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Implementing a democratic innovation:

Online deliberation on a future transport system

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Practitioner points

- Deliberative mini-publics are forums that aim towards engaging a representative sample of citizens to learn about particular issues and discuss them in small groups. The goal is to produce recommendations to policymakers or to the public at large.
- Deliberative mini-publics can be used to discover what an informed public opinion on various policy issues looks like. If face-to-face deliberation cannot be organised for any reason, e.g. logistics or expense, then online deliberation seems to work well.
- Planning and implementing deliberative mini-publics are time-consuming. They need to be designed carefully in advance. About 12 months is a realistic estimation from idea to actual deliberation.
- Especially the task of reaching a diverse participant pool requires a careful recruitment process.
- Politicians and citizens appear to deliberate well together. We trace no signs of politicians dominating the discussions.

Introduction

As part of the development of a new master plan, the City of Turku sought to engage its citizens in the planning process. It contracted Åbo Akademi University and Tampere University to do this. We used a democratic innovation, a deliberative mini-public, to discover an informed public opinion on the transport system in the city centre. To engage a diverse group of people, we used random sampling in recruiting participants. The *Turku deliberates* -citizens' panel, with 171 participants, took place in mid-May 2020, and was organised online due to the Covid-19 pandemic. As a novel feature in the growing field of deliberative mini-publics, *Turku deliberates* also included local councillors deliberating together with citizens in some of the small-groups.

This report presents theoretical arguments for citizen deliberation, describes the process used in *Turku deliberates*, and highlights the project's main results. The report also lays out policy recommendations on how to apply deliberative mini-publics in democratic decision-making processes at the local level.

Deliberative mini-public as a democratic innovation

In the last few decades, democratic government has come across several challenges in established democracies. Election statistics and opinion polls from different countries show negative trends of voter turnout and political trust, and democratic politics has become more polarised and divisive. As a response to some of these democratic deficits, governments at the national and local levels in Europe have started to rebuild their relationship with citizens, by testing new mechanisms for direct citizen participation. In political research and theory, these are known as *democratic innovations* (Smith, 2009, 1).

Deliberative mini-publics, such as the citizens' panel organised in Turku, represent a specific type of democratic innovation that has gained a lot of scholarly attention in the last few years (Setälä & Smith, 2018). In deliberative mini-publics, (quasi)randomly selected citizens engage with experts and one another in facilitated, informed deliberations on a given topic, and publicly present their opinions or recommendations to the commissioning body and wider society (Farrell et al., 2019; Grönlund et al., 2014; Harris, 2019).

The idea of mini-publics is rooted in democratic theory generally, and deliberative democracy in particular (Goodin & Dryzek, 2006). Deliberative democrats see careful and inclusive reflection and discussion on policy options as a prerequisite for democratic legitimacy, and institutional variations of mini-publics – deliberative polls, citizens' assemblies and citizen juries – represent a preferred or at least feasible way to organise citizen deliberation. *Turku deliberates* was inspired by the methodology of Deliberative Polling®, where a representative sample of citizens are recruited and their initial opinions surveyed. They are then given balanced background information on the topic, deliberate for one full day, or several days, pose questions to experts, and answer the same survey questions again (Fishkin, 2018).

The defining feature of all mini-publics is, however, deliberation as the main mode of participation. Unlike in traditional polls or public hearings, in deliberative mini-publics lay citizens truly exchange arguments and reflect on each other's views. These deliberations are guided by specific discussion rules and facilitated by trained moderators. For example, the rules of discussion in *Turku deliberates* specified that participants should respect each other, justify their opinions, listen to the viewpoints of others and be constructive also when confronted with conflicting views.

In addition, deliberative mini-publics always aim at representativeness and opinion diversity by creating a microcosm of the relevant population. Thus, participants in deliberative mini-publics are usually recruited through a random sample of citizens. Unlike other participatory mechanisms that are open to all interested parties, deliberative mini-publics are thus more likely to articulate the voice of citizens who do not participate in politics via traditional channels.

There is a growing body of empirical research testing the assumptions regarding democratic deliberation. Research has validated, for example, that participants' opinions on policy issues change during deliberative events (c.f. Andersen & Hansen, 2007; Farrar et al., 2010; Grönlund et al., 2015; Suiter et al., 2016) and that deliberation helps individuals match their values with their preferences (Gastil et al., 2017) as well as structure their own preferences (List et al., 2013). Another uncontroversial finding from this field is that citizens learn a great deal about the policy questions at hand (c.f. Grönlund et al., 2015). Participation in deliberative events may also shape civic attitudes, such as increase perspective taking, tolerance and willingness to engage in public life (Knobloch et al., 2019; Caluwaerts & Reuchamps, 2014; Grönlund et al., 2010, Grönlund et al., 2017, Muradova, 2020).

Despite these mostly positive effects on the participating individuals, we do not know as much on how deliberative mini-publics influence actual political decisions and deliberation among the wider non-participating public. Some studies focusing on these 'macro' effects find that being aware of a deliberative mini-public and reading its recommendations may boost political efficacy and knowledge among the wider public (Boulianne, 2018; Gastil et al., 2018), but so far connecting mini-public recommendations with decision-making processes in representative institutions has been a true challenge.

Suggestions to enhance the link between mini-publics and representative institutions include institutionalising randomly selected citizen councils that work in parallel with representative institutions (Niessen & Reuchamps, 2019, Gastil & Olin Wright 2019); an automated debate and vote of mini-public outcomes in the parliament or local council (Michels & Binnema 2018); or veto-powers for mini-publics to recall decisions that they find to be in conflict with citizens' recommendations (Setälä, 2017). In this report, we study yet another coupling mechanism (Hendriks, 2016) that brings politicians into deliberative discussions on an equal footing with randomly selected citizens. The few existing studies on these deliberative mini-publics, consisting of citizens and politicians, indicate that the participation of politicians does not necessarily distort the discussion dynamics, and it may even strengthen the chances that mini-public recommendations are taken up in the policy process (Farrell et al., 2020).

The Turku deliberates process

In the spring of 2020, the interests of our research team to organise a deliberative mini-public with real political impact, and the vision of the City of Turku¹ to engage its citizens more deeply, were united. City mayor Minna Arve suggested that a mini-public could be organised to discuss and select from three alternative scenarios concerning the future transport system in the city centre. Our original plan was to organise a face-to-face event following roughly the Deliberative Polling® model (Fishkin, 2009). We had already initiated the process when the Covid-19 pandemic broke out and restrictions for physical gatherings were introduced. Because of the timetable of the city council, postponing the mini-public was not possible. For that reason, we decided to move the mini-public online and call it a citizens' panel.

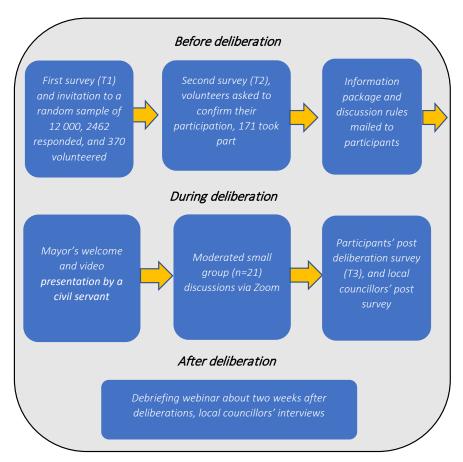


Figure 1. Turku deliberates process

The process proceeded in the steps depicted in Figure 1. An initial survey (T1) and invitation to online deliberation was first sent to a *random sample* of 12 000 Turku residents, between the ages of 15 and 79. The invitation letter indicated that the selected participants would receive a small remuneration, and that the city council would be informed about the results of the citizens' panel when the council decides on the city's new master plan for the year 2029. The participants were, in other words, aware of the real political impact of the citizens' panel. The first survey consisted of a large set of questions related to transport, environmental and other political values, trust, efficacy, and background variables. Altogether 2462 people responded. Out of the random sample, 370 citizens indicated their willingness to participate. We then sent out a request to confirm participation and fill in a second survey (T2)

Turku is a bilingual city in Southwest Finland. Its Swedish name is Åbo.

consisting mainly of knowledge questions. We measured both general political knowledge and more specific issue knowledge about transport systems. At this point, volunteers were also informed that they would receive a gift card worth 50 euros as remuneration for their participation.²

Before small group deliberations, participants were mailed an information package that provided background information about the current traffic problems in Turku and described the three alternative scenarios for the future transport system. The scenarios, formulated by a private consultancy, were named *Small change, Rapid change*, and *Big change*, and they varied mainly in terms of how radically they changed transport policies towards the goal of a carbon neutral Turku. Written *rules of deliberative discussion* were mailed at the same time.

We ultimately had 171 participants, and the online deliberations via Zoom took place in May 2020. In terms of representativeness, some groups were underrepresented despite the large random sample and a mailed reminder. Most notably, the panel had smaller proportions of people from less affluent neighbourhoods and people with only basic education (see Appendix B). The discussions were organised in Finnish (19 groups) and Swedish (2 groups). Thus, persons whose mother tongue was other than Finnish or Swedish were slightly underrepresented. There were two types of groups, *Citizens only* and *Citizens plus Politicians* groups, and the participants were randomly assigned into these groups of 8 to 11 citizens. Due to attrition, the number of citizens in actual deliberations varied between 5 and 11 per group.

In each *Citizens plus Politicians* group, two members of the city council also took part in the discussion.³ The local councillors were selected in proportion to the political parties' representation in the city council, and in each group, the two politicians represented a different party.⁴ Altogether 21 councillors from six parties participated alongside ordinary citizens. The parties decided which councillors participated, and in most cases, volunteers were selected. All political parties, with the exception of one, appointed the required number of councillors to the panel.

A trained moderator facilitated the discussion in each small group, and a technical moderator helped with possible problems with the online system. Before the actual deliberations, participants could also participate in voluntary technical training sessions where they were familiarised with the basic features of Zoom. To standardise the process in the small groups, moderators were trained in two online sessions before the event, and they received detailed written instructions describing their role as well as the timetable and steps of small group discussions.

Each small group deliberated for three hours with a short break in the middle of the session. In the beginning of each group session the participants watched a recorded video where the mayor welcomed the participants. Development manager Juha Jokela, who was responsible for transport planning in city administration, presented the three alternative scenarios. Moderators thereafter asked each participant to present a theme they wanted to discuss in the group. Actual deliberations then started, and the moderator remained passive as long as the rules of discussion were followed. If a discussion seemed to die down, the moderator proposed one of the themes the participants had mentioned but had not yet been covered. Half an hour before the group's timeslot ended, everyone was given a chance to summarise their thoughts to others. The moderator then asked the participants to fill in the post deliberation survey (T3), informed them about the online debriefing webinar, and thanked the participants. The post delibera-

One participant withdrew from the citizens' panel at the last minute because they were unable to receive taxable income due to other social security benefits.

In one group there was only one politician.

National Coalition Party (6 councillors in the citizens' panel), Green League (5), Social Democratic Party (4), Left Alliance (3), Finns Party (2), Swedish People's Party (1).

eration survey measured the main variables we expected to change due to participation as well as the participants' experiences of the process. The councillors also filled in a survey enquiring about their motivations to participate and measuring their experiences of the process. In addition, we interviewed 11 participating councillors to gain a deeper understanding of their experiences and thoughts about this type of citizen engagement.

A public debriefing webinar was held about two weeks after the citizens' panel. In the webinar, the mayor thanked the participants, the civil servant responsible for citizen participation in the city talked about the master plan process, and members of our research team presented the research process, experimental design and some of the main observations from the pre and post deliberation surveys. The main results of the citizens' panel, i.e. support for the three different transport scenarios, were thereafter submitted to the urban environment department, where they were added to material collected from the call for statements request regarding the new master plan.

'Raw' public opinion on transport systems

The recruitment survey T1 measured the baseline support for different transport systems among a representative sample of Turku residents. The *Turku deliberates* -survey respondents (n=2462) were presented with 16 statements regarding the traffic arrangements in the Turku city centre. Respondents were asked to state whether they totally or somewhat agree or somewhat or totally disagree with the statements. This 'raw' public opinion is presented in Figure 2. Respondents mainly agreed with most of the statements, but two statements divided respondents' opinions (*Lowering the speed limit for traffic in the centre to 30 km/h; The use of private cars should be restricted in the city centre*). Furthermore, respondents mainly disagreed with two statements (*A tram network should be built in Turku; On some streets in the city centre, car traffic should be restricted to residents*).

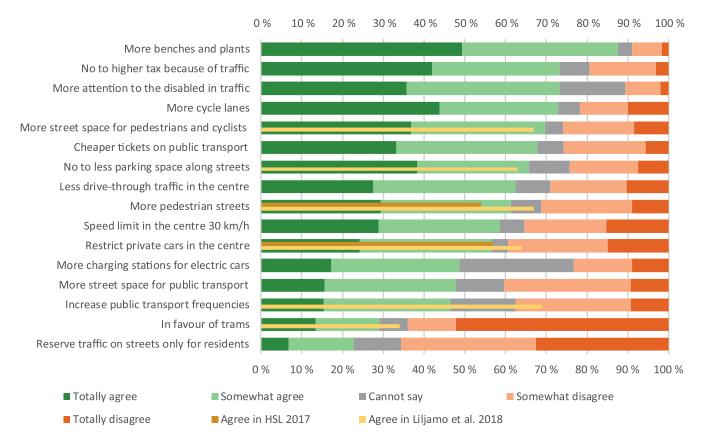


Figure 2. 'Raw' opinions of Turku residents (N=2462) on the transport system in comparison with other surveys

Some statements in this survey are similar to two previous surveys carried out in the Helsinki metropolitan region (HSL 2017) and among a sample of Finnish citizens (Liljamo et al., 2018). The exact wordings of the statements are slightly different between the surveys, but the main idea is the same. Figure 2. shows the shares of respondents who either totally or somewhat agreed with similar statements in the two other surveys. Responses in the two other surveys seem to be rather similar to responses in the *Turku deliberates* -recruitment survey. A notable exception is the statement "*The frequencies of public transport should be increased*", in which the respondents in Turku agree significantly less than the Finnish citizens in Liljamo et al. (2018). Overall, we can conclude that the *Turku deliberates* -recruitment survey responses are in line with responses to similar questions in other Finnish surveys on transport policy.

How opinions changed

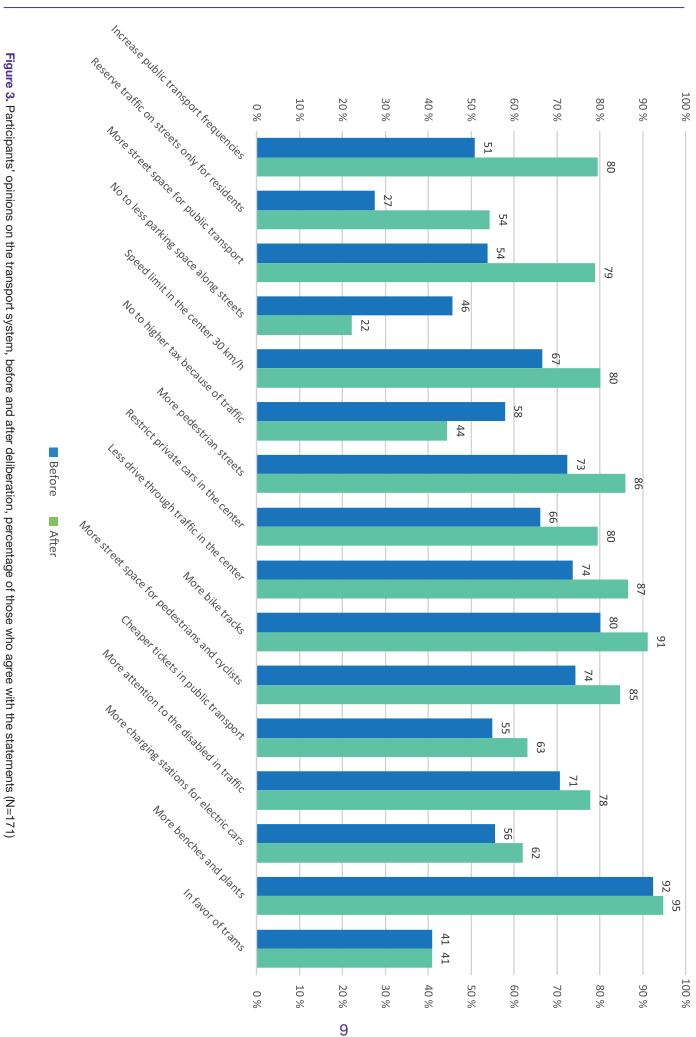
Whereas the figure above presents a 'raw' public opinion in the City of Turku, in the following we will concentrate on the results from the citizens' panel itself. Thus, the number of persons in the analyses below is mostly 171, i.e. the number of people who participated in the small group deliberations and completed the survey after the event.

Opinions

First, we will map how the participants' opinions on the transport system in the city centre developed as a result of the provided information, discussions in the small groups and individual reflection. Figure 3. shows the share of participants who agree (totally or partly) with each statement. The 16 statements measuring the participants' opinions regarding the transport system were organised from top to bottom according to the size of opinion change, starting from the biggest changes. The statistical significance of the change in opinion was tested with within samples T-tests (not shown here). All statements, except for the last two, i.e. "More benches and plants should be added alongside the streets to increase attractiveness" and "A tram network should be built in Turku" show a statistically significant change (p<0.10) in the course of the citizens' panel.

Starting from the statement where the opinion change is the largest, i.e. "The frequencies of public transport should be increased", we see that whereas half of the participants were in favour of this before deliberation, the share had grown to 81 per cent after deliberation. Support for the second statement, "On some streets in the city centre, car traffic should be restricted to residents", increased from 27 per cent to 54 per cent. This change may indicate that people have the ability to take perspective when listening to other arguments in deliberation. Perhaps people who live outside the centre were able to understand how residents in the centre are disturbed by motor traffic.

In addition, the third statement, "More street space should be reserved for public transport", gained much more backing after deliberation; its support increased from 54 to 79 per cent. The largest decrease in support for any single statement can be found for "The number of parking spaces along streets should not be decreased". Before deliberation, almost half (46%) of the participants were in favour of the statement, but after deliberation only one in five (22%) were in favour. Other statements where the support increased and was very high after deliberation are "Lowering the speed limit for traffic in the centre to 30 km/h" (80%), "Building more pedestrian streets" (86%), "Restricting private cars in the centre" (80%), "Restricting drive through traffic in the centre" (87%), "Building more cycle lanes" (91%), and "Reserving more street space for pedestrians and cyclists" (85%). Regarding the importance of the transport system not leading to a higher municipal tax, the support for this statement decreased in deliberation from 58 to 44 per cent. In other words, participation in the citizens' panel increased public willingness to pay for



the infrastructure investment. The participants also wanted cheaper tickets in public transport (an increase from 55 to 63 per cent) and felt that more attention should be given to the specific needs of disabled people in transport systems (71 to 78 per cent).

Overall, the opinion changes during the citizens' panel were quite large and point towards a green or sustainable direction. The participants clearly desire a city with less private cars in the centre, more space for pedestrians, cyclists, and public transport. This is why it is somewhat surprising that this attitudinal shift did not increase the support for building a tram network in the city. ⁵ Participants found other measures more attractive in trying to reduce carbon emissions and make the city centre more attractive. Both the written information material and the video presentation by the civil servant shown before deliberations highlighted these official goals of the city.

Finally, support for the three different scenarios was measured in the beginning of the post deliberation survey. A majority of the citizen panellists (59%) supported the second most ambitious scenario, i.e. *Rapid change*. The second most popular was the *Big change* scenario which gained 28 per cent of the votes, while the *Slow change* scenario was supported by 13 per cent of panellists.

Knowledge

In the scholarly literature on deliberative democracy, increases in knowledge are widely considered to be one of the most significant benefits of a citizens' panel (Grönlund et al., 2010). Participating in a mini-public provides the information base needed to form a considered opinion, and engaging in deliberation might also reduce (possible) pre-existing false perceptions (Himmelroos & Rapeli, 2020). Empirical studies of deliberation experiments have typically demonstrated that knowledge does indeed increase among participants (e.g. Andersen & Hansen, 2007).

In the *Turku deliberates* -study, participants' knowledge about transport systems and urban planning was measured both before and after the citizens' panel with six multiple-choice questions: *Which is the most popular mode of transport among the citizens of Turku? The city of Turku has a goal that the combined share of public transport, walking and cycling made by Turku residents should increase by 2030. How big is the target percentage? What is a general plan? Which of the following sectors causes the most greenhouse gas emissions in Finland? Which body is mainly in charge of transport system planning in <i>Turku?* Who of the following are not allowed to travel with local buses for free?

The information package, which the participants had at their disposal during the discussions, contained the right answers, so that any detectable increase in knowledge could be attributed to participation in the citizens' panel.

Also in the *Turku deliberates* citizens' panel, the participants' levels of knowledge increased as a result of the discussions. The participants have, on average, managed to provide one more correct answer to the knowledge questions after the deliberation. On a seven-point scale, the change is sizable, and statistically significant. The difference in knowledge between the *Citizens only* and *Citizens plus Politicians* groups is not significant, which means that the increase in knowledge occurred with somewhat the same magnitude in both groups. The presence of politicians had no effect on knowledge levels.

The trams have been a conflict-laden issue in local politics of the City of Turku in recent years, and the question has divided the local council.

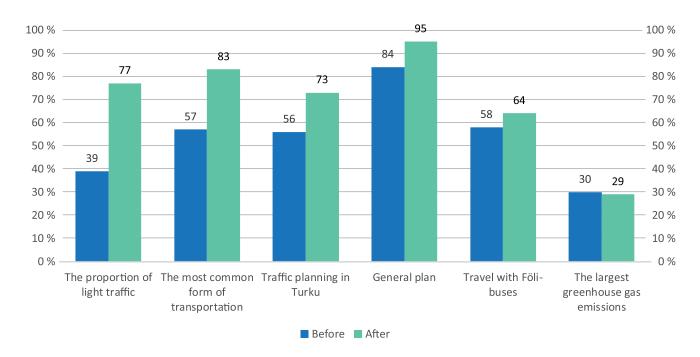


Figure 4. Knowledge before and after deliberations, percentage of those who answered correctly (N=171)

Figure 4. presents each knowledge question and the share of those who answered correctly before and after deliberation. The statistical significance of the change in knowledge was tested with within samples T-tests (not shown here). All statements, except for the last one in the table, i.e. *Which of the following sectors causes the most green-house gas emissions in Finland?* show a statistically significant change (p>0.10) in the course of the citizens' panel.

The proportion of correct answers increased unevenly between different questions. On questions regarding the City of Turku's transport system and planning, the increase in knowledge was substantial, which is understandable when taking into account the nature of the discussion. Instead, in the question regarding the sector that causes Finland's largest greenhouse gas emissions, the knowledge levels declined marginally, although the change is insignificant. Overall, it is nevertheless apparent that the citizens' panel has had a positive effect on knowledge levels.

Participants' experiences of the *Turku deliberates* process

In the post deliberation survey, participants answered a set of questions concerning their experiences when taking part in the *Turku deliberates* process (on a four point Likert scale from completely agree to completely disagree). Figure 5. represents the proportion of those respondents who agreed either completely or partly with each statement. Over 30 per cent of participants reported that they had changed their minds. Moreover, over 80 per cent believed their opinion was more certain after participation. Over 90 per cent reported that their knowledge on transport systems had increased, and about the same proportion reported that their understanding of other people's everyday lives had increased.

The overall message is that participants' experiences of the process were very positive. Almost everybody felt that participation was a pleasant experience and agreed with the statement that others' views were listened to and respected. Very few participants reported that someone had dominated the discussions, and over 90 per cent agreed that the discussions were inclusive. Participants' evaluations of their own role in the small group discussions were

likewise very positive overall, as well as their evaluations about the moderators and the unbiasedness of the information given.

As a summary, we feel entitled to say that *Turku deliberates* approximated well the ideals of democratic deliberation: the participants gained knowledge, a part of them changed their opinions, others were respected, discussions were inclusive, information and moderators were unbiased, and almost everyone would recommend the use of similar citizens' panels in political decision-making in the future. It is also important to remark that the presence of politicians did not generate negative evaluations. Finally, it is also noteworthy that the online discussions went well technically.

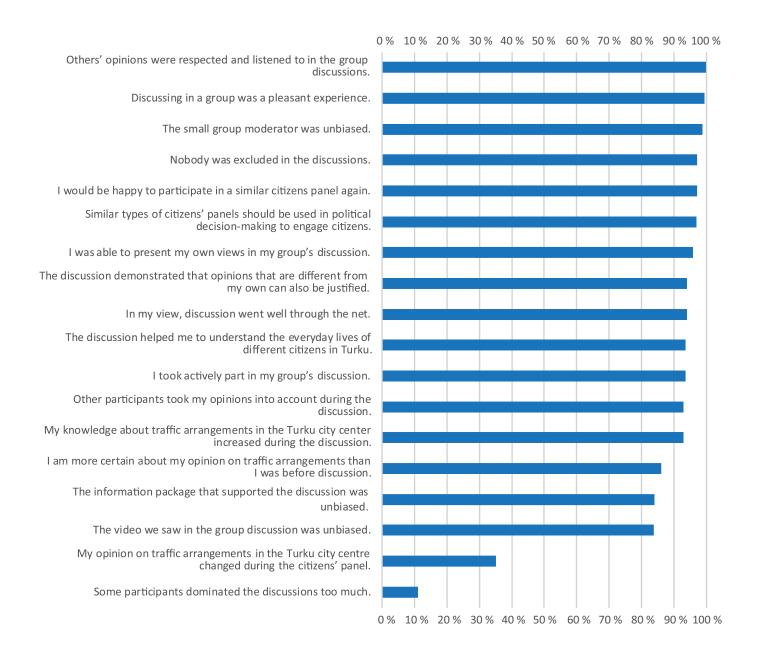


Figure 5. Citizens' experiences of the Turku deliberates process, the share of those who totally or partly agree (N=171).

Politicians' experiences

Turku deliberates represents a special type of deliberative mini-public, because it included both ordinary citizens and elected representatives. The results of the post deliberation survey completed by the councillors (n=21) indi-

cate that most of the councillors participated in the citizens' panel because they were interested in traffic and urban planning (n=16) and wanted to hear what citizens think about these issues (n=15). Many of the councillors also indicated that they were interested in developing new forms of direct public engagement (n=13). Less than half of the respondents stated that they participated in order to advance the interests of their parties or own constituency.

These findings were also reflected in the councillors' post deliberation interviews, in which the councillors indicated that they volunteered to take part in the citizen panel, because they were hoping to learn about the main concerns and expectations of citizens regarding urban planning (Värttö et al. 2020). Interestingly, the interviewees stated that during the deliberations, they focused

"I was surprised how well the deliberations succeeded. Even though people had different political ideologies, the discussions remained calm and civilized." – Local councillor

on listening to what the citizens were saying, instead of trying to make their own opinions heard. In fact, many of the interviewees reported that they were intentionally reticent during the deliberations and thus avoided making too strong statements about the discussed issues.

The interviews revealed that during the deliberations, the councillors could inform the citizen participants about urban planning issues that had already been dealt with at the local council. In some cases, councillors also corrected other participants if they had misunderstandings about discussed issues. For the councillors, the citizens' panel provided a new way to listen to and understand the needs and concerns of ordinary citizens. Furthermore, it increased the councillors' understanding of the citizens' knowledge and competence. In that sense, the findings are in line with earlier research (Hendriks, 2016).

The councillors felt positive about using mini-publics in the context of democratic decision-making. Many of the councillors were also interested in joining mini-publics again if they were organised. One of the councillors even suggested that every councillor should be required to take part in mini-public deliberations.

Conclusions

Deliberative mini-publics have become widely used instruments to engage citizens and harness their knowledge in complex and controversial policy questions. This report has described the process of organising the *Turku deliberates* -citizens' panel, which was an online deliberative mini-public that learnt, discussed and voted upon three different transport system scenarios scenarios in the City of Turku, Finland. The results indicate that when given the information and time to learn about transport system scenarios and different viewpoints related to urban planning, citizens are capable of forming an informed opinion on the topic. The *Turku deliberates* -data show that after participating in the mini-public, citizens became more supportive for sustainable forms of transport in the city, and their knowledge on transport systems and urban planning increased.

Furthermore, our results indicate that the involvement of politicians in some small groups did not distort the deliberative quality of the discussions. Citizens learnt from politicians, whereas politicians felt they were able to hear those citizens who do not usually voice their concerns in local politics. Politicians also became better aware of citizens' everyday realities and more appreciative of the value of citizen participation. Finally, we also find that both citizens and politicians support wider use of deliberative mini-publics in local policy-making, and that they did not experience any technical difficulties despite the online format.

Policy recommendations

At the time of writing this report, the master plan is being processed by the democratic bodies of the City of Turku. It thus remains to be seen, what the new plan will look like and what weight will be given to the citizens' panel outcome in this process. Some recommendations can, however, be given for other local and national authorities who are planning to organise similar deliberative mini-publics or explore ways to engage their citizens in the urban planning processes.

- 1. In order to organise deliberative mini-publics well, time and resources are needed. The process needs to be designed carefully in advance. One way to think about the status of a local deliberative mini-public is to compare it with committees in terms of their resources, such as having a secretariat, budget, and relation to the municipal council.
- 2. Those who initiate a mini-public should consider carefully what the specific question is where they need the input of citizens, and the task should be concrete and specific enough.
- 3. Commitment from experts from the city administration is crucial for the success of mini-publics. Otherwise, their knowledge on the issue will not benefit the mini-public. Likewise, the use of the mini-public recommendations may be omitted without commitment from civil servants to the process.
- 4. Local politicians can also be brought in to deliberate on an equal footing with citizens.
- 5. To prevent manipulative use of mini-publics, it should be clear who has the right to initiate them. For example, they could be initiated through citizens' initiatives, their use could be mandated by the local council or they could be mandatory for certain significant political reforms. Furthermore, to maintain integrity, it is a good idea to have an impartial body to design the details of the deliberative process and select the experts.
- 6. For deliberative mini-public recommendations to have policy impacts, it is important to build citizen participation in the policy processes from the start of the local council term, by identifying the relevant stages where the input of citizens can be meaningfully incorporated.
- 7. In order to work as an integrated part of local democratic decision-making, we recommend an institutionalised role for deliberative mini-publics. Concretely, its members could be selected for a longer term, perhaps for four years (cf. the electoral term). Then, the mini-public could be used as a trusted information proxy when an informed public opinion is desired in local decision-making.

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Appendix A. 'Raw' opinions of Turku residents on transport systems, by key background variables

Share of respondents who agree

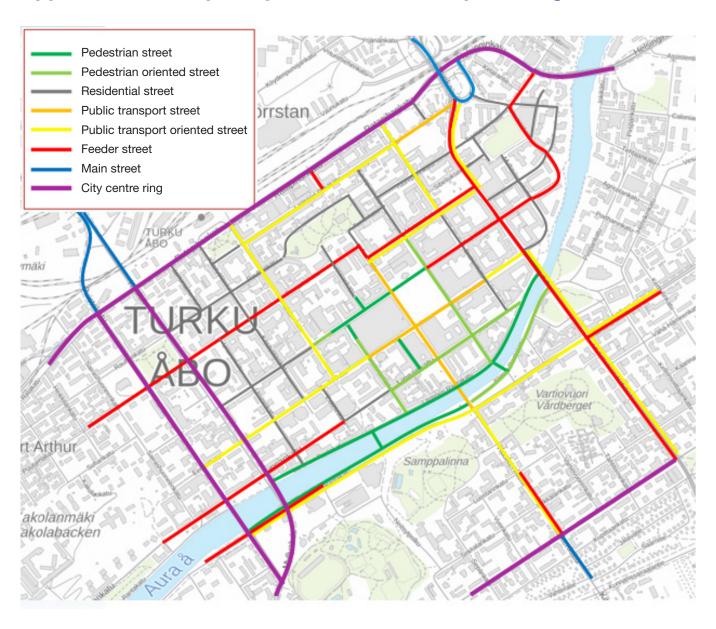
	Speed limit in the centre 30 km/h	In favour of trams	Cheaper tickets on public transport	No to higher tax because of traffic	Restrict private cars in the centre	More cycle lanes	More attention to the disabled in traffic	More street space for pedestrians and cyclists	Reserve traffic on streets only for residents	More charging stations for electric cars	More benches and plants	More street space for public transport	No to less parking space along streets	More pedestrian streets	Increase public transport frequencies	Less drive-through traffic in the centre
All																
respondents	59	29	68	73	57	73	73	70	23	49	88	48	66	61	47	63
Gender																
Male	52	31	65	74	53	70	70	65	22	55	86	49	67	62	45	62
Female	65	27	70	73	60	75	76	74	24	43	89	47	65	61	48	63
Age																
15–29	57	35	71	68	56	80	65	71	19	51	87	47	64	60	48	56
30–44	63	36	69	63	63	80	67	77	28	49	90	48	60	66	44	67
45–59	48	25	62	78	49	66	77	64	23	51	84	40	69	56	44	61
60–80	64	19	67	86	59	63	86	67	22	44	89	54	71	62	48	67
Area																
Centre	62	30	66	66	62	78	71	73	27	50	87	44	61	63	43	69
Good areas	58	27	67	75	57	73	73	73	23	47	88	51	63	63	49	62
Other areas	55	32	72	81	49	65	77	60	17	49	88	48	78	57	46	55
Language		0.5	0.5							4-		4-			4.5	
Finnish	58	25	65	73	57	73	72	69	20	47	87	47	66	60	45	64
Swedish	67	43	78	77	72	83	80	75	57	62	95	63	55	69	58	78
Other	62	57	84	72	48	70	77	70	29	56	91	47	73	68	49	39
Education Basic																
education	60	30	74	78	57	72	78	72	20	50	90	54	68	69	53	54
Secondary		00		. 0	0.		. 0		_0	00		0.	00	00	00	0.
education	57	25	68	78	54	69	75	66	23	48	87	47	70	58	46	63
Tertiary education	61	35	63	61	61	81	68	75	25	48	88	44	57	62	44	67
N /all																
N (all respondents)																

Appendix B. Demographics

Percentage

	Turku	Respondents of T1	Participants in the citizens' panel
Gender	Turku	nespondents of 11	Citizeris parier
Men	47	46	55
Women	53	54	45
Age			
15-29	30	16	21
30-44	25	18	30
45-59	20	19	21
60-79	25	46	28
Area			
Centre	31	37	43
Good areas	45	44	50
Other areas	24	20	7
Language			
Finnish	83	89	84
Swedish	6	7	13
Other	12	4	4
Education			
Basic education	20	8	3
Secondary education	51	43	24
Tertiary education	28	49	73
N	156199	2462	171

Appendix C. Transport system scenario "Rapid change"



Author Biographies

Kimmo Grönlund is a Professor of Political Science and Director of the Center of Excellence in public opinion research (FutuDem) at Åbo Akademi University. He conducts research on democratic innovations and political behaviour, especially experiments in citizen deliberation.

Kaisa Herne is a Professor of Political Science at Tampere University. Her research focuses on political behaviour, political psychology, decision-making and deliberative democracy.

Maija Jäske is a Postdoctoral Researcher in Political Science at Åbo Akademi University. Her research focuses on democratic innovations, deliberative democracy and public opinion.

Heikki Liimatainen is an Associate Professor of Transport Transformation at Transport Research Centre Verne at Tampere University. His research interest is in developing sustainable transport systems.

Lauri Rapeli is the Research Director in the Social Science Research Institute at Åbo Akademi University. His research focuses on public opinion and political behaviour.

Jonas Schauman works as a Project Assistant at The Social Science Research Institute at Åbo Akademi University. His main research interests are political development and questions concerning democracy from a comparative perspective.

Rasmus Sirén is a Project Assistant at The Social Science Research Institute at Åbo Akademi University. His research focuses on political parties.

Mikko Värttö is a PhD Candidate in Political Sciences at Tampere University. His research focuses on public engagement and democratic innovations.

Albert Weckman works as a Project Coordinator at The Social Science Research Institute at Åbo Akademi University. His main research interest is public opinion in relation to security policies.

Editor:

Sampo Ruoppila, research director sampo.ruoppila@turku.fi

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City of Turku, Central administration Turku Urban Research Programme P.O.Box 355 (Yliopistonkatu 27a), 20101 Turku