Master's thesis

NTNU
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Cole Grabinsky

Drivers and challenges of implementing digital platforms in citizen engagement processes

A case study of Trondheim, Norway and Helsinki, Finland

Master's thesis in Urban Ecological Planning
Supervisor: Brita Fladvad Nielsen
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“Happiness isn’t about having things,
it’s about being a part of things.”
— *Chris Stevens in Northern Exposure*

Preface

This masters thesis is the original work by Cole Grabinsky and satisfies the requirements of a masters degree in Urban Ecological Planning at the Norwegian University of Science and Technology (NTNU), Faculty of Architecture and Design, Department of Architecture and Planning. The author has previously completed a bachelors degree in Community Design at the Faculty of Architecture and Planning at Dalhousie University in Halifax, Canada.

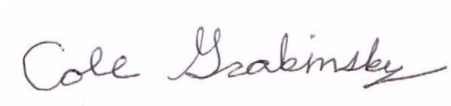
Over the course of this thesis, the author completed an internship at the Trondheim Municipality, which has shaped the research questions and process. The main task of the internship was to test a digital platform, called *Decidim*, in a citizen engagement process called Borgerkraft. This research is also connected to *+CityxChange* (Positive City ExChange), which is a smart city project, under the European Union's Horizon 2020 research and innovation programme. +CityxChange is hosted by NTNU, and led in collaboration with the Trondheim Municipality and Limerick City and County Council.

Before moving on to the thesis itself, I would like to thank Eszter Marklund-Nagy, David Smith and Brita Fladvad Nielsen for their support of my thesis. Your feedback and guidance have been greatly appreciated.

I would also like to thank Kristin Solhaug Næss, Øyvind Tanum, Silja Rønningsen, and Bjørn Ove Berthelsen for the opportunity to pilot the Decidim platform with the Trondheim Municipality. It has been wonderful to be part of the team.

And finally, thank you to my friends and family. Your love and *perspective* mean the world to me.

Trondheim, 24/06/2020



Abstract

The benefits of citizen engagement in planning processes have been discussed since the 1960s. Today, digital platforms offer new ways to engage with citizens, at a level not possible through in-person meetings and workshops. This thesis explores the implementation of digital platforms in Trondheim, Norway and Helsinki, Finland, to determine the drivers and challenges of engaging citizens digitally. In this thesis, the drivers and challenges for municipalities, have been grouped according to contextual, technological and organizational factors. The drivers for Trondheim and Helsinki include strong political support, an easily accessible digital platform, and clear goals for the engagement process. Challenges include the engagement of senior citizens and other disadvantage groups, the limited usability of the platform and the management of citizen inputs and expectations. Moving forward, planners need to consider *who* is participating, not just *how many*, to ensure processes are representative of the community.

Keywords

Digital platforms, citizen engagement, communicative planning theory, role of the planner, participatory budgeting, dialogue, decision-oriented, deliberation

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List of Abbreviations

COVID 19 — Coronavirus disease 2019

DPP — Digital participatory platform

EU — European Union

GDPR — General Data Protection Regulation

IAP2 — International Association for Public Participation

IT — Information Technology

NTNU — Norwegian University of Science and Technology

OECD — Organisation for Economic Co-operation and Development

UiO — University of Oslo

1 Introduction

Governments, at all levels, are being asked to use digital platforms to engage citizens in decision-making processes (Baxter, 2017). Many governments have embraced the use of digital platforms for one-way communication, however two-way engagement with citizens has been "harder and slower than expected" (Charalabidis and Koussouris, 2012, p. 242). Previous research has highlighted that it is not a lack of advanced technological solutions preventing governments from digitally engaging with citizens (Falco and Kleinhans, 2018). Rather, there are contextual, technological and organizational factors that governments need to consider (Falco and Kleinhans, 2018).

This thesis explores the implementation of digital platforms in citizen engagement processes in Trondheim, Norway and Helsinki, Finland. The writing of this thesis, coincided with the outbreak of Coronavirus (COVID 19) in Europe. All interviews with professionals in Trondheim and Helsinki were conducted through video calls. In reference to the outbreak of COVID 19 in Norway, the Planning Manager in Trondheim stated that "we have to use digital tools because in Trondheim we have 200,000 inhabitants, and how do we reach them? I think we reach them digitally, especially now".

This thesis will begin by providing a brief overview of citizen engagement and the role of digital platforms. Then, specific research questions will be posed. The theoretical framework of the thesis will then be explained in connection to communicative planning theory and the role of the planner. The methods chapter will show how case studies were conducted and analyzed. In the case reports and findings chapters, the data from 10 in-depth expert interviews will be presented and analyzed. Finally, the discussion will link the findings with communicative planning theory and the role of the planner, and conclusions will be made.

2 Background

The benefits and challenges of citizen engagement have been discussed since the 1960s. Digital platforms now offer new ways to engage with people, on a scale not possible through in-person meeting and workshops alone. This chapter will provide a brief overview of why governments do citizen engagement, the challenges of citizen engagement in planning and the role of digital platforms.

2.1 Why do governments do citizen engagement?

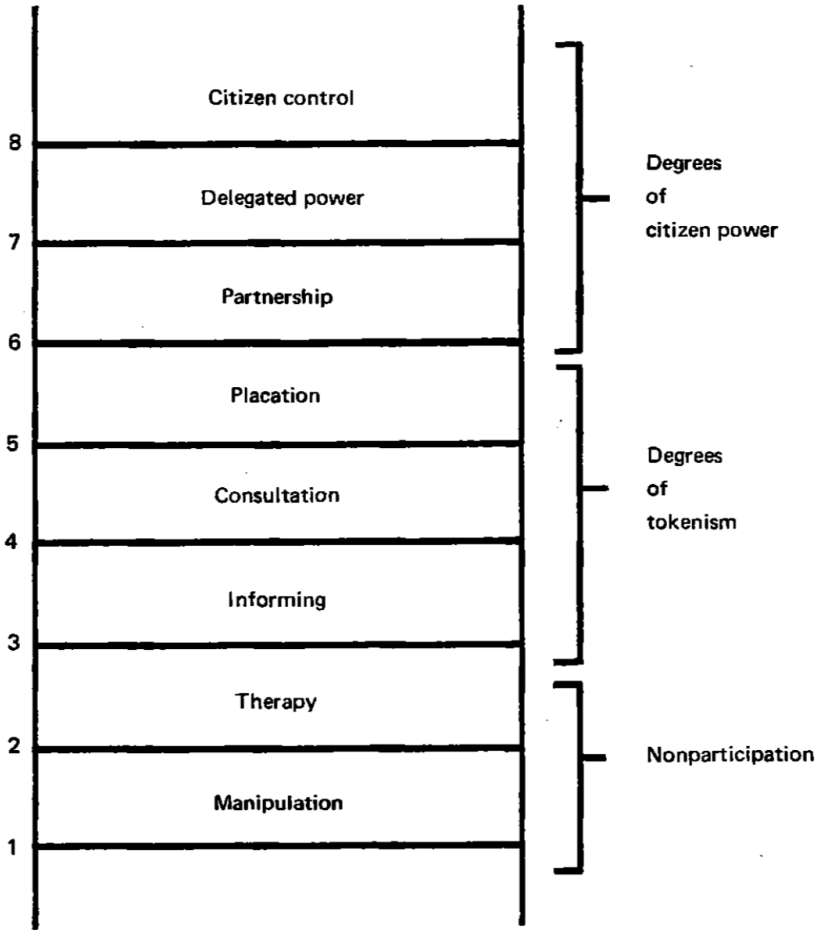
> *"The idea of citizen participation is a little like eating spinach: no one is against it in principle because it is good for you"* — Sherry Arnstein, 1969, p. 216

The benefits and challenges of citizen engagement in planning processes, have been thoroughly discussed since the 1960s (Arnstein, 1969, Healey, 1997, Huxley, 2000, Fung, 2006). The decision to include citizens can be an "empty ritual" or have the "power needed to affect the outcome", depending on the influence citizens have in the process (Arnstein, 1969, p. 216). In the now acclaimed article, *A Ladder of Citizen Participation*, Arnstein (1969) describes the degrees of citizen power on an eight rung ladder, shown in Figure 2.1.1.

The bottom two rungs of the ladder are manipulation and therapy, which are a form of "non-participation" (Arnstein, 1969, p. 217). At this level, citizens are not encouraged to participate in the planning, but are there to be educated about the decision (Arnstein, 1969). The next level up includes informing, consultation and placation, which are a form of participation known as 'tokenism' (Arnstein, 1969). In these processes, citizens may "hear and be heard", however citizens' do not have "muscle" in the decision-making process (Arnstein, 1969, p. 217). The top rungs of the ladder include partnership, delegated power and citizen control (Arnstein, 1969). This is where citizens have power, and are in a position to negotiate and decide (Arnstein, 1969).

Arnstein's (1969) Ladder of Citizen Participation is a useful tool for governments interested in engaging citizens. The OECD working group on strengthening government-citizen connections, state that governments do citizen engagement for different reasons (OECD,

Figure 2.1.1: Rungs on a ladder of citizen participation



SOURCE: Arnstein (1969, p. 217)

2001). Motivations include strengthening democracy through increased public participation, enhancing the transparency and accountability of the government, and achieving better service delivery (OECD, 2001). The underlying principle is that "by ensuring all interested parties have a chance to participate, you increase the legitimacy of the decision-making process" (OECD, 2001, p. 22).

The differentiation between process and outcome is an important part of understanding citizen engagement. Figure 2.1.2 summarizes the advantages of citizen participation from the perspective of citizens and the government. Irvin and Stansbury (2004) mention education and legitimacy of decisions as advantages of the decision *process*. Breaking gridlock and

avoiding litigation costs are described as *outcomes* of the participation (Irvin and Stansbury, 2004).

Figure 2.1.2: Advantages of citizen participation in decision-making

	Advantages to citizen participants	Advantages to government
Decision process	Education (learn from and inform government representatives) Persuade and enlighten government Gain skills for activist citizenship	Education (learn from and inform citizens) Persuade citizens; build trust and allay anxiety or hostility Build strategic alliances Gain legitimacy of decisions
Outcomes	Break gridlock; achieve outcomes Gain some control over policy process Better policy and implementation decisions	Break gridlock; achieve outcomes Avoid litigation costs Better policy and implementation decisions

SOURCE: Irvin and Stansbury (2004, p. 56)

The participation of "the governed in their government" is the foundation of democracy (Arnstein, 1969, p. 216). Irvin and Stansbury (2004) state that "if citizens become actively involved as participants in their democracy, the governance that emerges from this process will be more democratic and more effective" (Irvin and Stansbury, 2004, p. 55). For these reasons, governments continue to pursue citizen engagement, however "engaging communities in a meaningful way in planning remains a challenge" (Parker and Street, 2018, p. vi).

2.2 Challenges of citizen engagement in planning

Although there are many reasons for doing citizen engagement, there are also challenges. Fung (2006) states that by using a ladder to visualize citizen engagement, it places partnership, delegated power and citizen control *above* other types of citizen engagement. Fung (2006) argues that "there may indeed be contexts in which public empowerment is highly desirable, but there are certainly others in which a consultative role is more

appropriate for members of the public than full 'citizen control'" (p. 67). In these cases, it is beneficial to have an expert who accepts responsibility for the decision.

In Table 2.2.1, Irvin and Stansbury (2004) address the disadvantages of citizen participation. For people, citizen participation can be time consuming and "pointless" if their contributions are not taken into consideration (Irvin and Stansbury, 2004, p. 58). For the government, citizen participation is time consuming, expensive and can backfire if the process is not handled properly (Irvin and Stansbury, 2004). By giving citizens more power, the government loses some control of the process (Irvin and Stansbury, 2004). Spending resources on citizen participation, may also mean there is less money for the implementation of the project (Irvin and Stansbury, 2004).

Table 2.2.1: Disadvantages of citizen participation in decision-making

	Disdvantages to citizen participants	Disdvantages to government
Decision process	Time consuming (even dull) Pointless if decision is ignored	Time consuming Costly May backfire, creating more hostility toward government
Outcomes	Worse policy decision if heavily influenced by opposing interest groups	Loss of decision-making control Possibility of bad decision that is politically impossible to ignore Less budget for implementation of actual projects

SOURCE: Irvin and Stansbury (2004, p. 58)

In cases where there are resources for citizen engagement, it can still be difficult to engage people in planning processes. Baxter (2017) states that citizens tend to engage *more* when they feel passionate about a topic, and *less* when they do not. The threshold for participation is the point at which people feel the benefits of participating outweigh the time and effort required (Baxter, 2017). There are many issues competing for people's attention, so this 'threshold' is an important consideration.

Special interest groups can also take over citizen engagement processes (Karlsson, 2012). In democratic processes, politicians make decisions on behalf of those who elected them. When citizens make decisions, there may be a bias based on *who* is participating. Fung (2006) states that people who are "wealthier and better educated" tend to participate more than those who are not (p. 67). People with "special interests" or "stronger views" are more likely to engage. That is why these voices are often overrepresented in planning processes (Fung, 2006, p. 67).

2.3 The role of digital platforms

Traditional forms of citizen participation, such as in-person meetings and workshops, require "a very active attempt to engage" (Baxter, 2017, p. 9). Digital platforms can lower the threshold by "smoothing communication between citizens and government, providing new forms and more convenient ways to participate, supplying citizens with information needed, and reducing costs for participation" (Zheng and Liao, 2014, p. 118).

In 2020, the most actively used digital platforms included social media platforms, such as Facebook, YouTube, WhatsApp and Instagram, each with over a billion monthly active users (Stout, 2020). Governments have embraced the use of digital platforms for one-way communication, although two-way engagement has been "harder and slower than expected" (Charalabidis and Koussouris, 2012, p. 242).

Falco and Kleinhans (2018) argue that it is not a lack of advanced technological solutions preventing municipalities from engaging with citizens. A Google search of *digital platforms for citizen engagement* yields many alternative platforms to try. Falco and Kleinhans (2018) found that these digital platforms, which are known as digital participatory platforms (DPPs), share many of the same features. These platforms promote activities including:

(1) Collection and sharing of ideas, solutions, local knowledge;

(2) Discussion and collaboration through opinion maps, surveys, commenting, forums;

(3) Simulation tools such as budget allocation and 3-D design;

(4) Voting and ranking of ideas; and

(5) Analytics features of comments, votes and general user activity on the platform. (Falco and Kleinhans, 2018, p. 18)

In their research, Falco and Kleinhans (2018) identified several contextual, technological and organizational factors, which prevent governments from adopting digital platforms. This thesis builds on this research, by exploring specific drivers and challenges for municipalities implementing digital platforms in citizen engagement processes.

3 Research Questions

Digital platforms are transforming the way governments communicate with people. Governments have embraced the use of digital platforms for one-way communication. The adoption of digital platforms for two-way dialogue and decision-making has been comparatively slow.

The main research question of this thesis is:

- What are the drivers and challenges for municipalities implementing digital platforms in citizen engagement processes?

To answer the main question, the following supporting questions will also be answered:

- What is the role of the planner in the adoption of digital platforms?
- What are the implications of using digital platforms, for planning theory and practice?

The drivers and challenges of implementing digital platforms in citizen engagement processes, will be considered from the perspective of the municipal government. A similar study could be conducted at other levels of government, or from the perspective of citizens.

4 Theory

This section establishes the theoretical framework, that will allow the drivers and challenges of implementing digital platforms to be discussed. The main theoretical considerations for this thesis concern communicative planning theory and the role of the planner. Three models of citizen engagement are presented in this chapter, to illustrate how digital platforms fit within existing frameworks of citizen engagement.

4.1 Communicative planning theory

Communicative planning theory is defined as a "participatory and dialogue endeavour involving a broad range of stakeholders and affected groups in socially oriented and fairness-seeking developments of land, infrastructure, or public services" (Sager, 2018, p. 93). Communicative planning is connected to digital platforms for participation, because they share a common goal: to engage people in planning processes. Where digital platforms are the *tool* to engage citizens, communicative planning theory is the *approach*.

Communicative planning has been put forward in response to synoptic planning, which is the dominant tradition in planning (Hudson, 1979, Sager, 2018). In synoptic planning, the goal is to achieve the optimal solution to a given problem, using the fewest resources possible (Tarter and Hoy, 1998). Synoptic planning works when there is a well-defined problem, many alternatives, and good baseline information (Medalen, 2019). In many cases, planners do not have a well-defined problem, alternatives or baseline information. Instead, communicative planning relies on giving and collecting information, facilitation, mediation and consensus building among stakeholders (Sager, 2018).

In communicative planning, planners aim to create "a wider dialogue, solution-seeking, and decision-oriented deliberation" (Sager, 2018, p. 95). In communicative planning theory, planners need to balance opposing forces including:

(1) representative and direct democracy,
(2) bureaucratic and ad hoc action,
(3) professional expertise and the influence of lay people,

(4) central ambitions and local interests; and

(5) participants' interests and interests of those not present. (Sager, 2019)

Communicative planning strives to create a context where all affected groups can take part "freely and equally" in a dialogue, to find the best solution (Sager, 2019). In contrast to how synoptic planning focuses on the *product* of planning, communicative planning is focused on the *process* (Sager, 2009).

The main criticisms of communicative planning are that it lacks importance attached to outcomes, relies too heavily on consensus and is susceptible to take-over by special interest groups (Sager, 2019). Bengs (2005) worries that communicative planning theory introduces "a planning system where 'stakeholders' rather than the democratically elected representatives of the population as a whole hold sway" (p. 2). This will be an important consideration in the discussion, as digital platforms may exacerbate these concerns.

4.2 Role of the planner

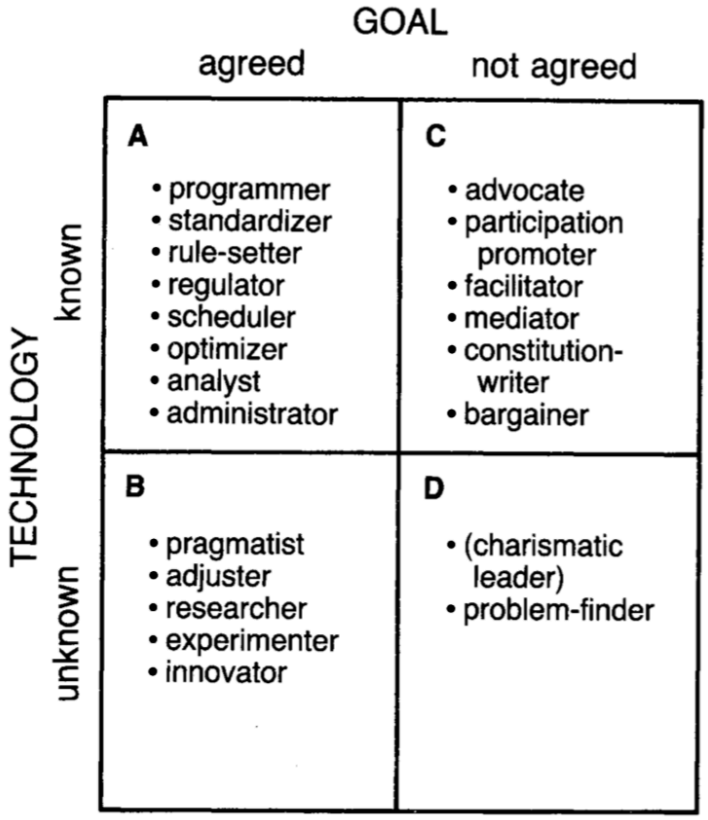
The role of the planner varies widely depending on the planning tradition. For example, in the synoptic planning tradition, the planner has the role of an 'expert' in decision-making processes (Olesen, 2018). In communicative planning, the planner is positioned as a facilitator, mediator or moderator (Olesen, 2018, Sager, 2019). This change of role is connected to the change of planning conditions. Figure 4.2.1 categorizes different planning conditions where the goal and technology is either "agreed or known", or "not agreed or unknown" (Christensen, 1985).

Figure 4.2.1 depicts four scenarios in planning, which places the planner in different kinds of roles. In scenario 'A', the goal is agreed upon and the technology is known. This is the domain of synoptic planning and the planner has the role of the regulator, rule-setter, and optimizer. In situation 'C', the technology is known, but the goal is not agreed upon. This is where communicative planning is the best fit, and the planner has the role of a facilitator or mediator in the planning process.

Sager (2019) states that unlike advocacy planning, where planners talk on behalf of certain groups, communicative planners need to work to include people through dialogue. Dialogue

is more than a conversation and different from debate because nobody "wins a dialogue" (Sager, 2019). The planners' role is to mediate and strive for comprehensibility, sincerity and legitimacy in what is being said among stakeholders (Sager, 2019). In this paradigm, "the ideal has changed from expert planning with a public involvement supplement, to participatory planning with a technical-economic expert supplement" (Sager, 2018, p. 96).

Figure 4.2.1: Planning roles categorized by planning conditions



SOURCE: (Christensen, 1985, p. 69)

Communicative planning challenges the generally accepted notion that the planner is the trained expert, whose voice should have more sway in the decision-making process (Innes, 1998). Positioning the planner as a facilitator has been controversial, because "how can you have a profession (whose *raison d'être* is the application of expert knowledge) if you agree that there is no such thing as expert knowledge, only different opinions to be brought together" (Allmendinger, 2009, p. 220-221). Similar concerns may apply to the use of digital

platforms in citizen engagement processes, which pose a threat to the 'expert knowledge' of the planner.

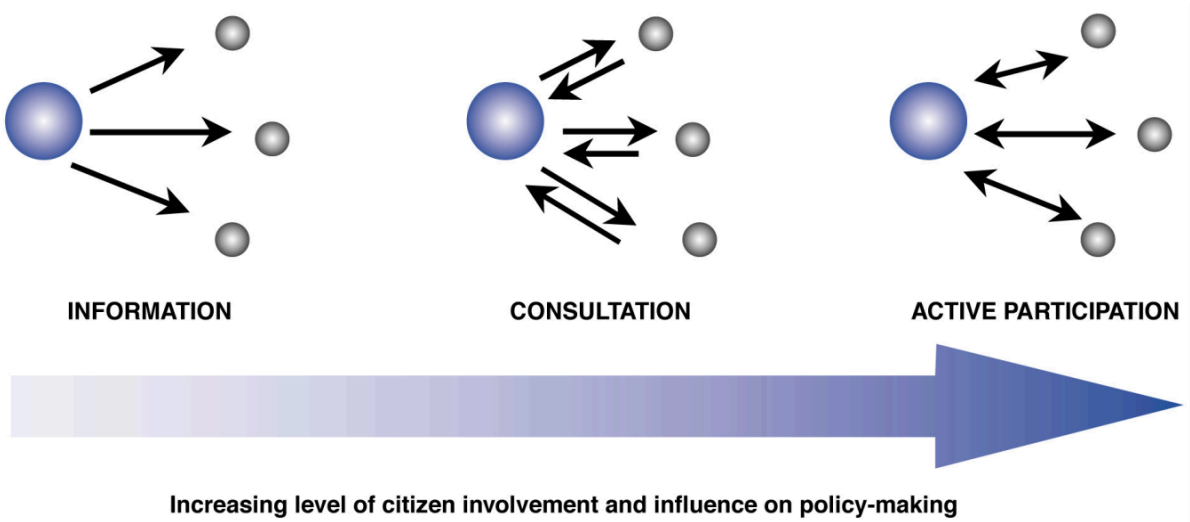
4.3 Models of citizen engagement

To understand how digital platforms fit with existing theories of citizen participation, an overview of various models of citizen engagement are provided. The background section introduced Arnstein's (1969) Ladder of Citizen Participation, as this is one of the most well-known tools. However, there are many different models for understanding the role of citizens in decision-making processes. This thesis has used the Active Participation Framework (OECD, 2001) and the Spectrum of Public Participation (IAP2, 2018) because they illustrate the relationship between planners and people in alternate ways to Arnstein.

Active Participation Framework

The Active Participation Framework, illustrated in 4.3.1, was developed by the Organisation for Economic Co-operation and Development's (OECD) public management service working group on strengthening government-citizen connections. The 3 levels of citizen engagement, information, consultation and active participation are defined by "the nature and direction of

Figure 4.3.1: Active Participation Framework



SOURCE: OECD (2001, p. 23)

the relationship between government and citizens" (OECD, 2001, p. 23). The definitions of these terms, taken directly from the OECD's public management service working group, are as follows:

(1) **Information** is a one-way relationship in which government produces and delivers information for use by citizens. It covers both "passive" access to information upon demand by citizens and "active" measures by government to disseminate information to citizens. Examples include: access to public records, official gazettes, government websites.

(2) **Consultation** is a two-way relationship in which citizens provide feedback to government. It is based on the prior definition by government of the issue on which citizens' views are being sought and requires the provision of information. Governments define the issues for consultation, set the questions and manage the process, while citizens are invited to contribute their views and opinions. Examples include: public opinion surveys, comments on draft legislation.

(3) **Active participation** is a relation based on partnership with government, in which citizens actively engage in defining the process and content of policy-making. It acknowledges equal standing for citizens in setting the agenda, proposing policy options and shaping the policy dialogue – although the responsibility for the final decision or policy formulation rests with government. Examples include: consensus conferences, citizens' juries. (OECD, 2001, p. 23)

In Figure 4.3.1, the arrows represent the flow of information between the government and citizens. This model shows how at the 'information' level, information is only flowing from the government to citizens. At the 'consultation' level, information is flowing two-ways. It is not until active participation that the arrows meet in the middle, signifying a partnership. At the level of 'active participation', citizens are given equal standing in setting the agenda, however the responsibility for the final decision still "rests with government" (OECD, 2001).

The Active Participation Framework was created for governments looking to improve their relations with citizens. At the time the model was created, the provision of information was the focus of OECD Member countries (OECD, 2001). Active participation, as defined in the

framework, was only seen in a few OECD Member countries (OECD, 2001). The intention of the model was not to create a hierarchy between the three levels of participation, but rather increase awareness and improve the quality of information, consultation and participation (OECD, 2001).

Spectrum of Public Participation

The Spectrum of Public Participation, shown in Figure 4.3.2, was first developed in 2000 to "help groups define the public's role in any public engagement process" (IAP2, 2018). This model uses 5 steps: inform, consult, involve, collaborate and empower to describe the public's level of involvement (IAP2, 2018). This model has been used by governments, organizations and community groups to understand how the level of citizen involvement can change, in different contexts and planning processes.

Figure 4.3.2: Spectrum of Public Participation

INCREASING IMPACT ON THE DECISION

	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
PUBLIC PARTICIPATION GOAL	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision making in the hands of the public.
PROMISE TO THE PUBLIC	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.

SOURCE: IAP2 (2018)

An important element of this model is that it clearly states the promise made to the public. For example, at the level of 'inform' the commitment to the public is to keep people informed

(IAP2, 2018). However, in 'empower', the commitment is to implement what the public decides (IAP2, 2018). What is missing from this model, are examples of what this commitment looks like at different levels. Examples at the level of 'inform' could include websites, where as examples of 'empower' could include participatory budgeting. Without providing examples, the model is difficult to translate to concrete actions.

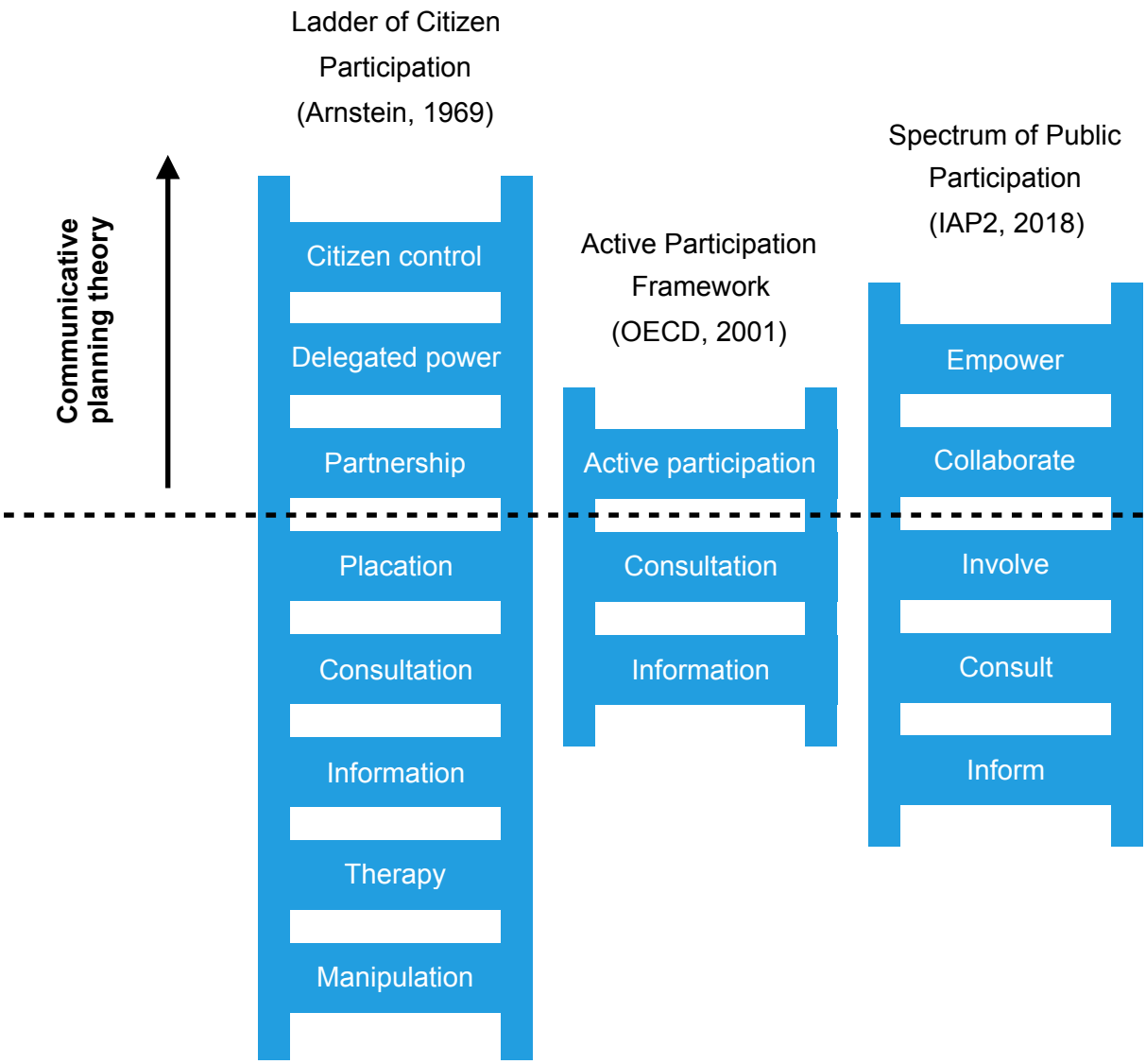
Similar to the Active Participation Framework, this model is not suggesting all planning processes need to be decided by the public. The intention of the Spectrum of Public Participation is to show that different levels of engagement are appropriate depending on the goals, time frames, and resources (IAP2, 2018). It is a tool for planners to visualize the role of citizens, and set expectations of what the public can expect from the process.

Ladders of Citizen Engagement framework

The Active Participation Framework and Spectrum of Public Participation illustrate citizen participation in different ways. In Figure 4.3.3, these models are shown as ladders for comparison with Arnstein's (1969) Ladder of Citizen Participation. All of the 'rungs' above the dotted line, can be considered communicative planning processes, because they call for significant degrees of dialogue and consensus building.

The main challenge of the ladder model, is that it implies a hierarchy of alternatives. Arnstein (1969) recognizes that the ladder "is a simplification, but it helps to illustrate the point that so many have missed — that there are significant gradations of citizen participation" (p. 217). This model will be used in the discussion, to situate the use of digital platforms from the case studies, in the framework.

Figure 4.3.3: Ladders of Citizen Engagement framework



SOURCE: Adapted by author from Arnstein (1969), OECD (2001) and IAP2 (2018)

5 Methods

This thesis has used a qualitative case study research method to explore the drivers and challenges of implementing digital platforms in citizen engagement processes. This chapter will provide an overview of the case study method, the selection of the cases, the sources of data and the data quality.

5.1 Case study method

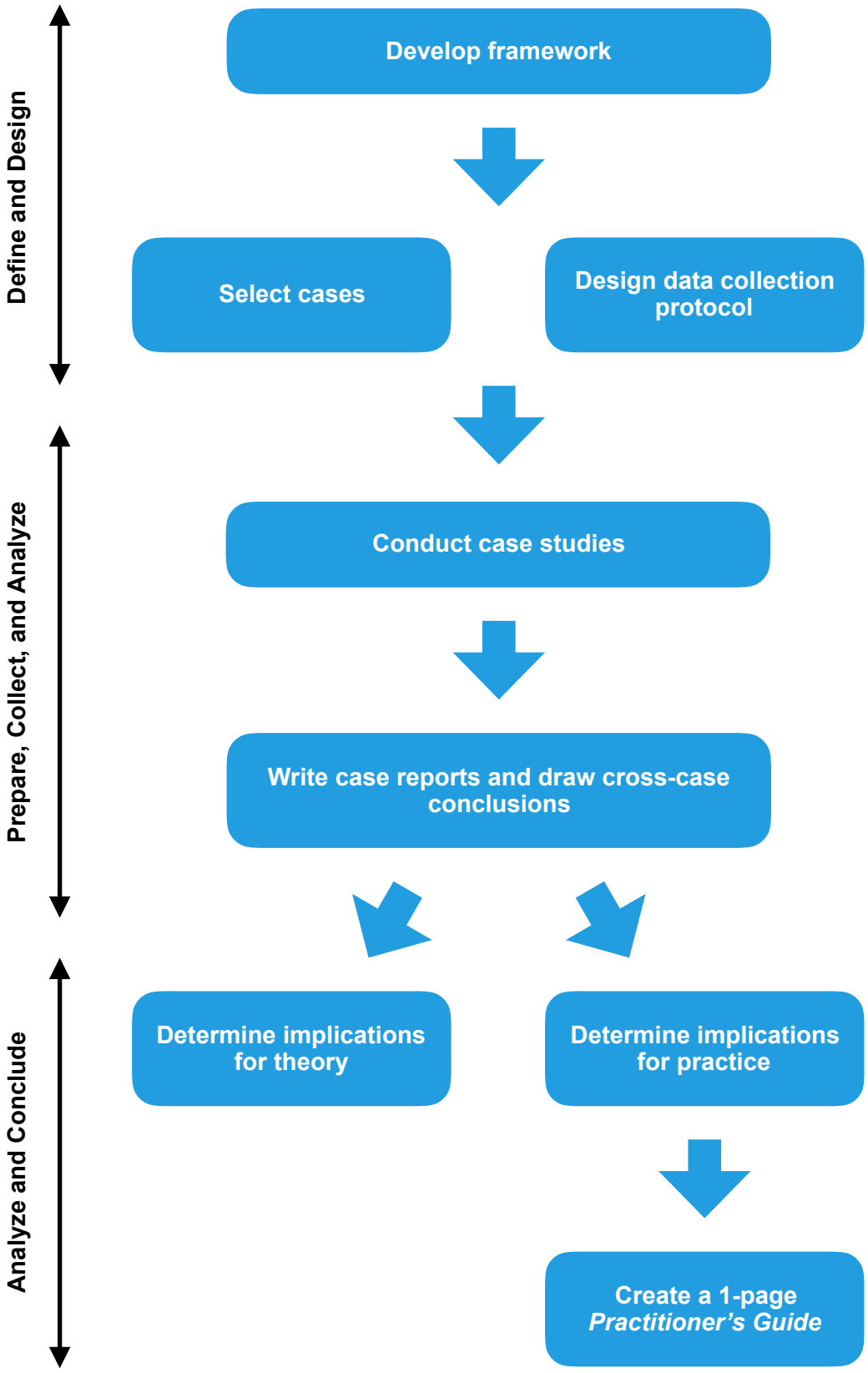
The case study method is "but one of several ways of doing social science research" (Yin, 2009, p. 2). In this method, the researcher conducts a detailed examination of a single case or multiple cases (Yin, 2009). In any given case study, the researcher may be interested in studying one or several "units of analysis" (Yin, 2009, p. 46). The case study method has been used in many different contexts including "psychology, sociology, political science, anthropology, social work, business, education, nursing, and community planning" (Yin, 2009, p. 4).

Case study research can be exploratory, explanatory or descriptive, depending on the research question (Yin, 2009). This thesis is an *exploratory* case study, because it explores what the drivers and barriers are of implementing digital platforms in citizen engagement processes. The goal of an exploratory case study is "to develop pertinent hypotheses and propositions for further inquiry" (Yin, 2009, p. 9).

An often heard criticism of the case study method, is that it cannot be used to "provide reliable information about the broader class" and that it cannot be used for hypotheses testing and theory building (Flyvbjerg, 2006). However, this is not necessarily true (Flyvbjerg, 2006). The most important task when conducting case study research, is to follow a "rigorous methodological path" (Yin, 2009, p. 3). When a "rigorous methodology path" has been followed, case studies have produced significant contributions, for theory and practice, in their respective fields (Yin, 2009).

The case study method is illustrated in Figure 5.1.1, and will be described step by step in the following section.

Figure 5.1.1: Case study method



SOURCE: Adapted by author from COSMOS Corporation

Define and Design

Define and Design is the first step in the case study method (Yin, 2009). *Define and Design*, as shown in Figure 5.1.1, includes developing a framework, selecting cases and designing a data collection protocol. The framework, developed in the theory section of this thesis, will be used to explore how the role of the planner and the municipality's approach to citizens engagement changes with the implementation of digital platforms.

The selection of cases and the design of the data collection protocol have been shown in parallel in Figure 5.1.1, as one informs the other. For this thesis, two cases have been selected: Trondheim, Norway and Helsinki, Finland. Yin (2009) states that the evidence from two or more cases is often considered more "compelling" and can lead to a more "robust" study (p. 53). These cities are both located in Nordic countries and have tested digital platforms, including Decidim, to engage citizens.

The final part in *Define and Design*, is designing the data collection protocol. Yin (2009) states that when conducting multiple case studies "a major insight is to consider multiple cases as one would consider multiple experiments", to ensure that the design is replicable (p. 53). A data collection protocol is the list of case study questions and potential sources of evidence for answers (Yin, 2009). An overview of the main sources of evidence and how they were handled in this study, has been provided in 'Data sources'.

Prepare, Collect, and Analyze

Prepare, Collect, and Analyze is the next step in the case study method. It includes conducting the two case studies, writing case reports and drawing cross-case conclusions. This thesis will collect information on three digital platforms in Trondheim, and one in Helsinki. The City of Helsinki has focused their efforts on implementing one large-scale digital platform for citizen engagement, where Trondheim is still in the process of experimenting with several platforms. Case reports have been written as a narrative, with relevant information for answering the main research question. Finally, cross-case conclusions are presented and summarized, according to contextual, technological and organizational factors.

Analyze and Conclude

Analyze and Conclude is the final step in the case study method. This step involves determining the implications of the findings for theory and practice. To understand the implications for theory, the findings will be connected to communicative planning theory and the role of the planner. To connect the findings to practice, a one-page practitioner's guide will be created and included in Appendix C.

5.2 Selection of cases

In this thesis, two case studies have been selected. The first case study, was the Trondheim Municipality. It was selected because the municipality was testing digital platforms for citizen engagement, and the author was part of the project team conducting this work. Being a member of the project team, and having the role of a researcher, had advantages and challenges. The main advantage was being able to witness the drivers and challenges of implementing digital platforms first-hand. The position on the team made it easier to access relevant resources and arrange interviews with experts. A challenge of being on the project team, was getting too close to the subject matter. As a team member and a researcher, it was challenging to report findings and conduct an analysis in an objective way.

The City of Helsinki was selected as the second case study, to bring a different perspective to this thesis. The City of Helsinki was chosen because they have been a leader in implementing digital platforms in citizen engagement processes (City of Helsinki, 2019b). They recently used the digital platform, *Decidim*, in a wide-spread citizen engagement process, which was the same platform the author was testing with the Trondheim Municipality. The City of Barcelona was another potential case study, as this was where the Decidim platform was developed and tested extensively. In the end, Helsinki was selected because it was a Nordic country with a context more closely comparable to Trondheim.

5.3 Data sources

The information to write this thesis has come from academic literature, in-depth interviews and 'grey' literature, including websites, reports and documents. These sources have contributed at different stages in the research process. The following sections provide a detailed description about how the data has been collected and used.

Academic literature

Academic literature, including articles and books, have been collected to provide background information about citizen engagement and the use of digital platforms in citizen engagement processes. Academic literature has been important to discuss the role of the Planner and various models of citizen engagement. Together, the information collected through articles and books has formed the theoretical framework of this thesis.

Interviews

The findings of this thesis come primarily from 10 in-depth interviews (see Appendix A). These interviews have been conducted with professionals in Trondheim and Helsinki, working with citizen engagement and digital platforms. The interviews have been conducted with a semi-structured interview guide (see Appendix B) to help guide the interview process and provide some structure to the responses.

All of the interviews were conducted over video calling. This enabled interviewees to enable 'screen sharing' if they wished. In many instances, this proved useful to showcase the use of the digital platform. Video calls were recorded, with permission from participants, and specific details could be followed-up further.

Grey literature

Grey literature, such as websites, reports and documents, were used to supplement the information provided in the in-depth interviews. Most of the information about the digital platforms and their intended use came from these sources of grey literature. It also allowed to

position the use of the specific digital platform in the greater context. As citizen engagement processes are often public, government websites and reports provided a wealth of information about the process and results.

5.4 Data quality

The findings in this thesis are based on qualitative data from 10 in-depth interviews. Given the limited number of interviews, the results are not intended to be made in to concrete generalizable conclusions. This study has been conducted in the context of Nordic countries, where there has been a culture of citizen engagement and resources available to conduct citizen engagement processes. The conclusions should not be considered directly applicable in other contexts, but rather a narrative from the experiences of two case studies.

6 Case Reports

The information for these two case reports comes from 10 in-depth interviews with professionals working with planning, digital platforms and or citizen engagement. Scholarly and grey literature is used to supplement the information provided in these interviews. The first case report will describe the Trondheim Municipality's implementation of the digital platforms *Engage Lab, Leaflet* and *Decidim*. The second case report details the implementation of *Decidim* by the City of Helsinki.

6.1 Implementing *Engage Lab, Leaflet* and *Decidim* in Trondheim, Norway

Trondheim is the third most populous city in Norway, with a population of 200,000 people. In 2018, the City Council tasked the Municipality to engage people more in the places they live (Trondheim Municipality, 2020a). The City Council stated that citizen involvement should be an integral part of how the Municipality operates and directed the Municipality to use digital platforms in citizen engagement more actively (Trondheim Municipality, 2020a). The City Council has initiated a pilot project for participatory budgeting, "in connection with the design of urban parks and the design of outdoor areas" (Trondheim Municipality, 2020a).

To accomplish these objectives, the Trondheim Municipality has undergone testing of various digital platforms. This case report focuses on three platforms used between 2018 and 2020:

(1) *Engage Lab* used in the 3C project;
(2) *Leaflet* not used in any specific process; and
(3) *Decidim* used in the "Borgerkraft" (Citizen power) project

All three of these platforms were intended to bring more voices into the planning process by providing alternatives ways of engagement. Visualization, images and maps were important elements of these digital tools. The Engage Lab and Leaflet platforms were designed to capture citizen inputs digitally, and the first round of testing has been completed. The Decidim platform is also used to collect inputs from citizens. Decidim can be used for participatory budgeting, a process where citizens decide how to spend part of a public budget. At the time of conducting this thesis, the Decidim pilot project is ongoing at the Municipality.

Engage Lab and the 3C project

Trondheim Municipality's Engage Lab platform: https://engagelab.uio.no/framtidstrondheim/#/viewer

Figure 6.1.1: Engage Lab and the 3C project

SOURCE: Adapted by author from Engage Lab

The Engage Lab platform, shown in Figure 6.1.1, is an engagement platform developed by the University of Oslo in the 3C (Co-Constructing City Futures) project (Wensaas et al., 2020). It is a simple platform, which gives users the ability to upload images, create proposals, and comment and vote on ideas (Interview with Planning Manager – Trondheim). The intention of the project was to construct ideas and visions for the future of Trondheim in 2050 (Wensaas et al., 2020). The process had 6 stages:

(1) Co-create the images in charrettes

(2) Comment and vote on the images – broaden to wider audience and allow for more images

(3) Create a strategy based on the inputs, with concrete proposals

(4) Comment and vote on the concrete proposals

(5) Modify strategy based on comments and voting; and

(6) Politically endorse the strategy. (Wensaas et al., 2020)

First, citizens were asked to create proposals and future images of the city by working in small groups in design charettes (Wensaas et al., 2020). The creation process was guided by the politically endorsed goals for the city (Wensaas et al., 2020). In this stage, hundreds of ideas were collected through drawings, pictures and proposals (Interview with Planning Manager – Trondheim). In the second stage, a wider audience of citizens were invited to participate using the Engage Lab platform. In this stage, citizens used the digital platform to agree, disagree or comment on the ideas generated in the charrettes (Wensaas et al., 2020). In the third stage, the planning office went through the ideas to create several concrete proposals (Wensaas et al., 2020). Professional illustrations were created to make proposals visually understandable for people (Wensaas et al., 2020). In the fourth stage, the proposals were posted in Engage Lab for a final round of voting and commenting. In this stage, hundreds of people participated through the Engage Lab platform. Final proposals were displayed in both a physical exhibition in the library, as well as digitally on Trondheim's project website: framtidstrondheim.no (Wensaas et al., 2020).

The product of using the Engage Lab platform were 19 proposals, which came directly from citizens or from expert advice, based on the inputs (Interview with Planning #2 – Trondheim). Figure 6.2.2, illustrates examples of proposals, which call for more green space, bathing areas, car-free streets and the protection of historic qualities of Trondheim. In the white banner along the bottom, the heart icon shows how many people support the proposal, the "x" indicates how many people do not support it, and the comment box is how many people have made comments.

In the initial version of the platform, there was a login page, as well as text about the platform and the engagement process (Wensaas et al., 2020). The planners and citizens both commented that this was a barrier for engagement, and that it was important to have a "low

Figure 6.2.2: Examples of proposals in Engage Lab

SOURCE: Engage Lab

threshold" for people to participate (Wensaas et al., 2020). In the updated version of the platform, the team removed the login page, simplifies the text and made the platform available on mobile devices (Wensaas et al., 2020). The planning team used Facebook advertisements and other digital channels, as well as in-person meetings and workshops to promote the use of the platform (Wensaas et al., 2020).

In the implementation of the platform, it was a challenge to make the platform look and feel like it belonged to the Trondheim Municipality. The logo was visible at the bottom of the page, however it was unclear who had ownership over the platform (Wensaas et al., 2020). The Engage Lab platform was developed by the University of Oslo, and the fonts and colours did not match the Municipality's website (Wensaas et al., 2020). The planners in

Trondheim worried that people would dismiss this as something "on the side", rather than an integral part of the planning process (Wensaas et al., 2020, p. 30).

The Planning Manager in Trondheim stated that the Municipality would like to use the platform again, but they wanted to own the platform (Interview with Planning Manager – Trondheim). The Engage Lab platform was easy to use, however it was challenging to customize. The Planning Manager stated "we need to understand the IT people better, and they need to understand us better" in order to implement a digital platform that works for planners and citizens (Interview with Planning Manager – Trondheim).

Planners reflected that people need to understand the process they are being invited to participate in, and who owns the material that is received through the platform (Wensaas et al., 2020). The Trondheim Municipality did not host the platform internally, but used Engage Lab to host it on their site (Interview with Planning Manager – Trondheim). This solution made sense, given that the Planning department did not have their own IT staff.

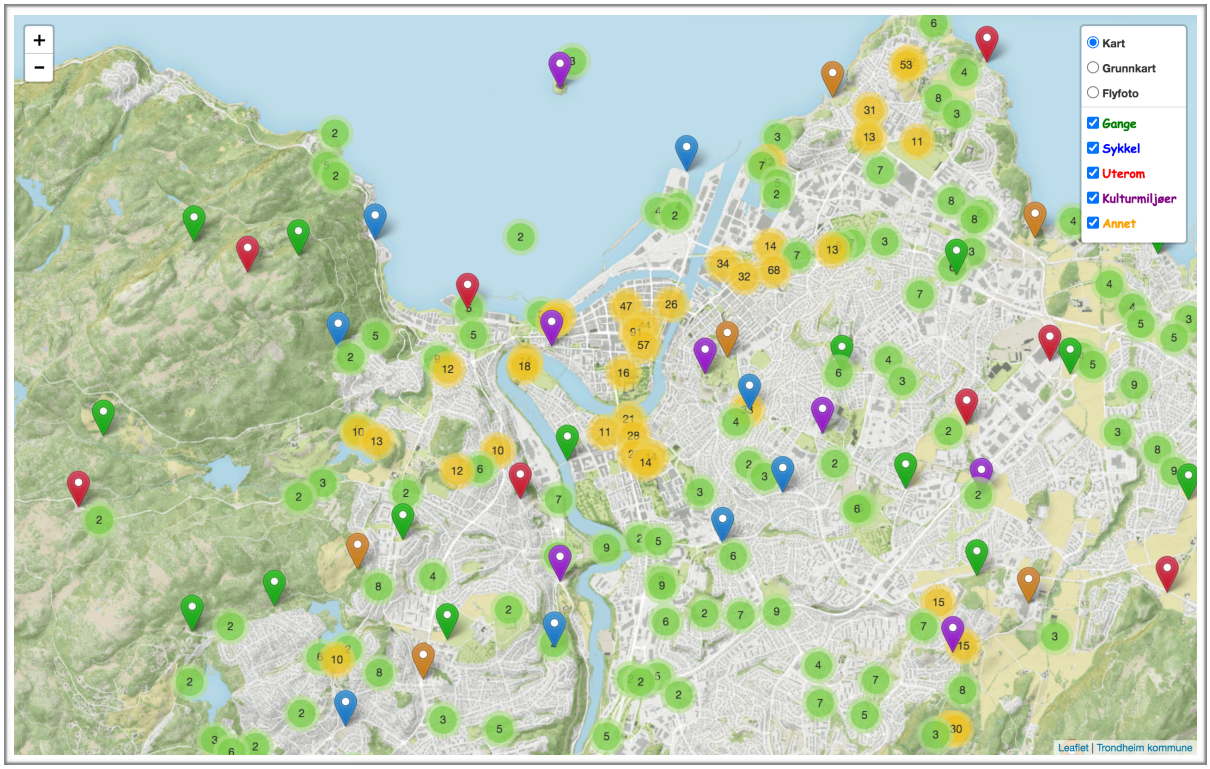
Leaflet and future planning

Trondheim Municipality's Leaflet platform: https://kart.trondheim.kommune.no/VPOR/default/attraktivitet

Leaflet, shown in Figure 6.1.3, is an open-source interactive mapping platform, which has been used by many different organizations (Leaflet, 2020). The Trondheim Municipality implemented the platform to capture ideas about how residents felt about different areas in the city (Trondheim Municipality, 2020b). The Trondheim Municipality's website hosting the Leaflet platform stated that they wanted suggestion about what would make the city more enjoyable to stay out, walk or cycle (Trondheim Municipality, 2020b).

The technical set up of Leaflet was "relatively easy", however it did require some competence with programming skills (Interview with Planner #1 – Trondheim). To implement the Leaflet platform, a base map of the city was uploaded, and a set of instructions for the type of comments and ideas was developed (Interview with Planner #2 – Trondheim). Five check boxes were provided, shown in Norwegian in Figure 6.1.3, to organize the

Figure 6.1.3: Leaflet in Trondheim



SOURCE: Trondheim Municipality

proposals by suggestions related to "walking", "bicycling", "courtyards", "cultural spaces" and "other" (Trondheim Municipality, 2020b). This allowed users to clicked on a particular place, select the most relevant category and write their proposal. The output for planners was a spreadsheet with all the written comments (Interview with Planning Manager – Trondheim).

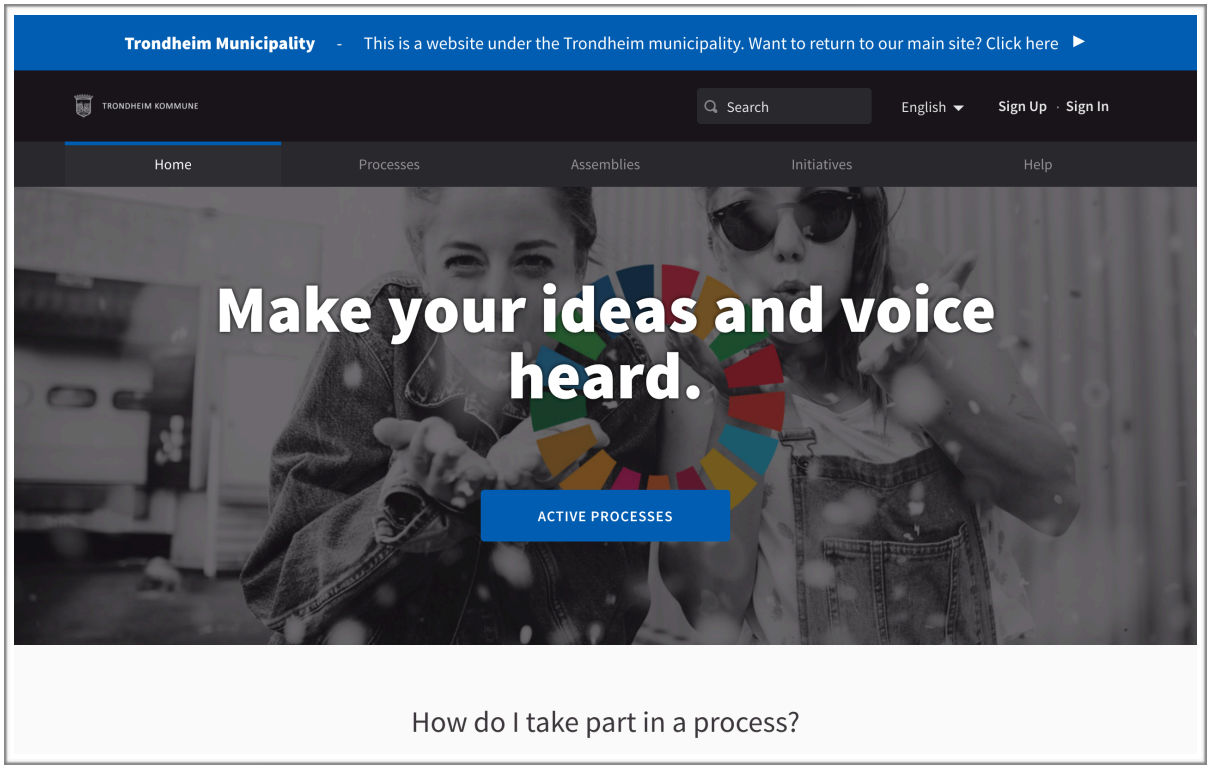
The Leaflet platform required no registration, which meant all comments and suggestion were given anonymously (Interview with Planner #2 – Trondheim). This was seen as an advantage, because it allowed people to easily provide input about what they would like to see happen at a specific location (Interview with Planner #2 – Trondheim). On the other hand, because it was anonymous, planners did not know who the suggestion came from (Interview with Planner #2 – Trondheim). This meant that it was difficult to follow-up with the residents, if something was unclear or if planners wanted to engage residents more in the process (Interview with Citizen Involvement Advisor – Trondheim).

The Leaflet platform was created to inform future plans, and to be used as a tool for planners and politicians to see what people cared about (Interview with Planner #2 – Trondheim). The platform was widely promoted by the Municipality, and over 4000 comments were made using the map (Interview with Planner #1 – Trondheim). Planners in Trondheim expressed concern that collecting inputs, at this scale, sets expectations among those who participate (Interview with Planner #1 – Trondheim). People do not want to give their time, and then see nothing happen (Interview with Planner #2 – Trondheim). This was a challenge for the planning department, as the implementation of the Leaflet platform had not been linked to any specific planning process or project.

Decidim and the Borgerkraft project

Trondheim Municipality's Decidim platform: https://borgerkraft.trondheim.kommune.no/

Figure 6.1.4: Decidim and the Borgerkraft project



SOURCE: Trondheim Municipality

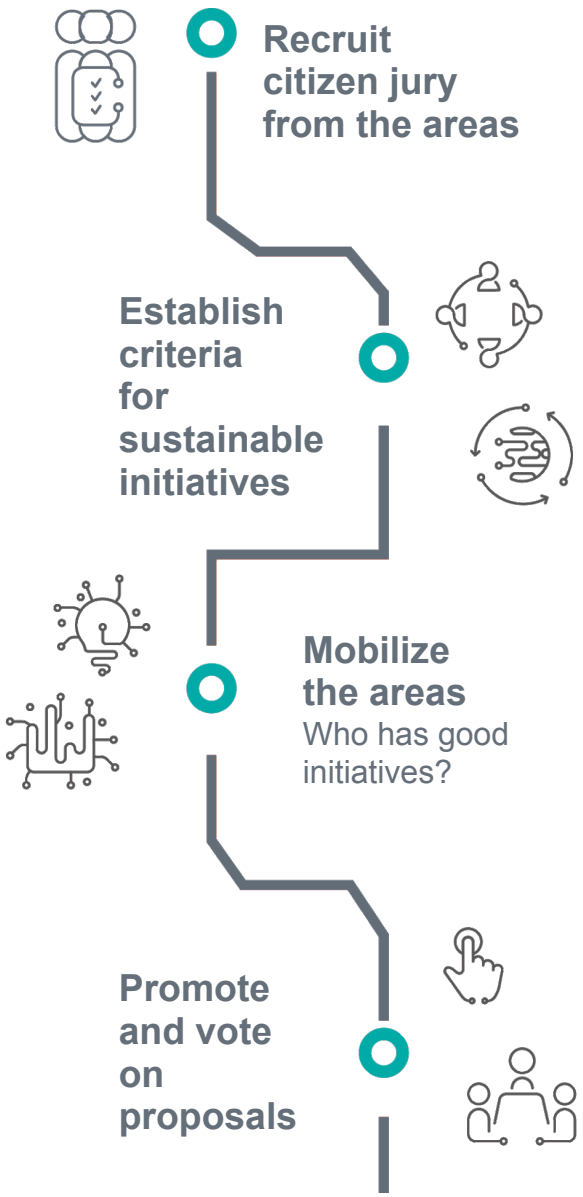
The Decidim platform, shown in Figure 6.1.4, is an open-source platform for cities and organizations to engage with citizens (Decidim, 2020b). The platform has been built with modules that allow for citizen proposals, debates, voting and participatory budgeting processes (Decidim, 2020a). The Trondheim Municipality selected Decidim, to test the use of citizen juries and participatory budgeting in a project called *Borgerkraft*. Citizen juries are a representative sample of citizens tasked with making a recommendation or decision. Participatory budgeting is a process where citizens decide how to allocate part of a public budget.

Borgerkraft, meaning *citizen power* in Norwegian, is the first participatory process of its kind in Norway (Citizen Involvement Advisor – Trondheim). For the first stage of the project, the Municipality has allocated one million Norwegian kroner to engage citizens in the development of local projects in the communities of Heimdal, Saupstad, Koldstad, Huseby, Romoslia and Flatåsen in Trondheim South (Citizen Involvement Advisor – Trondheim). The overarching aim of the project is to "engage people where they live", and work toward the United Nations Sustainable Development Goals (Citizen Involvement Advisor – Trondheim). These 17 goals serve as "a call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030" (United Nations Development Programme, 2019). The intended process for Borgerkraft, is illustrated in Figure 6.1.5.

At the time of writing this thesis, a citizen jury has been selected from residents in Trondheim South (Citizen Involvement Advisor – Trondheim). There have been several meetings with the Municipality to develop criteria for citizen project proposals, based on the UN Sustainable Development Goals (Citizen Involvement Advisor – Trondheim). However, the mobilization of the areas and promotion and voting on proposals has yet to occur (Citizen Involvement Advisor – Trondheim).

To implement Decidim, there has been testing carried out with internal processes at the Municipality. In one test, over a hundred leaders from across the Municipality worked in groups to create project ideas, which were captured using the Decidim platform (Interview with Citizen Involvement Advisor – Trondheim). The project team is currently conducting a risk assessment for the use of the platform, and working to make it available in both Norwegian and English (Interview with Citizen Involvement Advisor – Trondheim).

Figure 6.1.5: Borgerkraft – Participatory budgeting process



SOURCE: Adapted by author from the Trondheim Municipality

The implementation of Decidim has required staff to work together in new ways, to test the platform and the process. The Citizen Involvement Advisor in Trondheim noted "the competence in participatory processes is not high enough", which has been a significant barrier in how the Municipality develops and uses tools. The Citizen Involvement Advisor in Trondheim also mentioned General Data Protection Regulation, or GDPR, rules as an important consideration, as the platform collects personal information, such as names and emails.

The Decidim platform is intended to facilitate the collection of ideas, debates and voting on sustainably minded local projects, in particular in connection with the design of urban parks and the design of outdoor areas (Interview with Citizen Involvement Advisor – Trondheim). The Decidim platform is not intended to replace face-to-face meetings and workshops. but rather provide additional ways for people to participate (Interview with Citizen Involvement Advisor – Trondheim). Other municipalities in Norway are taking note of the potential of the Decidim platform. Several municipalities have asked Trondheim to help them set up Decidim to engage residents in their area (Interview with Citizen Involvement Advisor – Trondheim).

6.2 Implementing *Decidim* in Helsinki, Finland

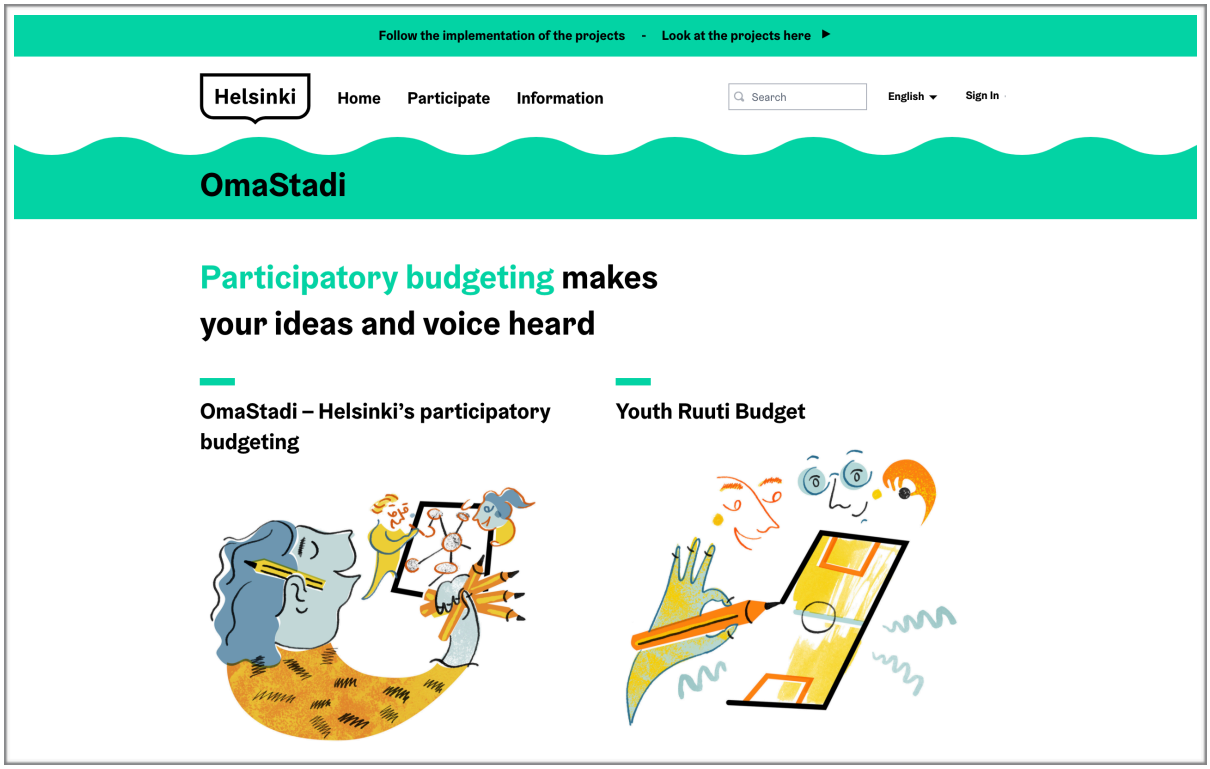
Helsinki is the capital of Finland, and is home to 648,000 inhabitants. In 2015, the government in Finland passed legislation stating that a "municipality's residents and service users have the right to participate in and influence the activities of the municipality" (Ministry of Finance Finland, 2015, p. 7). One way for local governments to do this, is through participatory budgeting (Interview with Project Manager #2 – Helsinki). Participatory budgeting is a process in which community members decide how to spend part of the public budget. In Helsinki, the City Council has allocated 4.4 million euro each year, for participatory budgeting and decided that the voting process should be conducted digitally (Interview with Development Manager – Helsinki). Since 2015, the City of Helsinki has focused their attention on developing the digital platform, *Decidim*, in a participatory budgeting process called OmaStadi.

Decidim and the OmaStadi project

City of Helsinki's Decidim platform: https://omastadi.hel.fi/

The Decidim platform, shown in Figure 6.2.1, is an open-source platform for cities and organizations to engage with citizens (Decidim, 2020b). To make participatory budgeting available for the people of Helsinki, the project team "chose Decidim mainly because, at that time, it was the most agile and easiest to develop" according to the needs of the city (Interview with Development Manager – Helsinki). It has different modules, which have been

Figure 6.2.1: Decidim and the OmaStadi project



SOURCE: City of Helsinki

designed to collect citizen proposals and facilitate debates, voting and participatory budgeting processes (Decidim, 2020a).

The Decidim platform was originally developed for the Barcelona City government, and its modular design makes it easily shared and redesigned by other cities (Interview with Project Manager #2 – Helsinki). Helsinki received a lot of support from the Decidim team in Spain, when setting up the platform for their participatory budgeting process (Interview with Project Manager #2 – Helsinki). Helsinki also made customizations and improvements to Decidim, including a security audit, which allowed the Decidim team to reduce the vulnerability of the platform (Interview with Project Manager #2 – Helsinki).

The City of Helsinki conducted two processes using the Decidim platform: OmaStadi – Helsinki's participatory budgeting and the Youth Ruuti Budget. OmaStadi was open for all inhabitants, aged 12 or older, to make project proposals and vote on how the 4.4 million euro should be spent (City of Helsinki, 2020b). The Youth Ruuti Budget focused specifically on

providing opportunities for young people, grades six to nine, to influence the budget of the city's youth services (City of Helsinki, 2020d). Implementing a digital platform for participatory budgeting was “very challenging” because it was a pilot for both the platform and the process (Interview with Development Manager – Helsinki).

Figure 6.2.2 shows the timeline of the OmaStadi process, from the introduction phase in October 2018, until the execution which is ongoing in 2020. People in Helsinki had multiple opportunities to get involved in the process (Interview with Development Manager – Helsinki). In the proposal phase, people were invited to come up with ideas for what they would like to see happen in the city (City of Helsinki, 2020c). OmaStadi received almost 1,300 proposals, out of which more than 800 were deemed viable (City of Helsinki, 2019b). After City experts determined which proposals were viable, more detailed plans were created by combining different proposals (City of Helsinki, 2020c). Then, City divisions created cost estimates for each of the plans, which were posted on the OmaStadi Decidim platform for voting (City of Helsinki, 2020c). All residents of Helsinki aged 12 or over, were able to vote for plans in one major districts of the city and plans for the entire city (Interview with Development Manager – Helsinki). The budget for plans affecting the entire city was 880,000 euro and individual districts budget’s ranged from 241,860 to 653,250 euro, depending on the population of the area (City of Helsinki, 2020b).

The project team implementing Decidim and the OmaStadi project, consisted of a Development Manager, a Citizen Co-operation Team Manager, a Project Manager for Digital Participation Channels and seven Borough Liaisons (City of Helsinki, 2020a). The Borough Liaisons were responsible for coordinating citizen engagement in the seven boroughs of Helsinki (Interview with Development Manager – Helsinki). These seven Borough Liaisons were “really actively working on the different areas” to engage people through in-person events and workshops, as well as online voting (Interview with Development Manager – Helsinki).

The marketing strategy for OmaStadi was “very aggressive” (Interview with Project Manager #1 – Helsinki). For the OmaStadi process, there was no additional marketing team (Interview with Development Manager – Helsinki). The project team “planned all the posters, how they should look, the slogans and so on” (Interview with Development Manager – Helsinki). At

Figure 6.2.2: OmaStadi – Participatory budgeting process

1

October 2018 – November 2018

Information and Workshop Introduction

You may begin to develop ideas before you submit your proposals via the OmaStadi.hel.fi service. Ideas can be developed on your own, with a friend or in a group. Borough liaisons will also arrange events where you can develop your proposal ideas.

2

November 2018 – December 2018

Proposals

You can submit a proposal for how a portion of Helsinki's budget should be spent. You can develop ideas on your own, in a larger group or by participating in the events arranged by borough liaisons. You can comment on and recommend proposals in the OmaStadi.hel.fi service.

3

December 2018 – January 2019

Evaluation of the Proposals

The City experts will evaluate the proposals in terms of the framework for participatory budgeting. Each proposal will be reviewed and marked according to whether it fits into the framework or not.

4

February 2019 – April 2019

Planning

Proposals are developed into plans in cooperation between the city's residents, employees, communities and companies. Plans are made by combining different proposals. All the proposals that fit into the framework of OmaStadi will be included in the plans.

5

April 2019 – June 2019

Cost Estimates

The City divisions will create cost estimates for the plans, where all the costs arising from the execution of the plan are considered.

6

October 2019

Voting

All residents of Helsinki aged 12 or over are eligible to vote in the participatory budgeting process. You can vote for plans for a major district and plans for the entire city. Voting takes place in the omastadi.hel.fi service.

7

November 2019 – September 2020

Execution

The Mayor of the City will confirm the result of the vote and authorizes the City services to execute the winning plans of the OmaStadi vote.

SOURCE: Adapted by author from the City of Helsinki

the beginning of the process, Borough Liaisons led workshops and events in the different areas of the city (Interview with Development Manager – Helsinki). As they moved closer to the voting phase, the marketing presence increased across the city. The Development Manager states that:

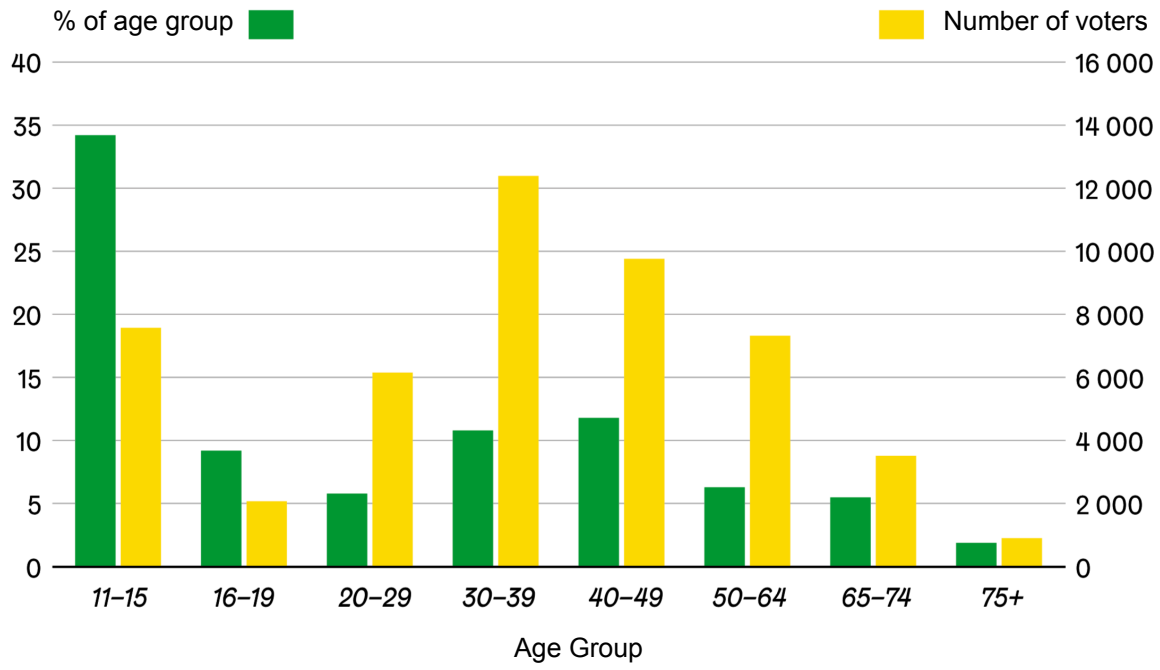
> When we started the voting phase, we were marketing in every possible place we could come up with. We had bus stops, posters, and in all the libraries and culture houses, all the health care centres, all the youth houses, all of the basic education schools, also we had posters and we were emailing teachers and schools were emailing to the parents. (Interview with Development Manager – Helsinki)

The project team had events in all of the service centres for older people and were helping seniors understand the proposals (Interview with Development Manager – Helsinki). In 45 different locations, mainly libraries, the proposals were printed off in paper, so people could read through them and decide which ones to vote for (Interview with Development Manager – Helsinki). Borough Liaisons posted in 140 different Facebook pages on a weekly basis, reminding people to vote (Interview with Development Manager – Helsinki). Youth workers were "actively helping the schools to organize the voting" and major newspapers mentioned the OmaStadi process in more than 30 articles (Interview with Development Manager – Helsinki).

The OmaStadi participatory platform had 69,284 registered participants and 49,705 people voted in the process (City of Helsinki, 2019a). This was almost an eight percent voter turnout, making it the largest digital citizen engagement process ever conducted by the public sector in Finland (City of Helsinki, 2019a). As seen in Figure 6.2.3, 34 percent of 11 to 15 year olds in Helsinki voted using the Decidim platform. The age group with the highest number of voters was 30 to 39 where over 12,000 individuals participated (Ahola, 2020). Voting was made secure through the use of online banking ID or mobile ID, for adults, and school ID for children (Interview with Development Manager – Helsinki).

As a result of the OmaStadi participatory budgeting process, 44 plans were voted to the implementation phase (City of Helsinki, 2019a). Most of the projects were in the physical environment (Interview with Project Manager #1 – Helsinki). 29 of the plans were for

Figure 6.2.3: Turnout and number of voters by age group - OmaStadi 2019



SOURCE: Adapted by author from Ahola (2020, p. 25)

investment projects, such as football fields, parks, trees and benches (Interview with Development Manager – Helsinki). The remaining plans were for events and activities. 10 projects were related to culture and leisure events, and five were connected to educational activities (Interview with Development Manager – Helsinki). Almost all of the projects are on track to be completed in 2020, with the exception of a project for a small solar ferry which will not be implemented until 2021 (Interview with Development Manager – Helsinki).

7 Findings

The previous chapter detailed the implementation of digital platforms in citizen engagement processes in Trondheim and Helsinki. This chapter identifies cross-case contextual, technological and organizational factors to consider when implementing digital platforms. At the end of each section, a summary table is provided highlighting the factors as either *drivers* or *challenges* for the municipality. In this thesis, a *driver* is a factor that is driving the municipality to implement digital platforms in citizen engagement processes. A *challenge*, is a factor that is challenging for the implementation of digital platforms.

7.1 Contextual factors of implementing digital platforms

This section presents cross-case *contextual* factors of implementing digital platforms in citizen engagement processes. The main contextual factors include the legal requirements of citizen engagement, accessibility of digital platforms, the threshold for citizen engagement and the culture of engaging citizens. These factors have been summarized as *drivers* and *challenges* in Table 7.1.1, at the end of the section.

Contextual factor 1: Legal requirements of citizen engagement

Trondheim and Helsinki both had policies and legal requirements, which motivated them to implement digital platforms in citizen engagement processes. The Local Government Act in Finland, states that a "municipality's residents and service users have the right to participate in and influence the activities of the municipality" (Ministry of Finance Finland, 2015, p. 7). It also states that local governments must arrange "opportunities to participate in the planning of the municipality's finances" (Ministry of Finance Finland, 2015, p. 7). Similar legislation has been adopted in Trondheim, aimed at the development of parks and outdoor areas (Trondheim Municipality, 2020a). These policies and legal requirements are important drivers for implementing digital platforms.

The Development Manager in Helsinki and the Planning Manager in Trondheim both identified data protection and data privacy laws as challenges, when implementing digital platforms. General Data Protection Regulation (GDPR) is the key concern in the European

context, as it applies to organizations who "target or collect data related to people in the EU" (Proton Technologies AG, 2020). By asking for names and emails of citizens, the municipality needs to process this personal data in accordance with GDPR. The Development Manager in Helsinki stated that:

> One of the biggest issues for us is this GDPR because for us it is very important to have the contact information for the people who have come up with the proposals. We have been inviting them, later on to our workshops, where we can meet them, and together with the civil servants develop the proposals further on, so we really need to have their contact information. (Interview with Development Manager – Helsinki)

GDPR becomes a problem when you want to track *who* is participating (Interview with Planning Consultant – Trondheim). If citizens are providing input anonymously, GDPR is less of a concern (Interview with Planning Consultant – Trondheim).

Contextual factor 2: Accessibility of digital platforms

In both cities, the population was "very tech savvy", with the majority of people having access to internet, laptops and mobile devices (Interview with Planning Consultant – Trondheim). The Development Manager in Helsinki remembered many people mentioning Facebook, as their source of information about the OmaStadi participatory budgeting process. The Planner #1 in Trondheim noted that the digital competence level in Norwegian society, was a main factor driving the adoption of digital platforms.

Digital illiteracy and the digital divide are challenges for the adoption of digital platforms in citizen engagement processes. To be digitally illiterate, is to struggle or not be able to use digital technology (United Nations, 2018). The digital divide refers to the division between those who have access to internet and digital technology and those who do not (United Nations, 2018). Challenges related to digital illiteracy and the digital divide were mentioned in interviews in both Trondheim and Helsinki.

In Trondheim, the Planner #1 warned that there is a danger to rely 100 percent on digital platforms, as it would leave older, disabled or otherwise disadvantaged groups behind. In

Helsinki, the Project Manager #1 stated "citizens' capability to use digital platforms is the most restrictive thing". The Borough Liaisons helped senior citizens to vote, digitally, using the Decidim platform (Interview with Development Manager – Helsinki). However, older people were still the least represented age group to vote in the participatory budgeting process (Interview with Project Manager #2 – Helsinki).

Contextual factor 3: Lowering the threshold for engagement

The Planner #1 in Trondheim stated that one of the goals of implementing digital platforms was to "decrease the threshold for coming with input". The Planning Consultant in Trondheim said, when it comes to attending physical meetings "most times don't work for most people" (Interview with Planning Consultant – Trondheim). One of the biggest advantages of using a digital platform is that it allows people to participate when it works for them (Interview with Planning Consultant – Trondheim).

In the 3C Project, the Engage Lab platform was initially set up with a login page. To lower the threshold for participation, the project team decided to remove the login page to make it easier for people to write their ideas (Wensaas et al., 2020). The benefit of removing the login page was that users did not have to make an account. Also, in the Norwegian context, people are more likely to share their opinion if it is anonymous (Interview with Planner Manager – Trondheim).

The challenge of making participation anonymous, is that planners are not able to follow-up with citizens to move these ideas forward (Interview with Citizen Involvement Advisor – Trondheim). In the case of the Leaflet platform, over 4000 comments were provided anonymously (Interview with Planner #1 – Trondheim). Citizens contributed their time, however planners did not have emails or names to take ideas further or enter partnerships with the community.

Contextual factor 4: Culture of engaging citizens

Trondheim and Helsinki both have a *culture* of citizen engagement. They are located in democratic countries with a "reasonable highly educated population" (Interview with

Planning Consultant – Trondheim). The Development Manager in Helsinki stated that people were "very engaged" in their areas, and this made the adoption of digital platforms much easier. The Citizen Involvement Advisor in Trondheim stated that the city was already "spending a lot of resources on citizen participation" and that people were "requesting a more user friendly way of joining conversations". The adoption of digital platforms for citizen engagement was seen as a logical next step to include more people, in a cost-effective way.

A challenge for implementing digital platforms, is that there are so many things competing for people's attention. The Citizen Involvement Advisor in Trondheim commented that there has been an "information explosion". Conversations are getting more complex, and people can not keep up with all of the issues (Interview with Citizen Involvement Advisor – Trondheim). The Citizen Involvement Advisor in Trondheim said that the Municipality needs to engage people in what they care about. People care about their own communities, which is why the approach of the Borgerkraft project is to "engage people where they live" (Interview with Citizen Involvement Advisor – Trondheim).

Table 7.1.1: Summary of *contextual* drivers and challenges

Contextual factors	Drivers	Challenges
1. Legal requirements of citizen engagement	• Laws requiring citizen engagement and participatory budgeting	• GDPR rules (data privacy and data protection)
2. Accessibility of digital platforms	• Tech savvy population • Availability of internet and digital technology	• Digital illiteracy • Digital divide
3. Lowering the threshold for engagement	• Participation can be flexible	• Follow-up and partnership with citizens
4. Culture of engagement	• Context of democracy • Educated population • Engaged in local areas	• Information explosion

Source: Author

7.2 Technological factors of implementing digital platforms

In this section, the cross-case *technological* factors of implementing digital platforms are presented. Technological factors from the case studies include the technical infrastructure, platform design and use of external consultants. The 3 factors have been shown as *drivers* and *challenges* for the municipality's implementation of digital platforms in the summary, Table 7.2.1.

Technological factor 1: Technical infrastructure

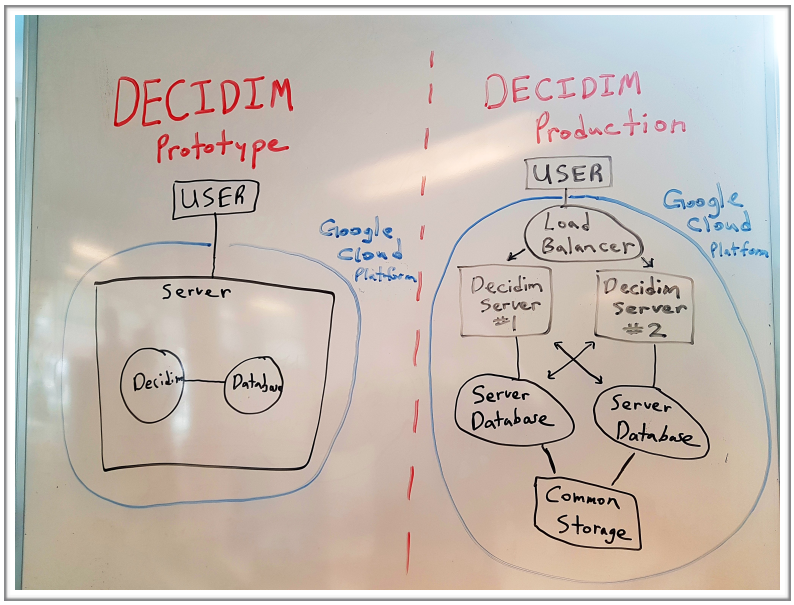
The infrastructure for digital platforms is one of the most important technological factors. The development of technological infrastructure can be a driver and a challenge for the municipality. Digital platforms can allow municipalities to handle inputs at a scale not possible through traditional forms of citizen engagement, such as in-person meetings and workshops (Interview with Planning Consultant – Trondheim). The set up of the digital platform will determine its credibility and usability for the engagement process (Interview with Project Manager #2 – Helsinki).

The Systems Developer in Trondheim and the Project Manager #2 in Helsinki, both stated that the number of *concurrent* users is an important consideration when developing a digital platform. Concurrent users refers to the number of people using the platform at the same time. For example, Helsinki had over 30,000 people try to use the Decidim platform on the last day of voting (Interview with Project Manager #2 – Helsinki). The platform was not set up to handle so many users at once and became overloaded (Interview with Project Manager #2 – Helsinki). The result was that some people were not able to access the platform and vote on the last day of the participatory budgeting process (Interview with Project Manager #2 – Helsinki).

The Systems Developer in Trondheim said that it is important to know the difference between prototyping and production. In Trondheim, the Decidim platform was set up as a prototype to see if the tool could be useful for the Municipality (Interview with Systems Developer – Trondheim). The platform and the database were hosted on one server, shown in Figure 7.2.1. An ideal set up would be to have 2 servers and 2 databases that would be in constant

communication (Interview with Systems Developer – Trondheim). This way if one failed, the other server would take over (Interview with Systems Developer – Trondheim).

Figure 7.2.1: Sketch of Decidim prototype and production



Source: Author

The Systems Developer in Trondheim and the Project Manager #2 in Helsinki, both discussed the "modular infrastructure" as an advantage of the Decidim platform. Decidim is a free open-source platform with modules that make it easy for municipalities to host participatory process, citizen initiatives and participatory budgeting (Decidim, 2020a). The modular design allowed the platform to be more flexible than building a digital platform "in-house" for a specific purpose (Interview with Project Manager #2 – Trondheim).

Technological factor 2: Platform design

The platform design is a technological factor for municipalities to consider, whether they choose to build the platform "in-house" or use a platform like Decidim, Engage Lab or Leaflet. The Systems Developer in Trondheim stated that "making a system that is actually engaging and useful" is one of the biggest challenges of implementing digital platforms in citizen engagement processes. The Project Manager #2 in Helsinki agreed that it needs to be easy to use, "like Facebook".

The *usability* of digital platforms is two-fold: usability for citizens and usability for municipal staff. In Helsinki, there were complaints about the usability of the Decidim platform by citizens (Interview with Project Manager #2 – Trondheim). As it was a new platform, the Project Manager #2 thought that this could have been due to the fact that people were not used to using it (Interview with Project Manager #2 – Helsinki). For example, "everybody can use Facebook because they are already used to using Facebook" (Interview with Project Manager #2 – Helsinki).

In Trondheim, there were usability complaints about the Engage Lab platform from the planners. In the final report about the 3C project and the use of Engage Lab, Wensass et al. (2020) state that:

> The planning office made it clear at the end of the case study that in order for them to use the platform in future participation processes, the content must be easy to edit in terms of adding new symbols, texts and images, and to some degree be able to develop the platform further according to their needs. (p. 31)

If the planning team is not able to customize the platform according to their needs, it can create challenges for the usability and the *credibility* of the platform.

The *credibility* of the platform is a technical factor, which can be both a driver and a challenge. The Planning Consultant in Trondheim stated that having a digital platform can bring legitimacy to citizen engagement processes, as more people can get involved. In Helsinki, 49,705 people voted using the Decidim platform (City of Helsinki, 2019a). People could log in to the platform with their banking ID, mobile ID or student ID, which helped the platform feel legitimate (Interview with Project Developer – Helsinki).

In the case of the Engage Lab platform, the project team in Trondheim was concerned that although the digital platform showed the municipality's logo, the fonts and colours did not match the municipality's website (Wensaas et al., 2020). The planning office was worried that visitors of the site would dismiss this as something fake or "on the side" of the official participatory process, rather than an integral part of the planning office's work (Wensaas et al., 2020). The Systems Developer in Trondheim said the same thing about the Decidim platform. The Decidim banner indicates that it is connected to the Trondheim Municipality,

however fonts, colours and the feel of the site is different from the Municipality's main website (Interview with Systems Developer – Trondheim).

Digital platforms need to be *findable*. The Planning Consultant in Trondheim asked "how do you communicate a digital platform so people are actually aware of it?" (Interview with Planning Consultant – Trondheim). The web address (URL) needs to be easy to search, and clearly connected to the municipality (Interview with Project Manager #2 – Helsinki). In the Engage Lab platform, the URL name was not clearly connected to the Trondheim Municipality, which made the platform less findable and less credible (Wensaas et al., 2020).

Technological factor 3: Use of external consultants

The Systems Developer in Trondheim stated that there are "pros and cons" of using external consultants. In the case of Decidim, the Systems Developer in Trondheim recommended that it would be best to hire an external consultant to set up and manage Decidim. Decidim uses a coding language called *Ruby on Rails*, which the IT department at the Municipality does not have competency using (Systems Developer – Trondheim). Investing time to learn Ruby on Rails for the development of the Decidim platform "is going to be expensive and its going to be time consuming" (Systems Developer – Trondheim). The end product may still not be as good as what the private consultant would be able to produce (Interview with Systems Developer – Trondheim).

In Helsinki, the use of external consultants was beneficial. The City hired a consultant to write the code for the Decidim webpage and customize the fonts and colours (Interview with Development Manager – Helsinki). The end result was a platform that looked professional and matched the branding of the City (Interview with Project Manager #2 – Helsinki).

The use of Engage Lab and Leaflet in Trondheim had mixed results. Planners felt that they wanted *more* control of the platform (Wensaas et al., 2020). The Engage Lab platform was designed by the University of Oslo, and planners were not able to customize the platform to their needs (Wensaas et al., 2020). Similarly, Leaflet only provided "limited" functionality (Interview with Planner #2 – Trondheim).

Table 7.2.1: Summary of *technological* drivers and challenges

Technological factors	Drivers	Challenges
1. Technical infrastructure	• Modular design • Ability to handle inputs	• Concurrent users • Prototype vs production • Server set up
2. Platform design	• Legitimacy to process • Usability of platform	• Making a platform that is engaging and useful • Platform is findable
3. Use of external consultants	• Platform that looks professional	• Less control of the platform • Difficult to customize

SOURCE: Author

7.3 Organizational factors of implementing digital platforms

This section presents the organizational factors, discussed in the interviews in Trondheim and Helsinki. The main organizational factors include leadership and interdepartmental collaboration, communicating the process and managing citizen inputs. Table 7.3.1 summarizes these factors, and presents the organizational drivers and challenges of implementing digital platforms in citizen engagement processes.

Organizational factor 1: Leadership and interdepartmental collaboration

In Trondheim and Helsinki, the leadership from the top of the organization was a catalyst for implementing digital platforms. The Development Manager in Helsinki stated that leadership from the top and 'buy-in' from department leaders was "so important" for the success of Decidim and the OmaStadi participatory budgeting process. The financial support of 4.4

million euro per year, and the political endorsement from the Mayor and Deputy Mayors, was felt across the organization (Interview with Development Manager – Helsinki).

The Project Manager #2 in Helsinki said that interdepartmental collaboration can be "one of the pain points" in implementing digital platforms. Civil servants need to work with each other, and the public, in new ways and this can be challenging (Interview with Development Manager – Helsinki). The Planning Manager in Trondheim stated that "We need to understand the IT people better, and they need to understand us better". Digital platform and participatory processes, bring new ways of doing things. This change can be a challenge for organizations.

The Citizen Involvement Advisor in Trondheim stated that it is often the case that learning happens *within* projects, but not *between* projects. There were lessons to be learned from the Engage Lab and Leaflet platforms, however the team working on Decidim went through this learning alone. The Planning Manager in Trondheim said that there are 14,000 people working at the Municipality, and maybe 100 people are working on different digital tools. The missing link is the collaboration and coordination that allows learning to be shared.

Organization factor 2: Communicating the process

The communication of digital platforms was referenced as an important consideration in both Trondheim and Helsinki. In Helsinki, the complexity of the OmaStadi participatory process was a challenge. The Project Manager #2 stated that:

> You could vote on several proposals of your choice, within a given budget, and there were 2 processes, youth budgeting and normal budgeting, and 7 districts and 5 phases in the process… its complicated! (Interview with Project Manager #2 – Helsinki)

Many of the issues related to the Decidim platform were not technical, but rather a matter of communicating this complicated process to people (Project Manager #2 – Helsinki).

Digital platforms also have the potential to make the communication of citizen engagement processes easier. Decidim has been designed to facilitate open and transparent processes. In Helsinki, citizens were able to follow the various phases of the process, from ideation to

voting (Interview with Project Manager #2 – Helsinki). Timeline and graphics were included in the Decidim platform to make it easier to know what stage the process was at, and what was happening next.

The communication of the process is important for digital platforms, because it determines who will use the platform. The Citizen Involvement Advisor in Trondheim states that the people most likely to engage using digital platforms, are already the ones engaging in planning processes. In Helsinki, they were able to overcome this challenge through aggressive marketing, however this is time and resource intensive (Interview with Project Manager #2 – Helsinki).

Organization factor 3: Managing inputs and expectations

In any citizen engagement process, it is important for people to know what their participation will result in. This is even more relevant, when using digital platforms, when there is the potential to engage hundreds or thousands of people. The management of inputs and expectations can be both a driver and a challenge for using digital platforms.

The Planner #1 in Trondheim said over 4000 comments were generated in the Leaflet platform, however there was no concrete plan for the inputs. This is a challenge because "it is not very good for the trust of people if you ask for information and then nothing happens" (Interview with Planner #1 – Trondheim). If citizens give their time, and they do not see that anything has happened, they will be less likely to engage next time (Interview with Planner #1 – Trondheim).

The Engage Lab platform is an example of how digital platforms can work, when there is a plan for citizen inputs. In Trondheim, the Engage Lab platform generated hundreds of inputs, which led to the creation of 19 proposals for the city (Interview with Planner #2 – Trondheim). Citizens could follow the process, and see how their comments influenced the final proposals. The proposals were for more green space, bathing areas, car-free streets and the protection of historic qualities of Trondheim (Trondheim Municipality, 2020b). One drawback was that no locations, timelines or budgets were assigned to these projects.

The challenge of managing expectations, is another important consideration. The Development Manager in Helsinki said that the promotion for the use of the Decidim platform was "everywhere". The Project Manager #2 said that by having bus stop ads and Borough Liaisons actively promote the platform, it "creates an expectation" that IT staff have to meet (Interview with Project Manager #2 – Helsinki). This mismatch between investment in promotion and technical infrastructure, resulted in the platform becoming overloaded from too many users on the last day of voting (Interview with Project Manager #2 – Helsinki).

Table 7.3.1: Summary of *organizational* drivers and challenges

Organizational factors	Drivers	Challenges
1. Leadership and interdepartmental collaboration	• Political support from mayors • Buy-in from department leaders	• Collaboration between departments • Learning happens *within* project
2. Communicating the process	• Can easily follow processes • Visuals to illustrate the process	• Complexity of process • Reaching those not already engaged in planning processes
3. Managing inputs and expectations	• Capacity to handle inputs	• Expectations of what inputs will result in • Mismatch between marketing and technical infrastructure

SOURCE: Author

8 Discussion

The findings section has presented contextual, technological and organizational factors to consider when implementing digital platforms in citizen engagement processes. These factors have been summarized as 'drivers' or 'challenges' from the perspective of the municipality. This section connects the findings and theory by linking the adoption of digital platforms with communicative planning theory, the role of the planner and the 'Ladders' of Citizen Engagement framework.

8.1 Communicative planning through digital platforms

The theory section has introduced the principles of communicative planning, as it is a fitting approach for the implementation of digital platforms. The discussion of the approach is important because a digital platform is a tool, similar to how dialogue and workshops are a tool (Interview with Citizen Involvement Advisor – Trondheim). The findings suggest that communicative planning theory could be useful to shift the mindset of planners and the way digital platforms are used by municipalities.

Tore Sager (2018) stated that communicative planning is "a wider dialogue, solution-seeking, and decision-oriented deliberation" (p. 95). This could be the guiding purpose for using digital platforms in citizen engagement processes. If municipalities adopted this mindset, it could make engagement processes more meaningful, and ensure that citizens' inputs were "decision-oriented". Without being decision-oriented, both communicative planning theory and the use of digital platforms may facilitate discussions, but does not necessarily lead to action.

The case studies in Trondheim and Helsinki demonstrated that digital platforms provide additional ways for people to engage in planning processes. In Helsinki, almost 50,000 people took part in the digital voting process. The "equality" in the process was mentioned by the Development Manager in Helsinki, however it was not discussed at length in any of the interviews. Communicative planning strives to create a context where all affected groups can take part "freely and equally" (Sager, 2019). This principle of communicative planning could guide the use of digital platforms, to ensure differences in power are not heightened.

8.2 Challenges for the role of the planner

The implementation of digital platforms in citizen engagement processes, introduces challenges for the role of the planner. As discussed in the findings, digital platforms have the power to bring many more voices into the planning process. However, this power comes with certain responsibilities. The Planner #2 in Trondheim stated that when citizens contribute their time, planners need to take this seriously. Planners need to be upfront about what citizens' contributions will go toward (Interview with Citizen Involvement Advisor – Trondheim). If the intentions of the platform are not clear, this could also lead to a mistrust of the planners and the process.

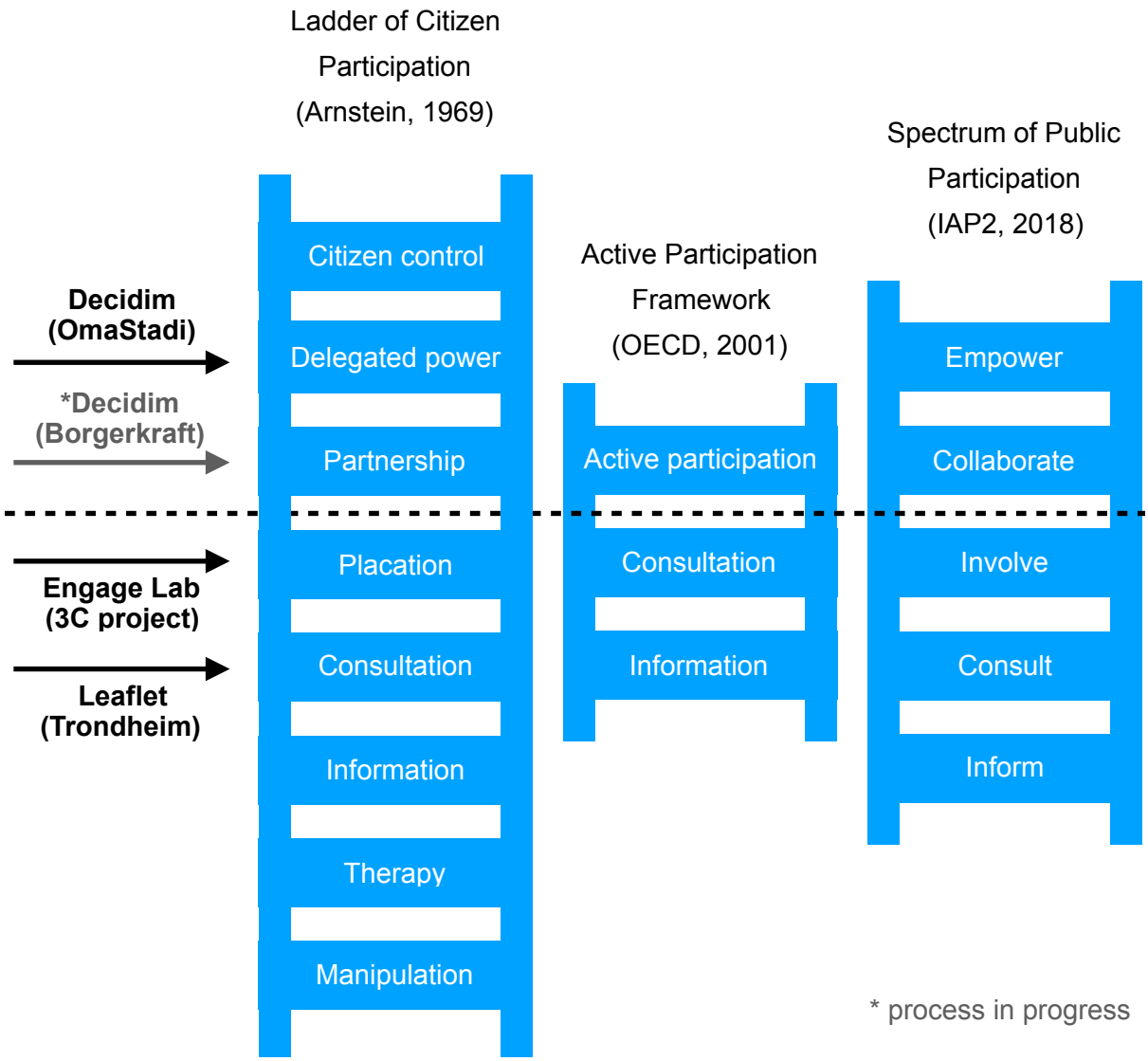
The main metric for evaluating the success of digital platforms, has been *how many* people engaged. In the future, the role of the planner may be to look closer at *who* engaged. In communicative planning theory, Sager (2019) states that it is up to the planner to balance "participants' interests and interests of those not present". By including more people, this can help to make processes more representative, however it is not a guarantee. Digital platforms such as Leaflet, where users are anonymous, make it impossible for planners to know who is participating. It also introduces issues of accountability for what is being said, and what the expectations are for planners, in terms of follow-up.

The adoption of digital platforms in citizen engagement processes, may place planners in a challenging position when it comes to questions of democracy. If municipalities place more and more decision-making power in the hands of citizens, critics argue that it may introduce "a planning system where 'stakeholders' rather than the democratically elected representatives of the population as a whole hold sway" (Bengs, 2005, p. 2). The planners' role of communicating the platform to the public, becomes even more important when the engagement happens digitally. The development of digital platforms must consider strategies for representativeness, such as the use of citizen juries, to ensure processes are not dominated by special interest groups.

8.3 Digital platforms and the Ladders of Citizen Engagement

Digital platforms are *tools* for citizen engagement, and some work better than others depending on the context. In Figure 8.3.1, the implementation of Engage Lab, Leaflet and Decidim in Trondheim and Helsinki, have been placed in the Ladders of Citizen Engagement framework. Processes above the dotted line have been determined to be communicative planning processes, because they are two way decision-oriented deliberations.

Figure 8.3.1: Placing case studies using the Ladders of Citizen Engagement



SOURCE: Adapted by author from Arnstein (1969), OECD (2001) and IAP2 (2018)

The use of Engage Lab in the 3C project in Trondheim, has been placed at the level of "placation, consultation and involve" in the framework. The implementation of Engage Lab was right at the edge of being a communicative planning process. The Engage Lab platform facilitated citizen ideas and commenting, however citizens' did not have 'muscle' in the decision-making process. There were no binding voting processes, concrete site plans or budgets. Citizens identified that they would like to have more green spaces, however it was not decided when, where, or how many.

The implementation of Leaflet in the Trondheim Municipality was intended to collect inputs, however it was not a two-way deliberation. It has been placed at the level of "consultation, information and consult" because it was used to "obtain public feedback" (IAP2, 2018). The challenge with engaging citizens at this level, is that citizens do not know what their engagement will result in. In the findings, this was identified as an organizational challenge, because if citizens do not feel that their input made a difference, they will be less likely to engage in the future (Interview with Planner #1 – Trondheim).

The testing of Decidim by the Trondheim Municipality, has been shown in grey in Figure 8.3.1, because it is currently in progress. It has been tentatively placed at the level of "Partnership, active participation and collaborate" because it has the elements of a communicative planning process. A budget of one million Norwegian kroner has been allocated to collect citizen proposals for local projects. A citizen jury has been selected to set criteria for the proposals and ensure the voices in the process are representative. It is still unclear if citizens will have "delegated power", such as participatory budgeting, which is binding for the Municipality.

The use of Decidim in the City of Helsinki, has been placed at the level of "Delegated power and empower". In the OmaStadi participatory budgeting process, citizens were given control over a particular part of the budget, and the City implemented what they decided. The Decidim platform allowed the project team to clearly communicate the goals of the project, and participants knew what their engagement would result in. The City of Helsinki committed 4.4 million euro, yearly, for participatory budgeting, and the Mayor, Deputy Mayors and department leaders endorsed the platform and process.

9 Conclusion

Municipal governments are being called on to include citizens *more directly* in decision-making processes. Digital platforms have radically transformed the way people live, work and communicate, however their implementation in citizen engagement processes has been comparatively slow. Previous research highlighted that it is not a lack of advanced technological solutions preventing municipalities from engaging with citizens. Rather, there are contextual, technological and organizational factors to consider.

This thesis has studied the implementation of digital platforms in Trondheim, Norway and Helsinki, Finland to explore specific *drivers* and *challenges* for municipalities implementing digital platforms in citizen engagement processes. Communicative planning theory has been discussed as an approach to implementing digital platforms, as it is a wider dialogue, solution-seeking, and decision-oriented deliberation.

In Trondheim and Helsinki, digital platforms allowed the municipality to engage with citizens at a scale not possible through in-person meetings and workshops alone. The main drivers for adopting digital platforms included strong political support and 'buy-in' from department leaders. Digital platforms needed to be easy to use and have the goals of the process clearly communicated. The case studies identified challenges for implementing digital platforms, including the engagement of senior citizens and other disadvantaged groups, the adaptability of the digital platform and the plan for handling citizen input.

There are three main implications of this thesis for theory and practice. 1) *Digital platforms may shift the role of the planner*. Digital platforms can include many people in planning processes, however they can also further the "digital divide". As a result, the role of the planner may become less of an expert, and more of a facilitator and mediator in the process. 2) *The use of digital platforms creates a responsibility for the municipality*. If thousands of inputs are given by citizens, there needs to be a plan for carrying these inputs forward. And 3) *Planners must consider who is participating*. As digital platforms shift decision-making power to citizens, planners need to consider whether the voices in the process are representative of the community.

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11 Appendix

A Interviews

Interview with Development Manager – Helsinki. [Video call interview], 31/03/2020.

Interview with Project Manager #1 – Helsinki. [Video call interview], 31/03/2020.

Interview with Project Manager #2 – Helsinki. [Video call interview], 22/04/2020.

Interview with Planning Manager – Trondheim. [Video call interview], 17/04/2020.

Interview with Planner #1 – Trondheim. [Video call interview], 27/03/2020.

Interview with Planner #2 – Trondheim. [Video call interview], 08/04/2020.

Interview with Citizen Involvement Advisor – Trondheim. [Video call interview], 21/04/2020.

Interview with Communications Advisor – Trondheim. [Video call interview], 29/04/2020.

Interview with Planning Consultant – Trondheim. [Video call interview], 24/04/2020.

Interview with Systems Developer – Trondheim. [Video call interview], 28/04/2020.

B Interview Guide

Date:

Interviewee name:

Job title / role:

Interviewer: Cole Grabinsky

Introduction for interviewer / interviewee

- Introductions
- State the aim of the study and main research question
- Explain why they have been asked to participate and what their participation will include (30-60 minute interview regarding their professional knowledge and experience)
- Obtain consent for audio recording and use of interview material

Background

- What is your professional background?
- What is your role / what do you work with?

Planning and citizen engagement

- How does the planning and citizen engagement process work at the Municipality?
- Are people's ideas taken into account, and if so how are they incorporated in ongoing planning processes?
- What are some of the challenges for engaging citizens?
- What opportunities do you see to improve citizen engagement in planning process?

Digital platforms for citizen engagement

- What motivates (Trondheim / Helsinki) to use digital platforms?
- What are the challenges of using digital platforms?
- How are digital platforms being used for citizen engagement currently?
- How are issues of data privacy being addressed? (GDPR rules)
- Do you think the adoption of digital platforms will be beneficial? For people, the Municipality, both? Why?
- Are there other important considerations?

Conclusion

- Next steps and contact information for follow-up
- Thank you

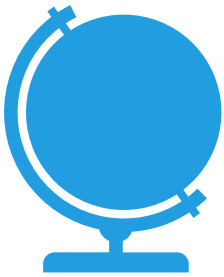
C Practitioner's Guide

Practitioner's Guide to:

Using digital platforms for citizen engagement

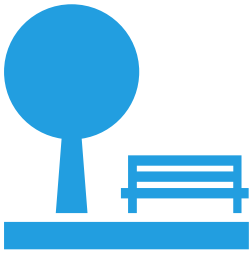
Choose the tool

Digital platforms are a tool, similar to how dialogue and workshops are tools. The strength of digital platforms is that they can be used to engage many people in planning processes. A challenge, is planning for how inputs from the process are carried forward.



Based on the context

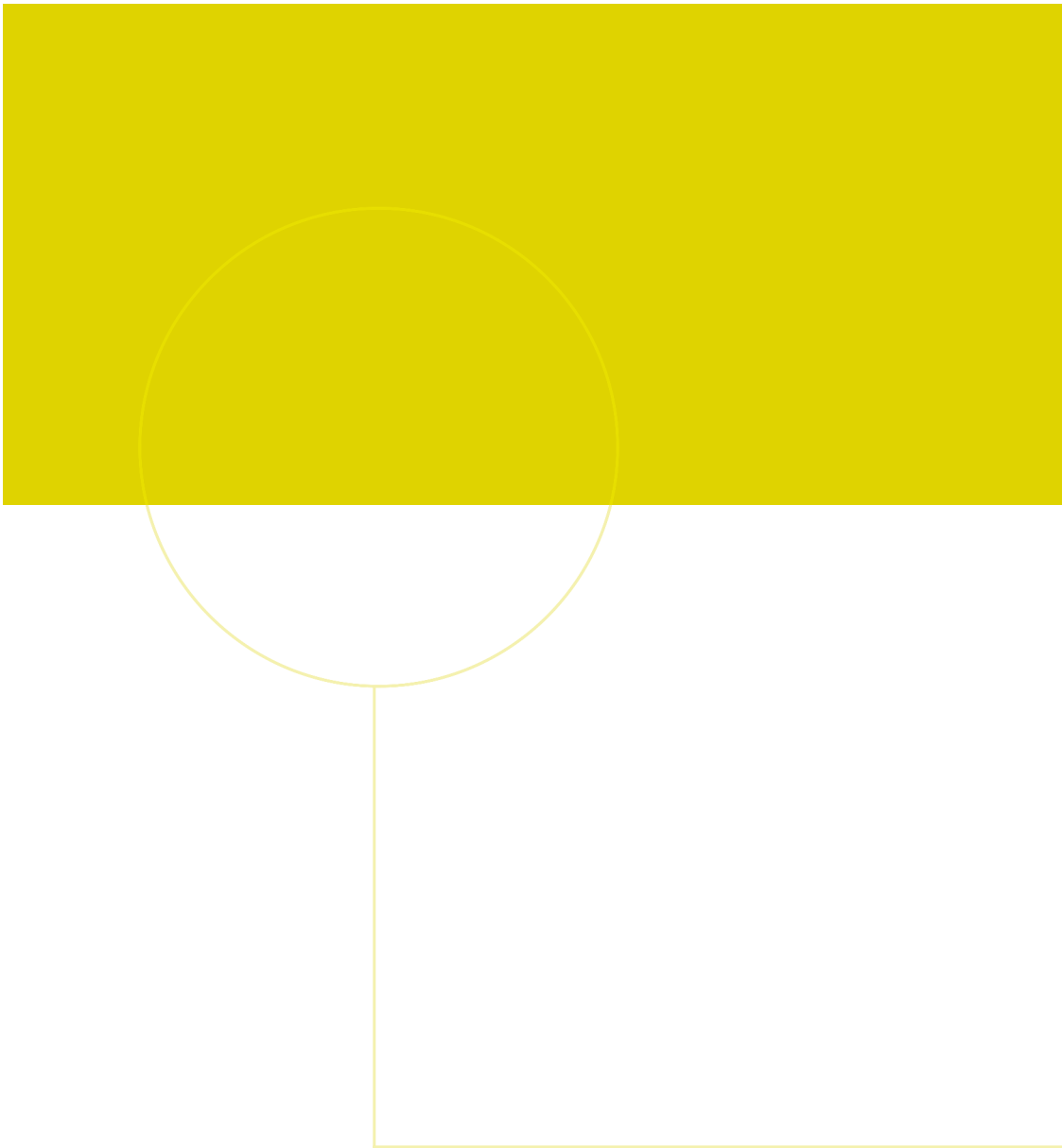
The selection of digital platforms depends on the ability of planners and people to use them. It is important to keep in mind *who* is engaging, and what expertise they bring to the process.



For a purpose

A clearly communicated purpose is important for citizens to know what their time and effort is working towards. Examples include:

- collecting ideas for an upcoming planning process,
- creating project proposals, and
- voting on how part of the city budget should be spent through participatory budgeting.



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