet new people through the rules and setup of the tool.

The creation of new relationships was evaluated in workshop-like tools and on-street activities. In digital tools, users worked individually; therefore, the indicator was not applicable.

Rich pictures.talk received the lowest scoring by participants, participants met "at least one new person" (2,6), and highest for Stakeholder Personas where they met "a lot of people" (1,4). For the other tools (Storytelling Game, Design Game, #residentialstreetlife, Art Installations, Keep the Balance OPEN AIR and MoBil), participants indicated having met "some new people".

The average number of participants in one session varied per tool. An outdoor activity like #residentialstreetlife gathered on average 18 participants per session. Other on-street activities hosted fewer encounters, Keep the Balance OPEN AIR was played by six people and MoBil was built by five participants, while Art Installations only had three participants on average. Workshop-like tools were further restricted in the number of participants according to the game rules. While Design Game hosted on average nine participants, other tools brought together fewer participants, like rich pictures.talk (6) and Stakeholder Personas (6), while Storytelling Game was played by only four people.

Observers noted that all workshop-like tools strengthened relationships and enabled the creation of new ones. The on-street activities created opportunities to get to know new people. Involving children's activities was perceived as positive in relation to meeting new people (#residentialstreetlife). Discussion and an emphasis of the tool on listening to each other was found useful (Art Installations, Keep the Balance OPEN AIR). Finally, having to complete a task together naturally enhanced the group dynamic (MoBil).

3.4. Discussion

3.4.1. Living Lab comparison: Which stakeholders joined the table?

From the participants' demographics, we could conclude that the overall sample of participants was not entirely representative of the local communities. With a low representation of the age group over 50 and with mostly users of active Mobility or public transport participating, the perspective from car users might have been less addressed in this research. Furthermore, most inhabitants were represented, while concerns from other groups, such as professional or institutional actors, which are placed higher in the power relations chart (D1.1 Stakeholder Analysis; Martinez et. al, 2024), were less voiced.

Participants perceived a broad range of stakeholders to be missing in Stockholm, Brussels and Vienna, while in Istanbul, the group of participants was found to be highly representative. This perception of low representation was reflected in the responses from participants and facilitators on the missing stakeholder groups. Overall, groups as children and young people, businesses or other professional actors, and car drivers were missing in the Living Labs. This might indicate a challenge in engaging these groups of stakeholders, especially within a Living Lab format, which is limited in time and resources.

Note: While in Istanbul and Stockholm, facilitators reported that few users returned to the workshops, in Brussels and Vienna, participants sometimes did multiple workshops. Their double or triple participation (if evaluated) was not taken out of the analysis of demographics. Each participation was considered as a separate stakeholder.

3.4.2. Living Lab comparison: Starting conditions

If we consider the results of the initial street value assessment as the starting condition for the process, we expect more difficulties in arriving at a consensus for streets with a low assessment of the discussed street, as this might show an increased need for change and street transformation. While in Istanbul and Brussels, the average score of all topics was leaning toward "slightly problematic", stakeholders in the Lambertgasse in Vienna were oppositely "slightly satisfied" with most aspects in their streets. When comparing topic by topic, there was not one category that stood out as negative or positive. We can thus see a wide variety in the perception of problems and values in Living Labs and could conclude that the starting conditions for the consensus-building process differed highly across Living Labs. Therefore, a made-to-measure approach to tackle the issues, street-by-street, was necessary.

The participants' and facilitators' feedback confirmed that it is not always possible to distinguish one key issue to tackle. In both Brussels Living Labs, traffic safety and security are important, but a lack of cleanliness and maintenance is recurring in most discussions as

well. Especially the Ropsy Chaudron street seems to suffer from a broad range of issues which might relate to the diverse use of this street (businesses, food market, important traffic axis and primary school). Some Living Labs have a more focused issue: in Istanbul and Stockholm, issues related mainly to car-domination of streets (noise, air pollution, road congestion and a need for space allocation toward other users) and accessibility and traffic safety for active Mobility. In Stockholm specifically, the need for more priority for pedestrians was expressed. While in Vienna, some stakeholders expressed concerns about car-dominated streets as well, there was a more nuanced negotiation of the space. This led to a discussion with proposals for minor changes. This difference might relate to the smaller scale of the Viennese neighbourhood streets. They contrast with the long, urban waterfront along a main road in Stockholm, the park-sided area surrounding a stadium in Istanbul or the intensely used commercial street of Ropsy Chaudron in Brussels. In terms of values, the presence of a local primary school and daycare, and children in general, was found important in Brussels and motivated concerns for better children's safety, infrastructure and greenery.

3.4.3. Living Lab comparison: Results

The outcomes of the Living Labs varied significantly. These differences appear to relate to contextual conditions such as participants' perceptions of the street (see section 3.2), representativity of participant groups (see section 3.1) and the role of organisers and facilitators in local engagement and decision-making processes (see section 2.8).

In Vienna, the long-standing involvement and local knowledge of the NGO *spaceandplace*, which organised and facilitated the Living Lab activities, played a key role in shaping the results in Rahlgasse and Lambertgasse. Participants generally expressed positive views of the street. In Rahlgasse, no topics were rated negatively, only neutrally. In Lambertgasse, slight dissatisfaction was noted regarding pedestrian needs (e.g. comfort, lighting, traffic safety, wheelchair accessibility, and cleanliness), and to a lesser extent, car users (e.g. demand for more on-street parking).

Discussions led to nuanced proposals, such as the installation of street furniture and a parklet or agreements on the use of the streets. The absence of decision-makers and the residential character of the streets may have contributed to the modest but concrete nature of the agreements. Follow-up by *spaceandplace* resulted in further engagement with the district council, local schools, and a community garden and thereby extended the impact of the Living Lab.

In Brussels, the Living Lab was co-organised by the NGO *Cultureghem*, which leveraged its extensive local network to engage residents and civic associations. Despite this, participants reported a lack of representativeness. The absence of higher-level decision-makers likely hindered the ability to reach comprehensive agreements on street transformation.

Participants described the street as facing multiple challenges, including poor cleanliness, maintenance issues, traffic safety concerns, and inadequate infrastructure. Previous conflicts between residents and the municipality over a new urban Mobility plan also influenced the process. Nevertheless, StreetForum contributed to behavioural shifts among several stakeholders, who became more open to change. Partial agreements focused on small-scale interventions such as zebra crossings, speed bumps, and new community activities. Proposals benefiting vulnerable groups, particularly children, were highly valued. The final exhibition and discussion served as a handover moment to the municipality, with the Regional Department for Mobility expressing interest in adopting the StreetForum tools.

In Stockholm, the Living Lab was led by *Spacescape*, an architectural and planning agency with experience in participatory processes. Although the municipality was not adequately represented among participants, StreetForum helped amplify the community's voice in policy discussions. A key objective of StreetForum was to test participatory tools for potential municipal use, an aim that was achieved, as the municipality plans to further the participatory process on the Living Lab location while implementing StreetForum tools.

Participants' assessments of the street ranged from slightly dissatisfied to satisfied. Negative evaluations focused on noise levels, traffic safety, and a lack of greenery and seating. These concerns were reflected in the proposed solutions, which included reducing through-traffic and high-speed driving, and reallocating parking spaces in favour of greenery, restaurants, and public seating.

In Istanbul, the Living Lab was jointly organised by the Istanbul Metropolitan Municipality (Department of parks) and Boğaziçi University. A higher proportion of female participants and the presence of municipal representatives contributed to a strong feeling of representativeness. Participants expressed the lowest satisfaction with current street conditions compared to the other cities.

Discussions centred on the dominance of car traffic and the need to reallocate space for active Mobility, particularly for pedestrians. Although few cyclists participated, the emphasis on pedestrian safety was clear. The municipality's involvement enabled the installation of a zebra crossing during the Living Lab and the integration of insights into ongoing planning processes. StreetForum also fostered collaboration on tactical urbanism within the municipal departments.

The Living Labs demonstrate that the presence of decision-makers, the local networks of organisers, and the representativeness of participants are critical factors in the success of participatory processes. While Vienna and Istanbul achieved tangible outcomes through local expertise and municipal involvement, respectively, Brussels and Stockholm primarily facilitated behavioural change and impact policy related to participation. The StreetForum

methodology proved to have impacts across the Living Labs, but its effectiveness depends on tailoring to local conditions and institutional dynamics.

3.4.4. Tool comparison: Comparison across impact categories

As analysed in the previous section, contexts differed in all Living Labs, with a broad range of representativity and differing starting conditions. In the following section, the results regarding impact will be discussed, focusing on the interactions of all indicators, which tools were most impactful and finally, which features should be combined for an impactful decision-making process.

3.4.5. Tool comparison: Process quality

Representativity as experienced by participants is interrelated to the Living Lab set-up and does not depend only on the tool's capacities. The indicator was therefore compared on both tools and the Living Labs level. The results on the tool level validate that a broad share of relevant stakeholders was present. Certain tools (e.g. workshop-like activities) could only host a limited number of participants and were not designed to be representative within the scope of one session. Perhaps here, repetition is of importance to eventually reach all groups. On-street activities were found to be more representative by participants, which might relate to their visibility in public space and the low threshold character. Furthermore, workshop-like tools with less structured conversation (e.g. rich pictures.talk) were validated as highly representative. Lastly, Stakeholder Personas, in which participants take on different stakeholders' roles scored well in this indicator. This resonates with the intention of the tool, i.e. to represent multiple views, even when those stakeholders are not present at the table.

Overall, the tools were found engaging. Gamification (Design Game), storytelling (Stakeholder Personas) and creative elements (Art Installations) could have been the source of heightened engagement. Certain tools received lower levels of engagement. This might result from the tool's goal, which was in some cases rather designed for providing support in combination with other tools. Streetmeter is a research-based value assessment that can help raise awareness, or MoBil can provide a temporary environment in public space that enhances focused discussion. While in gamified tools (Keep the Balance OPEN AIR, Storytelling and Co-Design Game), where the conversation was guided through predefined questions, was rated lower. This might be related to the results from indicators on the ability to raise conflict within the tool and the clarity of the tool's goal. When participants don't have agency over the rules of the game, they might not get to voice their own needs. If they do not feel their efforts will be translated into results, they might be less engaged or even not join the discussion at all.

Lastly, engagement can also be related to confirmation bias towards the facilitator, which might have played a role in the evaluation.

3.4.6. Tool comparison: Building a common understanding

Except for MoBil and Art installations (on-street activities), tool developers expected all tools to contribute to building a common understanding of the issues. The results show that while most tools were indeed considered helpful, participants learned less about the impacts of street transformation during on-street activities. Note: Although Keep the Balance OPEN AIR was evaluated as an on-street activity, the format leans more towards a workshop-like activity that was adapted for use outdoors. Responses from participants further confirm the developers' initial assumption, as the shared mission of on-street activities was not always clear and installations like Art Installations and MoBil are seen as having a rather practical outcome of the tool, which is the construction or the installations in themselves. Furthermore, MoBil was found not to contribute to identifying common problems or shared values, since its focus is solely on building the tool's structure. Stakeholder Personas and Keep the Balance OPEN AIR, however, scored high on their clarity on a shared mission indicated by participants, which might relate to the simplicity of taking another persona's role, and the straightforwardness of moving towards a consented decision by discussing in turns. The role of the facilitator was found to be key in relation to building a common understanding, and the differences in facilitation across tool categories may relate to differences in impact. (see further in section 3.5.10).

3.4.7. Tool comparison: Trust building

Placetoplan (digital), rich picture.talk and Storytelling Game (workshops) were expected to build trust. When applying the workshop-like tools, no distrusted information was reported except during the Design Game. Having enough time to express participants' view and thus formulate creative responses was most difficult for workshop-like tools, as the interaction time was limited in comparison to the use of digital tools or on-street activities. Workshops mostly lasted for a maximum of one hour. Language proficiency was indicated as an important barrier to the equal distribution of self-expression. Specifically in the Storytelling game, it lowered the speed and dynamics of the activity, which contrasts with the developers' expectations regarding impact on trust building. This might be further contextualised within the Brussels Living Lab as this was the main testing site for this tool. Brussels and particularly the Kureghem neighbourhood are characterised by multilingualism, thus a high number of people don't speak French or Dutch as their first language or are still learning them. Among workshop-like tools, language barriers were not mentioned as an issue in rich pictures.talk, which might relate to the visual aspect of the tool, which supports the initial assumptions of the tool developers.

Observers of on-street activities indicated that an evaluation of trustfulness of information was not applicable for this category. There was, however, more time to express participants view since on-street activities generally lasted a couple of hours and were more flexible. While

using MoBil, participants did not have enough time for self-expression, perhaps this was simply not part of the tool format. These findings are in line with the initial assumptions of tool developers.

Having enough time to explore all issues and propose creative responses is important to build trust. In digital tools, participants could use the tool at their own tempo since time was unlimited. Placetoplan scored well on trustworthy information in the category of digital tools, which might relate to the personal type of experiences shared. This aligns with the initial expectations from tool developers. In Streetmeter however, both the information in the tool and the digital environment were distrusted by participants, which might relate to the invisibility of the underlying algorithm.

3.4.8. Tool comparison: Empowerment

Storytelling Game (workshop) and #residentialstreetlife and MoBil (on-street activities) were expected to empower participants. Results show that most tools were rated as easy-to-use for participants, but the open questions revealed critical feedback. Storytelling Game and Keep the Balance OPEN AIR were not rated as easy to use in comparison with other tools. The participants discussed difficulties regarding the format of Storytelling and Design Game. Thus, the Storytelling Game was not as impactful as expected in terms of empowerment. Even though Stakeholder personas were not expected to empower, it was rated as very easy to use.

#residentialstreetlife was expected to empower, and even though it was scored as easy to use, facilitators indicated a need for additional encouragement for some to participate. Facilitators of both MoBil and #residentialstreetlife found that logistics and installation of furniture were time-consuming, or the construction elements were too large for use on their own, and thus not always user-friendly.

Facilitators at the end of Living Lab survey, concluded that rather than high levels of conflict, Living Labs addressed differences in opinion, different interests or challenges between different groups. All workshop-like and digital tools were found to be useful for addressing conflicts, but only some of the on-street activities addressed them, namely #residentialstreetlife through discussions on the use of the street, which is aligned with the first assumptions of tool developers.

3.4.9. Tool comparison: Raising awareness

Streetmeter (digital), Design Game (workshop) and MoBil (on-street activity) were expected to raise awareness. Contrary to the expectations from tool developers, Stakeholder personas and rich pictures.talk were found to be the most stimulating understanding of impact on others, which is an indicator for raising awareness. Design Game was found to be useful by listening to others' needs and exploring (alternative) uses for the street, and Storytelling Game by fostering discussion.

Streetmeter and MoBil were not rated as high as the other tools in terms of understanding the impact on others. While all participants reported learning, they did not do so while using MoBil, contrasting the initial expectations. Just like Art Installations (car.iage and umbrella blossoms), MoBil was used in combination and as a support while using other tools. The car.iage was a platform for discussion on Streetmeter in Istanbul, and a construction with MoBil was used for showcasing the results from the process and hosted a rich pictures.talk on its canvases. Therefore, these tools might start gaining impact when combined with others. For #residentialstreetlife, there was no agreement between observers and participants on learnings on street transformation. Here we see that the use of the street as a living room was used as a container for different activities like the art.interview. Creating an environment for imagination of a new use of a street and providing activities that lead to discussion might eventually also raise awareness. Overall, workshop-like tools were most impactful in raising awareness.

3.4.10. Tool comparison: Outcome quality

The Living Labs resulted mostly in non-conclusive outcomes. The workshop-like tools reached most agreements and highest satisfaction. There were very few agreements through on-street activities. This indicator was not evaluated for digital tools. Agreements were made on how the street should be used, proposals for activities organised by citizens and local governments and small or temporary interventions improving the street. Factors that limited reaching agreements were time constraints. A diverse and representative group of participants positively impacted satisfaction with agreements.

However, creating new relationships is also a successful outcome of the process. All tools strengthened relationships and enabled the creation of new ones. In digital tools, a hybrid use could better address the lack of opportunity to meet people in the tool. Tools with an emphasis on discussion and listening to each other were useful. However, workshop settings generally allowed a lower number of people to join the activities, while on-street activities physically created opportunities to get to know new people without limits. For example, #residentialstreetlife hosted on average 18 participants compared to 4 per session during the Storytelling Game. And finally, involving children's activities positively impacted meeting new people and completing tasks together, naturally enhancing group dynamics.

3.4.11. Tool comparison: In which elements of consensus are the StreetForum tools impactful?

The following table (Table 7) shows the positive impact of tools in four key elements of consensus-building: raising awareness, building a common understanding, empowerment, trust building. This was at times in line but sometimes contrasting to the initial expectations from tool developers (see expectations listed in Table 2). When the category is marked with a star (*), impact was expected for this category.

Tool	Category	Impact results
Streetmeter (SpS)	Raise awareness*	No interaction with other users, limited understanding of the impact on others when used non-hybrid
	Build common understanding*	Supported through graphic design and colour codes
	Empowerment	Collecting information can be difficult and time-consuming
	Trust building	Lacks facilitation, invisibility of the algorithm, and too simplified parameters
Placetoplan (SpS)	Raise awareness	Accommodates a high understanding of others, no learning if not used in a hybrid format
	Build common understanding*	Through interaction with other users, it is useful for ex-ante analysis
	Empowerment	Offers visual support, a short participation time, addresses conflicts, but technical issues would require facilitator support
	Trust building*	Supported through sharing personal experiences and unlimited time to express yourself, but concerns about publishing opinions online,
#residentialstreetlife (SP)	Raise awareness*	A temporary installation can show alternative street use; however, there are mixed reports on whether learning and interactive panels or games are necessary for understanding
	Build common understanding*	Physical space accommodates conversation, shows possibilities, but lacks discussion on street-related issues, and some unclarity on tool's purpose
	Empower*	Potential for reimagining the street, self-explanatory, but facilitation is key and demanding due to time-consuming logistics and installation
	Trust building	Supports expressing views, offers plenty of time for self-expression
rich picture.talk (SP)	Raise awareness	Good understanding of the impact of street transformation on others, explores alternative street use, active reflection through facilitation, explores negotiation and agreements

	Build common understanding*	Visually brings individual desires together, clear mission but open-ended, highly depends on facilitator
	Empowerment	Intuitive but open-ended, highly dependent on the facilitator's skills
	Trust building*	Accessible for expressing personal views, no language proficiency issues due to facilitation with drawings
	Outcome	Lower score on meeting new people, possibly due to a lack of discussion
	Raise awareness*	Supported by showing an alternative use of the street
	Build common understanding	Physical intervention and playful character spark conversation, common elements only found through a facilitator, low clarity of purpose
	Empower*	Aesthetics appreciated, potential for reimagining the street, intuitive but some unclear instructions for facilitators
	Trust building	Distrust in the process timeline and non-action of the city (political framework)
Design game (TUW)	Raise awareness*	Helps explore alternative street uses, supports active listening and negotiation
	Build common understanding*	Structural discussion of personal and common problems and values, gamification, however discussion can drift away from the objective
	Empower*	Tool materials lack contextualization, are time-consuming, extra facilitation is needed, being in the street enhances clarity, and the tool addresses conflict
	Trust building	Irrelevance of tool materials regarding local context, language barriers, one person dominating the discussion, not enough time for self-expression
Stakeholder personas (VUB)	Raise Awareness	High impact through listening to others' needs, sharing lived experiences, societal learning through active listening, and supporting knowledge exchange
	Build common understanding*	Role-playing helped; shared goal was clear, highly dependent on the facilitator
	Empowerment	Easy to use for participants, preparation and materials are easy for facilitators, open-ended character can be unclear for facilitators
Storytelling game (VUB)	Trust building	Language proficiency was a barrier (text-heavy cards)
	Raise awareness	Encouraging discussion but not enough, helpful for learning, sharing lived experiences, and active listening
	Build common understanding*	Structural discussion of problems and values, clear mission, lengthy process led to unclarity, depends on facilitator skills

	Empower*	Lower average score, unclear instructions or structure, facilitators found preparation and materials were easy to use, language proficiency poses difficulties
	Trust building*	Purpose not entirely transparent, language proficiency barrier
MoBil, a MoBile co-design cart (CG)	Raise awareness*	Team activity builds group dynamics, no reported learnings
	Build common understanding	Less impactful, focused on building the tool's structure, installation can accommodate discussions
	Empower*	Clear purpose but practical approach, large and complex physical elements, difficult to use, visual guidelines help understanding, missing intermediary steps, learning curve for facilitators, versatility perceived positively
	Trust building	Purpose not transparent, not enough time to express one's own view
Keep the Balance OPEN AIR (SP)	Raise awareness	Supported through the listening system in turns
	Build common understanding	Highlighting differences rather than commonalities, clear purpose, for some facilitators the game guidelines are not sufficiently explained
	Empowerment	Lower average score, rules are complex, discussion structure is long and tiring, a learning curve for facilitators
	Trust building	Distrust due to photos and recordings, designed for equal time distribution

Table 7 Tool's performance for each key element of consensus-building



3.4.12. The role of the facilitation

Initially, the StreetForum tools aimed to empower local communities by rendering the toolkit accessible without an external, professional facilitator. However, results do show an important role of facilitation throughout the tool categories.

Firstly, the findings showed more impact in building a common understanding during workshop-like tools. Besides the focus on verbal exchange between participants, this might relate to a more active role of the facilitator in this category of tools. The facilitators' role was also found to be crucial in including reflection and learning in the process. If not facilitated, there can thus be a lack of discussion on street-related topics. As certain tools are open-ended, the clarity of the shared mission can also depend highly on the facilitator (rich.pictures talk, Stakeholder Personas). Facilitation can also lessen impact, as some observers noticed that Keep the Balance OPEN AIR was rather highlighting differences than what is in common. Facilitator skills are emphasised in the final stage of the Storytelling Game, where a common story should be created, which can be challenging.

Secondly, on-street activities also had a positive impact on building a common understanding. Even though facilitation was not traditionally implemented in these activities. By providing a physical space, the tools helped spark the conversation and activate the public space. Temporary street transformations can stimulate the imagination of possibilities for the future use of the street.

The last category, digital tools, was expected to build a common understanding as well. For this format, however, there was no facilitation through a person, as in this research, the digital tools were mostly used in a non-hybrid format. Participants did value elements of the tool acting as a facilitator, for example, the neutrality of the data in Streetmeter and user interaction or peer learning in Placetoplan.

Generally, all tools showed a high level of trust in the facilitator or in the tool environment. However, in Streetmeter, where no facilitator was involved but only a tool environment present, trust was lower. It has also been found that certain barriers such, as differences in language proficiency and dominant individuals, can be mediated through facilitation. Distrust is also related to framework conditions that the tools might not have impacted, such as the relevancy of the process for street transformation or the process' timeline and the possibility that their participation might be used to eventually legitimise policies or designs that they don't support.

For empowerment, facilitators' skills can also be helpful or even key to success. They may need to be able to visualise ideas quickly in a drawing (rich pictures.talk), supervise or moderate discussions and activities (#residentialstreetlife) or give technical support in using Placetoplan. For facilitators to feel empowered, preparation and materials should be easy to use and intuitive. Some instructions were evaluated as too complex: missing intermediary

steps (MoBil), too long to explain (Art Installations), or rules were found to be difficult (Keep the Balance OPEN AIR). Other tools require a learning curve from the facilitator. (Keep the Balance OPEN AIR, MoBil) Further challenges for facilitation are maintaining neutrality while interviewing people (#residentialstreetlife), the open-ended character of the tool can be unclear for the facilitator (Stakeholder Personas, rich pictures.talk), but versatility was also perceived positively (MoBil). Observers also pointed out the role of the facilitator and reflection in addressing conflicts. Finally, active reflection of a facilitator can be key to raising awareness on the impact on others (rich pictures.talk).

3.4.13. Impactful features for consensus-building

The following section describes which features within a tool drive impact and which prevent tools from supporting consensus-building.

Firstly, it might be impactful to start the discussion from personal experiences. Sharing a lived experience (e.g. Storytelling Game) or stating individual needs (e.g. Placetoplan) helps understanding the impact of a streets' design on others and contributes to societal learning. A lack of diversity within the group and less diversity within the personal stories that are shared can decrease knowledge exchange. Tools that entirely lack the visibility of other participants' opinions were less impactful on their ability to identify common problems and shared values.

Next, some tools enhance active listening. A system of listening rounds (e.g. Keep the Balance OPEN AIR) supports identification of common problems or shared values. Closely related to sharing personal experiences, encouraging listening to others' needs helps understanding the impact of a possible design on others, and can broaden participants' viewpoints.

A facilitated discussion raises engagement and therefore contributes to process quality, keeping participants at the table. The facilitator is key to encouraging active reflection. Giving guidance during a discussion can keep the focus on street transformation and thus societal learning.

A structured negotiation process is key. Tools that, in a first round, explored individual problems and used this input to then discuss shared problems or values were more impactful for identifying common struggles within the participants' group. This structured increased understanding of reasoning and motives, which helped to explore possible agreements. However, negotiation that is solely led through predefined questions can lead to a neglect of certain issues or prevent participants from raising concerns about topics important to them.

A playful approach of tools can spark engagement. Participants found joyful interaction in role playing (Stakeholder Personas), gamification (Design Game) or interactive elements (Art Installations). Those features also help identify common problems and shared values. Besides, team-related activities like the joint construction of an installation (MoBil) or stories

(Storytelling Game) can help develop group dynamics and make room for empathy within the group. Some tools can increase the imaginative potential for street transformation. A temporary installation (#residentialstreetlife, Art Installations and MoBil) can demonstrate in reality how a street could be used differently. Compared to traditional renderings, a real-life design is much more accessible and easier to understand and learn. The shelter built with elements of MoBil, for example, created a physical meeting space that made it easier to understand other stakeholders' perspectives on the temporarily changed street layout.

While a playful approach can be useful, there is a need for 'real' discussion. A lack of contextualisation of the tool's materials (e.g. abstraction of the street in a game board) demands additional efforts from the facilitator to explain the context and goal of the tool. Unclear, could result in a misleading and complex discussion and should be avoided to keep the tools' user-friendliness. And a lack of relation to reality when roleplaying, can prevent the identification of common problems and shared values

Tools that include visual supports scored high in impact on consensus-building. Visuals and pleasing aesthetics of tool elements (Art Installations) or graphic design of the web environment (Streetmeter) can support understanding and user friendliness. In rich pictures.talk, drawings of individual desires are combined collectively on one canvas, which helps identify a common vision. When holding the discussion in the street, the street itself becomes a visual support for participants.

Intuitiveness and simplicity are key characteristics. Tools that are self-explanatory demand less effort from facilitators, making it easier to use. Instructions that are easy to follow enhance a shared mission for participants, contrary to unclear instructions, tool format and materials or technical issues that lead to low engagement and low user friendliness.

Following simplicity, there should be a clear goal and expectations while applying the tools. Clarity can avoid unmet expectations and thus lower engagement. A transparent purpose, tool mechanics and information avoids distrust in the tool or the facilitator. Finally, the discussion should remain focused and close to the objective to ensure a shared purpose among participants.

The findings include challenges across most tools. Language proficiency can be a barrier at many levels. When participants' language skills are not equal, there can be lower engagement, and time distribution for self-expression is unevenly distributed. Text-heavy materials or too high a focus on writing skills can pose difficulties in use and should be combined with other tools that focus on visuals or oral discussion. Sometimes, the dominance in the discussion is not related to language proficiency but simply to the personality of dominant individuals. This should be well facilitated to avoid distrust in the tool or facilitator. If not, strong opinions may lead those participants to be less receptive to empathising with others.

There can be significant challenges scaling up, using the tools in a large participatory process:

The role of the facilitator has been found to be key for workshop-like tools across indicators. Scaling-up could mean a significant increase -in time and efforts of a facilitator since a high number of participants and lengthy sessions can lower engagement levels. Several tools were already evaluated as time-consuming in StreetForum. This could relate to participants' time efforts, making it difficult to use the tool, for example, by gathering information, or relate to the discussion structure of sessions that become too long and tiring. Less demanding time to participate was considered to make the tools user-friendly. When the tools are used in a lengthy participatory process, a multiplicity and long-term character of goals could lead to unclarity on the shared purpose for the activity. Scaling up can also be challenging in terms of material efforts. In on-street activities, for example, we saw that logistics and installation of large and complex physical elements can be difficult to use or time-consuming for facilitators.

Lastly, the tools on their own will not lead to consensus; the political framework conditions, such as valuing of participation by politicians or implementing results and following up on the participatory process, are key for success. The possibility that participation will be used to legitimise choices in policy that they might not support can spark distrust. Participants might have distrust and concerns about publishing their opinions online or towards the lack of action of decision-makers, or the relevance of the process. Finally, organisers should ask for permission when taking photos or recordings, as it can also spark distrust.

4. Applicability and transferability assessment

To identify how the StreetForum tools can be used outside the project's Living Labs, we formulated two research questions to assess the tools' applicability – the feasibility of applying tools in different local settings: What barriers and drivers impacted the applicability of the tools for consensus-building?; and transferability – the likelihood that the tools can achieve the same outcomes when applied in a different local setting: How can the tools be made transferable in different contexts? To answer each question, specific elements were examined in the application of the tools, with implementation carried out in at least two of the four Living Labs by different researchers. This approach provided findings regarding different contexts and helped reduce researchers' bias.

To assess the applicability and transferability of the tools, several questions were included in the questionnaires and structured observations outlined in Section 3. However, asking about the political and social environment within the questionnaires would have made the data collection process unnecessarily lengthy and complex. Similarly, the transferability questions required input from those who facilitated and developed the tools. As a result, these questions were posed to the tool developers through short online interviews conducted in April 2024.

The data obtained was analysed by (1) coding the open questions of the questionnaire surveys and the observations, and (2) summarising the insights obtained through the interviews. The findings are presented separately for each tool, referring to the applicability and transferability assessment, and their respective indicators.

4.1. Storytelling Game

This tool was tested in the Brussels and Stockholm Living Labs.

4.1.1. Applicability

- **Political and social environment:** According to the tool developer, the political environment was favourable to participatory approaches and finding agreements between different stakeholders and conflicting interests. No political or legislative barrier to using this tool was identified, and it was not necessary to modify the tool to suit the local legislation. Moreover, the actors required to use this tool, mainly the inhabitants and users of public space (e.g., weekly market, kindergarten), were involved in the living lab.

- Regarding language, facilitators and observers reported that it was easy for participants to use, especially those with proficiency in the language being used. Nevertheless, support for and translation to participants were necessary for those who did not master the language of the activity.

- **User acceptance:** Both facilitators and observers found the tool to be user-friendly, and the materials easy to prepare. Nevertheless, the instructions were at times unclear for the participants, who sometimes reported the tool's setup to be complicated and lengthy. Participants also indicated that the experience was fun, and that the final discussion helped to better understand others' perspectives.
- **Required resources:** The materials costs of using the tool were very limited, as it only had to be printed. Facilitators reported that additional human support was only necessary to translate or support players when language proficiency varied.
- **Organisational and structural barriers:** Facilitators indicated that minor facilitation skills were required to distribute time to speak equally between participants and identify key issues from the discussion at the end. Thus, it could be necessary to hire a professional facilitator, as was the case in Brussels.

4.1.2. Transferability

As indicated by the tool developers, the general public can easily accept the tool, and it should not be problematic regarding social norms. However, some cities and neighbourhoods may present obstacles to using the tool because it targets reallocating the public space, which can result in contentious and polarised debates.

- **Estimated impact on consensus:** The tool went beyond what facilitators expected for consensus-building. It allowed participants to identify common problems and interests and, therefore, enabled participants to understand that the same solution existed for different problems.
- **Conflict assessment:** According to the developer, due to past events, conflict was high in one location where the tool was tested, and medium in another.
- **Mutual interdependence:** As highlighted by the tool developer, stakeholders displayed varying degrees of interdependence: while most relied on the local government for permissions and support, other stakeholders remained loosely connected.
- **Commitment to joint action:** According to the developer, most stakeholders were committed to joint action, although it depended on the location. In one case, one or two stakeholders seemed to be more reticent about any commitment.

4.2. Stakeholder Personas

This tool was tested in the Brussels and Istanbul Living Labs.

4.2.1. Applicability

- **Political and social environment:** According to the tool developer, the political environment was mostly favourable to participatory approaches and finding agreements between different stakeholders and conflicting interests. No particular political or legislative barrier to using this tool was identified. Furthermore, the actors required to use this tool, who are the diverse stakeholders regarding the public space to transform, were involved in the living lab.

- Additionally, the tool did not need to be modified to suit the local legislation. Regarding language, both facilitators and observers reported that overall, the tool was clear, although observers noted that a few concepts had to be clarified.

- **User acceptance:** Participants and observers reported no significant difficulties in understanding the tool. The materials were considered to be clear, and participants appreciated the gamified aspect, that the tool offered new points of view, and found that holding the workshop in the street increased their understanding of the context. Even though facilitators appreciated the versatility of the tool, they indicated that it still required a considerable amount of personal input to adapt the materials to the local context. Lastly, participants considered the tool fun and engaging, while they indicated that a simplified version could engage people or children with lower levels of literacy in the tool's language.

- **Required resources:** The materials costs of using the tool were very limited because it only had to be printed. Facilitators reported that one person was sufficient to guide the activity.

- **Organisational and structural barriers:** Facilitators indicated that minor facilitation skills were necessary to make sure everyone was heard and to keep the participants engaged. Thus, as was done in Brussels, it could be necessary to hire a professional facilitator. Facilitators found that their role was central since the tool could not be used independently by players. However, instructions explicitly designed for participants were missing. Additionally, it is advised that participants use the tool only after they have had the chance to get to know each other and have had an opportunity to share their personal experiences.

4.2.2. Transferability

According to the developer, the general public can easily accept the tool, and it is generally unproblematic regarding social norms. However, some cities and neighbourhoods may present obstacles to using the tool because some of the personas represent identities or values that could not be tolerated in some regions (e.g., LGBTIQ+ people), as well as using

the tool to reallocate the public space because it could result in contentious and polarised debates.

- **Estimated impact on consensus:** The facilitators found the helpful tool for consensus-building because key issues were discussed from different perspectives. This enabled the discussion to open and find common solutions that meet the needs of multiple stakeholders
- **Conflict assessment:** According to the developer, due to past events, conflict was high in one location where the tool was tested, and medium in another.
- **Mutual interdependence:** As highlighted by the tool developer, stakeholders displayed varying degrees of interdependence: while most relied on the local government for permissions and support, other stakeholders remained loosely connected.
- **Commitment to joint action:** According to the developer, most stakeholders were committed to joint action, although it depended on the location. In one case, one or two stakeholders seemed to be more reticent about any commitment.

4.3. Design Game

This tool was tested in the Brussels and Vienna Living Labs.

4.3.1. Applicability

- **Political and social environment:** The tool did not find any obstacles, and no particular political or regulatory obstacle was identified. Moreover, when using the tool, local or district governments should ideally be involved, as well as non-profit and civic organisations. This was not entirely the case in the tests conducted in Brussels and Vienna.
- Regarding language, facilitators and observers reported that overall, the tool was clear when participants had a high level of language literacy. However, when participants were not fluent in the language of the activity, ensuring their engagement was more challenging and required additional support from the facilitators.
- **User acceptance:** Although facilitators and observers found the guidelines clear and straightforward, they were a bit challenging for some participants. Facilitators noted that it took participants time to understand the rules, guidance was necessary, and sometimes, they adapted the game with their own rules. Furthermore, the link of the game board with the real situation was challenging to understand by most users of the tool, but using the tool in the street being discussed was helpful. The game design was

perceived as positive, intuitive, and fun by facilitators and participants, although some elements were a bit complex and not easy for everyone to read.

- **Required resources:** The materials costs of using the tool were relatively low because it had to be printed. Nevertheless, due to the format and the need for resistant materials, it had to be done by a professional. Facilitators reported that one person was sufficient to conduct the activity.
- **Organisational and structural barriers:** Facilitators reported that basic facilitation skills were required to distribute speaking time evenly and explain the tool's objectives. It could be necessary, as was done in Brussels, to hire a professional facilitator. Facilitators expressed that while there were multiple ways to play the game, it was essential to adapt it to the context because it impacts the outcome and focus. Moreover, although the tool was time-intensive and challenging to complete, some users described it as playful and a good starting point for discussions and possibly reaching a consensus.

4.3.2. Transferability

According to the tool developer, this tool is not expected to find obstacles in most contexts because it is a game which allows for diverse viewpoints to be expressed. Moreover, the results of the tool should be accepted by the general public, but they cannot support any transformation alone. Acceptance would be higher in complementarity with other tools and data collected.

The tool developer also indicated that in some cities, such as Vienna, it could potentially be used in participatory processes. In other cities, however, the local legislation and civil/democratic culture may not allow it. Additionally, it is unclear who and how the data collected by using the tool could be stored.

- **Estimated impact on consensus:** The consensus achieved by this tool was unclear because in two of the tests, some agreement was reached, whilst in two others, it was not the case, and frustration due to the lengthiness of the activity was expressed.
- **Conflict assessment:** According to the developers, the tool was used in locations with varying levels of conflict, and it was used unproblematically in all cases. However, the effectiveness of the tool in terms of the levels of conflict was not assessed.
- **Mutual interdependence:** As highlighted by the tool developers, stakeholders displayed varying degrees of interdependence: while some were visibly interdependent, others weren't. Although the tool was successfully applied, it was particularly challenging to involve those stakeholders whose interests did not align with the idea of transforming the street.

- **Commitment to joint action:** According to the developers, the level of commitment to joint action varied depending on the location. However, it did not have an impact on how the tool was used, yet no street transformation is foreseen as a result of using the tool.

4.4. rich pictures.talk

This tool was tested in the Brussels and Vienna Living Labs.

4.4.1. Applicability

- **Political and social environment:** No political or regulatory obstacle was experienced. Moreover, when using the tool, all stakeholders should be involved simultaneously. Regarding language, while facilitators did not report issues understanding the guidelines themselves, observers noted that participants with limited literacy in the language being used needed additional support from the facilitator to be engaged.

- **User acceptance:** Facilitators, observers, and participants found the tool intuitive and easy to understand, although its effectiveness may depend on the facilitators' (drawing) expertise. Facilitators mentioned that the tool materials were easy to use and adapt in public space, while some participants cast doubt on the objective of the tool. Nonetheless, participants described the tool as fun and user-friendly, facilitating the development of their desires and reflection on the present and future of the street.

- **Required resources:** The materials costs of using the tool were medium because only a flipchart needed to be purchased. However, it can be done at a lesser cost by using an existing surface and covering it with a paper sheet. The facilitator reported that one person was sufficient to conduct the workshop, although having a second person can be beneficial to recruit on the spot or use sticky notes next to the flipchart.

- **Organisational and structural barriers:** Facilitators reported that the tool did not require special expertise, but it was helpful to have some background knowledge on urban planning. As was done in Brussels, it could be necessary to hire a facilitator to ensure the tool is effectively applied and, in particular, to obtain a clear and appealing visual representation of what participants state. Overall, facilitators had a positive experience while using the tool, as they found it engaging and, when used outdoors, enabling participation from passers-by. However, spontaneous participation limits stakeholder diversity in comparison with an invited activity.

4.4.2. Transferability

According to the tool developer, this tool is usable in all types of contexts because it is very flexible. Thus, no major political or regulatory obstacles are expected to be found except in

contexts where street gatherings and using a flipchart in the street are not allowed. Moreover, the tool should be accepted by many, but few actors may not use it, and in particular, the administration would need more information and details to accept and implement the results of the tool. Depending on the results and local culture, the acceptance of the results may vary. In this regard, the tool is considered inclusive as it is easy to understand across different age groups and facilitates discussion with people from different languages and educational backgrounds.

- **Estimated impact on consensus:** The tool is considered by the facilitators and tool developers as contributing to consensus-building because it facilitated participants to share their points of view and discuss in an engaging and fair manner.
- **Conflict assessment:** According to the developers, the tool was used in locations with varying levels of conflict, and it was used unproblematically in all cases. However, the effectiveness of the tool in terms of the levels of conflict was not assessed.
- **Mutual interdependence:** As highlighted by the tool developers, stakeholders displayed varying degrees of interdependence: while some were visibly interdependent, others weren't. Although the tool was successfully applied, it was particularly challenging to involve those stakeholders whose interests did not align with the idea of transforming the street.
- **Commitment to joint action:** According to the developers, the level of commitment to joint action varied depending on the location. However, it did not have an impact on how the tool was used, yet no street transformation is foreseen as a result of using the tool.

4.5. #residentialstreetlife

This tool was tested in the Istanbul, Stockholm and Vienna Living Labs.

4.5.1. Applicability

- **Political and social environment:** The tool was used unproblematically in the three cases where no political or social obstacles were experienced. However, a permit from the local government was obtained in one of the Living Labs.
- Regarding language, the tool does not require the engagement of participants through the use of language. Moreover, facilitators and observers reported that overall, the tool guidelines were clear, although they could be more detailed.
- **User acceptance:** Facilitators, observers, and participants found the tool easy to use and intuitive as well as inspirational. However, they thought that the involvement of

more residents from the street where it was being used was necessary, and in a few cases, participants cast doubt on the tool's effectiveness in achieving long-term change.

- **Required resources:** The materials costs of using the tool were high because furniture, decorations and other materials were necessary. Moreover, several people were needed to install the different elements on the street, which was lengthy and complex depending on the location. When the number of participants was high and the activity duration long, more facilitators were necessary, for instance, to recruit participants and ensure moderation and supervision of the elements put on the street.
- **Organisational and structural barriers:** Facilitators indicated that the tool did not require particular competences besides communication and social skills. Nevertheless, additional communication and signage in the surroundings were considered necessary to attract more participants.

4.5.2. Transferability

The regulatory framework on residential streets differs among cities, and when this tool is used in streets that are not 'residential streets', it can go against local regulations concerning street activities in the public space. Moreover, this tool could find obstacles in some political and social environments in which street activities are not wanted or allowed. Some organisations or neighbourhood groups could also be opposed to it, although in general, it is not expected to go against social norms because it can be adapted and should be used in a way that is not problematic for most local actors.

As stated by the tool developer, the general public should more easily accept a transformation of a street after using the tool, because it allows them to experience alternative uses. Thus, the tool developer considers that this tool can be used in participatory processes, particularly at the beginning, to show people alternative uses in an effective manner. Nonetheless, it should be adapted to each local legislation where it is used. In Austria, for instance, chairs and tables are allowed to be put in parking spaces when present and in use. However, this can be different in other cities.

- **Estimated impact on consensus:** The effect on consensus is unclear because the tool brings people together and enables them to imagine alternative uses for the street, but does not structure discussions or address the existence of diverging viewpoints.
- **Conflict assessment:** According to the developers, the tool was used in locations with varying levels of conflict, and it was used unproblematically in all cases. However, the effectiveness of the tool in terms of the levels of conflict was not assessed.
- **Mutual interdependence:** As highlighted by the tool developers, stakeholders displayed varying degrees of interdependence: while some were visibly interdependent, others weren't. Although the tool was successfully applied, it was particularly

challenging to involve those stakeholders whose interests did not align with the idea of transforming the street.

- **Commitment to joint action:** According to the developers, the level of commitment to joint action varied depending on the location. However, it did not have an impact on how the tool was used, yet no street transformation is foreseen as a result of using the tool.

4.6. Art Installations

This tool was tested in the Istanbul, Stockholm and Vienna Living Labs.

4.6.1. Applicability

- **Political and social environment:** This tool was used mostly without difficulties or the need for a particular permit in the three Living Labs. However, the carriage, which was a bigger construction, had to stay when activities took place over several days, and this was a challenge. Firstly, local regulations may not allow the leaving of such structures for longer periods without someone using and/or taking care of them. Secondly, the risk of vandalism regarding these installations must be taken into account if they are left unsupervised.

- This tool was experienced by users of the public space, such as residents and people working in the area, as it was intended to. Concerning language, no issues were identified because the tool does not require verbal or written interaction.

- **User acceptance:** Facilitators and participants found the tool easy to use, while observers found the instructions too long and time-consuming. Participants found the tool inspirational and helpful in envisioning alternative uses of the public space, and they appreciated the MoBile aspect and aesthetics.

- **Required resources:** The materials costs of using the tool were high because a few construction materials (e.g., wood, steel bars) and decorations needed to be purchased. Furthermore, two people were necessary to build and/or install it in the public space, but once this is done, one person to take care of it is enough.

- **Organisational and structural barriers:** The tool developed indicated that a minimum of technical expertise for building the tool is necessary. Moreover, it is crucial to consider who takes care of it and is responsible for its use, because it may require surveillance and/or storage, or otherwise it can be destroyed or stolen.

4.6.2. Transferability

The local regulation about on-street activities have a significant impact on how this tool can be used, and such constraints can pose significant issues because the tool could not be used at all if a permit from the local government is necessary but is not obtained.

According to the tool developer, this tool should be unproblematic at the political and social level, except in particular contexts where politicians and/or society have a strong view against it. For instance, if people disagree with the art installations because they take up space, they use for something else (e.g., a parking space), it is possible that they will be removed or destroyed. However, this risk is inherent to this tool, which may be altering the space allocation and use, because it is a form of street intervention. Some elements, such as the umbrellas, can easily be removed and reinstalled every time they are used, but others, such as the car.iage, may present challenges.

As indicated by the tool developer, the general public would accept it, although a few people may not consider it helpful to decide on and legitimise any transformation. Moreover, the tool can support and give visibility to participatory processes, as well as to potential transformations, but in such a context, it should not be used as a stand-alone tool.

- **Estimated impact on consensus:** Facilitators found that the tool takes space, and through its visibility, raises awareness. This contributes to the discussion and possible consensus-building.

- **Conflict assessment:** According to the developers, the tool was used in locations with varying levels of conflict, and it was used unproblematically in all cases. However, the effectiveness of the tool in terms of the levels of conflict was not assessed.

- **Mutual interdependence:** As highlighted by the tool developers, stakeholders displayed varying degrees of interdependence: while some were visibly interdependent, others weren't. Although the tool was successfully applied, it was particularly challenging to involve those stakeholders whose interests did not align with the idea of transforming the street.

- **Commitment to joint action:** According to the developers, the level of commitment to joint action varied depending on the location. However, it did not have an impact on how the tool was used, yet no street transformation is foreseen as a result of using the tool.

4.7. Keep The Balance OPEN AIR

This tool was tested in the Istanbul and Vienna Living Labs.

4.7.1. Applicability

- **Political and social environment:** This tool was used without difficulties regarding the political or social environment. Although this tool should be used by all the stakeholders, particularly the users of the public space being considered, in the tests conducted, it was not completely achieved. Lastly, no language difficulties were experienced, but participants were fluent in the language being used.

- **User acceptance:** Facilitators and participants found the tool easy to understand, although extra guidance might be necessary. Observers specifically found the beginning of the activity challenging to understand by some participants, but the rules became clear in the process. Participants found the valuable tool for addressing specific issues because it clearly illustrates the consensus-building process and gives everyone enough time to express themselves and discuss. This was positively regarded, even though a few participants stated that the tool could become lengthy, decreasing engagement.

- **Required resources:** The materials costs of using the tool were low because the tool can be easily self-produced. The facilitator reported that one person was sufficient to conduct the workshop.

- **Organisational and structural barriers:** No particular skills were necessary to facilitate the use of the tool. However, the outdoor setting of the game was considered to be challenging due to the difficulty of involving passers-by and dealing with the nuisances. Moreover, facilitators needed written and concise instructions to explain the tool to participants.

4.7.2. Transferability

According to the tool developer, unless a permission to be in the street is needed, the use of this tool should not pose any problem. The tool is unlikely to go against local norms, but it may be necessary to adapt it due to local cultural behaviour or the type of participants (e.g., kids). The general public is expected to accept the tool and its outcome, although it will depend on who is participating. Thus, all stakeholders should be involved in achieving broader acceptance of the tool's outcome and advancing the transformation process. Moreover, the tool could be used for participatory processes because it allows participants to raise specific questions and discuss them. It can be used without a particular need to adapt to the local legislation.

- **Estimated impact on consensus:** The tool was considered to be effective for increasing consensus because the particular focus of this tool is on what street transformations should take place.

- **Conflict assessment:** According to the developers, the tool was used in locations with varying levels of conflict, and it was used unproblematically in all cases. However, the effectiveness of the tool in terms of the levels of conflict was not assessed.
- **Mutual interdependence:** As highlighted by the tool developers, stakeholders displayed varying degrees of interdependence: while some were visibly interdependent, others weren't. Although the tool was successfully applied, it was particularly challenging to involve those stakeholders whose interests did not align with the idea of transforming the street.
- **Commitment to joint action:** According to the developers, the level of commitment to joint action varied depending on the location. However, it did not have an impact on how the tool was used, yet no street transformation is foreseen as a result of using the tool.

4.8. MoBil

This tool was tested in the Brussels and Istanbul Living Labs.

4.8.1. Applicability

- **Political and social environment:** These tools were used unproblematically in both locations. In Brussels, no permit was requested, and in Istanbul, it was done in the context of a street activity organised by the municipality. This tool was used by several stakeholders because, ideally, all stakeholders regarding the street transformation should be involved, and particularly the users of the space (e.g., inhabitants, businesses). Lastly, facilitators noted issues with the translation of the guidelines, as well as that in a multilingual group, the facilitator needs to adapt to and support the participants.
- **User acceptance:** Facilitators, observers, and participants found the tool easy to use, although intermediate steps are missing in the instructions. The size of the tubes and the complexity of the connectors made it difficult for everyone to use. Nevertheless, the tool is considered helpful for building group dynamics and versatile for building different structures. Among the respondents, a few did not find a meaningful connection to street transformation, but they described the experience as fun, intuitive and engaging with passers-by.
- **Required resources:** The materials costs of using the tool were high because it had to be produced. Although one facilitator should be enough when participants are engaged and capable of supporting the participatory building process, additional facilitators were necessary when it was not the case, or when more complex structures were built.

- **Organisational and structural barriers:** Some facilitators reported that the preparation of the tool, which requires producing the different parts to be assembled, necessitates design skills. The guidelines for its production were not entirely clear, and the materials necessary posed minor challenges due to size, weight and manageability.

4.8.2. Transferability

According to the tool developer, the tool should be usable in most contexts. However, as the tool is used in the public space, it is possible that in specific locations, the local culture or political contexts do not allow this to happen. Local regulations on the use of public spaces can also be an obstacle to this. On-street activities can be done with or without permits from local authorities. It is possible to use the tool in both cases, which may also entail different challenges for the organiser.

As indicated by the tool developer, it is possible that some people do not agree with the use of the tool because it occupies the public space, and they do not accept it. In some contexts, the use of the tool could go against social norms that do not align with the 'spontaneous' or temporary occupation of the public space. Moreover, the tool could be used as part of a participatory process, but it has not been used in such a way, and this tool remains far from standard participatory methods and procedures.

- **Estimated impact on consensus:** The impact on consensus highly varies depending on how the tool is used and facilitated. In the tests conducted, this tool did not seem to directly support consensus.

- **Conflict assessment:** According to the developer, due to past events, conflict was high in one location where the tool was tested, and medium in another.

- **Mutual interdependence:** As highlighted by the tool developer, stakeholders displayed varying degrees of interdependence: while most relied on the local government for permissions and support, other stakeholders remained loosely connected.

- **Commitment to joint action:** According to the tool developer, most stakeholders were committed to joint action, although it depended on the location. In one case, one or two stakeholders seem to be more reticent about any commitment.

4.9. Streetmeter

This tool was tested in the Brussels, Istanbul and Stockholm Living Labs.

4.9.1. Applicability

- **Political and social environment:** This tool did not encounter any barriers regarding legislative frameworks. The main users of the tool are municipalities and

consultancies, as well as non-profit organisations. Regarding the language, facilitators reported no issues for participants as all spoke the language of the tool (EN), but certain jargon had to be clarified.

- **User acceptance:** Preparations were sometimes difficult and time-consuming, and there was no clarity on the underlying logic and calculations of the tool. Both participants and facilitators found the guidelines incomplete, lacking examples. Likewise, the measurements used by the tool were not straightforward.
- **Required resources:** The materials costs of using the tool were low because this is a free web-based tool. One facilitator was necessary when using it in workshop format, but otherwise, users used it independently.
- **Organisational and structural barriers:** No particular skills were necessary to use or facilitate the use of the tool. Nevertheless, introducing the tool to other people proved challenging, suggesting that more explicit guidance could be beneficial. Although it prompted several methodological questions, on the technical side, the tool was considered to be robust.

4.9.2. Transferability

According to the tool developer, the tool should not encounter political or social limitations beyond the language barrier. Although the use of the tool should face legislative barriers, it is difficult to foresee if it could serve 'standard' participatory processes. However, there is no reason to say the opposite.

Regarding people's acceptance, the tool developer indicates that it may depend very much on the cultural context. In some regions, people may not accept it as other beliefs or views drive them, or do not value empirically oriented decision-making.

- **Estimated impact on consensus:** Facilitators noted that the tool sparked a different kind of dialogue on public space transformations than typically seen, encouraging new perspectives which may contribute to reaching consensus.
- **Conflict assessment:** The conflict was not visible in each location, ranging from not apparent to having become part of the public debate. Thus, each location had different levels of conflict.
- **Mutual interdependence:** The levels of interdependence varied in each location, with some stakeholders seemingly being interdependent while others were not.
- **Commitment to joint action:** Most stakeholders presented some level of commitment to joint action, which was more evident after the living lab activities.

4.10. Placetoplan

This tool was tested in the Brussels, Istanbul and Stockholm Living Labs.

4.10.1. Applicability

- **Political and social environment:** The tests of this tool did not encounter any difficulty related to the political and social environment. Likewise, no language difficulties were identified. In the context of the tests conducted with the tool, the initiator or facilitators were organisations from the project consortium, and the users were the inhabitants. However, the initiators of this tool are expected to be governmental or administrative bodies, property owners and NGOs.

- **User acceptance:** Facilitators found the preparations of the tool very clear but encountered difficulties with the interface of the tool. Participants found the tool guidelines clear, the questions were relevant, pictures were helpful, and the interface was easy to use. However, for some, the presence of a facilitator was helpful. The short time requested from them to participate was appreciated. Some participants faced technical issues and suggested improvements for readability on smartphones, as well as regarding user-friendliness, and implementing the tool in a hybrid format to increase accessibility of groups with lower levels of language proficiency or digital skills.

- **Required resources:** The materials costs of using this web-based tool depend on the type of subscription used. In the context of these tests, no license had to be purchased. In principle, only one person needs to set up the tool by creating a 'dialogue' for the online consultation.

- **Organisational and structural barriers:** Facilitators had a positive experience and found the tool easy and useful to collect people's opinions. However, there is a need for guidance on how to implement the tool in real-life discussions. This could involve technical improvements (e.g. flow of the website and more possibilities for online discussion).

4.10.2. Transferability

According to the tool developer, this tool could encounter obstacles only in authoritarian regimes and when governments do not want to collect the views of people. It will depend on the democratic and political context of different societies, particularly in regions where people's opinion is (wanted to be) controlled. Nonetheless, in principle, it should not conflict with most regulations on participation or the organisation of street activities.

As indicated by the tool developer, politicians, in general, accept this tool as a means to transform public spaces. Regarding the general public, although some people may not like it because they have other interests, the tool should be generally accepted by the public.

Moreover, the tool's purpose is to support participatory processes to transform the public space, making it particularly suited for this purpose.

- **Estimated impact on consensus:** As the tool allowed for a (semi-)quantitative approach to understand the main problems and needs from participants, it is considered to have contributed to consensus-making. However, it was indicated that the tool lacks the possibility of interacting with people who disagree with the initiative or who are not digitally skilled.
- **Conflict assessment:** The conflict was not equally visible in each location, ranging from not apparent to having become part of the public debate. Thus, it can be assumed that each location had different levels of conflict.
- **Mutual interdependence:** The levels of interdependence varied in each location, with some stakeholders seemingly being interdependent while others were not.
- **Commitment to joint action:** Most stakeholders presented some level of commitment to joint action, which was more evident after the living lab activities.

4.11. StreetForum webinar

During the webinar, seven of the tools were presented to 18 participants, who were then invited to provide feedback. They were asked to indicate how they might use each tool, what barriers they could foresee, and the outcomes they expected to achieve by using these tools. The key insights from the event are summarised below, separately for each tool:

Stakeholder Personas

Practitioners found this tool helpful for fostering empathy with other users. However, its usability was questioned for high-level Mobility planning, as well as due to the need for skilled moderation and the challenge of using it with multilingual groups.

Design Game

Participants noted that this tool can offer valuable insights into different perspectives of people involved in street transformation processes. However, a lack of clarity regarding how the results should be used and the complexity of the tool were highlighted. Moreover, participants indicated that the use of the tool in outdoor settings depended on the weather conditions.

rich pictures.talk

Practitioners appreciated the tool's ability to support storytelling and the development of a shared vision through drawing. Nevertheless, concerns were raised about its inclusivity, particularly for individuals who are visually impaired or those who are uncomfortable with drawing. Maintaining participant engagement throughout the workshop was also identified as a challenge.

#residentialstreetlife

This tool was seen as beneficial for fostering new relationships, encouraging stakeholder dialogue, and raising awareness of alternative street uses. However, it was deemed to require significant

resources to prepare and implement it (e.g., communication about the event, street decoration, participant recruitment, and facilitation of on-street activities), and institutional constraints were highlighted as potentially hindering the use of the tool. Moreover, concerns were raised about the lasting impact of a one-time public event.

MoBil

Practitioners viewed MoBil as potentially effective for building trust and encouraging the use of public spaces. However, the financial costs involved and the level of expertise required to assemble the installation were highlighted as potential challenges to applying the tool.

Streetmeter

The quantitative, comparative, and visual elements of this tool were appreciated. Nonetheless, practitioners expressed concerns over the time and expertise required to collect the data necessary for using the tool.

Placetoplan

This tool was considered helpful in the initial stages of the planning process. However, the costs associated with obtaining the necessary license for its use were identified as a barrier to implementing the tool.

4.12. Toolkit's overall applicability and transferability

To identify how the StreetForum tools can be used outside the project's Living Labs, we formulated two research questions to assess the tools' applicability, i.e. the feasibility of applying tools in different local settings: What barriers and drivers impacted the applicability of the tools for consensus-building? and transferability, i.e. the likelihood that the tools can achieve the same outcomes when applied in a different local setting: How can the tools be made transferable in different contexts? The answer to these two questions is given separately in the following paragraphs.

Regarding the **applicability assessment**, the political and social environment was broadly accommodating, and no significant barriers were encountered when testing the tools. In nearly every case, there were no legislative obstacles or entrenched opposition to involving citizens. Language occasionally emerged as a challenge in tools built around discussion, such as the Storytelling Game and Stakeholder Personas, which sometimes required on-the-spot translation or simplified materials to include non-native speakers. Three tools required additional permissions or regulatory considerations: the #residentialstreetlife, MoBil and some Art Installation structures risked violating local rules on the use of the public space and demanded oversight to ward off vandalism. Lastly, the StreetForum tools required the participation of several or all stakeholders, particularly the users of the public space.

In terms of resources, a majority of the tools required none or only low-cost, printable or easily self-produced materials. In this regard, the Streetmeter, Placetoplan, Storytelling Game, Stakeholder Personas, Design Game and rich pictures.talk all worked comfortably with a few sheets of printed paper and the facilitator's time. At the other end of the spectrum, however, the #residentialstreetlife and Art Installations demanded significant investment in temporary street furniture, construction materials and decorations, plus multiple hands for setup and takedown. The MoBil kit likewise carried higher production costs and logistical efforts. Finally, organisational and structural demands across the toolkit settled into a middle ground of moderate facilitation needs.

Most tools benefited or even required a facilitator to ensure balanced participation, explain objectives, and guide the activities, though no particular expertise was necessary from them. Exceptions included the Art Installations, which called for basic construction expertise and ongoing stewardship to avoid damage, and MoBil, whose production guidelines required some knowledge on design and production. Tools such as Streetmeter needed better onboarding materials rather than facilitator expertise per se, while digital platforms like Placetoplan pointed to the need for clearer implementation protocols to translate online feedback into real-world discussion. Additionally, while anyone with modest workshop experience can orchestrate most of these tools, a professional or semi-professional facilitator remains advisable for more complex setups or where language, technical detail or stakeholder balance present challenges.

Concerning the **transferability assessment**, it must be acknowledged that the activities in the Living Labs and tests of the tools did not target particular transformations. This is because the transformation processes were at an early stage, and thus, the consensus considered in this assessment relates to the openness towards a transformation rather than its achievement. In this regard, the extent to which the tools actively seemed to foster consensus agreement varied notably.

The tools have demonstrated resilience across settings with various levels of conflict, with low, medium or even high tensions. No implementation of tools was blocked by social opposition, and in every location of the tests, the interventions could be deployed without major disruptions, regardless of the level of conflict. Although it is expected that this will reproduce when using the tools in other local contexts, none of the tools have yet been evaluated for their capacity to de-escalate existing conflict. For this, facilitation is considered key to applying the tools in locations where that would be necessary.

Stakeholder interdependence existed to some extent throughout all the locations of the tests. Participants ranged from tightly linked actors with some form of decision-making power to loosely connected groups with limited influence on public space governance. In this regard, forging genuine collaboration demanded attention to these diverse forms of interdependence,

whether by bringing loosely connected stakeholders together or by tailoring tasks to ensure that less influential participants feel their contributions matter.

Additionally, commitment to joint action depended on the context, with stakeholders showing at least a willingness to pursue follow-up steps in most locations. This was particularly the case when they had already used the tools. However, none of the ten methods, on their own, generated binding commitments or implementation plans. This may indicate that while these tools can spark consensus, implementing their outcomes may require additional institutional support. In this regard, the extent to which the tools can foster consensus will depend on the ensemble and order in which the tools are used, as well as on the issue at stake for which a consensus is necessary.



5. Conclusions and lessons learnt

Bringing the results from the impact assessment together, we can conclude that engaging a diverse group of stakeholders requires a diverse set of tools. We saw that building trust can happen through repeated on-street activities, that language barriers can be overcome by integrating visual tools and that using easily accessible digital tools could reach stakeholders with time constraints. Creative tools use playfulness to spark engagement but should be combined with active listening and discussion. Gamification can support the process by distributing speaking time evenly or encouraging reflection and identifying problems, but participants should be able to take agency over the game's rules to ensure meaningful participation. Besides workshop-like tools, on-street activities can also broaden engagement. Installations could encourage reflection on a new possible use of the street. These activities need to be combined with workshops for in-depth discussion. Lastly, using digital tools can raise the number of participants but come with some barriers, such as digital literacy or digital access. To ensure an inclusive process, tools should be used in a hybrid way (e.g. interviews with shop owners, in-person hybrid workshops with less MoBile groups) and tools need to be transparent to avoid distrust.

Moreover, we saw that expanding from traditional participatory methods with a central role for facilitators can be beneficial for impact. While the role of the facilitator is key in workshop-like tools, it can be substituted by a physical intervention in public space, promoting discussion and imaginative future uses in on-street activities, or a transparent and easy-to-access digital environment. The StreetForum toolkit, as a part of a new set of tools, offers stakeholders a position between participation and non-participation. Since the participatory activities are mainly organised in public space, there is a layer of activities that can become a stepping stone to full participation: listening in on a conversation, joining for a part of the session, being informed by presentation panels, visual awareness through installations. These steps can be an invitation to eventually join the table to discuss street transformation (see Figure 4).



Figure 4 StreetForum, bridging the threshold for participation

The use of participatory tools is key to achieving a qualitative outcome. Within the framework of this research, operationalised through Living Labs, we saw mostly non-conclusive outcomes. Final agreements focused on how the street should be used, proposals for activities organised by citizens and local governments and, small or temporary interventions that improve the street.

The comparative analysis of impact across the four Living Labs demonstrates that the effectiveness of participatory tools is highly context dependent. Key factors for success include the presence of decision-makers, the perceived representativeness of participants, and the local networks of facilitators and convenors of the participatory process. While all Living Labs stimulated dialogue and community engagement, those with strong institutional support or embedded local knowledge achieved tangible and policy-relevant outcomes. This suggests that for participatory tools like the StreetForum toolkit to be impactful, they must be embedded within supportive governance structures and made-to-measure to local socio-political dynamics.

In this regard, the Living Labs had an impact on local municipalities, such as in Brussels, where the Regional Department of Mobility will start deploying the StreetForum tools in participatory processes. The Stockholm Municipality will continue the activities in the Living Lab location as they now recognise the importance of the quay for water access and leisure. Additionally, in the Istanbul Metropolitan Municipality, StreetForum helped recognise the value of inter-departmental collaboration, and finally, in Vienna, local decision-makers asked to hold another series of activities in the two Living Lab streets.

Overall, it was found that a dynamic participatory process requires considerable human resources – It might be a challenge to scale up the process, and importantly, merely a set of tools will not solve all issues. It is important to provide guidance to local communities on how to integrate tools into a participatory process. For meaningful participation, clear goals should be established. Without follow-up, a risk for participation fatigue remains.

5.1.1. Limitations of this research

Several limitations have been identified in the course of this research. Firstly, engaging participants was challenging and as a result, the sample of participants underrepresents car users. This might have impacted both the process and results. Secondly, in the evaluation process, the person in charge of the Living Lab was at times also performing the evaluation. There might have been a positivity bias towards the living lab activities.

Lastly, while the applicability assessment has provided valuable insights on what drivers and barriers impacted the application of the tools, the transferability assessment fails to thoroughly answer its related research questions: What barriers and drivers impacted the tool's applicability for consensus-building? How can the tools be made transferable in different contexts? This is because the actual impact on consensus is unclear, and as it has been identified that to some extent, context dependent. This is a significant limitation of this research, coupled with the limitations linked to the methodology used to assess the transferability.

Future research should aim to further involve decision makers in participatory research, while taking care to sufficiently adapt and contextualize the tools to the local stakeholders' needs and streets' dynamics. Moreover, future studies could develop an evaluation framework to investigate the transferability and be able to separate what results from the specificities of the context and what emerges from of the tools. Lastly, research in other geographical regions with more diverse socio-cultural characteristics would benefit this study on applicability and transferability.

6. References

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Annex 1 - Demographics

	All		Brussels		Stockholm		Istanbul		Vienna	
Total	230	100%	91	40%	36	16%	50	22%	53	23%
Gender										
Woman	115	50%	43	47%	17	47%	31	62%	24	45%
Man	108	47%	48	53%	18	50%	17	34%	25	47%
Other	7	3%	0	0%	1	3%	2	4%	4	8%
Age groups										
18-29	71	31%	21	23%	2	6%	23	46%	25	47%
30-39	70	30%	36	40%	13	36%	17	34%	4	8%
40-49	42	18%	22	24%	6	17%	5	10%	9	17%
50-59	21	9%	5	5%	8	22%	3	6%	5	9%
60-69	18	8%	6	7%	2	6%	2	4%	8	15%
70-79	4	2%	1	1%	3	8%	0	0%	0	0%
80-89	2	1%	0	0%	2	6%	0	0%	0	0%
90+	0	0%	0	0%	0	0%	0	0%	0	0%
Main mode of transport (multiple options possible)										
by foot	162	70%	61	67%	20	56%	36	72%	45	85%
by bike	103	45%	33	36%	25	69%	3	6%	42	79%
by public transport	152	66%	63	69%	18	50%	29	58%	42	79%
by car	47	20%	17	19%	13	36%	10	20%	7	13%
by (e)scooter	5	2%	3	3%	1	3%	1	2%	0	0%
by motorbike	5	2%	2	2%	0	0%	2	4%	1	2%
Car ownership										
Owns no car	156	68%	68	75%	20	56%	33	66%	35	66%

Private car	63	27%	19	21%	15	42%	13	26%	16	30%
Company car	9	4%	4	4%	1	3%	3	6%	1	2%
Association with stakeholder groups (multiple options possible)										
inhabitants	203	88%	66	73%	31	86%	47	94%	47	89%
civic associations	31	13%	17	19%	0	0%	0	0%	1	2%
public authority	18	8%	5	5%	4	11%	2	4%	1	2%
businesses	8	3%	1	1%	1	3%	1	2%	0	0%
public institution	12	5%	2	2%	0	0%	0	0%	4	8%

Table 8 Demographics of participants



Annex 2 – Evaluation of Workshop-like Tools





Evaluation of
Workshop-like Tools

Authors:

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Tool:..... Streetname

Date: / / Time :



OBSERVATION SHEET

Below are the questions that you should try to answer while observing the activity.

1. **General info**, please fill out the table.

Name of the tool:	No. of participants:
Date:	Weather conditions (if outdoors):
Start and end time:	Other remarks:

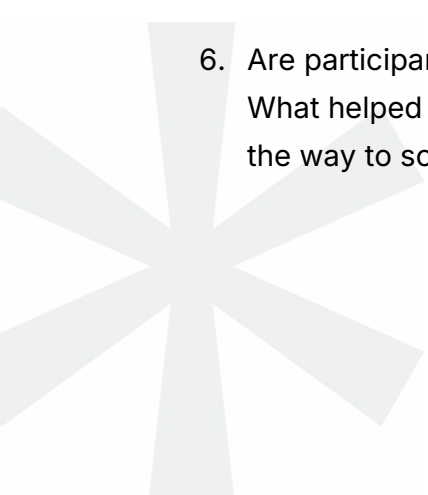
2. (For the observer:) What is your professional background?

3. Are the participants kept **engaged** throughout the activity? How? e.g. did someone leave, lost interest, are they asking questions, interacting with other participants, speaking up, ...

4. Are participants **expressing problems** that they or someone else experienced while using the street? **Which problems** are discussed? e.g. *someone doesn't feel at ease walking in the street at night, criticizes the condition of the pavement, ...*

5. Does the activity enable the **identification of problems that participants have in common**? What helped identifying the problems?

6. Are participants expressing **elements they find important** while using the street? What helped identifying shared values? e.g. *someone values the safety of their kid on the way to school, the park and ride to drop off groceries at home, ...*



Tool:.....

Streetname

Date: / /

Time :



7. Does the activity enable **the identification of shared values** between participants?
What helped identification of shared values?

8. Is the **goal of the tool** clear for participants? If no, what is not clear?

9. Does the information that is shared between participants have scientific value/sources or can you detect **'fake news'**?

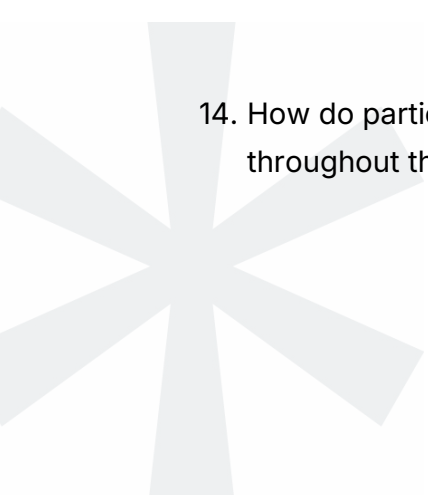
10. Do participants express **feelings of distrust** in the facilitator or organizers? How?

11. Do all participants have **enough time to fully understand** each issue and to discuss their point of view? Why (not)?

12. Are participants having any **difficulties understanding** the instructions for the activity? What is difficult to understand?

13. Were **conflicts addressed or rather avoided** during the activity?

14. How do participants better understand **the views and concerns of other participants** throughout the activity? How?



Tool:.....

Streetname

Date: / /

Time :



15. Are participants **using knowledge** on street transformation they **acquired during the activity?** How?

16. Did you come across any **language barriers** (e.g. use of jargon) that participants found difficult to understand? What was difficult?

17. Are **participants' relations strengthened** during the activity? How?

18. Are there any **agreements** on a possible street transformation reached? If so, what was agreed upon?

19. If not, are there **partial agreements** on a possible street transformation reached? If so, what was agreed upon? What prevented a full agreement?



Tool:.....

Streetname

Date: / /

Time :



participant
code:

SURVEY FOR PARTICIPANTS - Workshop Tools

In the StreetForum project we are developing a toolkit to help local communities build consensus in street transformation processes. The data collected from these surveys will help us measure the impact of each tool. Find out more on streetforum.eu

If you have any questions or would like to withdraw your consent, you can contact Vrije Universiteit Brussel, responsible for processing the data, at streetforum@vub.be.

This survey has two parts. Part A is to be filled out at the start of the activity. Part B is completed at the end. Each part takes around 10 minutes.

Thank you for your time!

Note: By participating in the survey, you agree to the privacy statement. You can find it [here](#).

After the information provided about this survey, I understand its purpose, and voluntary consent to participate and for my collected data to be used in this research project.



Tool:.....

Streetname

Date: / /

Time :



PART A – BEFORE STARTING THE ACTIVITY

Gender: How do you identify?

- Woman Non-binary Man Prefer to self-describe:
- Prefer not to answer

Age: Which age group are you in?

- 18-29 30-39 40-49 50-59 60-69 70-79
- 80-89 90+ Prefer not to answer

How do you usually move around the city? You can choose multiple options.

- by foot by bike by public transport by car by motorbike
- by (e-)scooter other: ...

Do you own a private car, or do you use a company car?

- yes, I own a private car yes, I have a company car no, I don't

In the context of this street, under which category would you place yourself? You can choose multiple options.

- inhabitant local NGO property owner
- visitor local cultural association local municipality
- student local business owner government
- tourist working in this area police
- local school services emergency services trash collection
- public transport operator other:
-



Tool:.....

Streetname



Date: / /

Time :

Please indicate how you evaluate each thematic in this street on a normal day (outside of the StreetForum activities). You can also add themes.

	problematic	slightly problematic	neutral	slightly satisfied	very satisfied
Noise Level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Greenery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pedestrian comfort	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cyclist comfort	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Possibility to meet people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Street lighting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outdoor seating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access to public transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Traffic safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of On-street Car Parking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of On-street Bike Parking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wheelchair accessibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fear of crime	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Protection from summer heat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cleanliness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Tool:.....

Streetname

Date: / /

Time :

participant
code:

PART B – AFTER THE ACTIVITY

How interesting did you find this activity?

- it was very interesting
- it was interesting
- some parts were interesting, some parts boring
- it was mostly boring
- it was very boring

Were the instructions for the activity easy to understand?

- very difficult rather difficult neither difficult nor easy
- rather easy very easy

Why do you think so?

Did you feel supported by the facilitators to express your point of view?

- very supported slightly supported neither supported, nor unsupported
- slightly unsupported not supported

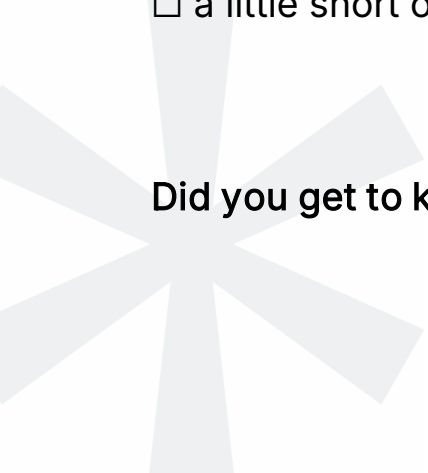
Did the participants of this activity represent everyone that is affected by a (possible) transformation of this street?

- yes no, this group of people or key person is missing:

Did you have enough time to fully understand each issue and to discuss your point of view?

- way too much time a little too much time just enough time
- a little short on time not at all enough time

Did you get to know new people during the activity?



Tool:.....

Streetname



Date: / /

Time :

- a lot of people some new people at least one new person
 I got to know better some people I already knew none

**Did the activity help you better understand street transformation?
(e.g. impacts, the views, concerns of other people, ...)**

- I learned a lot I learned a little I already knew some things
 I didn't learn anything new I don't really understand it

**What did you learn about street transformation's impacts and
benefits/issues?**

**In the discussion today, did you talk about conflicts around street
transformation with other participants? Which conflicts were
addressed?**

**In case agreements on a possible street transformation were reached
during the activity, how satisfied are you with this agreement?**

- strongly satisfied satisfied neutral unsatisfied not at all
satisfied

Please indicate why you are or are not satisfied:



Tool:.....

Streetname

Date: / /

Time :



How do you evaluate the tool, what would you improve?



Tool:.....

Streetname



Date: / /

Time :

After participating in this activity, please indicate how you evaluate each thematic in this street on a normal day (outside of the StreetForum activities). You can also add themes.

	problematic	slightly problematic	neutral	slightly satisfied	very satisfied
Noise Level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Greenery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pedestrian comfort	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cyclist comfort	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Possibility to meet people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Street lighting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outdoor seating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access to public transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Traffic safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of On-street Car Parking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of On-street Bike Parking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wheelchair accessibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fear of crime	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Protection from summer heat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cleanliness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Tool:..... Streetname

Date: / / Time :



SURVEY FOR FACILITATORS – Workshop Tools

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This survey takes around 10-15 minutes.

Thank you for your time!

Note: By participating in the survey, you agree to the privacy statement. You can find it [here](#).

After the information provided about this survey, I understand its purpose, and voluntary consent to participate and for my collected data to be used in this research project.



Tool:.....

Streetname

Date: / /

Time :



Which organization do you work for? Were you engaged specifically for this activity?

After reading the guidelines, to what extent is the goal of the tool clear to you?

completely clear mostly clear neither clear nor unclear partially unclear very unclear

What was unclear?

After reading the guidelines, did you find the tool easy to use? What was easy, what was difficult?

Did all participants have enough time to understand the discussed issues and to express their point of view?

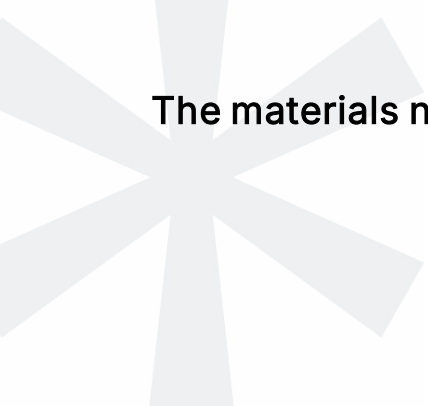
way too much time a little too much time just enough time
 a little short on time not at all enough time

Why do you think so?

The time it took to prepare for the activity including preparation was:

very fast fast reasonable a bit too long took way too much time

The materials needed for this tool were:



Tool:.....

Streetname



Date: / /

Time :

- very easy to find quite easy to find manageable to find
 a little hard to find hard to find

Did you come across any language (e.g. academic or professional jargon) that you found difficult to understand? What was difficult?

Did you need more people (as facilitators or observers) than written in the guidelines? Did you have to engage someone additionally?

Did the tool require special expertise outside of your organization? Which expertise?

Did the tool meet your expectations in terms of consensus building?

How do you evaluate the tool, what would you improve?



Annex 3 – Evaluation of Digital Tools





Evaluation of Digital Tools

Authors:

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Version: 0.3

Date: 12.06.2024

The project has been funded by the Brussels Capital Region – Innoviris (Belgium), the Austrian Research Promotion Agency (FFG), Vinnova, and TÜBİTAK



StreetForum - Evaluation Digital Tools - Participants

In the StreetForum project we are developing a toolkit to help local communities build consensus in street transformation processes. The data collected from these surveys will help us measure the impact of each tool. Find out more on streetforum.eu.

If you have any questions or you would like to withdraw your consent, you can contact Vrije Universiteit Brussel, who is responsible for processing the data, at streetforum@vub.be.

This survey takes around 5 minutes to fill out.

Thank you for your time!

Note: By participating in the survey, you agree to the privacy statement. You can find it [here](#).

* **Verplichte vraag**

1. Choose your location: *

Markeer slechts één ovaal.

- Brussels: Révision
- Brussels: Ropsy Chaudron
- Stockholm
- Vienna: Rahlgasse
- Vienna: Lambertgasse
- Istanbul
- Anders: _____

2. Which web application did you use? *

Markeer slechts één ovaal.

- streetmeter.net
- placetoplan

3. After the information provided about this survey, I understand its purpose and voluntary consent to participate and for my collected data to be used in this research project. *

Markeer slechts één ovaal.

Yes

No

4. Gender: How do you identify? *

Markeer slechts één ovaal.

Woman

Non-binary

Man

Prefer not to answer

Anders: _____

5. Age: Which age group are you in? *

Markeer slechts één ovaal.

18-29

30-39

40-49

50-59

60-69

70-79

80-89

90+

Prefer not to answer

6. How do you usually move around the city? *

You can choose multiple options.

Vink alle toepasselijke opties aan.

- by foot
- by bike
- by public transport
- by car
- by motorbike
- by (e-)scooter
- Anders: _____

7. Do you own a private car, or do you use a company car?

Markeer slechts één ovaal.

- yes, I own a private car
- yes, I have a company car
- no, I don't

8. In the context of this street, under which category would you place yourself? You *
can choose multiple options.

Vink alle toepasselijke opties aan.

- inhabitant
- visitor
- local cultural association
- local municipality
- property owner
- local NGO
- student
- tourist
- working in this area
- police
- local school
- public transport operator
- local business owner
- government
- emergency services
- trash collection services
- Anders: _____

9. How interesting did you find using this web application? *
(1: it was very interesting 2: it was interesting 3: some parts were interesting,
some parts boring 4: it was mostly boring 5: it was very boring)

Markeer slechts één ovaal.

1 2 3 4 5

very very boring

10. To what extent did you agree with the problems that other participants expressed while using the tool? *

(1: strongly agree 2: agree 3: undecided 4: disagree 5: strongly disagree)

Markeer slechts één ovaal.

1 2 3 4 5

stro: strongly disagree

11. To what extent do you trust the tool's results? *

(1: I fully trust them 2: I somewhat trust them 3: I don't particularly trust or distrust them 4: I distrust them 5: I fully distrust them)

Markeer slechts één ovaal.

1 2 3 4 5

I full I fully distrust them

12. To what extent did you feel comfortable expressing your thoughts in a digital tool? *

(1: very comfortable 2: comfortable 3: not comfortable or uncomfortable 4: a bit uncomfortable 5: not at all comfortable)

Markeer slechts één ovaal.

1 2 3 4 5

very not at all comfortable

13. Was the web application easy to use? *

(1: very difficult 2: difficult 3: manageable 4: easy 5: very easy)

Markeer slechts één ovaal.

1 2 3 4 5

very very easy

14. Why do you think that? *

15. Did the web application help you better understand street transformation? (e.g. impacts, the views, concerns of other people, ...) *

(1: I learned a lot 2: I learned a little 3: I already knew some things 4: I didn't learn anything new 5: I don't really understand it)

Markeer slechts één ovaal.

1 2 3 4 5

I lea I don't really understand it

16. What did you learn about street transformation's impacts and benefits/issues? *

17. How do you evaluate the tool? What would you improve? *

Thank you for your time!

Get updates on StreetForum at streetforum.eu.

For any questions regarding the project or survey you can write to streetforum@vub.be.

Deze content is niet gemaakt of goedgekeurd door Google.

Google Formulier

StreetForum - Evaluation Digital Tools - Facilitators

In the StreetForum project we are developing a toolkit to help local communities build consensus in street transformation processes. The data collected from these surveys will help us measure the impact of each tool. Find out more on streetforum.eu.

If you have any questions or you would like to withdraw your consent, you can contact Vrije Universiteit Brussel, who is responsible for processing the data, at streetforum@vub.be.

This survey takes around 5-10 minutes.

Thank you for your time!

Note: By participating in the survey, you agree to the privacy statement. You can find it [here](#).

* Verplichte vraag

1. Choose your location: *

Markeer slechts één ovaal.

- Brussels: Révision
- Brussels: Ropsy Chaudron
- Stockholm
- Vienna: Rahlgasse
- Vienna: Lambertgasse
- Istanbul
- Anders: _____

2. Which web application did you use? *

Markeer slechts één ovaal.

- streetmeter.net
- placetoplan

- 3. After the information provided about this survey, I understand its purpose and voluntary consent to participate and for my collected data to be used in this research project. *

Markeer slechts één ovaal.

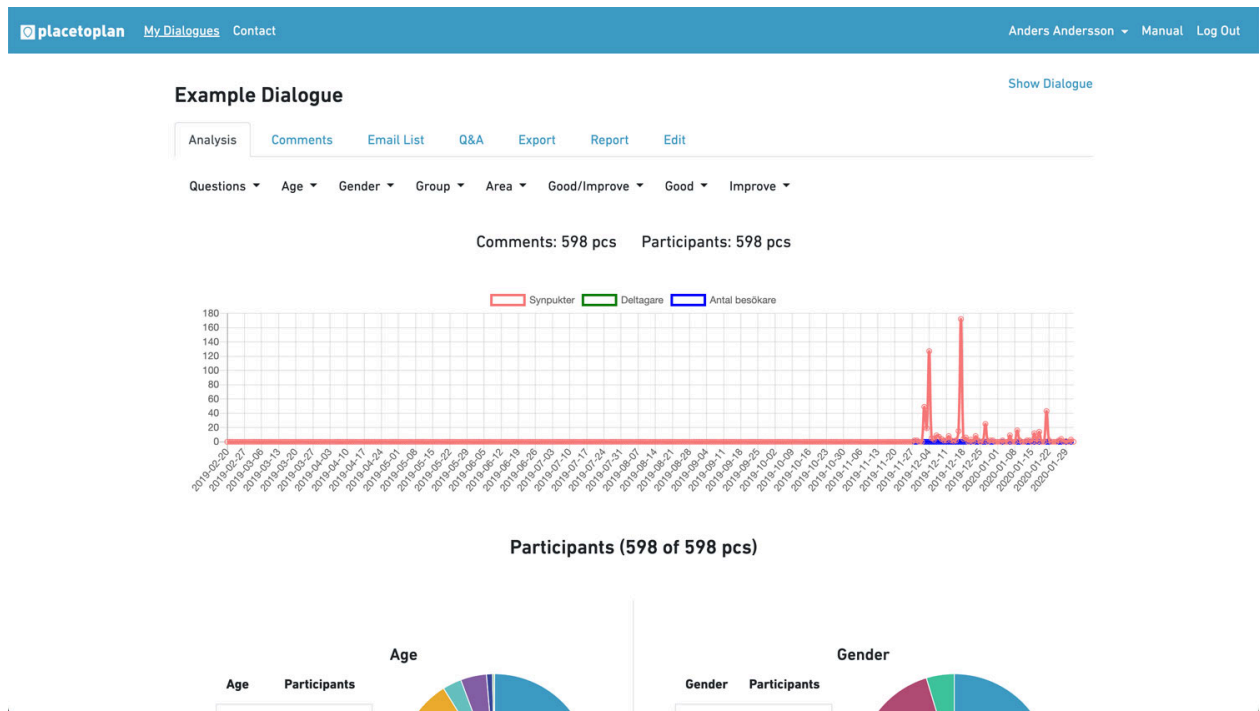
Yes

No

Monitoring

- 4. How many people used the tool? And how did they engage? To answer this question, please export the statistics from the web application in PDF and Excel to the designated folder in Sharepoint. / For streetmeter, placetoplan will provide these statistics.

Example Analysis



- 5. How long was the web application online and available for use? (dd.mm.yyyy to dd.mm.yyyy) *

Consensus Building

6. How does the tool help to identify problems that participants have in common? *

7. How does the tool help to identify common topics that participants find important? *

8. During the use of the tool, were there any conflicts addressed about a possible street transformation? Or were (existing) conflicts rather avoided in the discussion? *

- 9. Is the input from participants based on scientific sources or can you detect “fake news”? *

Participants experience

- 10. Did you receive questions from users about how to use the tool? If yes, what is difficult to understand? *

- 11. Do web users express feelings of distrust towards the tool in their questions? How? *

Facilitators' experience

12. After reading the guidelines, what was still unclear? Why do you think so? *

13. After facilitating the tool, what did you find easy or difficult while using the tool? *
Why do you think so?

14. Was the number of facilitators, observers or other roles indicated in the guidelines sufficient while using the tool? If not, for which role did you need more people? *

15. Did you have previous experience as a facilitator? How did it help you while using this tool? *

16. Are you part of the Living Lab coordinators' organisation or were you hired externally for facilitating this activity? *

17. Did you experience any difficulties with language (e.g. use of academic or professional jargon)? *

Time

18. How would you rate the time you spent preparing for the activity? *

(1: very fast 2: fast 3: reasonable 4: a bit too long 5: took too much time)

Markeer slechts één ovaal.

1 2 3 4 5

very took too much time

19. Was the provided time (e.g. time the tool was online, or length of the workshop) * sufficient for all participants to express their point of view?

(1: way too much time 2: a little too much time 3: just enough time 4: a little short on time 5: not at all enough time)

Markeer slechts één ovaal.

1 2 3 4 5

way not at all enough time

Final feedback

20. Did the tool meet your expectations in terms of consensus building? *

21. How do you evaluate the tool overall? What would you improve? *

Thank you for your time!

Get updates on StreetForum at streetforum.eu.

For any questions regarding the project or survey you can write to streetforum@vub.be.

Annex 4 – Evaluation of On-Street Activities





Evaluation of On-street Activities

Authors:

Lotte Luykx (Vrije Universiteit Brussel)

Imre Keserü (Vrije Universiteit Brussel)

Lluis Martinez Ramirez (Vrije Universiteit Brussel)

Juliana Betancur Arenas (Vrije Universiteit Brussel)

Version: 0.4

Date: 13.06.2024

The project has been funded by the Brussels Capital Region – Innoviris (Belgium), the Austrian Research Promotion Agency (FFG), Vinnova, and TÜBİTAK



Tool:.....

Streetname

Date: / /

Time :



OBSERVATION SHEET

Below are the questions that you should try to answer while observing the activity.

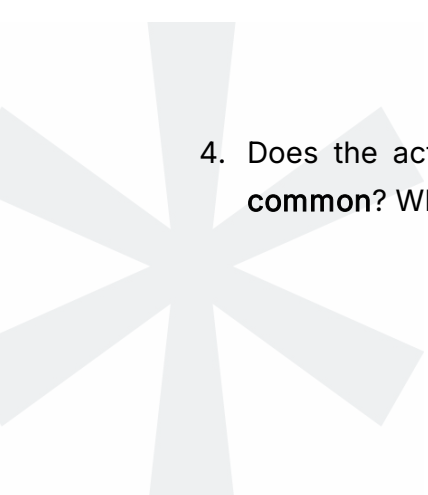
1. **General info**, please fill out the table.

Name of the tool:	How many people participated in the activity? (Make a headcount at least at the beginning, middle and near the end of the on-street activity.) Start: Middle: End:
Date:	Weather conditions:
Start and end time:	How much time do participants on average spend in the on-street activities

2. (For the observer:) What is your professional background?

3. Are participants **expressing problems** that they or someone else experienced while using the street? **Which problems** are discussed? *e.g. someone doesn't feel at ease walking in the street at night, criticizes the condition of the pavement, ...*

4. Does the activity enable the **identification of problems that participants have in common**? What helped identifying the problems?



Tool:.....

Streetname

Date: / /

Time :



5. Are participants expressing **elements they find important** while using the street? *e.g. someone values their kids' safety on the way to school, the park and ride to drop off groceries at home, ...*

6. Does the activity help to **identify important things** (= shared values) that participants have in **common** ?

7. Is the **goal of the tool clear** for participants? If no, what is not clear?

8. Does the information that is shared between participants have scientific value/sources or can you detect '**fake news**'?

9. Do participants express **feelings of distrust in** the organizers? How?

10. Are participants having any **difficulties understanding the instructions** for the activity? What is difficult to understand?



Tool:.....

Streetname

Date: / /

Time :



SURVEY FOR PARTICIPANTS - On-street Activities

participant code:

In the StreetForum project we are developing a toolkit to help local communities build consensus in street transformation processes. The data collected from these surveys will help us measure the impact of each tool. Find out more on streetforum.eu

If you have any questions or would like to withdraw your consent, you can contact Vrije Universiteit Brussel, responsible for processing the data, at streetforum@vub.be.

This survey takes around 10-15 minutes.

Thank you for your time!

Note: By participating in the survey, you agree to the privacy statement. You can find it [here](#).

After the information provided about this survey, I understand its purpose, and voluntary consent to participate and for my collected data to be used in this research project.



Tool:.....

Streetname



Date: / /

Time :

Gender: How do you identify?

- Woman Non-binary Man Prefer to self-describe:
- Prefer not to answer

Age: Which age group are you in?

- 18-29 30-39 40-49 50-59 60-69 70-79
- 80-89 90+ Prefer not to answer

How do you usually move around the city? You can choose multiple options.

- by foot by bike by public transport by car by motorbike
- by (e-)scooter other: ...

Do you own a private car, or do you use a company car?

- yes, I own a private car yes, I have a company car no, I don't

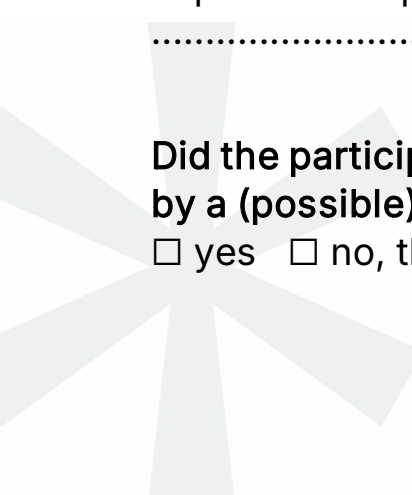
In the context of this street, under which category would you place yourself? You can choose multiple options.

- inhabitant local NGO property owner
- visitor local cultural association local municipality
- student local business owner government
- tourist working in this area police
- local school services emergency services trash collection
- public transport operator other:

.....

Did the participants of this activity represent everyone that is affected by a (possible) transformation of this street?

- yes no, this group of people or key person is missing:



Tool:.....

Streetname

Date: / /

Time :



How interesting did you find this activity?

- it was very interesting it was interesting
- some parts were interesting, some parts boring
- it was mostly boring it was very boring

Please indicate to which extent you agree with the following statement:

"The on-street installations/tools made it easier for me to try out new activities in this street."

- strongly agree agree undecided disagree strongly disagree

Did you feel supported by the facilitator and/or organizers to express your point of view during the installation or activity?

- very supported slightly supported neither supported, nor unsupported
- slightly unsupported not supported

Did you get to know new people during the activity?

- a lot of people some new people at least one new person
- I got to know better some people I already knew none

Did the activity help you better understand street transformation? (e.g. impacts, the views, concerns of other people, ...)

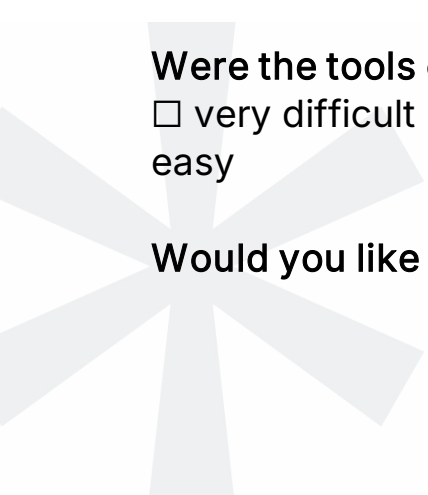
- I learned a lot I learned a little I already knew some things
- I didn't learn anything new I don't really understand it

What did you learn about street transformation's impacts and benefits/issues?

Were the tools easy to use?

- very difficult rather difficult manageable rather easy very easy

Would you like to use the tools again on your own? Why so?



Tool:.....

Streetname

Date: / /

Time :



How do you evaluate the tool, what would you improve?



Tool:.....

Streetname

Date: / /

Time :



SURVEY FOR FACILITATORS - On-street Activities

In the StreetForum project we are developing a toolkit to help local communities build consensus in street transformation processes. The data collected from these surveys will help us measure the impact of each tool. Find out more on streetforum.eu

If you have any questions or would like to withdraw your consent, you can contact Vrije Universiteit Brussel, responsible for processing the data, at streetforum@vub.be.

This survey takes around 10-15 minutes to fill out.

Thank you for your time!

Note: By participating in the survey, you agree to the privacy statement. You can find it [here](#).

After the information provided about this survey, I understand its purpose, and voluntary consent to participate and for my collected data to be used in this research project.



Tool:.....

Streetname

Date: / /

Time :



Which organization do you work for? Were you engaged specifically for this activity?

After reading the guidelines, to what extent is the goal of the tool clear to you?

- completely clear mostly clear neither clear nor unclear partially unclear very unclear

What was unclear?

After reading the guidelines, did you find the tool easy to use? What was easy, what was difficult?

Did all participants have enough time to understand the discussed issues and to express their point of view?

- way too much time a little too much time just enough time
 a little short on time not at all enough time

Why do you think so?

The time it took to prepare for the activity including preparation was:

- very fast fast reasonable a bit too long took too much time

The materials needed for this tool were:

- easy to find quite easy to find manageable to find a little hard to find
 hard to find

Tool:.....

Streetname

Date: / /

Time :



Did you come across any language (e.g. academic or professional jargon) that you found difficult to understand? What was difficult?

Did you need more people (as facilitators or observers) than written in the guidelines? Did you have to engage someone additionally?

Did the tool require special expertise outside of your organization? Which expertise?

Did the tool meet your expectations in terms of consensus building?

How do you evaluate the tool, what would you improve?



Annex 5 – End of Living Lab Evaluation





Evaluation of the Living Lab program

Authors:

Lotte Luykx (Vrije Universiteit Brussel)

Imre Keserü (Vrije Universiteit Brussel)

Luis Martinez Ramirez (Vrije Universiteit Brussel)

Juliana Betancur Arenas (Vrije Universiteit Brussel)

Version: 0.4

Date: 13.06.2024

The project has been funded by the Brussels Capital Region – Innoviris (Belgium), the Austrian Research Promotion Agency (FFG), Vinnova, and TÜBİTAK



Living Lab..... Street name.....

Date: ... / ... / Time:



participant code:
.....

SUPER SURVEY FOR PARTICIPANTS

- Overall StreetForum Program

In the StreetForum project we are developing a toolkit to help local communities build consensus in street transformation processes. The data collected from these surveys will help us measure the impact of each tool. Find out more on streetforum.eu

If you have any questions or would like to withdraw your consent, you can contact Vrije Universiteit Brussel, responsible for processing the data, at streetforum@vub.be.

This survey takes around 10-15 minutes.

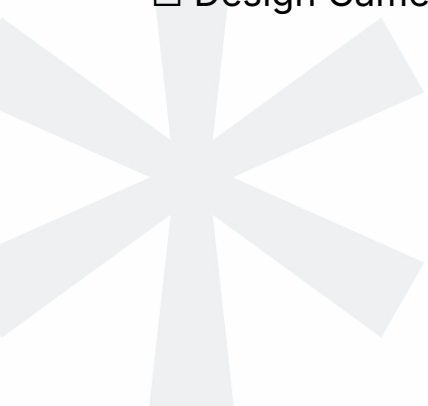
Thank you for your time!

Note: By participating in the survey, you agree to the privacy statement. You can find it [here](#).

After the information provided about this survey, I understand its purpose, and voluntary consent to participate and for my collected data to be used in this research project.

Please tick the boxes of activities you took part in:

- Placetoplan Streetmeter Art Installations
- #residentialstreetlife:
- Mobil Storytelling game Stakeholder Personas
- Design Game rich picture.talk



Living Lab..... Street name.....

Date: ... / ... / Time:



Gender: How do you identify?

- Woman Non-binary Man Prefer to self-describe: ...
- Prefer not to answer

Age: Which age group are you in?

- 18-29 30-39 40-49 50-59 60-69 70-79
- 80-89 90+ Prefer not to answer

How do you usually move around the city? You can choose multiple options.

- by foot by bike by public transport by car
- by motorbike by (e-)scooter other: ...

Do you own a private car, or do you use a company car?

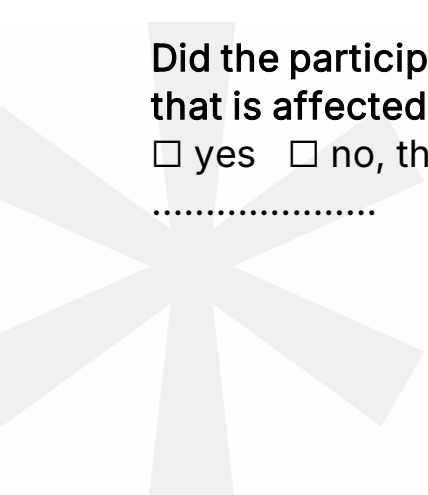
- yes, I own a private car yes, I have a company car no, I don't

In the context of this street, under which category would you place yourself? You can choose multiple options.

- inhabitant local NGO property owner
 - visitor local cultural association local municipality
 - student local business owner government
 - tourist working in this area police
 - local school services emergency services trash collection
 - public transport operator other:
-

Did the participants of the StreetForum program represent everyone that is affected by a (possible) transformation of this street?

- yes no, this group of people or key person is missing:
-



Living Lab.....

Street name.....

Date: ... / ... /

Time:



After participating in the StreetForum program, please indicate how you evaluate each thematic in this street on a normal day (outside of the StreetForum activities). You can also add themes.

	problematic	slightly problematic	neutral	slightly satisfied	very satisfied
Noise Level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Greenery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pedestrian comfort	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cyclist comfort	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Possibility to meet people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Street lighting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outdoor seating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access to public transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Traffic safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of On-street Car Parking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of On-street Bike Parking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wheelchair accessibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fear of crime	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Protection from summer heat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cleanliness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Living Lab..... Street name.....

Date: ... / ... / Time:



Other:.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------



Living Lab..... Street name.....

Date: / / Time:



Was the aim of the StreetForum program clear for you? If not, what was not clear?

Did you feel support from the organizers to express your point of view during the StreetForum activities? What made you feel supported or not?

After participating in the StreetForum program, do you feel more comfortable to express your point of view on street transformation?

- very confident a little more confident the same a bit less confident
 not at all confident anymore

What did you learn about street transformation during the StreetForum program? You can use the following questions as a guideline:

- What did you learn about the possible impact of street transformation?
- What did you learn about other people's points of view, expectations, or concerns?
- *Only for Vienna:* What did you learn about residential streets (regulatory road code)?



Living Lab..... Street name.....

Date: ... / ... / Time:



Were there any agreements reached on a possible street transformation? If yes, what was agreed upon?

To what extent are you willing to compromise to reach a solution, one that works for everyone affected, in a future street transformation?

definitely probably maybe probably not absolutely not

Did you make plans for new collaborations with people you met in the StreetForum program?

How do you evaluate the StreetForum program and the activities in which you participated overall, what would you improve?



Living Lab..... Street name.....

Date: ... / ... / Time:



SURVEY FOR FACILITATORS - Overall StreetForum Program

In the StreetForum project we are developing a toolkit to help local communities build consensus in street transformation processes. The data collected from these surveys will help us measure the impact of each tool. Find out more on streetforum.eu

If you have any questions or would like to withdraw your consent, you can contact Vrije Universiteit Brussel, responsible for processing the data, at streetforum@vub.be.

This survey takes around 10-15 minutes to fill out.

Thank you for your time!

Note: By participating in the survey, you agree to the privacy statement. You can find it [here](#).

After the information provided about this survey, I understand its purpose, and voluntary consent to participate and for my collected data to be used in this research project.

Please tick the boxes of activities you took part in:

Placetoplan Streetmeter Art Installations

#residentialstreetlife:

Mobil Storytelling game Stakeholder Personas

Design Game rich picture.talk



Living Lab..... Street name.....

Date: ... / ... / Time:



Which organization do you work for? Were you engaged specifically for StreetForum activities?

Did the participants of the StreetForum program represent everyone that is affected by a (possible) transformation of this street?

yes no, this group of people or key person is missing:

How are participants kept engaged throughout the process of the StreetForum activities? e.g. did someone leave, lost interest, are they asking questions, interacting with other participants, speaking up, ...

How does the StreetForum program enable the identification of problems that participants have in common?

How did the StreetForum program enable the identification of shared values between participants?



Living Lab.....

Street name.....

Date: / /

Time:



**During the StreetForum program, did you have discussions about the definition or source of information shared between participants?
Please elaborate.**

Were conflicts addressed or rather avoided during the StreetForum program?

How did participants learn about impacts and benefits or issues in street transformations throughout the StreetForum program?

Are there any agreements on a possible street transformation reached? If so, what was agreed upon?

Are there partial agreements on a possible street transformation reached? If so, what was agreed upon? What prevented a full agreement?

Did you get to know new people (stakeholders) during the StreetForum activities of 2023-2024?



Living Lab..... Street name.....

Date: ... / ... / Time:



Did you or your organization make plans for new collaborations with people (partners or stakeholders) you met during the StreetForum activities?

How do you evaluate the StreetForum program overall (process and outcome), what would you improve?

