Local government platforms for citizen participation and their effects on legitimacy

Evidence from a comparative case study in Germany

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Abstract

Governments around the world are increasingly relying on online means in order to involve citizens into the decision-making process. We argue that this is driven mainly by the expectation that such offers of engagement will restore legitimacy to policies and politicians, not least as it answers to citizens' demands for more involvement. In other words, politicians along with public administration hope that the public is more likely to accept decisions made through participatory processes, and that these legitimacy beliefs will extend to the political representatives responsible for these decisions. However, this hope for democratic renewal is based on assumptions with little concrete empirical evidence for a connection between participation by citizens – in particular via online means – and their legitimacy beliefs. Not only is the available evidence inconclusive, it is largely based on individual case studies that do not systematically compare participants and non-participants or online and offline forms of participation (Aichholzer et al., 2016).

This paper addresses this gap with a particular focus on local online participation and its effects on legitimacy beliefs. It reports on the results of a unique comparative research effort in which three almost identical instances of online participation are systematically evaluated. To this end, in 2017 the authors conducted map-based online dialogues in close collaboration with the city councils in the three municipalities of Bonn, Moers and Ehrenfeld (district of Cologne) in which citizens made about 3.200 suggestions along with 2.200 comments on how to improve the situation for cyclists in the respective cities.

To evaluate the effects of these three processes this paper reports on the results of a representative survey of the citizens in Bonn before the process as well as an online surveys of the participant of the three online consultations. In contrast to previous studies that are mainly based on individual case studies and are usually focused on those who actually take part in such opportunities, once data collection is finished this research can i) compare three basically identical instances of political participation online in comparable contexts (three different municipalities), ii) compare active participants on those online platforms with those who have not taken part or did not even know about the processes and iii) track the development of public legitimacy beliefs over time (i.e. before and after the participation process).

Contents

Introduction

This paper reports on a unique research effort with one central question at its core: *Do opportunities for public participation in the political decision-making process increase public legitimacy beliefs in democracy, its institutions and its representatives?* This question derives its relevance from popular accounts of a crisis of democracy. To quote from Dalton (2004: p. 191) "*By almost any measure, public confidence and trust in, and support, for politicians, political parties, and political constitutions has eroded over the past generation."* There is long standing empirical evidence of what Norris (2011) calls a democratic deficit, i.e. a gap between how citizens want the political system to function and how they evaluate its actual performance. Multiple developments have contributed to this deficit: growing demands and expectations by citizens, failures of governments to supply adequate policies in a complex policy environment, and a lack of functioning intermediaries – altogether contributing to growing public dissatisfaction as has been measured for several decades and across many Western nations (Norris, 2011). This dissatisfaction relates less to the idea and values of democracy itself but to both democratic institutions and specific actors within these institutions.

The problems perceived with the reality of democratic experience have been a potent driving force for the development and utilization of democratic innovations *"intended to change the structures or processes of democratic government and politics in order to improve them"* (Newton, 2012: p. 4). One part of these innovations includes attempts to adapt the workings of government structures and make these more transparent in order to improve horizontal and vertical accountability, e.g. by decentralising governments or introducing freedom of information laws (Newton, 2012: p. 7). However, the part of innovations that are of interest to this research effort are "*institutions that have been specifically designed to increase and deepen citizen participation in the political decision-making process"* (Smith, 2009: p. 10). These include altering voting procedures, introducing new opportunities and new formats for consulting the public or affected stakeholders, or increasing the use of direct forms of democracy such as in referenda or elections of mayors (Norris, 2011: p. 237p). These have become a very important topic of political debate and government policy. As a matter of fact we would argue that creating more opportunities for public engagement in politics has become an ubiquitous theme in politics far from being limited to demands from the public itself (Gabriel, Kersting, 2014: p. 109; Geißel et al., 2014). Instead, from the local level right up to the supra national level like the European Union politicians from all political persuasions associate themselves with calls for more participation (Council of Europe, 2009). Neither is this call limited to the practical world of politics but it is similarly echoed in the advice given in the academic literature (Barber, 1984). It has gained additional momentum with the opportunities for communication independent of time and space offered by information and communication technologies. Assuming that these will lower the barriers for participation, proponents hope to enable even more ways to participate and reach out to larger groups of the public. It seems as if public participation, in particular enhanced by digital tools, could be a panacea to cure representative democracies woes of a democratic malaise – but is it? As we will show below, the empirical evidence so far is limited and remains inconclusive.

To address this gap this research focuses on public participation efforts implemented by public authorities. Such "invited spaces" (Kersting, 2013) are of particular interest for two reasons. One the one hand, this is where participation can be strategically and purposefully used by political representatives in order to address perceived legitimacy problems. One the other hand, because in such cases participation processes could be embedded into traditional decision-making processes, this is where we might expect their greatest impact. We focus on local government because even though this is where the public is most directly confronted with the consequences of political decisions, local politics has suffered most severely from a decline in legitimacy beliefs. One indicator of this is the consistently lower turnout to local elections as compared to general elections and less interest in local political affairs (van Deth, Tausendpfund, 2013), another one is the lower satisfaction with the way local government works that we also find in our research. This is one of the reasons why local governments have long been a testing ground for government reforms and new democratic innovations (Geissel, 2009; Kersting, Vetter, 2003).

This is also true for the more recent wave of electronically supported political participation. For example, in the German state of North Rhine-Westphalia, as of 2016 about a third of local councils had already offered online participation processes, e.g. via online consultations (Gladitz et al., 2017). Even though these forms of online political participation are already an established tool in the participatory repertoire, the still merit investigation because their effects are yet under-researched as our discussion later on will highlight. What is more, research into the effects of political participation, and in particular specific effects of online participation in comparison to offline forms of engagement, suffers from multiple methodological challenges. Our research design aims to address these by conducting a comparative case study of three similar participatory processes in combination with representative surveys of the local population.

The following section introduces the main concepts behind this research and details the various linkages between political participation and legitimacy beliefs. The discussion of the previous research identifies several shortcomings and the subsequent section details how the research design with its three comparative case studies of actual participation processes addresses these issues. The major part of this paper reports on the results of this study to the extent to which these are available so far given that data collection is still ongoing at the time of writing. We conclude with an outlook of the expected research contributions and how this effort is going to expand in the near future.

Background & previous research

Public authorities employ public participation with a variety of goals. These include i) to incorporate the ideas and values of the public into decisions, ii) to use existing knowledge to improve decisions, iii) to ensure transparency and fairness, iv) to increase acceptance of those decisions and v) to build up resources such as public learning or networks of interest (Beierle, Cayford, 2002: p. 13pp; Innes, Booher, 2004: p. 422p). We argue that the theme underlying all of these goals is to create legitimacy, and this is also the central motive for politics and administration to initiate such participation processes.

Understanding legitimacy

Legitimacy is one of the key concepts in democratic theory. It refers to the idea that political power needs to be based on the consent of those who is ruled over. Analytically, legitimacy is a multidimensional concept. In many definitions, legitimacy on the one hand refers to the *legality* of a political system, its procedures and institutions (Kriesi, 2013: p. 613p; Stillman, 1974). On the other hand, legitimacy is differentiated into two dimensions: a normative and an empirical one. The normative dimension assesses the legitimacy of a given political system based on its accordance with ex-ante formulated criteria to assess its 'worthiness of being recognized' ('Anerkennungswürdigkeit', see Schmidtke, Schneider, 2012: p. 226) from the perspective of a particular democratic theory. In contrast, the empirical dimension, rooted in the work of Max Weber, covers the actual perceptions of those who is ruled over (Schmidtke, Schneider, 2012: p. 226) and "*whether a given rulership is believed to be based on good title by most men subject to it*" (see Stillman, 1974: p. 34; Weßels, 2016). These "legitimacy beliefs" or perceived legitimacy are central to our approach. By "legitimacy beliefs", we are referring to individual assessments of how personal normative beliefs about democracy fit with the perceived empirical reality. Hence empirically, legitimacy is the comparison of the views about how democracy should function with the assessment about the empirical reality (Ferrín, Kriesi, 2016: p. 10). As every individual might hold different views about democracy and evaluate the degree to which these are met differently, it is clear that these assessments are always subjective and individual (Weßels, 2016).

We refer to personal legitimacy beliefs in plural because we can distinguish different political objects or targets to which legitimacy might or might not be conferred. This goes back to Easton's (1957, 1975) concept of political support which is closely related to the concept of legitimacy. He distinguished different targets of support ranging from the more concrete targets (such as incumbent office holders) to more general targets (such as the democratic system more generally). Here we follow basically Dalton's (2004: p. 7) classification that echoes similar approaches (Norris, 2011: p. 10). From the most

general to the most concrete we can distinguish support for i) the political (national) community, ii) the political regime (including its general regime principles, its norms and procedures as well as its performance and its institutions) and iii) the political authorities, i.e. office holders. Given that we focus on participation exercises in the context of particular (policy) decisions, we extend this classification with an additional and even more concrete object to which support may or may not be extended, that is the support for iv) the particular decision or policy at stake. While Norris uses specific and diffuse, we use the terms concrete and general because each of these targets might receive support that is what Easton called specific (i.e. based on the evaluation of the immediate performance) as well as diffuse (i.e. based on more normative beliefs about its function, but also based on the experiences accumulated so far) (Kriesi, 2013: p. 615). Empirical studies show that the public can and indeed does differentiate its evaluations between these different objects of support. For example, evaluations of political authorities tend to be more negative than that of regime principles such as democracy, hence the observation of dissatisfied or critical citizens discussed above (Dalton, 2004; Norris, 2011).

This points to the question of how legitimacy beliefs are formed and how public participation is linked to these beliefs. Using the approach suggested by Scharpf (1999) we may broadly distinguish legitimacy beliefs between those that are based on evaluations of the democratic processes that lead to decisions on the one hand, and evaluations of the results of those processes on the other. Process-based legitimacy considers how well decision-making procedures such as electoral laws and decision-making by representatives fits with an individual's democratic values. Schmidt (2013) further distinguishes this into input legitimacy, i.e. who can participate, and throughput legitimacy, the latter being concerned with process characteristics such as whether it is ensured that the process is inclusive, open, effective, transparent and accountable. In contrast, output-based legitimacy evaluates the decisions and policies that these democratic procedures deliver, e.g. whether these are perceived to solve the problem at hand, contribute to the common good or benefit oneself. Simplified speaking, an individual might consider a political regime and/or its political authorities as legitimate for two alternative reasons. First, because the way decisions are being made conforms to his or her beliefs about how a political system should function regardless of actual decisions. Second, because he or she feels it produces the results it should, regardless of how (democratic) these came about. Of course, in reality both types of evaluations form the basis of public legitimacy beliefs of all the different political objects outlined above.

Legitimacy and public participation

If we consider these three different sources of legitimacy, that is *"'output' for the people, 'input' by (and of) the people and 'throughput' with the people."* (Schmidt, 2013: p. 3), then public participation can influence these evaluations on all three aspects. *Input legitimacy* considers how many and what type of people are allowed to participate in a democratic process such as an election and hence offering more opportunities for participation can clearly contribute to this aspect of legitimacy. However, opening up opportunities for the public to provide input can lead to biases as we know that those who participate are rarely representative of the public, and certain stakeholders might have a louder voice in the process then marginalized groups (Geissel, 2009; Schäfer, 2010; Verba et al., 1995). This is all the more relevant as it seems that decisions are more likely to be accepted when they are taken by people who are descriptively representative of the target group (Arnesen, Peters, 2018).

This shifts the focus on the way participation and decision-making is organized and how this might lead to *throughput-based legitimacy*. We could hypothesize that public decision-making processes increase positive evaluations if participants have a real part to play in making the decision. What is more, if these processes enable deliberation and dialogue, they can help to make transparent the variety of interests and how these are reflected in an eventual decision. That the opportunity to be involved in decision-making increases perceptions of procedural fairness and acceptance has been shown both in experiments (Esaiasson, 2010; Esaiasson et al., 2012; Towfigh et al., 2016) and in the field. For example, research has been able to link opportunities for direct democracy to greater internal and external political efficacy (Bowler, Donovan, 2002) and to greater satisfaction with democracy, e.g. in a comparative study of 24 countries (Bernauer, Vatter, 2012). The same study also found that the particular pro-

cesses and institutions of consensus democracies lead to higher satisfaction with democracy, as another indicator that more participatory processes (instead of winners who take all) increase legitimacy. However, also processes that do not provide the public with opportunities for co-decision-making have been shown to increase acceptance. For example, while a study of two participatory processes in the Netherlands found little actual influence on the final decision, it concluded that it still increased acceptance of both process and outcome (Michels, de Graaf, 2010). Similar findings were also reported by Kochskämper et al. (2018b: p. 152) who reported from their in-depth analysis of eight different case studies on water management:

> *"So significant was participants' perception of the process, that we observed instances of very high levels of overall satisfaction even where outputs entirely neglected or overruled participants' input and interest […]."*

One crucial question is whether these positive effects are limited to those who actually participate, or whether the mere availability of such opportunities already influences attitudes. In general, those who participate seem more accepting that those who do not (Michels, 2012: p. 290).

In contrast, public participation might also hinder reaching a decision because of the variety of inputs and demands that cannot be satisfied, or public input might not be properly considered, altogether leading to frustrated participants and more negative evaluations of the participation process and as such to lower legitimacy beliefs. In particular, while both input and throughput legitimacy are supposed to contribute to legitimacy regardless of the actual result, a significant body of research shows that evaluations of the output might be the biggest factor on which citizens base their legitimacy beliefs (Esaiasson et al., 2016; Strebel et al., 2018). Those who believe a decision is in their favor have of course more positive attitudes and are more accepting of the outcome (Marien, Kern, 2017; Sack, 2017). Notably, those who "loose" are much more critical of the decision-making process even though it seems possible to still convince them of the merits of proper procedures (Esaiasson et al., 2017).

This brings us to the question how *output legitimacy* may be affected by public participation. By casting the net of people widely who can provide input into decision-making procedures, more knowledge might lead to delivering better solutions. Following the logic of output-based legitimacy, this should lead to better evaluations of the performance of the regime and its authorities and hence higher legitimacy. Studies, in particular in environmental assessment but also beyond, have shown that participation processes can indeed lead to decisions that are better suited to solve problems and of better quality (Dietz, Stern, 2008; Gonçalves, 2014; Newig et al., 2012). At the same time, public participation may lead to detrimental effects on legitimacy. Increasing opportunities for participation at the expense of representative decision-making might favor certain social groups, biases and a lack of expertise. For example, experiences with direct democratic procedures have been shown to disadvantage minorities (Gamble, 1997). These mixed findings regarding the utility of participation processes for increased legitimacy beliefs is also reflected in the research on online participation that is discussed in the next section.

The role of online participation

We focus on public online participation, that is processes in which participants engage to a considerable degree if not completely via online means. Clearly, this distinction works less and less well in actual practice where many participatory processes employ a variety of means for participation and in which offline means such as public discussion events and town hall meetings are combined with online means such as online discussion fora. The repertoire of electronically enabled forms of participation has been expanding constantly in recent years, as has their application for actual public participation processes. With the widespread availability of the Internet, many variants of public participation can now be realized with the help of online tools. Some of these are already established formats that have been successfully embedded in the new information environment. These include electronic petitions, online participatory budgeting or online consultation and deliberation processes. Some forms of participation are innovative as, for example Voting Advice Applications or liquid democracy with its vote delegation that are enabled only by new digital instruments.

On the basis of traditional models explaining participation that emphasize the role of resources, political interest and networks (Verba et al., 1995), information and communication technologies could contribute positively to all three sources of legitimacy. By lowering participation costs and increasing engagement opportunities it could mobilize more and more diverse people to take part and provide input, supported by electronic networks that help to organize. At the same time these new opportunities for engagement require novel skills that might not be readily available to everyone. Indeed, while in some instances under-privileged groups could benefit from electronic forms of participation (Marschall, Schultze, 2012; Wampler, Sampaio, 2011), by and large empirical research has shown little evidence for the mobilization hypothesis (Boulianne, 2009). Instead, it has been shown that those using online means of engagement tend to be even less representative of the population than those who use traditional means of participation (Escher, 2013).

Electronic tools such as online fora could enable large-scale discussion or even deliberation as well as contribute to rational debate and mutual understanding. What is more, these tools allow to track discussions and enable monitoring of political processes, providing citizen with transparency of the decision-making process and establish accountability by linking stakeholders to their arguments and actions. While this could lead to more throughput-based legitimacy, detrimental effects are also possible as depersonalized forms of communication might lead to uncivil behavior and the ease of use of electronic communication and orchestrated mass campaigns can lead to overburdening administrative procedures. Indeed there are positive example of online mediated processes that achieved high legitimacy ratings (Escher et al., 2017) and it has also been found that online discussions in such invited spaces do rarely become spaces of abuse that are found elsewhere on the Internet (Coleman, Shane, 2012). Yet they also rarely come close to deliberation as often opinions are voiced with little interaction (de Figueiredo, 2006; Shulman, 2009). Finally online processes have been shown to improve the quality of the output, e.g. in the case of the US rulemaking process (Kubicek et al., 2011; Shulman, 2003; Stanley, Weare, 2004). Yet more often than not, such processes leave participants dissatisfied with results and disillusioned with politics as their expectations – realistic or not – are disappointed as has been shown for example for online consultations and petitions (Carman, 2010; Christensen et al., 2015; Escher, Riehm, 2017; Landemore, 2015).

The existing body of research demonstrates that public participation – with and without online means – can contribute to higher legitimacy beliefs but that often these effects are not realized. It is obvious that effects are contingent on a variety of factors but unfortunately, to date the knowledge about the factors and underlying mechanism remains patchy. This starts with gaps in the theory of participation effects as studies are rarely explicit in why certain effects are expected and through which mechanisms (Kochskämper et al., 2018a). However, the main challenge is the empirical measurement as the myriad of potential contextual and design factors that can influence outcomes require complex research designs. Yet the field is dominated by single case studies while comparative designs that systematically analyze similarities and differences across different instances of participation remain rare (Beierle, Cayford, 2002; Dietz, Stern, 2008; Kochskämper et al., 2018a; Pratchett et al., 2009; Renn et al., 2010). The evaluation of participatory democratic innovations is limited, in particular for the local level (Gabriel, Kersting, 2014; Michels, 2012: p. 285; Vetter, 2008) and the analysis of online participation (Kubicek, Aichholzer, 2016). The available knowledge remains fragmented and distributed across various academic disciplines and debates including environmental assessment (Dietz, Stern, 2008), democratic innovations (Geissel, Newton, 2012; Smith, 2009), communication and deliberation (Coleman, Shane, 2012), political science (Boulianne, 2009) and urban planning (Selle, 2007). The aim of this research is to contribute more empirically substantiated knowledge about effects of public participation (in particular online) on legitimacy beliefs through a comprehensive methodological approach that we introduce in the next section.

Research design & methodology

Our core interest is whether public participation processes (specifically online) impact on legitimacy beliefs of the public. In order to assess effects in an empirically reliable way, ideally research assesses public legitimacy beliefs before and after participation processes. What is more, to establish what are specific and what are generalizable effects, multiple processes should be compared, ideally in a way that allows to control key variables such as the channel of communication (online vs. face-to-face) used or the topic of the public participation process. Finally, what matters are not only the perceptions of those who did participate but crucially also of those who did not engage in the process. One the one hand, these act as a reference group to assess possible changes among the participants. On the other hand, these offer important insights into reasons for non-participation and possible biases amongst participants.

Our research effort combines these three approaches in what we believe to be a unique setup. We conducted three almost identical instances of online consultations that we designed and implemented in three different German municipalities and subsequently evaluated. Specifically, in 2017 we ran three map-based online consultations on behalf of the respective city councils of the three municipalities of Bonn, Moers and Ehrenfeld (district of Cologne). In each of these cities, the local councils invited their citizens to make proposals on how to improve the situation for cyclists. This allowed for a large degree of control and standardization over the processes as compared to ex-post analysis. In addition, we administered representative mail surveys to a random sample of the population in each city, using a survey instrument that implemented the theoretical approach to legitimacy outlined above.

Case studies

Today there exist a large variety of different participatory mechanisms that aim to give those affected a say over policies. Following Fung (2006) these may be distinguished along three dimensions: Who participates, how do participants communicate and interact and how these influence the resulting decisions. Our interest lies in particular in public participation mechanisms with open recruitment (either targeted or via self-selection), in which participants can at least develop preferences or even be involved in some form of deliberation and that ensure that the participants contribution do at a minimum inform future decisions. Simplifying Fung's model, we are interested primarily in consultation processes which occupy the middle ground between mechanisms that exclusively provide information with little to no opportunities for public input on the one hand, and more binding mechanisms in which participants can (co-)decide such as in referenda on the other. The reason is that we believe that these are by far the most common forms of public participation mechanisms. This is no coincidence because surveys of both local publics and decision-makers in Germany have shown that both groups attribute such dialogical forms of participation a higher potential to create acceptance and consensual results than purely representative or purely direct-democratic means of decision-making (Gabriel, Kersting, 2014).

Our research design had one overarching rationale which was to keep constant as many variables as possible in order to limit potential influencing factors. In this way, similar findings across all case studies would give reason to assume a sustained effect of the participation process. Should the observed results differ between the case studies than the design would make it easier to trace potential factors responsible based on in-depth case study analysis and process tracing. Therefore, all three case studies were set up within one single German state (namely North Rhine-Westphalia) to keep the larger legal and cultural context stable. All three consultations were officially conducted by the respective local government itself and employed the same technological platform with largely identical information materials. The topic of all three consultations was to collect suggestions on specific places where cycling could be improved in the respective city. There was no particular budget set aside or any specific implantation guarantees but it was promised that the results of the process would be discussed in relevant political committees (usually planning) and would feed into the various ongoing infrastructure

programs. All three consultations were conducted basically at the same time for five weeks in September and October 2017. Table 1 provides some basic information on the consultations and the data collection.

Even with this high degree of standardization, there are still plenty of variations between each of the three processes. On the macro level the local context varies, e.g. in relation to the size of the municipalities, the political situation, the populations' previous experience with participation (online) or the cycle infrastructure. What is more, on the meso-level each local government would frame the processes somewhat differently and with consequences for how strongly these are integrated into existing administrative structures and the level of publicity. For example, one city held a public kickoff event, while one did a press conference while the third only issued a press statement.

Over the course of five weeks, citizens in all three cities together made about 3.200 suggestions along with 2.200 comments (we discuss the results in more detail below). These citizen contributions are currently being discussed by the respective political planning committees in order to determine specific measures to be implemented over the next years.

Operationalizing and measuring legitimacy

Given that legitimacy beliefs are based on subjective evaluations the main means of data collection are standardized surveys. These were administered both to the actual (registered) users of the consultation platform via an online survey, and crucially, to a random sample of the respective local living population via a mail survey. Both groups were surveyed with considerable distance to the end of the consultation phase to allow for publication of the final project report that summarized the main findings from the consultation phase, and to provide local politics and administration with some time to process these and give them an opportunity to provide a first response.

This basic setup with two post-process surveys per city was extended with a field experiment in which a randomly sampled subset of the population to be surveyed would be specifically invited to the consultation via a council information letter. By comparing it to the control group that received no such stimulus it was not only possible to test the effect of such personalized invitations on participation rate and representation, but also to maximize the number of people that could be surveyed and had indeed participated. This was particularly targeted at the panel survey conducted in Bonn which would survey the population before and after the consultation process because this would maximize the group of people that had participated in the process and for which both pre- and post-process evaluations could be collected. The limited project resources would not allow to extend this to the other two cities.

Informed by our theoretical approach to legitimacy discussed earlier we created a survey instrument that would capture both the distinctions between individual expectations and evaluations of democracy, and the different objects of political support. For this we relied on the work of Ferrín and Kriesi (2016) and their module for the 6th round of the European Social Survey which measured which type of democratic ideals individuals hold and how they evaluate them in the actual practice of democracy. To adjust their instrument to the local focus of our research we complemented the original item sets with three pairs of items that ought to measure the legitimacy gap on the local level. Here we followed the work of Arnstein (1969) and Fung (2006) to conceptualize different depths of participation concerning the power given to the citizens, reaching from (1) "citizen information", over (2) "citizen consultation", to (3) "citizen control" [1]. In this way we are able not only to measure for each individual how ideal and reality differ, but also what weight should be given to each aspect.

In order to assess the different objects of political support (community, regime, authorities, particular decisions) we used standard questions from established survey instruments such as ALLBUS[2] and the European Social Survey (ESS). For this paper we focus mainly on the data that is collected by an instrument which ought to measure the satisfaction with different political institutions and office holders on

[1] Please refer to the Appendix for the full item set.

[2] German General Social Survey („Allgemeine Bevölkerungsumfrage der Sozialwissenschaften")

the national and local level[3], which is a replication of the respective instrument in the ALLBUS 2008. The same applies for the various potential covariates that we collected through standard questions sourced from the named sources as well as other established sources such as local city-surveys from the faculty of sociology of the Düsseldorf University and the "Mobility in Germany"[4] study. To the best of our knowledge, no previous evaluation effort has probed into the effects of specific participation process in this comprehensive way. The survey instrument used to collect data on the status quo is attached to the Appendix.

Table 1: Overview about the online dialogues

Name	**Bonn**		**Ehrenfeld (district of Cologne)**		**Moers**	
name	Bonner Rad-Dialog		Ehrenfelder Raddialog		Moerser Raddialog	
inhabitants	319.000		107.000 (about 1m in Cologne in total)		105.000	
participation process						
platform link	raddialog.bonn.de		raddialog-ehrenfeld.koeln		raddialog.moers.de	
start date	13.09.2017		20.09.2017		14.09.2017	
letters sent out inviting to consultation	4.000		2.000		2.000	
other PR	posters and advertisements on public screens, public kick-off event, press releases, notification of cycle-relevant stakeholders		press release, notification of cycle-relevant stakeholders		press conference on kick-off, press release, notification of cycle-relevant stakeholders	
end date	18.10.2017		24.10.2017		19.10.2017	
date of final report	20.04.2018		17.05.2018		01.06.2018	
data collection						
population survey						
pre-process	*B1*	N= 1.640 (34% of 4.853) 10.08.-13.09.17	-		-	
post-process	*B2*	N= 756 (72% of 1.094) 16.05.-30.06.18	*K2*	N= 610 (27% of 2.289) 05.06.-31.07.18	*M2*	N= 675 (29% von 2.342) 02.06.-31.07.18
online survey of registered participants	*BT*	N= 268 (45% of 595)	*KT*	N= 65 (47% of 137)	*MT*	N= 61 (47% von 131)

[3] Asking for satisfaction or dissatisfaction on a 11-point-scale reaching from "Not at all satisfied" to "Completely satisfied" the (translated) questions are worded: ["How satisfied or dissatisfied are you with the work of the following political institutions and office holders?"] (1) "With the work of the city administration"; (2) "With the work of the city's parties", (3) "With the work of the mayor", (4) "With the work of the national parties"; (5) "With the work of the national parliament" (6) "With the work of the national government".

[4] The "Mobilität in Deutschland" survey is conducted by the Federal Ministry of Transport and Digital Infrastructure in order to collect representative data on individual mobility in Germany.

Results

Unfortunately at the time of writing, data processing following the consultation processes was still ongoing and data has only undergone initial analysis. Therefore, we have to rely on a limited set of data and can report mainly results from the city of Bonn, using data from the representative survey *prior* to the consultation process (B1) as well as results from the survey of participants following the participation process (BT, KT & MT). We start by discussing findings related to the state of legitimacy beliefs in Bonn. This is followed by an overview about the engagement in the consultation processes in the three cities. The remainder of this section is dedicated to the analysis of potential effects of participation, based on the assessments collected from the participants in the consultation process in Bonn, Ehrenfeld, and Moers.

The state of legitimacy beliefs in local government: Results from the city of Bonn

In order to assess whether the assessments of different objects of legitimacy beliefs in Bonn conform to the findings of previous research that we discussed earlier, we conducted a mail survey of a random sample of the general population of 5.000 residents aged 18 years and older. Due to the voluntary nature of the participation there exist some biases in the data. These biases are common to voluntary surveys and can be described as a "middle class-bias", which means that compared to the whole population usually people with a higher education are overrepresented while there are fewer persons with lower education in the sample (see Diekmann 2004: 361f.). This is the case in our sample as well as compared to the whole population our respondents are significantly higher educated. While the 2011 census of Bonn reports that 45% of residents acquired an Abitur as highest formal (schooling) education, in our sample the number is 64%. At the lower end of the education scale the picture is reversed: 21% of the residents of Bonn have a "Hauptschule"-degree (requiring 9 years on schooling) as highest formal education while in our sample the share is only 9%. The rest of the basic demography in our sample also differs from the general population, albeit to a much smaller degree. While differences in the distribution of gender are negligible (45% men compared to 47% men in the general population), our sample is moderately older than the general population. In our sample 26% of the respondents are between 50 and 64 years old, 26% are 65 years and older while in the general population the respective shares are 21% and 22%.

Certainly these biases do not represent an ideal situation – however common this phenomenon is, as already mentioned. Nevertheless, an initial analysis suggests that these biases do not undermine the quality of our data in general, especially concerning our research interest. Since the over- or underrepresentations of certain groups are only problematic if they were highly correlated with the constructs we concentrate on in this paper, i.e. the citizens' legitimacy beliefs. Apparently, this is not the case as the democracy evaluation items and the political satisfaction items are only slightly positively associated with education ($r = ,094$; $p < 0,01$; resp. $r = ,051$; $p < 0,05$)[5], which means that we might slightly overestimate the overall satisfaction. Nevertheless, the numbers are small enough that we think this fact will not undermine the overall validity of our results[6].

As it turns out, the state of legitimacy beliefs in Bonn follows the findings of earlier research and underscores the existence of "critical citizens". Referring first to the numbers of our democracy evaluation instrument that calculates the differences between the (perceived) ideal situation and the (perceived) reality of democracy (see Figure 1), the results highlight a lack of perceived legitimacy. Every single pair of items produced a negative difference, which means that on the aggregate level the respondents are not satisfied with the way their democracy works in general[7]. Nevertheless, there are remarkable differences between the various aspects of democracy. While the democracy gap is rather small in the case of "free and fair elections", "freedom of opposition", and "media freedom", wider

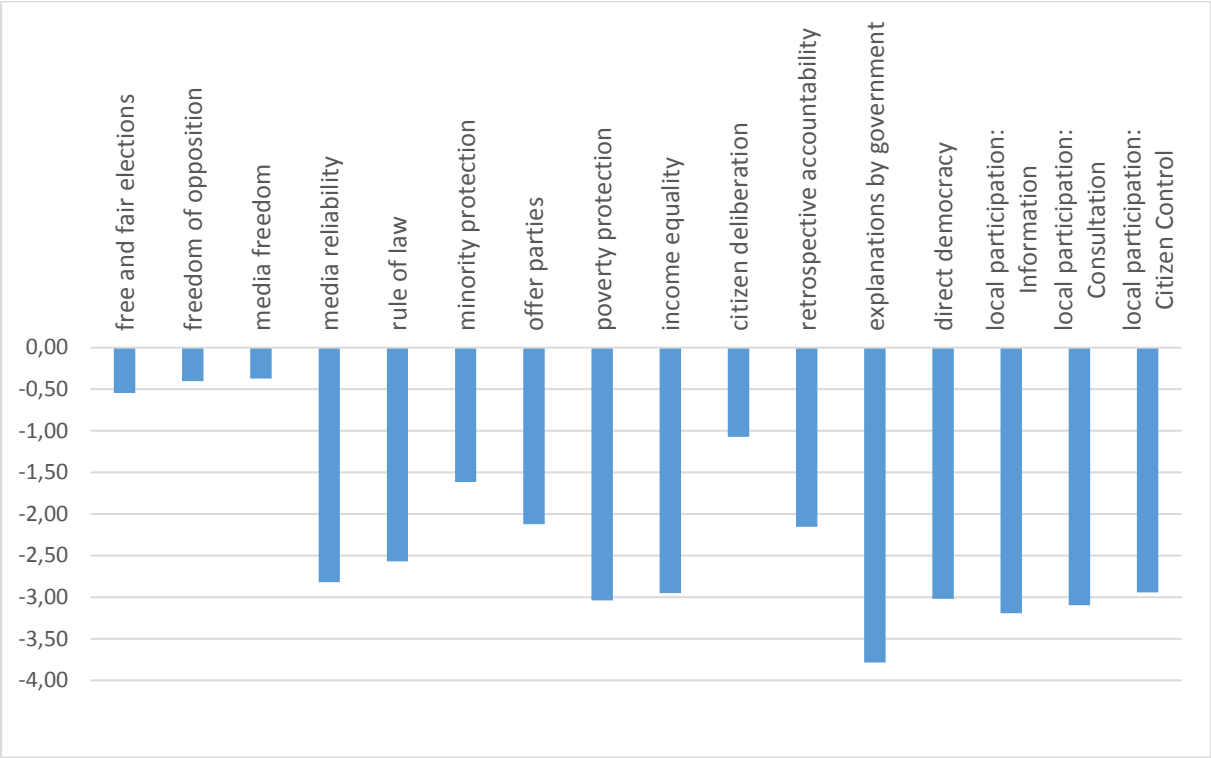
[5] The reported coefficients are based on reliability-tested summated indices and can therefore be interpreted as average correlations of the whole (partly measurement error eliminated) item-batteries with the respective sociodemographic variables.

[6] The correlations with age and gender are even smaller and mostly not significant.

[7] Being calculated as simple differences, the theoretical range of each variable is from -10 to 10.

gaps emerge concerning the transparency of politics ("explanation by government"), economic equity ("income equality", "poverty protection"), "media reliability", and the aspects associated with participation on the national ("direct democracy") as well as the local level ("citizen information", "citizen consultation" and "citizen control"). Compared with the other aspects of democracy, the topic we are focusing on – opportunities to participate in the political process – seems to be of special relevance from the respondents' perspective as well.

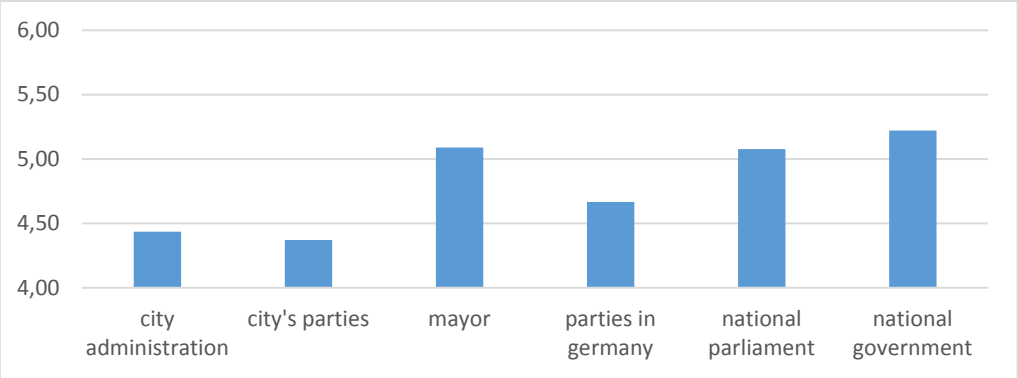
Figure 1: Democracy evaluations of citizens of Bonn (prior to consultation process)



Source: Survey of citizens of Bonn prior to consultation process (N=1.640 – B1)

Taking a closer look on the numbers from our second instrument – the political satisfaction-items – that measured satisfaction on a 11-point scale reaching from 0 (= "Not at all satisfied") to 10 (= "Completely satisfied"), on average the numbers – that are all near 5 – indicate a moderate satisfaction/dissatisfaction with all the respective institutions and office holders. While satisfaction is lowest with parties on the local and the national level, it is highest with the executive locally (mayor) as well as nationally (government).

Figure 2: Satisfaction of citizens of Bonn with selected democratic institutions



Source: Survey of citizens of Bonn prior to consultation process (N=1.640 - B1)

As found in previous research, citizens tend to be somewhat more critical of the local level. To examine whether respondents assess their satisfaction with local institutions and office holders somehow differently or even independently from their satisfaction towards institutions on the national level, we conducted a principal component analysis of the six items. Indeed, the two levels – local and national – are cleanly differentiated from one another in the course of the analysis (see Table 2). This means one could infer from a given answer on one dimension with a high probability to another answer on the same dimension; but not to an answer in the other dimension because – due to the method (orthogonal, varimax rotated) – the correlation between the two dimensions is 0. Since the explained variance by this two-dimensional model is quite high (over 79%), we believe that this result is fairly robust and reflects the empirical reality accurately. The implied consequences of these findings are quite remarkable as it means that satisfaction or dissatisfaction on the local level has no explanatory power for the satisfaction or dissatisfaction on the national level. Or in other words: not only that the attitudes towards politics on the local and the national level do not go together mandatorily, statistically they do not at all.

Table 2: Dimension of political satisfaction

	National	Local
Parties in Germany	,917	
National Parliament	,899	
National Government	,864	
City's Parties		,871
Mayor		,817
City Administration		,737
% of explained variance	43,386	35,879

Note: Dimensions of political satisfaction based on orthogonal principal component analysis (varimax rotated, extraction method: Kaiser criterion).
Source: Survey of citizens of Bonn prior to consultation process (N=1.640 – B1)

In sum, the findings from this representative survey of Bonn residents do not only confirm the existence of critical citizens reported by earlier research, they also underscore the public demand for more participation opportunities, in particular on the local level. Before we discuss whether the participation process in Bonn had any measurable effect on democracy evaluations, we summarize the results from the three online consultations conducted for this research.

Engagement in online participation: Results of the online consultations on cycle traffic

The consultations were based on a map-based online platform on which participants could pinpoint certain locations on the city map and make a proposal for how to improve cycling. Each proposal had to be sorted by the user into one of the following eight categories describing the general topic area of the proposal:

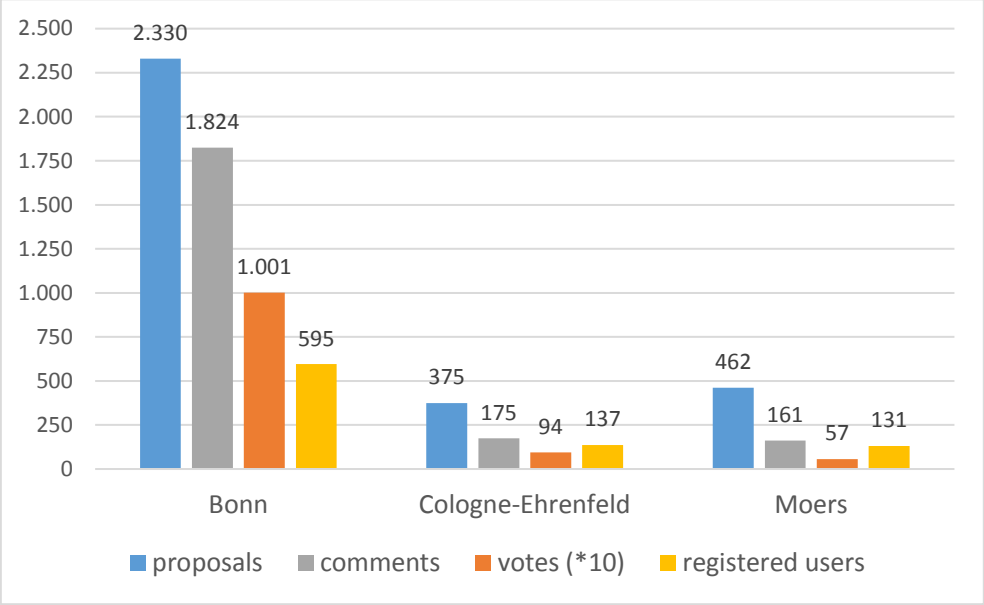
Table 3: Content categories of online consultation

proposal category	**description**
cycle routing	Where could the routing of cycles be adjusted to increase safety or improve traffic flow?
cycle lane quality	Where could the quality of existing cycle lanes be improved, e.g. by widening or renewing the surface?
obstacles	Which lanes are regularly blocked by parking vehicles or pedestrians?
traffic lights	Where would an additional traffic light or adjusted timings improve safety or traffic flow?
signposting	Are there damaged signs or where would an additional sign post help?
cycle parking	Where should new cycle parking spaces be set up, enlarged or improved?
lighting	In which areas should lighting be installed or adjusted?
other	Any other proposals including those not limited to a particular location.

In addition, participants could show their support for individual proposals by "voting" for them and comment on proposals. Except for the support of proposals, no registration was required in order to participate. All contributions were immediately visible on the platform and then subjected to moderation. The research team was responsible for moderation which mainly involved clarifying contributions, reassigning categories if the original would not fit, and checking for duplicate content. This approach was rated as fair and appropriate by users as the survey results in the next section show.

Overall, in all three consultation together participants made more than 3.000 proposals and more than 2.000 comments. While the majority of contributions were received in Bonn, significant activity was also recorded for the Ehrenfeld (district of Cologne) and Moers as Figure 3 shows. This higher rate of activity can partially be explained by the larger target group with about 300.000 citizens in Bonn compared to about 100.000 in the district of Cologne and in Moers as well as the length of the cycling network. What is more, even though it is too early to discuss details here, the general impression is that the high activity in Bonn can be traced back to particular dissatisfaction as well as a lack of alternative means to voice these.

Figure 3: Overview of proposals, comments, votes and registered users



Source: platform data cycle dialogues Bonn, Ehrenfeld, Moers (2017)

Though the discussion was at times passionate, there was almost no uncivil content that required moderation. The content analysis showed that nearly all proposals were relevant and of good quality. This was also confirmed by the users that indicated in the survey that the discussion was of a high quality, constructive and relevant to the consultation topic (see Table 5). Only a minority of proposals were not targeted at a specific location. Though it was made clear from the start that the consultations were aimed at collecting suggestions that would be processed afterwards, when specific questions emerged the administrative staff made some effort to respond to these during the online phase. This happened for 3 to 7% of all proposals.

While the majority of proposals were made by registered users, the actual extent varies between the platforms with about two-thirds of proposals coming from registered users in Bonn and Cologne compared to 55% in Moers. The individual activity follows basically the expected distribution with most people providing only few proposals with few people providing very many. Considering only those who made at least one proposal, about 80-85% made not more than 5 proposals with the majority providing just one or two suggestions – yet in each city there are a few power users. For example, the top three registered users account for 8-10% of all proposal on each platform (See Table 4 for more details). In

each of the three consultations several local hot spots emerged where participants made many proposals for improvement that received high support. Not surprisingly, these were concentrated in the central areas of the respective cities and not the periphery.

Table 4: Summary of consultation results

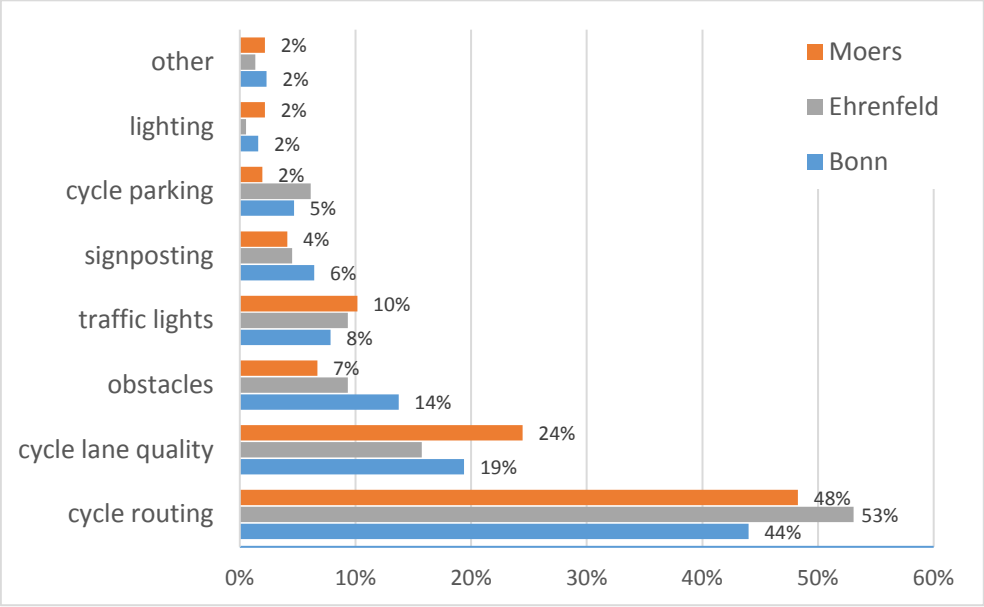
Name	**Bonn**	**Ehrenfeld (district of Cologne)**	**Moers**
platform usage			
registered users[a)]	595	137	131
number of proposals	2.330	375	462
number of comments	1.824	175	161
number of votes	10.001	940	570
number of posts by registered users	1.419 (61%)	248 (66%)	254 (55%)
number of posts by anonymous users	911 (39%)	127 (34%)	208 (45%)
number of proposals by top 3 registered users	89 (4%) 54 (2%) 32 (1%)	14 (4%) 13 (4%) 10 (3%)	21 (5%) 13 (3%) 12 (3%)
registered users with at least 1 proposal[b)] *with…*	382 (64%)	80 (58%)	93 (71%)
… 1 proposal	155 (26%)	35 (26%)	47 (31%)
… 2 proposals	74 (12%)	12 (9%)	21 (16%)
… not more than 5 proposals	322 (54%)	67 (49%)	79 (60%)
proposals without specific location	60 (3%)	23 (6%)	22 (5%)
proposals with first response by administration during online phase	62 (3%)	12 (3%)	34 (7%)

Note: If not indicated otherwise, percentages account for share on total number of proposals

[a)] Users did not have to register to participate (except for rating proposals) so the actual number of people using the platform is higher than the number of registered users.

[b)] Percentage based on all registered users (including those who did not submit any proposal).

Figure 4: Distribution of topic categories



Source: platform data cycle dialogues Bonn, Ehrenfeld, Moers (2017)

Despite the differences in engagement, the content of the proposals was remarkably similar across all of the three consultations as the distribution of content categories in Figure 4 shows. In all consultations the dominant topic was cycle routing, including suggestions for new cycle lanes, highlighting where cycle routes remain currently unclear or where safe crossings for cyclists are missing. Altogether these contribute for about half of all proposals. By some distance other sizeable topics include cycle lane quality (usually complaints about pot holes and narrow lanes), obstacles (the dominant topic being parking vehicles blocking cycle lanes) and traffic lights (often suggesting adjusted timings). The remaining four categories topics (signposting, cycle parking, lighting and other) accounted for only 10-15% of all proposals. This concludes our short overview about the results of the three consultations. The next section discusses how the particular consultation process in Bonn, Ehrenfeld, and Moers was perceived by the participants.

The quality of participation: Results from an online survey of "Raddialog"-participants

Since the data processing of the post-process surveys in the general population of Bonn, Ehrenfeld, and Moers is still ongoing, at this point we have to rely solely on the data from the participants' surveys in the respective cities for our analysis of the quality and effects of participation. Here 394 people had filled out the questionnaire completely, with 268 (BT) from Bonn (which is equivalent to 45% of the registered users), 65 (KT) from Ehrenfeld (47% of the registered users), and 61 (MT) from Moers (47% of the registered users). In the Appendix we discuss the basic sociodemographic of the participants of the consultation process in Bonn (which was called "Raddialog", i.e. dialogue on cycling) and compare it to our results from the representative sample discussed earlier. The found biases – the higher education and the underrepresentation of women in the sample – do not have any influence on the validity of the participants' perceptions of the participation process: only those who have participated in the process are qualified to assess the process quality. So if we want to measure direct participation-effects, this is the group that needs to be questioned regardless of their sociodemographic properties[8].

Before we investigate whether participation has an effect on attitudes held by those who participated, we measure the participants' perceptions towards this very participation process. The underlying question is whether (democratic) legitimacy can only be "produced" through a participation process that in itself is perceived to be democratic, or whether the assessments of input and throughput legitimacy are independent of output legitimacy. Table 5 shows the distributions of responses to the respective items in our questionnaire that each relate to theoretical meta-categories in our analytical framework that describe different aspects of democratic participation processes (i.e. usability, transparency, fairness and mode of participation) and its results (i.e. output quality and impact expectation). For example, the perceived quality of the output – the user contributions – was measured by asking to rate the statement "Due to the participants' contributions on the online platform, a realistic picture of the state of cycle traffic in [city] emerged."[9]. About two thirds of the respondents agreed that this was the case while only five percent disagreed. This result indicates both, the high quality of the user contributions and the appropriateness of the participation method itself.

Studying the rest of the responses it is noticeable that the statements that deal with different aspects of the quality of the process tend to be answered in a rather approving manner. This includes the fairness of the moderation[10], the different aspects of transparency or the assessment of the participation mode as an exclusively online process. However, this is not the case concerning the two items that deal with the participants' expectations towards the substantial results of the participation process: the outcome (if and how the user contributions will be deployed by local politics) and the impact (will the traffic situation improve). Here the responses tend slightly towards the disagreeing pole. This result is not only noteworthy because it reflects to some extent the above described "critical citizens" but

[8] Further research is intended to compare effects of participation in groups who have participated with those who have just heard of the process with those who have not heard of the process.

[9] All the statements were translated for this paper. The original statements are reported in the Appendix.

[10] The high rates of "don't know" for the fairness items can most likely be explained by the fact that due to the little moderation required, most users did not come across actions by the moderation team.

also because later analysis will show that especially these perceptions are the ones with the highest influence on how attitudes towards political institutions and their actions change due to a participation endeavor such as ours.

Table 5: Evaluations of consultation process and its results by participants

	disagree / disagree entirely	half and half	agree/ agree entirely	*don't know*
"The information provided on the online platform about the *operating principles of the online platform* was sufficient." *(Usability 1)*	6	11	72	*11*
"Overall I was satisfied with the usability of the online platform." *(Usability 2)*	9	18	67	*6*
"On the online platform all relevant information was easy to find." *(Transparency of Process)*	9	19	62	*10*
"The information provided on the online platform about the *goals of the participation process* was sufficient." *(Transparency of Goals)*	7	21	60	*12*
"By the time the process took place it was uncertain what will happen to the citizens' proposals for improvement." *(Transparency of Outcome)*	7	11	71	*11*
"The moderation on the online platform was fair." *(Fairness 1)*	3	6	58	*33*
"The interventions by the moderation (e.g. reassigning proposals in another topic category) were justified." *(Fairness 2)*	1	9	48	*42*
"Due to the participants' contributions on the online platform, a realistic picture of the state of cycle traffic in [city] emerged." *(Output-Quality 1)*	5	21	65	*10*
"Overall, the contributions and proposals of the users were of high quality." *(Output-Quality 2)*	2	19	69	*10*
"By large the contributions on the platform were constructive and relevant to the question of how the cycle traffic situation in [city] could be improved." *(Output-Quality 3)*	2	8	82	*8*
"I assume that the contributions of the Raddialog will play an important role in the future planning of cycle traffic." *(Outcome-Expectation)*	34	22	38	*7*
"I think that the Raddialog in [city] will improve the cycle traffic situation in [city]." *(Impact Expectation)*	34	23	36	*7*
"I would also have participated in the process if it had not taken place online but in the context of events on location." *(Participation Mode 1)*	43	15	32	*10*
"It was appropriate to let the participation process take place exclusively online." *(Participation Mode 2)*	9	14	70	*7*

Note: All numbers are percentages of respective item.
Source: Survey of participants of online consultation in Bonn, Ehrenfeld, and Moers (N=361 – BT, KT & MT).

A further question that occurs is, if the empirical dimensionality of the participation evaluation items matches our theoretical framework. To examine this, we made use of a varimax-rotated Principal-Component-Analysis (PCA) [11]. It turns out that only one of the items (transparency of outcome) does not fit into the five-dimensional solution that emerges. After dismissing this item, the five factor solution explains 70% of the item variance which can be regarded as a reasonably good approximation of the correlation matrix the PCA is based on. Importantly, the empirical dimensionality makes perfect sense: the "mode of participation"-factor contains the two items on participation mode, the "Fairness"-factor the two fairness items, the "Output Quality" factor the three respective items, while the two items that deal with the future deployment of the output (outcome- and impact-expectation) both load highly on a common factor. The only surprise to us was that the two usability items and the two transparency items constitute a common factor. A plausible explanation of this result might be that the latent dimension that is hidden in these four items derives from the participants' *understanding of the process* – technically *and* intentionally.

Since the number of cases from Ehrenfeld and Moers is quite small, comparisons between the participants' evaluations of the consultation processes in the three cities would not lead to valid results on the level of the single items. The extracted factors on the other hand – since they can be interpreted as weighted summated indices – are the adequate measures for this task. An analysis of variance (ANOVA) reveals that all aspects, that are strictly bound to the quality of the process itself, do not differ significantly between the cities. In other words: our intention to conduct nearly identical processes in the three municipalities is verified by the perceptions of the participants. Noteworthy on the other hand are the significant differences (eta= ,192; p< 0,01) on the Outcome/Impact-Expectation-Factor that measures the participants' expectations in what way results of the consultation process might be deployed by the city administration and to what improvements in the traffic situation this might lead. Here the participants of the consultation process in Moers turn out to be the most optimistic, while the participants from Bonn have the least trust that their engagement comes to fruition.

Table 6: Dimensions of participants' evaluations of process and results

	Usability/ Transparency	Output Quality	Outcome/ Impact-Expectation	Fairness	Mode of Participation
Usability 2	,867				
Transparency of Process	,858				
Usability 1	,718				
Transparency of Goals	,651				
Output-Quality 2		,851			
Output-Quality 3		,847			
Output-Quality 1		,595			
Outcome-Expectation			,926		
Impact-Expectation			,922		
Fairness 2				,881	
Fairness 1				,856	
Participation Mode					,869
Participation Mode 2					,626
% of explained variance	20,473	14,963	13,781	13,102	9,564

Note: Dimensions of political satisfaction based on orthogonal principal component analysis (varimax rotated, extraction method: Kaiser criterion)

Source: Survey of participants of online consultation in Bonn, Ehrenfeld, and Moers (N=361 - BT, KT & MT).

[11] To be able to include as many cases as possible we decided to combine the "half and half"- and the "don't know"-responses for the PCA. Due to the fact that our goal was to discover the latent dimensionality of the items, ambivalent or undecided attitudes, and/or their absence were seen as the neutral spot of the semantic polarity each item contains.

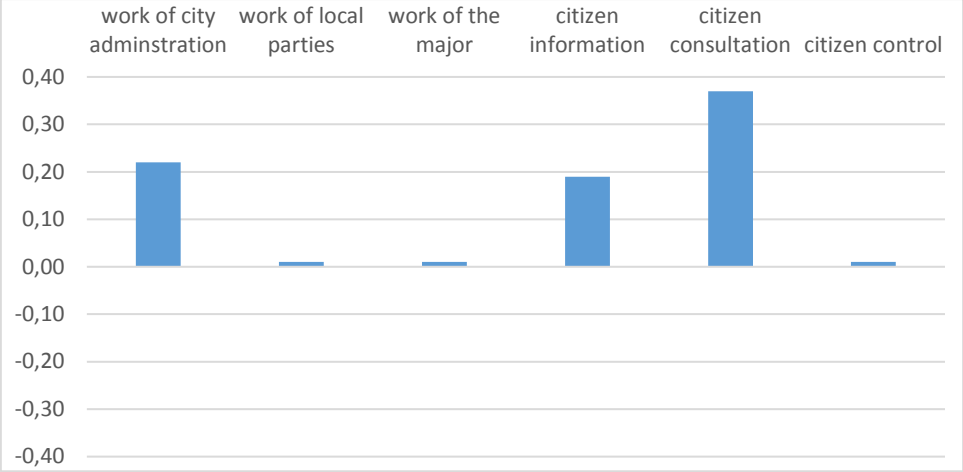
The next section discusses how the legitimacy beliefs have changed through participation in the consultation and what role process evaluations play for these effects.

Effects of participation: Preliminary results from participants

The most objective way to examine if involvement in a public participation process has influence on attitudes towards democracy and its institutions is a pre-post-measurement. Our research design includes such an element for the city of Bonn. Here we will be able to track objectively the change in attitudes towards democracy and its institutions by comparing the differences of change in groups that took part in online consultation vs. those who only heard of it vs. those who were completely unaware. Unfortunately, the respective data is not fully available yet therefore we have to rely on the retrospective assessment by the participants themselves about whether or not the participation had any effect on their attitudes[12].

To operationalize the change in attitudes towards local institutions induced by involvement in the consultation, we asked respondents to assess if their participation had any effect on their satisfaction with the work of (1) the city administration, (2) the local parties, (3) the mayor, or the way local politics (4) informs its citizens about important decisions ("citizen information"), (5) incorporates the knowledge and attitudes of citizens in its decisions ("citizen consultation"), and (6) lets its citizens make decisions on their own ("citizen control"). While the first three items refer to the local part of the political satisfaction items discussed earlier, the last three items derive from our democracy evaluation scale and might be able to measure subjective change of attitudes towards the city's way to incorporate citizens in its political decisions through the means of public participation.

Figure 5: Self-reported change in satisfaction with selected democratic institutions



Source: Survey of participants of online consultation in Bonn, Ehrenfeld, and Moers (N=361 - BT, KT & MT).

The six items are designed to assess subjective attitude change on a five-point scale with spelled out categories, labeled "strongly decreased", "decreased", "unchanged", "increased", "strongly increased". After recoding them from -2 to 2 with "unchanged"= 0, the calculated means show that the change in attitudes (as it is reported by the participants) is near zero on the aggregate level (see Figure 5). If anything, participants' satisfaction with the way local politics informs citizens about important

[12] This subjective assessment of attitude change has its flaws, mainly because retrospective assessments are always prone to error and due to the fact that the measurement of dependent and independent variables take place at the same point in time, assumptions about causality have to be made very carefully. At the same time, the objective pre-post-measurement of differences in difference has its flaws too: Because it is only quasi-experimental, unknown variables might interfere: such as self-selection mechanisms which lead to systematic differences between the participation- and the non-participation-groups that are not connected to the participation itself but to other unknown factors. Not until we analyse the panel data and compare the subjective change of attitudes with the objective one (as it will be assessable through the means of the panel design) will we be able to pass an informed judgement on the validity of the subjective assessment of attitude change.

decisions ("citizen information") and incorporates their knowledge and attitudes into its decision-making ("citizen consultation"), and the participants' satisfaction with the work of the city administration are benefitting the most from conducting a participation process. This is not exactly a surprise, after all the online consultation was designed as a citizen consultation by the city administration.

Table 7: Change in perceived Legitimacy of politics on the local level due to citizen participation (OLS regression)

	Model I		Model II	
	b	beta	b	beta
Constant	-,001		-,072	
Process-Evaluation				
(1) Usability/ Transparency	,101	,098	,074	,072
(2) Output quality	,042	,041	,081	,079
(3) Outcome/ Impact expectation	,415 ***	,408	,343 ***	,336
(4) Fairness	,002	,002	-,006	-,006
(5) Mode of participation	-,072	-,068	-,035	-,034
(6) Local democracy evaluation			,151 **	,147
(7) Trust in institutions			-,010	-,010
(8) Political satisfaction with local institutions			,140 *	,136
(9) Cities (Reference: Bonn)				
Ehrenfeld			,252	,093
Moers			,233	,080
R^2	,138		,244	

*Note: ***p<0,001; **p<0,01; *p<0,05*
Dependent Variable: Summated index of the participation effects-Items (see Figure 5), Cronbach's α= ,870, z-standardized
Independent Variables:
(1) to (5): Extracted factors from a PCA of the process evaluation items (see Table 6)
(6): Summated index of democracy evaluation items referring to participation on the local level (citizen information, citizen consultation, citizen control), Cronbach's α= ,804, z-standardized (wording see Figure 1 and Appendix)
(7) After checking its unidimensionality, we calculated a summated index of the items measuring trust in institutions (Federal Constitutional Court, national government, national parliament, city administration, police, political parties), Cronbach's α= ,805, z-standardized
(8): For this purpose, we subjected the political satisfaction items to a principal component analysis like we did with the respective items in the general population sample (see Table 2). The dimensionality was nearly the same, revealing a two-dimensional space of satisfaction with one referring to the national, and the other one referring to the local level. For our regression analysis we made use of the "local"-factor with the following properties: Factor loadings: City administration= ,880; mayor= ,818; local parties= ,776; variance explained: 35, 993% (total: 77,819%)
(9) dummy-coded
Source: Survey of participants of online consultation in Bonn, Ehrenfeld, and Moers (N=306 - BT, KT & MT).

Nevertheless, solely relying on the means conceals the underlying variance[13] that – following our assumptions – might be explainable by the participants' individual perceptions of the participation process. As it turns out, the six items are highly correlated and therefore constitute a single dimension with a high internal consistency (α= ,870). To examine our assumption, we deploy a z-standardized, summated index of the six items as the dependent variable in a multivariate regression analysis. The

[13] The standard deviation ranges from 0,459 to 0,785 on the five point-scales.

results are reported in Table 7. In a first step (Model I), we integrate as independent variables the five dimensions from the process and result evaluation reported in Table 6 above. In a second step (Model II), to take the participants' predispositions and the local political context into account, we control the effects of the evaluations related to the consultation process by integrating (a) the participants' democracy evaluations concerning the local level, (b) their general trust in institutions, (c) their political satisfaction with local institutions, and (d) the city in which the consultation took place. This strategy should allow us to isolate the effects of the participants' attitudes that are strictly bound to the online consultation and separate these from more general and diffuse attitudes towards the local political context.

The analysis reveals that of the five process evaluation dimensions only the expected outcome/impact has significant influence (beta= ,336, p< 0,001) on the participants' subjective assessment of change in attitudes towards the local political contexts. The properties of the process itself – the platform usability, the transparency and the fairness of the process, its online mode and even the perceived quality of the user contributions – seemingly do not have an influence on participation-induced changes in attitudes. Obviously, it is quite probable that we miss effects because of the small number of cases – strong effects nevertheless should reveal themselves even in a small sample though. Such a strong effect is the participants' expectation of outcome and impact of the online consultation. This means that those who expect that the output of the online consultation (i.e. the user contributions) will play a role in local decision-making and/or will improve the traffic situation for cyclists, see their own attitudes towards the local political context changed in a positive manner. Conversely, those who do not expect any influence of the online consultation see their attitude changed in a negative manner, while the rest of the process perceptions are not significantly relevant at all. Relevant indeed are the predispositions of the participants as Model II reveals. The better their democracy evaluation at the local level is (beta= ,151; p< 0,01), i.e. the more they perceive local politics to inform, consult or even co-decide with their citizens, and the more satisfied they are with the work of the local institutions (beta= ,140; p< 0,05), the more positive is the change of their attitudes. Neither trust in institutions on the other hand nor the city in which the consultation took place[14] seem to play a relevant role.

Therefore, the regression analysis shows that there are effects by attitudes that are strictly bound to the process (the outcome/impact-expectations), and – independent of those – effects that are more general and diffuse (the democracy evaluation and the political satisfaction). Both however, the process-bound and the unbound, point into the same direction: those respondents who are more optimistic and more satisfied with the local political context benefit more from a participation process by gaining even more satisfaction.

Conclusion & future research

The major objective of the research reported in this paper is to establish to what degree instances of public participation by the Internet may or may not contribute to greater legitimacy beliefs of citizens affected by the policy under discussion. To this end, we have put forward an understanding of legitimacy as subjective evaluations of *what ought to be* compared to *what is*, related to different objects to which support might be extended. By implementing and studying several similar instances of online participation in the design described, this effort goes beyond previous research in several ways. So far, the few comparative studies on the effects of online participation have usually relied on ex-post analysis (Kubicek et al., 2011; Pratchett et al., 2009). Those that would set up their own processes to investigate were not able to representatively gauge non-participants attitudes (Aichholzer et al., 2016). What is more, studies would usually resort to general questions of satisfaction with democracy and trust instead of a nuanced understanding of legitimacy and appropriate methodology that has been

[14] Further analysis shows that assumptions that the predictors might work in a different way depending on different local contexts are not verified. By calculating interaction terms containing the city-dummies and the respective predictors one would be able to detect such moderation effects. However, neither the coefficients of the participation-evaluation-factors nor the ones of the control variables vary significantly between the three cities.

the aim of this endeavor. As far as can be said at this moment in the research process, the operationalization of the legitimacy dimensions has proven to be accurate, in particular where we could not rely on tried-and-tested questions.

Based on the preliminary data that is currently available for the city of Bonn and that includes a representative pre-process population survey together with a post-process survey of the participants of the online consultation in Bonn, Ehrenfeld, and Moers we have a number of preliminary findings: First, citizen have distinct legitimacy beliefs for local politics that can differ from their assessment of national politics. Local politics was attributed somewhat less legitimacy which underscores the importance of addressing possible causes e.g. via such democratic innovations as investigated here. What is more, it also shows that local dissatisfaction does not automatically go together with national dissatisfaction and vice versa. Second, citizens do distinguish different objects and aspects of legitimacy. They are relatively satisfied with the level of free and fair elections, freedom of government opposition and freedom of the media. At the same time, they perceive large gaps in the way government promotes material well-being and in ways in which they could contribute to political decisions – in particular on the local level. This further underscores that offering opportunities for participation is one viable way to address critical citizens.

Third, the online consultation process as it was set up and implemented for this study was met with great support. Participants were very satisfied with fairness and transparency of the process as well as the quality of the contributions it generated. Relevant to our focus on online participation is that participants welcomed this mode of communication and rated its usability as high, showing that this as a viable means for participation. Having said that, it is clear that the online consultation leaves much wanting in terms of the representativeness of the people participating with negative consequences for input legitimacy.

Fourth, the participation process did indeed yield effects. Even though on an aggregate basis these tend to be almost zero, this at least goes to show that there are no large-scale negative effects from this participation process. However, the effects of participation take place on the individual level, and what we can show is the dominant role of output and impact expectations. Whether or not legitimacy beliefs of local government increase through participation in our consultation effort depends mainly on whether participants are convinced that their contributions will actually be properly considered by authorities and can make a difference. Process evaluations are not significant, lending weight to the claim that citizens are output-oriented in the way they form their legitimacy beliefs.

Fifth, the role of this impact expectation is strong. While we indeed can show that existing evaluations of satisfaction with local democracy and its institutions affect legitimacy beliefs, it is not simply those who are more positive about local government that are also more likely to come away from the consultation process with improved legitimacy beliefs. Instead, the individual process itself can have an effect regardless of the pre-existing opinions: If organizers can convince participants that they are taken seriously, then these can result in increased legitimacy beliefs, echoing findings from other experiments (Esaiasson et al., 2017).

These findings need to be corroborated with the additional data that is currently collected. First of all, the representative post-process survey of the population in Bonn will establish changes in attitudes among participants and allows insights into the views of non-participants. In addition, with the surveys of the population and the participants in the additional two cities it will be possible to put the findings reported here for Bonn into perspective. This provides a foundation for further in-depth analysis which includes differentiating legitimacy beliefs into different political objects and investigating to what degree specific and diffuse support might be distinguished. What is more, we want to take into account the weight individuals attribute to the different items in our democracy evaluation, e.g. are those who agree strongly that local politics should consult its citizen more critical or more positive of the consultation process compared to those who do no attribute this a high relevance? Eventually, drawing on the various evidence available for the three case studies we hope to be able to derive plausible explanations for potential influencing factors.

References

Aichholzer, Georg; Kubicek, Herbert; Torres, Lourdes (2016): *Evaluating e-Participation. Frameworks, Practice, Evidence*. Springer International Publishing.

Arnesen, Sveinung; Peters, Yvette (2018): „The Legitimacy of Representation: How Descriptive, Formal, and Responsiveness Representation Affect the Acceptability of Political Decisions". In: *Comparative Political Studies* 51(7), pp. 868–899.

Arnstein, SR (1969): „A ladder of citizen participation". In: *Journal of the American Institute of planners* (December 2011), pp. 37–41.

Barber, Benjamin R; Barber, Benjamin R (ed.): (1984): *Strong Democracy: Participatory Politics for a New Age*.*Strong Democracy Participatory Politics for a New Age*. University of California Press.

Barnes, Samuel; Kaase, Max (1979): *Political action : mass participation in five Western democracies*. Beverly Hills Calif.: Sage Publications.

Beierle, Thomas C; Cayford, Jerry (2002): *Democracy in Practice. Public Participation in Environmental Decisions*. Johns Hopkins University Press.

Bernauer, Julian; Vatter, Adrian (2012): „Can't get no satisfaction with the Westminster model? Winners, losers and the effects of consensual and direct democratic institutions on satisfaction with democracy". In: *European Journal of Political Research* 51(4), pp. 435–468.

Boulianne, Shelley (2009): „Does Internet Use Affect Engagement? A Meta-Analysis of Research". In: *Political Communication* 26(2), pp. 193–211.

Bowler, Shaun; Donovan, Todd (2002): „Democracy, Institutions and Attitudes about Citizen Influence on Government". In: *British Journal of Political Science* 32(02), pp. 371–390.

Carman, Christopher (2010): „The Process is the Reality: Perceptions of Procedural Fairness and Participatory Democracy". In: *Political Studies* 58(4), pp. 731–751.

Christensen, Henrik Serup; Karjalainen, Maija; Nurminen, Laura (2015): „Does Crowdsourcing Legislation Increase Political Legitimacy? The Case of Avoin Ministeriö in Finland". In: *Policy & Internet* 7(1), pp. 25–45.

Coleman, Stephen; Shane, Peter M; Coleman, Stephen; Shane, Peter M (eds.): (2012): *Connecting Democracy: Online Consultation and the Flow of Political Communication*. Cambridge and MA: MIT Press.

Council of Europe (2009): „Recommendation CM/Rec(2009)1 of the Committee of Ministers to member states on electronic democracy (e-democracy)". Strasbourg.

Dalton, Russell J (2004): *Democratic Challenges, Democratic Choices: The Erosion of Political Support in Advanced Industrial Democracies*. Oxford: Oxford University Press.

van Deth, Jan W; Tausendpfund, Markus; van Deth, Jan W.; Tausendpfund, Markus (eds.): (2013): *Politik im Kontext: Ist alle Politik lokale Politik?* Wiesbaden: Springer Fachmedien Wiesbaden.

Dietz, Thomas; Stern, PC (2008): *Public participation in environmental assessment and decision making*. National Research Council.

Easton, David (1975): „A re-assessment of the concept of political support". In: *British journal of political science* 5(4), pp. 435–457.

Easton, David (1957): „An Approach to the Analysis of Political Systems". In: *World Politics* 9(3), pp. 383–400.

Esaiasson, Peter (2010): „Will citizens take no for an answer? What government officials can do to enhance decision acceptance". In: *European Political Science Review* 2(03), pp. 351–371.

Esaiasson, Peter; Gilljam, Mikael; Persson, Mikael (2017): „Responsiveness Beyond Policy Satisfaction: Does It Matter to Citizens?". In: *Comparative Political Studies* 50(6), pp. 739–765.

Esaiasson, Peter; Gilljam, Mikael; Persson, Mikael (2012): „Which Decision-Making Arrangements Generate the Strongest Legitimacy Beliefs? Evidence From a Randomised Field Experiment". In: *European Journal of Political Research* 51(6), pp. 785–808.

Esaiasson, Peter; Persson, Mikael; Gilljam, Mikael; Lindholm, Torun (2016): „Reconsidering the Role of

Procedures for Decision Acceptance“. In: *British Journal of Political Science*, pp. 1–24.

Escher, Tobias (2013): „Mobilisierung zu politischer Partizipation durch das Internet: Erwartungen, Erkenntnisse und Herausforderungen der Forschung“. In: *Analyse & Kritik* 35(2), pp. 449–476.

Escher, Tobias; Frieß, Dennis; Esau, Katharina; Sieweke, Jost; Tranow, Ulf; Dischner, Simon; Hagemeister, Philipp; Mauve, Martin (2017): „Online Deliberation in Academia: Evaluating the Quality and Legitimacy of Cooperatively Developed University Regulations“. In: *Policy & Internet* 9(1), pp. 133–164.

Escher, Tobias; Riehm, Ulrich (2017): „Petitioning the German Bundestag: Political Equality and the Role of the Internet“. In: *Parliamentary Affairs* 70(1), pp. 132–154.

Ferrín, Mónica; Kriesi, Hanspeter; Ferrín, Mónica; Kriesi, Hanspeter (eds.): (2016): *How Europeans View and Evaluate Democracy*. Oxford: Oxford University Press.

de Figueiredo, John M (2006): „E-Rulemaking: Bringing Data to Theory at the Federal Communications Commission“. In: *Duke Law Journal* 55, pp. 969–993.

Fung, Archon (2006): „Varieties of participation in complex governance“. In: *Public Administration Review* (December).

Gabriel, Oscar W; Kersting, Norbert (2014): „Politisches Engagement in deutschen Kommunen: Strukturen und Wirkungen auf die politischen Einstellungen von Bürgerschaft, Politik und Verwaltung“. In: Bertelsmann Stiftung; Staatsministerium Baden-Württemberg (eds.): *Partizipation im Wandel*. Gütersloh: Verlag Bertelsmann Stiftung, pp. 43–181.

Gamble, Barbara S (1997): „Putting Civil Rights to a Popular Vote“. In: *American Journal of Political Science* 41(1), pp. 245–269.

Geissel, Brigitte (2009): „Participatory Governance: Hope or Danger for Democracy? A Case Study of Local Agenda 21“. In: *Local Government Studies* 35(4), pp. 401–414.

Geissel, Brigitte; Newton, Kenneth (2012): *Evaluating Democratic Innovations: curing the democratic malaise?* Abingdon: Routledge.

Geißel, Brigitte; Roth, Roland; Collet, Stefan; Tillmann, Christina (2014): „Partizipation und Demokratie im Wandel“. In: Bertelsmann Stiftung; Staatsministerium Baden-Württemberg (eds.): *Partizipation im Wandel*. Gütersloh: Verlag Bertelsmann Stiftung.

Gladitz, Peter; Schöttle, Sabrina; Steinbach, Malte; Wilker, Nadja; Witt, Theresa (2017): „DIID Monitor Online-Partizipation - Zum Stand von Online-Bürgerbeteiligung in den Kommunen Nordrhein-Westfalens“. In: *KommunalPraxis Wahlen* 8(1), pp. 30–34.

Gonçalves, Sónia (2014): „The Effects of Participatory Budgeting on Municipal Expenditures and Infant Mortality in Brazil“. In: *World Development* 53, pp. 94–110.

Innes, Judith E.; Booher, David E. (2004): „Reframing public participation: strategies for the 21st century“. In: *Planning Theory & Practice* 5(4), pp. 419–436.

Kersting, Norbert (2013): „Online participation : from ‘invited’ to ‘invented’ spaces“. In: *International Journal of Electronic Governance* 6(4), pp. 270–280.

Kersting, Norbert; Vetter, Angelika (eds.): (2003): *Reforming Local Government in Europe*. Wiesbaden: VS Verlag für Sozialwissenschaften.

Kochskämper, Elisa; Challies, Edward; Jager, Nicolas W.; Newig, Jens (2018a): *Participation for Effective Environmental Governance*. London: Routledge.

Kochskämper, Elisa; Jager, Nicolas W; Newig, Jens; Challies, Edward (2018b): „Participation and effective environmental governance. Causal mechanisms and beyond“. In: Kochskämper, Elisa; Challies, Edward; Jager, Nicolas W; Newig, Jens (eds.): *Participation for effective environmental governance*. Routledge, pp. 149–159.

Kriesi, Hanspeter (2013): „Democratic legitimacy: Is there a legitimacy crisis in contemporary politics?“. In: *Politische Vierteljahresschrift* 54(4), pp. 609–638.

Kubicek, Herbert; Aichholzer, Georg (2016): „Closing the Evaluation Gap in e-Participation Research and Practice“. In: *Evaluating e-Participation*. Cham: Springer International Publishing, pp. 11–45.

Kubicek, Herbert; Lippa, Barbara; Koop, Alexander (2011): *Erfolgreich beteiligt? Nutzen und*

Erfolgsfaktoren internetgestuetzter Buergerbeteiligung - Eine empirische Analyse von 12 Fallbeispielen. Guetersloh: Verlag Bertelsmann Stiftung.

Landemore, Hélène (2015): „Inclusive Constitution-Making: The Icelandic Experiment". In: *Journal of Political Philosophy* 23(2), pp. 166–191.

Lijphart, Arend (1997): „Unequal Participation: Democracy's Unresolved Dilemma". In: *The American political science review* American Political Science Association 91(1), pp. 1–14.

Marien, Sofie; Kern, Anna (2017): „The Winner Takes It All: Revisiting the Effect of Direct Democracy on Citizens' Political Support". In: *Political Behavior* Springer US, pp. 1–26.

Marschall, Stefan; Schultze, Martin (2012): „Voting Advice Applications and their effect on voter turnout: the case of the German Wahl–O–Mat". In: *International Journal of Electronic Governance* 5(3–4).

Michels, Ank (2012): „Citizen Participation in Local Policy Making: Design and Democracy". In: *International Journal of Public Administration* 35(4), pp. 285–292.

Michels, Ank; de Graaf, Laurens (2010): „Examining citizen participation: Local participatory policy making and democracy". In: *Local Government Studies* 36(4), pp. 477–491.

Newig, Jens; Jager, Nicolas; Challies, Edward (2012): „Führt Bürgerbeteiligung in umweltpolitischen Entscheidungsprozessen zu mehr Effektivität und Legitimität?". In: *Zeitschrift für Politikwissenschaft* 22(4), pp. 527–564.

Newton, Kenneth (2012): „Curing the democratic malaise with democratic innovations". In: *Evaluating democratic innovations: curing the democratic malaise?*. Abingdon: Routledge, pp. 3–20.

Norris, Pippa (2011): *Democratic Deficit : Critical Citizens Revisited*. Cambridge, GBR: Cambridge University Press.

Pratchett, Lawrence; Durose, Catherine; Lowndes, Vivien; Smith, Graham; Stoker, Gerry; Wales, Corinne (2009): *Empowering communities to influence local decision making. A systematic review of evidence*. London.

Renn, Ortwin; Berghöfer, Augustin; Wittmer, Heidi; Rauschmayer, Felix (2010): *Participation in the Multi-Level Governance of European Water and Biodiversity – A Review of Case Studies*. Stuttgart, Leipzig.

Rottinghaus, Bastian (2015): *Ideologische Konzeptualisierung und politische Partizipation*. Düsseldorf.

Sack, Benjamin C. (2017): „Gewinnen, Verlieren und lokale Betroffenheit bei Volksabstimmungen: Auswirkungen auf die Demokratiezufriedenheit im zeitlichen und räumlichen Vergleich". In: *Politische Vierteljahresschrift* 58(1), pp. 77–99.

Schäfer, Armin (2010): „Die Folgen sozialer Ungleicheit für die Demokratie in Westeuropa". In: *Zeitschrift für Vergleichende Politikwissenschaft* 4(1), pp. 131–156.

Scharpf, Fritz W (1999): *Governing in Europe: Effective and Democratic*. Oxford: Oxford University Press.

Schmidt, Vivien A. (2013): „Democracy and Legitimacy in the European Union Revisited: Input, Output and 'Throughput'". In: *Political Studies* 61(1), pp. 2–22.

Schmidtke, Henning; Schneider, Steffen (2012): „Methoden der empirischen Legitimationsforschung: Legitimität als mehrdimensionales Konzept". In: Geis, Anna; Nullmeier, Frank; Daase, Christopher (eds.): *Der Aufstieg der Legitimitätspolitik*. 1. ed. Baden-Baden: Nomos Verlagsgesellschaft mbH & Co. KG, pp. 225–242.

Selle, Klaus (2007): „Stadtentwicklung und B{ü}rgerbeteiligung -- Auf dem Weg zu einer kommunikativen Planungskultur? - Allt{ä}gliche Probleme, neue Herausforderungen". In: *Informationen zur Raumentwicklung*, pp. 63–71.

Shulman, Stuart W (2003): „An Experiment in Digital Government at the United States National Organic Program". In: *Agriculture and Human Values* 20(3), pp. 253–265.

Shulman, Stuart W (2009): „The Case Against Mass E-mails: Perverse Incentives and Low Quality Public Participation in US Federal Rulemaking". In: *Policy & Internet* 1(1), pp. 23–53.

Smith, Graham (2009): *Democratic Innovations: Designing Institutions for Citizen Participation*

(Theories of Institutional Design). Cambridge University Press.

Stanley, J Woody; Weare, Christopher (2004): „The Effects of Internet Use on Political Participation: Evidence From an Agency Online Discussion Forum“. In: *Administration & Society* 36(5), pp. 503–527.

Stillman, Peter G (1974): „The Concept of Legitimacy“. In: *Polity* 7(1), pp. 32–56.

Strebel, Michael Andrea; Kübler, Daniel; Marcinkowski, Frank (2018): „The importance of input and output legitimacy in democratic governance: Evidence from a population-based survey experiment in four West European countries“. In: *European Journal of Political Research*, pp. 1–26.

Towfigh, Emanuel V.; Goerg, Sebastian J.; Glöckner, Andreas; Leifeld, Philip; Llorente-Saguer, Aniol; Bade, Sophie; Kurschilgen, Carlos (2016): „Do direct-democratic procedures lead to higher acceptance than political representation? : Experimental survey evidence from Germany“. In: *Public Choice* 167(1–2), pp. 47–65.

Verba, Sidney; Schlozman, Kay L.; Brady, Henry E. (1995): *Voice and Equality: Civic Voluntarism in American Politics*. Harvard University Press.

Vetter, Angelika; Vetter, Angelika (ed.): (2008): *Erfolgsbedingungen lokaler Bürgerbeteiligung*. Wiesbaden: VS Verlag für Sozialwissenschaften.

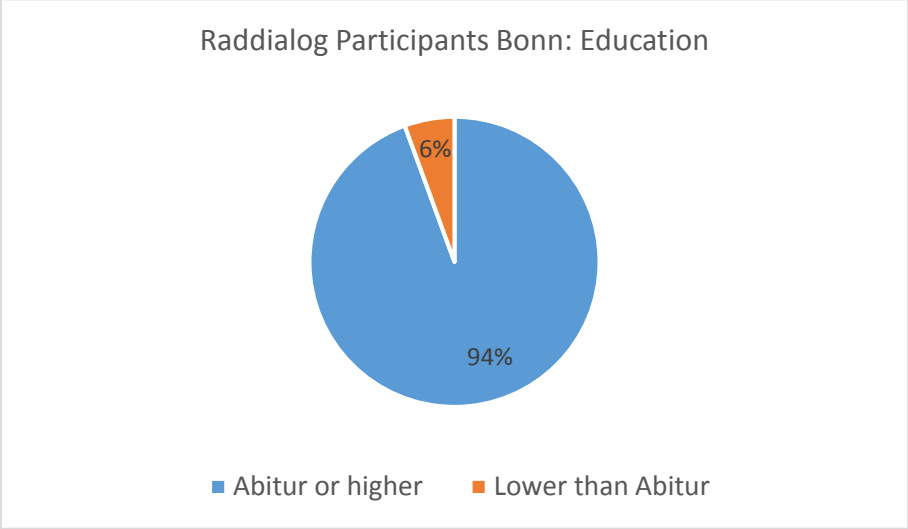
Wampler, Brian; Sampaio, Rafael Cardoso (2011): *Belo Horizonte, Brazil: Co-Governance*. Gütersloh.

Weßels, Bernhard (2016): „Democratic Legitimacy: Concepts, Measures, Outcomes“. In: Ferrín, Mónica; Kriesi, Hanspeter (eds.): *How Europeans View and Evaluate Democracy*. Oxford: Oxford University Press.

Appendices

A – Survey of participants in the online consultation in Bonn: Basic sociodemographics

When we take a look on the basic sociodemographics of the consultation participants the most striking fact is their education: more than 94% graduated with Abitur (the university entrance qualification) or higher while this is only the case in 64% of the respondents from our survey in the general population of Bonn.[15] Normatively speaking this finding has to be interpreted as a quite low inclusiveness of the participation process with regards to education groups. Nevertheless, one has to take into account that there are several factors that might contribute to this fact: For one, political participation in general is disproportionally more often carried out by groups that stand educationally higher in the social stratum, while the disadvantaged are generally the less active (Barnes, Kaase, 1979; Lijphart, 1997; Rottinghaus, 2015). In addition, the online mode of the participation effort created additional barriers for participation, including access to and skills to use the technology, which are more often found among the educationally affluent. What is more, the same is true for the recruitment in surveys in general and in self-administered online surveys especially: the higher the level of education *and* the higher the skills and the trust into the technique, the more likely is a response. Since all these factors work towards the same direction, it is no surprise that a sample of respondents that was recruited online after taking part in an online participation process that took place in Bonn, whose population is highly educated on average, is structured in this way with regards to education.

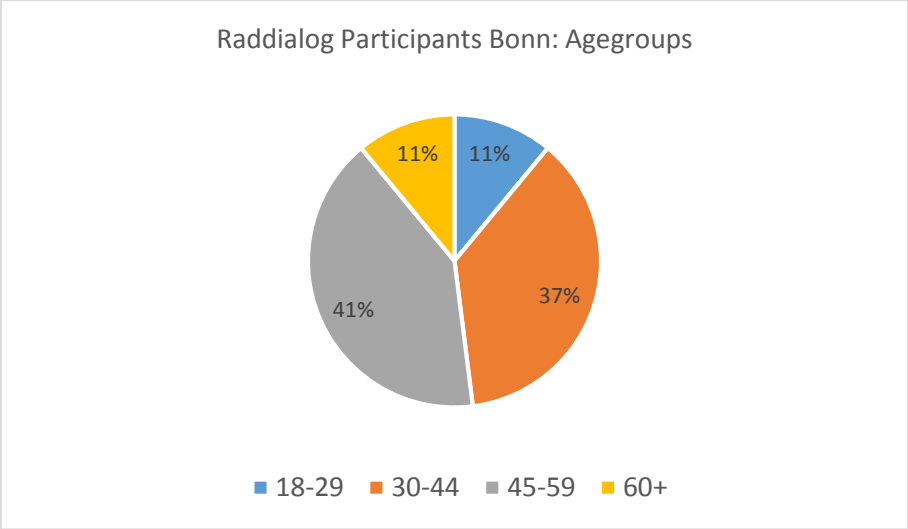


Source: Survey of participants of online consultation in Bonn (N=255).

Concerning the age of the respondents, the discrepancy between the representative sample from the general population (50,1 years on average) and the consultation participants (47,5 years on average) not large. While in the representative sample the largest group recruits from the over 60 years old (31,3%), this group is only about a third the size in the participants sample (11,4%). Here the two major over-represented groups are the 30 to 44 years old and the 45 to 59 years old participants (36,7% and 40,8%) while the youngest are only slightly under-represented in comparison with the random sample from the general population (17,5% of the respondents in the general population and 11% of the respondents from the Raddialog-sample are between 18 and 29 years old). It remains to be investigated if these discrepancies are due to the fact that the age groups of 30 to 59 are the most active cyclists. Initial results from the random sample hint that the 44 to 59 years olds are indeed the most active and

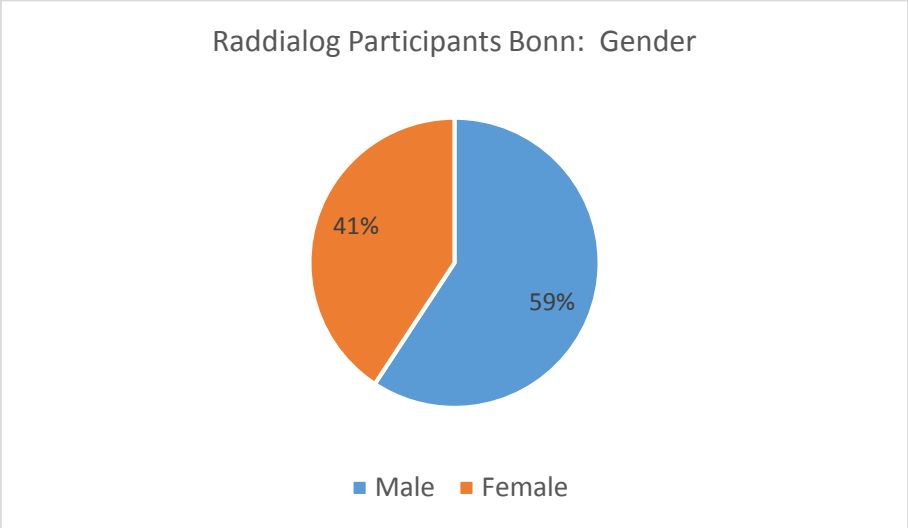
[15] Relying on the data from the latest 2011-Zensus in Bonn there are 44,5% of the inhabitants who have graduated from school with Abitur or higher compared to the general population of Germany where only 20,4% had this kind of education in 2011. This shows on the one hand that the population of Bonn is significantly better educated than the rest of the German population which can be traced back to its former status as the nation's capital. On the other hand it is a result of the fact that surveys tend to recruit a disproportional high amount of respondent with higher education.

the over 59 years olds the least active cyclists, but with respect to the other groups the results are not conclusive yet.



Source: Survey of participants of online consultation in Bonn (N=255).

Another discrepancy is related to gender: while in the random sample from Bonn there is the expected[16] gender gap in favour of the female respondents (55,3%), in the participants' sample the male respondents are clearly over-represented. Partly this result might be attributed to the fact that in Bonn men are the more active cyclist and therefore more likely to be recruited in a public participation process that deals with the topic of improvement of the cycling traffic situation in the city. Our random sample informs us that 71% of the male respondents but only 64% of the female respondents go by bike at least once in a while. This discrepancy is significant. The second likely factor is that the participation mode has an influence on the gender distribution, which needs further analysis. So far, the results from the random sample do not indicate major discrepancies between the genders concerning the general affinity to the internet, the same is true for online-based political action – with the exception of contacting a politician online where men are significantly more active than women.[17]



Source: Survey of participants of online consultation in Bonn (N=255).

[16] Due to the higher life expectancy of women in Germany.

[17] While 14% of the male respondents contacted a politician online at least once in the preceding 12 months, only 9% of the female respondents did.

B – Selected questions from survey instruments

As it was not possible to translate the whole survey instrument in time, we report only the relevant survey items.

Table 8: Items evaluating the participation process and its results

original question (German)	translation
Durch die Beiträge der Nutzer/innen auf der Online-Plattform ist ein realistisches Bild der Radverkehrssituation in [city] **entstanden.**	Due to the participants' contributions on the online platform, a realistic picture of the state of cycle traffic in [city] emerged.
Die Moderation auf der Online-Plattform war fair.	The moderation on the online platform was fair.
Die Eingriffe durch die Moderation (z.B. Verschiebung von Vorschlägen in eine andere Beitragskategorie) waren gerechtfertigt.	The interventions by the moderation (e.g. reassigning proposals in another topic category) were justified.
Die auf der Online-Plattform angebotenen Informationen *zur Funktionsweise der Online-Plattform* waren ausreichend.	The information provided on the online platform about the *operating principles of the online platform* was sufficient.
Was mit den Verbesserungsvorschlägen der Bürger/innen geschieht, war zum Zeitpunkt des Verfahrens ungewiss.	By the time the process took place it was uncertain what will happen to the citizens' proposals for improvement.
Die Beiträge und Vorschläge der Nutzer/innen hatten insgesamt eine hohe Qualität.	Overall, the contributions and proposals of the users were of high quality.
Die auf der Online-Plattform angebotenen Informationen *zu den Zielen der Beteiligung* waren ausreichend.	The information provided on the online platform about the *goals of the participation process* was sufficient.
Alles in allem war ich zufrieden mit der Benutzerfreundlichkeit der Online-Plattform.	Overall I was satisfied with the usability of the online platform.
Alle relevanten Informationen waren auf der Online-Plattform leicht zu finden.	On the online platform all relevant information was easy to find.
Ich gehe davon aus, dass die Beiträge des Raddialogs in der zukünftigen Radverkehrsplanung eine wichtige Rolle spielen werden.	I assume that the contributions of the Raddialog will play an important role in the future planning of cycle traffic.
Ich denke, dass der [city] **Raddialog die Radverkehrssituation in** [city] **verbessern wird.**	I think that the Raddialog in [city] will improve the cycle traffic situation in [city].
Die Beiträge auf der Plattform waren größtenteils konstruktiv und relevant für die Frage, wie der Radverkehr in [city] **verbessert werden könnte.**	By and large the contributions on the platform were constructive and relevant to the question of how the cycle traffic situation in [city] could be improved.
Ich hätte an dem Verfahren auch dann teilgenommen, wenn es nicht online, sondern im Rahmen von Vor-Ort-Veranstaltungen stattgefunden hätte.	I would also have participated in the process if it had not taken place online but in the context of events on location.
Es war angemessen, das Beteiligungsverfahren ausschließlich online stattfinden zu lassen.	It was appropriate to let the participation process take place exclusively online.

The questions on the evaluation of different dimensions of democracy have been taken from the special module of the 6th round of the European Social Survey on 'Europeans' understandings and evaluations of democracy' (Ferrín, Kriesi, 2016). We used the German translation provided by the ESS and report the official English version here.

Now some questions about democracy. Later on I will ask you about how democracy is working in [country]. First, however, I want you to think instead about how important you think different things are for democracy in general. There are no right or wrong answers so please just tell me what you think.

ASK ALL
CARD 37 Using this card, please tell me how important you think it is for democracy in general...**READ OUT...**

		Not at all important for democracy in general[55]										**Extremely[56] important for democracy in general**	**(Don't know)**
E1[57]	...that national elections[58] are free and fair[59]?	00	01	02	03	04	05	06	07	08	09	10	88
E2	...that voters discuss politics with people they know before deciding how to vote?	00	01	02	03	04	05	06	07	08	09	10	88
E3	...that different political parties[60] offer clear alternatives to one another?	00	01	02	03	04	05	06	07	08	09	10	88
E4	...that opposition parties[61] are free to[62] criticise[63] the government?	00	01	02	03	04	05	06	07	08	09	10	88
E5	…that the media are free to[64] criticise[65] the government?	00	01	02	03	04	05	06	07	08	09	10	88

		Not at all important for democracy in general[66]										Extremely important for democracy in general	(Don't know)
E6	...that the media provide citizens with reliable[67] information to judge[68] the government?	00	01	02	03	04	05	06	07	08	09	10	88
E7	...that the rights of minority groups are protected?	00	01	02	03	04	05	06	07	08	09	10	88
E8	...that citizens have the final say on the most important political issues by voting on them directly in referendums?	00	01	02	03	04	05	06	07	08	09	10	88
E9	....that immigrants[69] only get the right to vote in national elections[70] once they become citizens?	00	01	02	03	04	05	06	07	08	09	10	88
E10	...that the courts treat[71] everyone the same[72]?	00	01	02	03	04	05	06	07	08	09	10	88
E11	...that the courts are able to stop the government acting beyond its authority?	00	01	02	03	04	05	06	07	08	09	10	88

		Not at all important for democracy in general[73]										Extremely important for democracy in general	(Don't know)
E12	...that governing parties are punished in elections[74] when they have done a bad job?	00	01	02	03	04	05	06	07	08	09	10	88
E13	...that the government protects all citizens against poverty?	00	01	02	03	04	05	06	07	08	09	10	88
E14	...that the government explains its decisions to voters?	00	01	02	03	04	05	06	07	08	09	10	88
E15	...that the government takes measures to reduce differences in income levels?	00	01	02	03	04	05	06	07	08	09	10	88

		Not at all important for democracy in general[75]										Extremely important for democracy in general	(Don't know)
E16	...that politicians take into account the views of other European[76] governments before making decisions?	00	01	02	03	04	05	06	07	08	09	10	88

These questions were extended with three items concerning opportunities for participation at local level. These read as follows:

original question (German)	translation
…dass die kommunale Politik die Bürger/innen über wichtige Entscheidungen vorab informiert, z.B. auf Informationsveranstaltungen?	… that local politics informs citizens about important decisions ahead of time, e.g. in the context of informational events ("citizen information")
...dass die kommunale Politik bei wichtigen Entscheidungen die Einstellungen und das Wissen der Bürger/innen in die Entscheidungsfindung einbezieht, z.B. durch Bürgerkonferenzen?	… that local politics incorporates the attitudes and knowledge of citizens in the decision-making, e.g. through citizen conferences ("citizen consultation")

...dass die kommunale Politik die Bürger/innen wichtige Entscheidungen alleine treffen lässt, z.B. per Abstimmung?	… that local politics lets citizens make decisions on their own, e.g. by voting ("citizen control")

Now some questions about the same topics, but this time about how you think democracy is working in [country] today[77]. Again, there are no right or wrong answers, so please just tell me what you think.

CARD 38 Using this card, please tell me to what extent you think each of the following statements applies in [country]. 0 means you think the statement does not apply at all and 10 means you think it applies completely[78]. **READ OUT EACH STATEMENT AND CODE IN THE GRID.**

		Does not apply at all										**Applies completely**	**(Don't know)**
E17	National elections[79] in [country] are free and fair[80].	00	01	02	03	04	05	06	07	08	09	10	88
E18	Voters in [country] discuss politics with people they know before deciding how to vote.	00	01	02	03	04	05	06	07	08	09	10	88
E19	Different political parties[81] in [country] offer clear alternatives to one another.	00	01	02	03	04	05	06	07	08	09	10	88
E20	Opposition parties[82] in [country] are free to[83] criticise[84] the government[85].	00	01	02	03	04	05	06	07	08	09	10	88
E21	The media in [country] are free to[86] criticise[87] the government.	00	01	02	03	04	05	06	07	08	09	10	88

		Does not apply at all										Applies completely	(Don't know)
E22	The media in [country] provide citizens with reliable[88] information to judge[89] the government.	00	01	02	03	04	05	06	07	08	09	10	88
E23	The rights of minority groups in [country] are protected.	00	01	02	03	04	05	06	07	08	09	10	88
E24	Citizens in [country] have the final say on the most important political issues by voting on them directly in referendums.	00	01	02	03	04	05	06	07	08	09	10	88
E25	The courts in [country] treat[90] everyone the same[91].	00	01	02	03	04	05	06	07	08	09	10	88

		Does not apply at all										Applies completely	(Don't know)
E26	Governing parties in [country] are punished in elections[92] when they have done a bad job.	00	01	02	03	04	05	06	07	08	09	10	88
E27	The government in [country] protects all citizens against poverty.	00	01	02	03	04	05	06	07	08	09	10	88
E28	The government in [country] explains its decisions to voters.	00	01	02	03	04	05	06	07	08	09	10	88
E29	The government in [country] takes measures to reduce differences in income levels.	00	01	02	03	04	05	06	07	08	09	10	88

		Does not apply at all										Applies completely	(Don't know)
E30	Politicians in [country] take into account the views of other European[93] governments before making decisions.	00	01	02	03	04	05	06	07	08	09	10	88

The respective items for the local level are:

original question (German)	translation
Die kommunale Politik von [city] informiert die Bürger/innen über wichtige Entscheidungen vorab.	Local politics in [city] informs citizens about important decisions ahead of time.
Die kommunale Politik von [city] bezieht bei wichtigen Entscheidungen die Einstellungen und das Wissen der Bürger/innen in die Entscheidungsfindung ein.	Local politics in [city] incorporates the attitudes and knowledge of citizens in the decision-making.
Die kommunale Politik von [city] lässt die Bürger/innen wichtige Entscheidungen alleine treffen.	Local politics in [city] lets citizens make decisions on their own.