

## MASTER

### Realising Transformative Citizens' Climate Assembly Impact Learning from actors in the Burgerrat Klima and Innovation Sciences

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Department of Industrial Engineering and Innovation Sciences

**Realising Transformative Citizens' Climate Assembly Impact**  
Learning from actors in the Burgerrat Klima and Innovation Sciences

**Developed for the Innovation Sciences MSc. Thesis**

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**Abstract.** Citizens' Climate Assemblies (CCAs) have the potential to overcome the polarisation, short-termism, and lobbying challenges that many democracies face as they try to govern sustainability transformations. That is, if the CCAs are not ignored. While there is growing interest in CCA impact, there is no theoretical clarity on when these impacts are transformative and how they are realised. This study investigates how CCA proponents can realise more transformative CCA impacts. I combine ideas from complex adaptive systems and transformative social innovations with a focus on innovation sciences perspectives of plurality, uncertainty, and relationality. Through a case study of a rather unique CCA in Germany, I develop these ideas into a framework of twelve transformative impact relations and three ways in which CCA proponents help realise these impacts. This framework adds well-grounded concepts of transformative capacity and agency to CCA literature and can guide a wide variety of CCA proponents in realising transformative change.

**Keywords:** Citizens' Climate Assembly, Transformative Impact Relations, Powering, Plurality, Uncertainty, Relationality, Innovation Sciences

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## Summary

### 1. Introduction

This is a study of the impact of citizens' climate assemblies (CCAs). I aim to understand how CCA proponents try to realise transformative CCA impacts and how these processes can be improved. CCAs are a democratic tool in which about 100 randomly selected people come together to learn, deliberate, and make decisions on topics related to climate action. Decision-making in CCAs does not suffer from many of the worst problems that democracies face in their governance of sustainability transformations: short-term thinking, polarisation, and the conservative influence of powerful organisations and people. This is only beneficial if the decisions create real-world change. While there is growing interest in CCA impact, there is no theoretical clarity on when these impacts are transformative or how they are realised.

Current research of CCA impact focuses on the desired conditions under which CCAs can be integrated into climate policymaking processes. This leads to best practises, such as that CCAs should draw media attention, mobilise participants, and get a mandate from the government. However, this focus on harmonious integration in the government toolkit ignores other pathways to influence climate action and provides little guidance for actors who are not the government. Therefore, these research efforts are less useful for communities in which governments and powerful actors are not willing to implement CCAs, which is still the case in a large part of the world. To address these issues, I draw on theories in innovation sciences and a case study of the 2021 German CCA "Burgerrat Klima". The following is the study's goal:

**Research goal:** Provide guidance to CCA proponents on how to realise more transformative CCA impacts.

### 3. Theory

Innovation sciences studies what happens when technologies are introduced into systems, for example when food forests are implemented in the food system. However, the CCA is also a technology—an application of knowledge to reach practical goals in a specific and reproducible way. Therefore, the question of what happens when CCAs are introduced in the system of sustainability transformation governance is very relevant to innovation scientists. Within the scientific discipline, there is a specific focus on how innovation can help transform systems in desirable directions, such as towards sustainability, democracy, and emancipation. Therefore, it makes sense to use the knowledge of innovation sciences to study how CCA proponents help realise transformative CCA impacts.

Critical scholar Andrew Stirling identifies common biases: towards power, control, and false independence, and describes how these biases can be overcome with perspectives of plurality, uncertainty, and relationality. These perspectives are already present in theories of how social innovations can be transformative and in the study of how actors gain power. However, there is as of yet no connection between the power of actors and the realisation of the transformative impacts of social innovations. In this research, I will make this connection. But to do that, I need to match the theoretical insights with

real-world practises. Because it is not immediately evident how to do this, I assigned this task to me as the first research question.

When I frame the research goal in the theoretical terms I use above, I get the following research questions:

**RQ1:** How can the realisation of transformative CCA impacts be studied?

**RQ2:** How does agency and power connect to the realisation of transformative SI impact?

**RQ3:** What were the transformative impacts of the Burgerrat Klima and how did its proponents help realise these impacts?

#### **4. Research Strategy and Methodology**

According to the school of thought of critical realism, there is an objective world, but the way we observe it is subjective. In other words, you only get answers to the questions you ask. Because there is not yet a theory to connect actor power to transformative CCA impact, I risk asking the wrong questions and therefore missing important aspects of the real world. The research strategy of systematic combining aims to develop a theoretical framework to describe the world at the same time that I study the world. This requires me to be open about the theories I use and the pieces of the world I study, as well as how these aspects developed throughout my research journey.

Through several redirections of theories and the data I collected, I ended up with the concepts of transformative impact relations and how these relations are powered. To study these concepts without inserting my own bias about what relations are important and which impacts are desired, I have to base my research on the judgements of the CCA proponents themselves. Furthermore, to make sure that I can go back to the data with different questions to ask, I need to make sure that my data is very context-rich and detailed. Therefore, I chose to perform a descriptive case study using interviews. I chose the case of a CCA in Germany, The Burgerrat Klima, because it had recently been conducted, had a lot of information about the process online, and was unique in that it wanted to change government policy without the government's approval—something that is considered essential for any CCA in current understandings.

#### **5. Preliminary framework**

Before I started the study, I made a preliminary framework to start the case study with. I based the questions on the plural, uncertain, and relational efforts of the CCA proponents to realise transformative change. To study this, I used transformative social innovations to study what types of transformative impact relations the CCA had, and I used the powering framework to understand how the actors strategically used their agency to help realise these impacts. This gave me a set of 15 propositions with which to analyse the interviews.

#### **6. Case study of the 2021 German 'Burgerrat Klima'**

For the case study of the Burgerrat Klima, I conducted twelve interviews with at least someone from each involved organisation, except for one powerful lobby organisation: Mehr Demokratie. The proponents provided mostly confirmatory evidence for the propositions concerning transformative impact relations. For the three propositions of how actors use their power, I found some evidence, but had to

adapt the two that were based on purely theoretical assumptions. Table 4 shows the fifteen propositions and the evidence in favour of and against their presence in the Burgerrat Klima.

**Table 3:** Propositions of the preliminary framework and their support

<b>Relations within SI initiatives</b>
<p><b>1. SI initiatives provide spaces in which new or alternative values can be promoted and aligned with new knowledge and practices—in a process of reflexive experimentation that supports both members' motivations and their moves towards collective 'success' and 'impact'.</b></p> <ul style="list-style-type: none"> <li>+ CCA itself is an experiment with new forms of decisionmaking</li> <li>+ Proponents are in favour of CCAs with different values and worldviews</li> <li>- Citizens who doubted climate science felt unheard and alienated</li> </ul>
<p><b>2. Manifesting new/alternative interpersonal relations is one pivotal way in which SI actors are able to create the right conditions to challenge, alter, or replace dominant institutions.</b></p> <ul style="list-style-type: none"> <li>+ Within the CCAs, all participants are equal as German citizens</li> <li>+ Proponents went beyond client-provider relationship and worked as equals as CCA proponents</li> <li>- Dominant institutions of technocratic-stakeholder agenda-setting remained</li> </ul>
<p><b>3. People are empowered to persist in their efforts towards institutional change, to the extent that basic needs for relatedness, autonomy, and competence are satisfied, while at the same time experiencing an increased sense of impact, meaning, and resilience.</b></p> <ul style="list-style-type: none"> <li>+ Proponents had established a high level of trust through previous collaboration.</li> <li>+ Proponents gave each other autonomy to experiment</li> <li>+ CCA participants gained competence throughout the assembly</li> <li>- Some participants felt a diminished sense of impact when the government remained silent about the implementation of their CCA plans</li> <li>- Online communication hindered participants to connect with each other</li> </ul>
<b>Relations in network formation</b>
<p><b>4. The transformative impacts of SI initiatives depend greatly on the changing tensions within and stability of the action field(s) that they operate in.</b></p> <ul style="list-style-type: none"> <li>+ Transformative impacts involved many 'outsiders', such as MPs, influential individuals, journalists, and civil society organisations</li> </ul>
<p><b>5. Translocal networks are a key source of empowerment for local SI initiatives.</b></p> <ul style="list-style-type: none"> <li>+ Proponents visited other CCA organisers to learn about design features</li> <li>- No further resources were shared translocally</li> </ul>
<p><b>6. Discourse formation and its mediation through communication infrastructures crucially enhances the reach of SI network formation.</b></p> <ul style="list-style-type: none"> <li>+ Proponents purposefully referred to how government had mandated earlier CAs and to the success of some previous CCAs</li> <li>+ Proponents were hindered by organisations that employ the term of CCAs as form of participation-washing</li> </ul>

**Table 3 (continued):** Propositions of the preliminary framework and their support

<b>Relations to institutional change</b>
<p><b>7. SI initiatives need to find an institutional home in order to access vital resources; this often entails a balancing against the desire for independence from (critiqued) dominant institutions.</b></p> <ul style="list-style-type: none"> <li>+ Proponents oriented between institutional homes in participatory governance, civil society advocacy, and institutional homelessness</li> <li>+ Proponents balanced desire for independence by diversifying their resource base</li> </ul> <p><b>8. In order to bring about institutional change, SI initiatives need to combine different forms of institutional entrepreneurship, and proactively adapt these strategies in response to changing circumstances.</b></p> <ul style="list-style-type: none"> <li>+ CCAs in general provide a local alternative to institutional processes of climate policymaking</li> <li>+ Proponents focused a lot on lobbying as theory of change, in addition to protesting and promoting cultural change processes</li> </ul> <p><b>9. SI initiatives reconsider and reconfigure the broader institutional logics in which dominant institutions are embedded, by learning across different institutional logics and by reinventing, recombining, and transposing specific elements from one institutional logic to another.</b></p> <ul style="list-style-type: none"> <li>+ Proponents combined institutional logics from privately-run lobbying and governmental participatory processes</li> <li>+ Proponents visioned about a future where CCAs are integrated with other forms of creating democratic legitimacy and with localism</li> </ul>
<b>Relations to sociomaterial context</b>
<p><b>10. The rise of SI initiatives and their particular transformative ambitions are strongly shaped by the historical development of the wider socio-material context.</b></p> <ul style="list-style-type: none"> <li>+ The 2019 COVID pandemic had a significant impact on the CCA's organization.</li> <li>+ The proponents used the unilateral signing of the Paris Agreement to depoliticize the need for governmental climate action</li> <li>+ The government's response to the CCA output was hampered by Russia's invasion of Ukraine in early 2022</li> </ul> <p><b>11. SI initiatives are only innovative against the background of an evolving socio-material context. Activities of innovating and inventing present but one historical appearance of SI, next to other less conspicuously innovative activities of re-invention, advocacy, and maintenance.</b></p> <ul style="list-style-type: none"> <li>+ Prior to the American Revolution in the 18th century, the innovative component of CCAs was the main-stream definition of democracy.</li> <li>+ CCAs are an offshoot of the deliberative minipublics movement, which has been around since the 1970s.</li> </ul> <p><b>12. Evolutionary diversity is an integral element of TSI processes, reflecting the historical diversity of the transformative ambitions of SI initiatives and the diverse motivations of the people involved in them.</b></p> <ul style="list-style-type: none"> <li>+ To date, each national CCA has experimented with its composition, such as how to facilitate deliberation and integrate with larger society.</li> <li>+ The deliberative democracy movement was founded on the concept of democratic fairness, but it is now being promoted as a more effective way to make policy decisions on contentious issues. Some actors also use CCAs to postpone taboo decision-making</li> </ul>



**Table 3 (continued):** Propositions of the preliminary framework and their support

Relations of agents
<p><b>13. Agency within SI comes from power relations between human agents and (non)agentic components and takes place in plural overlapping collectives.</b></p> <ul style="list-style-type: none"> <li>+ Proponents agency differs based on their relations with other agents and components</li> <li>+ The agency that led to impact realisation within CCA occurred in collectives of actors whose agency was greater than the sum of its parts.</li> </ul> <p><b>14. To help realise SI relations, SI proponents empower themselves through the creation and operationalization of power relations</b></p> <p>→ <b>14 adapted: To help realise SI relations, SI proponents empower themselves through the creation and operationalization of power relations and change the agency of others to contribute – sometimes setting in motion chains of changed agency that are outside of the original actor's control.</b></p> <ul style="list-style-type: none"> <li>+ Proponents improved their agency by creating and using power relations</li> <li>- Proponents created and changed components to empower others</li> <li>- Proponents can sometimes set in motion a chain of changed agencies that are beyond their control</li> </ul>
<p><b>15. Choices within SI relations are based on the power relations of its proponents.</b></p> <p>→ <b>15 adapted: SI proponents actively seek to change their power relations to realise desired SI relations – They will only sometimes choose to consider other SI relations when they have an easy opportunity to do so or when they are faced with major obstacles.</b></p> <ul style="list-style-type: none"> <li>+ In some cases, proponents chose to make an impact with the power relationships that they possessed</li> <li>- proponents strategize to alter their power relations in order to achieve the desired transformative impact relations for the CCA</li> </ul>

## 7. Discussion of Results

This study tackled three questions: how transformative CCA impact can be studied; how actor agency is related to the realisation of transformative CCA impact; and how the proponents in the Burgerrat Klima helped realise transformative impacts. For the first question, I found that the research strategy of systematic combining was very suitable, as it led me to use different theories than I would have considered in other research strategies and also provided new insights for these theories and for CCA research in general. For the second question, I developed three propositions that explain how proponents gain agency from their relations with other actors and components, how they use agency differences to empower themselves and others, and how they strategically choose to use this process to power desired transformative social innovation impacts. For the third question, I found that the proponents of the Burgerrat Klima desired a variety of transformative CCA impacts, which are described by 11 of the proposed 12 transformative impact relations (excluding translocal empowerment). They tried to realise these impacts through the methods described in three powering propositions.

## 8. Conclusion

The framework that I developed in this research contributes to understandings of transformative change and agency in the literature of CCA impact. It also contributes to the understanding of innovation sciences through the connection of theories of agency to theories of transformative social innova-

tion impact. Lastly, it fulfils the research goal of providing guidance to a wide variety of CCA proponents on how they can realise more transformative impacts of CCAs. In this way, I hope this thesis contributes to the struggles for more just and flourishing worlds.

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PS: If you are reading this, I am also grateful for your interest. I hope you get something out of it.

## 1 Introduction

Even though the dangers of global climate change have been known for decades, most communities, especially wealthy ones, have not limited their greenhouse gas emissions to internationally agreed upon levels (IPCC, 2022, para. B.6). The latest report from the Intergovernmental Panel on Climate Change (IPCC), the world's expert group on climate change, calls for major transformations in all parts of society, requiring action from local communities to the global level (IPCC, 2022, para. C.4; E.4). Because previous methods of promoting these sustainability transformations were insufficient, academics, activists, and governments are increasingly turning to the Citizens' Climate Assembly (CCA) (Dryzek et al., 2019; Extinction Rebellion, n.d.; OECD, 2020).

The CCA, like most other forms of sustainability transformation governance, has public representatives find a balance between their various values and interests. What distinguishes this form of governance is how this representation is established and decisions are made (Escobar & Elstub, 2017). CCAs represent a community by randomly selecting about a hundred people who share the same division between social-economic status, gender, migration background, and political leanings as the community. It also aims to remove power imbalances in decision-making by enabling participants to learn about the issue over time and discuss their perspectives on it. Participants develop and vote on proposals after learning about the issues and each other's points of view. Because the CCA is representative of the general population, the proposals that result are representative of what an informed community would want. This is not only true in theory but is also visible in how the proposals are received by the general public. In the few years that CCAs have existed, their plans were often more ambitious, executable, and less contested by civil society than those of parliaments and ministries (Boswell et al., 2022; Dryzek et al., 2019; Wells et al., 2021).

However, these CCAs do not always have the desired impact on climate action. Even though the first two CCAs were organised and financed by the government, they received only a limited government response to their recommendations (Business, Energy and Industrial Strategy Committee, 2021; Elstub et al., 2021; Wells et al., 2021). Subsequent CCAs have learned from these experiences, but still struggle to make an impact (Boswell et al., 2022; Demski & Capstick, n.d.).

The impact of CCAs has sparked a lot of research interest. Whereas early research into citizens' assemblies (non-climate CCAs) focused primarily on how citizens' assemblies could become more appealing by improving democratic qualities (e.g. Goodin & Dryzek, 2006), later research has also focused on how CCAs can be integrated into the larger system of democratic governance, in what has been dubbed "the systemic turn" (Bächtiger et al., 2014; Boswell et al., 2022; Dryzek et al., 2019; Mansbridge et al., 2012; Setälä, 2017). The primary goal of these papers is to integrate CCAs into the government's policymaking process and to strengthen their connection to stakeholder debates and media reporting (Boswell et al., 2022). Boswell et al. (2022) performed a meta-analysis of CCA-related research and best practises. Their recommendations for transformative CCAs are that participants are mobilised to fight for their recommendations and that the CCAs draw resources from political, executive, professional, and civil society interfaces. As a basic requirement, the CCA should have a political mandate, which is a concept that appears in all CCA impact research (Boswell et al., 2022; Dryzek et al., 2019; Mansbridge et al., 2012; Setälä, 2017).

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There are several problems with these understandings of CCA impact. First, the quality of transformational capacity is missing. If a CCA gets a political mandate because its scope is reduced to the colours of wind turbines, its plans are likely to be carried out but will likely not advance the necessary sustainability transformations. Second, the recommendations are adapted to the CCA's "owners'." This is bad news for communities in which these owners (often assumed to be governments) have no interest in CCAs. Furthermore, other actors who could help achieve impact are now being overlooked. Third, the CCA recommendations do not provide guidance for what to do. What needs to be done to increase media coverage of the CCA? And how can the participants be mobilised?

This thesis addresses these problems by exploring how CCA proponents help realise transformative CCA impacts. To accomplish this, I turn to theories within the innovation sciences, which are concerned with how new practises can transform a larger system, and conduct a case study of the German Burgerrat Klima. Using theories of social innovations and innovation governance, I create a conceptual framework of transformative impact relations that connects proponents' actions to the transformative impact that CCAs have on climate action. I do this with the use of perspectives of plurality, uncertainty, and relationality, which I will discuss in greater detail in the theory section.

The overall research problem I can already state:

*Overarching Research Problem: How can CCA proponents help realise more transformative CCA impact?*

With this research problem, I aim to provide relevant insights and contribute to debates for the following audiences.

*CCA impact researchers*

The first audience is the academic community concerned with the impact of CCAs. I am particularly interested in debates about how and to what extent CCAs should be institutionalised, as well as how CCAs can become more impactful. I introduce concepts like transformative capacity, power dynamics, and uncertainty in these discussions.

*Innovation sciences researchers*

The academic community of innovation sciences is the second target audience. I focus on the debate about how individual agency brings about transformative change. To accomplish this, I link concepts of power to transformative social innovation relationships.

*CCA proponents*

The third target audience is the community of CCA practitioners and proponents. These people already have a wealth of knowledge about how to increase the impact of CCAs. I develop a framework of transformative impact relations to make this existing knowledge more explicit while also adding insights from innovation sciences on how innovations thrive.

In the remainder of the thesis, I will answer these questions and work towards insights for the research problem. In Section 2, I provide background information about where CCAs come from, how they work, and why anyone would care. Section 3 then provides more information about innovation sci-

ences and its insights into how innovations can have transformative impact. Section 4 describes how I overcome the problems of applying innovation sciences to a new domain and how I will conduct the research. In Section 5, I build a preliminary framework with which to understand the realisation of transformative social innovation impact. Section 6 develops this framework further through a case study of the Burgerrat Klima in Germany in 2021. I reflect on the study limitations and answer the research questions in Section 7. Then I end with implications and concluding words in Section 8.

## 2 Background of CCAs

*Something that gives answers to hot or critically discussed topics of society. I think that's the beauty of assemblies - what they can deliver. [Interviewee #2]*

To get a more well-rounded overview of citizens' climate assembly, I will first describe where it comes from, how it works, and finally, what problems it is supposed to solve.

### 2.1 Where it comes from

Deliberative minipublics are defined as "randomly selected bodies in which participants learn, deliberate, and come to decisions on a matter of public interest" (Willis et al., 2022, p. 6). This political stream was heavily influenced by John Rawls' ideal of thinking like the people and Jurgen Habermas' ideal of power-free dialogue in decisionmaking. Willis et al. (2022) list four broad characteristics. First, they want participants to be representative of the population. This is frequently accomplished by randomly inviting citizens to participate and then randomly selecting those who accept to match wider demographics in age, gender, education, ethnicity, location, and relevant political attitudes. Second, "witnesses"—scientific experts, practitioners, or stakeholders—teach participants about the issue. Deliberation refers to participants discussing with witnesses and among themselves how to reach public interest decisions in a way that allows everyone to participate and where arguments are leading. Fourth, the discussions result in actionable conclusions or recommendations for governing bodies or the general public.

In modern history, the ideas of deliberative minipublics have been introduced in two ways: the planning cell in Germany and the citizens' jury in the United States (Willis et al., 2022). In the decades that followed, the innovations evolved into practises such as deliberative polls, citizens' juries, planning cells, and participatory budgeting (Escobar & Elstub, 2017). And, by the early 2000s, the innovation had expanded to a new format: the citizens' assembly (ibid.).

### 2.2 How it works

Political scientist and CCA expert Graham Smith (2009) has written a lot about citizens' assemblies. At first, citizens' assemblies were held to discuss issues ranging from constitutional amendments to referendums. They typically have many meetings (20-30 full days instead of 2 to 7 days in other forms), 100 to 160 participants to facilitate these higher levels of detail, and several hundred thousand to million Euros to finance it. To ensure that everyone can participate, there is often monetary compensation as well as childcare, transportation, and technological support available.

The most well-known citizens' assembly is that of Northern Ireland in 2016. This assembly allowed Northern Ireland to make decisions on the divisive issues of gay marriage and abortion. The assembly

members recommended that these issues be made legal, a decision that was carried out after a national referendum.

### 2.3 Why anyone should care

As of 2016, citizens' assemblies are being organised to discuss issues that go beyond pure values but also on climate. The citizens' *climate* assembly is discussed separately from other citizens' assemblies because climate governance is much more "material" in nature: not only do citizens' values matter, but so do what technologies are available and how quickly changes can be implemented.

A recent review of climate change governance by leading scholars of deliberative democracy (Willis et al., 2022) says that deliberative minipublics can solve some of the problems caused by climate change. There are four issues with the current system of governance. Democratic governance, with its elections, advisory committees, and control by the public media and the legal system, would be too focused on short-term interests; it would disregard technical, scientific, and expert advice in policy making; it would be weighed down by entrenched interests and power relations; and it would fail to consider citizen values in decision-making (Willis et al., 2022).

Willis et al. (2022) go on to explain how deliberative minipublics overcome these issues. First, because of the emphasis on deliberation, decision-makers make more considered and reflective decisions. Second, it systematically incorporates technical and scientific expert advice into policy formulation because of how the deliberative minipublics consider the various witnesses. Third, its reliance on deliberation, in which all participants are free and equal, provides flexibility for participants to see each other's perspectives and step out of entrenched interests. Furthermore, the participants are harder to influence with lobbying because the decision-makers are only known shortly before policy-making begins and do not stay in office for more than half a year (Smith, 2009). Fourth, deliberative minipublics change how policymakers interact with citizens because citizens are able to express their informed opinions to policymakers and have the time to engage in conversation rather than simply voting.

A popular critique of deliberative mini-publics, and therefore CCAs, is that it is expected that the discussions in CCAs would be influenced by groupthink, populist ideas, and more well-spoken participants; and that the people who will participate in CCAs would not be representative of the larger population. However, a recent meta-analysis published in *Science* looked at empirical studies of deliberative mini-publics and found no evidence for these critiques. (Dryzek et al., 2019).

Therefore, CCAs appear to fulfil ideals of deliberation and statistical representation and thus overcome the most significant problems with how traditional democracies address sustainability transformation governance.

## 3 Theory

The goal of this section is to understand how innovation sciences can provide insights into how CCA proponents realise transformative CCA impact. I will shortly introduce the main concepts used in innovation sciences, then I will describe three perspectives through which we can describe the realisation of transformative social innovation impact, after which I will end with relevant on-going debates.

### 3.1 Introduction to innovation sciences

The field of innovation sciences is very large and has many subfields because it engages with so many literatures. But most people in the field agree on three terms that could be considered important: socio-material systems, technologies, and innovations. I will quickly explain these ideas and show how they are relevant to the research problem of transformative CCA impact.

#### *Socio-material system*

One of the main terms in the field of innovation sciences is that of socio-material systems. These are described as different social and material elements that are linked together to fulfil societal functions. An example is how there can be a societal function to provide heat to people, which consists of social elements (you should not have to wear warm clothes inside) as well as material elements (gas for heating is cheap). According to this view, societal functions cannot be merely changed at will, but rather rely on ways of doing, organising, and knowing that create a certain societal function.

In the case of CCAs, the governance of sustainability transformations can be considered a socio-material system: The main elements of this governance consist of governmental policy creation, which is controlled by elections, media attention, and lobbying. Information for these governance decisions is supplied by government research institutes and universities.

#### *Technology*

The second main term is technologies. These are defined as “applications of knowledge to reach practical goals in a specifiable and reproduceable way” and are action-oriented. According to the field of innovation sciences, technologies are not merely objective instruments that develop on its own, but rather ways of understanding and influencing the world which are actively developed and steered by those that make and use the technologies.

I would argue that CCAs are a technology. CCAs apply knowledge about democratic theory to extract information about how citizen values relate to climate change pathways. The method is also action-oriented because it produces recommendations for change. As such, CCAs fulfil both criteria of what constitutes a technology. This classification is important because innovation sciences have developed many theories with more material technologies, such as energy storage and vehicles. As a result, it may appear that the innovations and scientific theories would not apply to CCAs. However, CCAs are technologies and behave like technologies in that they are designed for special purposes, get modified by users, and subsequently evolve over time.

A more intuitive example of why a CCA is a technology is an artificial intelligence model that has a reproducible way of extracting information from the population to come up with recommendations so that climate policies work better. CCAs are only different in that their methods of extracting information are more social than material in nature.

#### *Innovations*

The last important main term in innovation sciences is that of "innovation." An innovation is defined as the introduction of a technology into a socio-material system. As I said before, these innovations can also be more social than material in nature. These social innovations describe "new ways of do-

ing, organising, framing, and knowing" (Pel et al., 2020, p. 2). It is here that innovation sciences give the most important insights, as technologies cannot simply be introduced with the push of a button but rather require that they somehow relate to pre-existing socio-material systems and that, therefore, both the system and the technology change during innovations. The innovation sciences then investigate how this process of innovation unfolds and how humans can influence it.

It is clear that CCAs are an introduction to the system of sustainability transformation governance. Much CCA research also refers to the CCAs as a governance innovation or a democratic innovation. Now that there is a link with innovation sciences, it becomes possible to apply knowledge about transformative social innovations to these CCAs.

### **3.2 Towards perspectives of plurality, uncertainty, and relationality**

In the innovation sciences, there is a lot of focus on how innovations can transform systems. Andrew Stirling, a well-known professor, wrote a critical review of transformation research which identifies three important biases in research and three perspectives to get around them (Stirling, 2019).

#### *Power bias and the perspective of plurality*

The first bias in innovation research is towards power. Knowledge determines how we understand the world and therefore also guides us in our actions if we want to change the world. Especially in systems where the interests of the already powerful, or incumbent, parties may not align with pathways of sustainability, research must highlight actions that can be carried out by a wide range of actors other than the currently powerful. Simultaneously, it is important to understand how people who operate from a position of power can act differently incumbent interests (Grin, 2020). According to Stirling (2019), this plurality of motivations and roles in pathways for change needs to be acknowledged in the research to overcome the interests of incumbency.

#### *Control bias and the perspective of uncertainty*

A second critique regards is that much of the causality in systems change is unclear, even unknowable (Scoones & Stirling, 2020). As a result, views that mention how societies should change without providing ideas of how this can be achieved provide a 'fallacy of control' (Hajer et al., 2015; Stirling, 2019). Stirling argues that some socio-material systems have so many relationships and are so heavily influenced by chance events that they are impossible to control. Instead, it is more fruitful to try to create the conditions that favour certain directions of change. This is also the case because the outcome of the change is not agreed upon by everyone and often changes for the involved parties over time.

#### *Independence bias and the perspective of relationality*

The third critique is that power is often seen as a quantitative quality that actors have: to make others do things that they otherwise would not want. However, innovation scientists recently argue for more detailed analyses of the interplay between agency and power (e.g. Geels, 2020). Stirling (2019) defines agency as the ability to orient between different pathways of change. Stirling refers to the political philosopher Alfred North Whitehead (1929), who describes that all interactions with others go both ways, in other words, agents do not influence the world but rather grasp aspects of it, which



implies that the agents are also influenced while they influence. Power is then defined as grasping differently than that you are being grasped. In other words, power exists in agent-agent relationships and always affects both agents in the relationship, even if the direction and magnitude of the influence differ in both directions. This view gives more options for agents to contribute to transformative change since they might be powerful in certain relationships despite the fact that they would not be considered powerful in other, more conventional, perspectives.

#### *Applicability to the research problem*

I argued before why insights from innovation sciences in general are applicable to the research question of this thesis to understand how CCA proponents can realise more transformative impact. These perspectives of plurality, uncertainty, and relationality are especially important in this regard.

First, the system of sustainability transformation governance is a very political field in which there are many powerful actors who benefit from things staying the same. Therefore, innovations that operate within this system benefit from perspectives that work to circumvent the powers of these actors. Second, sustainability transformation governance is even more reliant on random events than traditional modes of governance and has ties to almost every aspect of society that can be governed. As such, the analysis of impact on this system should acknowledge this high amount of uncertainty by describing which actions favour certain directions of change rather than prescribing the best paths forward. Third, CCAs would benefit from a relational perspective because the many actors that are involved in the organisation of CCAs are often viewed as not having power, such as citizens, civil society organisations, and social movements. It is thus useful to examine the various actors' power relationships.

### **3.3 Research questions**

With the theoretical terminology, I am now able to operationalize the research problems into research questions:

*RQ 1 How can the realisation of transformative CCA impact be studied?*

This question guides the research strategy in this thesis. It is made explicit because there are no obvious theories within the field of innovation sciences or in works on CCA impact that answer the case study's questions.

*RQ 2 How do agency and power connect to the realisation of transformative social innovation impacts?*

This question directs the theoretical development of the research. It aims to specifically connect understandings of how initiatives produce transformative impacts in innovation sciences with how human agents can use their agency to achieve goals.

*RQ 3 What were the transformative impacts of the Burgerrat Klima and how did its proponents help realise these impacts?*

These empirical questions guide the case study in Germany.

## **4 Research Strategy and Methodology**

Before I can start the research, I have to deal with two problems. First, this study concerns itself with an unexplored concept: how transformative CCA impact can be realised. Because the relevant theories within innovation sciences focus little on governance innovations and, likewise, CCA research has not previously considered transformational qualities of impact, I need to develop a framework while I collect data. Second, this study is part of a master's thesis, which means I have only a limited overview of potentially useful existing theories, a limited amount of research experience, and a limited amount of time to conduct the research. To deal with these limitations of theoretical alignment and resources, I will first investigate how the realisation of transformative CCA impact can be studied.

### **4.1 Research strategy: Systematic combining**

To solve this double research challenge of developing theory alongside a case study, I turn to critical realist theory. According to this viewpoint, the world exists independently of us, but our knowledge shapes how we see it. Because the questions and meanings I choose influence the answers I get, this process must be done carefully and transparently.

A research strategy of particular relevance is that of systematic combining (Dubois & Gadde, 2002, 2014). In this strategy, a researcher creates a theoretical framework while studying a case. This requires iteration. The researcher begins by developing a preliminary framework based on useful concepts and links found in the literature. Then, they work this framework into questions with which to investigate a case. Findings from the case may prompt the researcher to incorporate new literature and concepts into the framework, whereas the updated framework may prompt the researcher to collect additional data from the case or even study a completely different case. Figure 1 provides a schematic overview of this iteration.

The above process requires transparency. Because the research process is iterative, the final research methodology and case selection may not be immediately apparent. As a result, it is important to understand the researcher's goals and departing theories, as well as how the theory and field work were reoriented throughout the research process. The documentation of this process is not chronological, as evidenced by the fact that I mentioned the research goals before this section. Rather, transparency is gained by describing what reorientation was made and why in the relevant section.

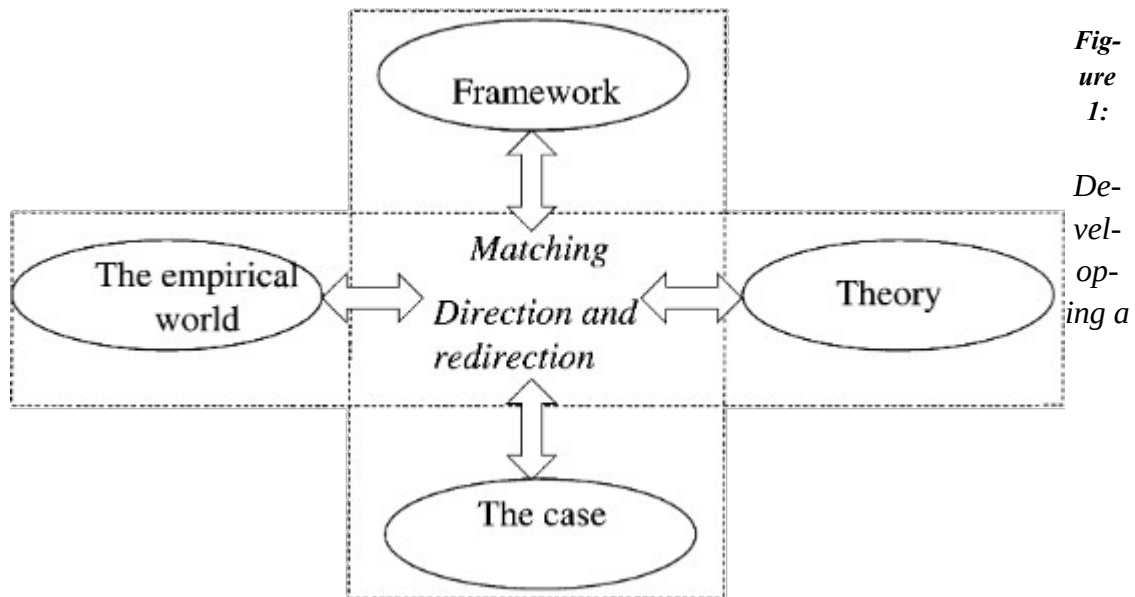


Figure 1:  
 Developing a

*framework and choosing a case study through iterative involvement of theory and findings in the empirical world (Dubois & Gadde, 2002)*

One thing to keep in mind is that this research strategy takes a lot more time and knowledge resources. Resources that I, as a Masters student, do not have as readily available as more experienced researchers. For example, I begin the thesis with a limited overview of relevant literature and a limited amount of time to adapt case studies. Therefore, I have to set modest goals for this thesis. It is not within my scope to develop comprehensive and robust theoretical adaptations to existing literature. Instead, the goal of this study is to show several limitations of current understandings of CCA impact and to suggest potential avenues for improvement.

In the section that follows, I use the research objectives to develop conceptual challenges and selected concepts. Then, using the relevant theories from the literature review, I construct a preliminary framework to understand how proponents can realise more transformative CCA impact. Then I will iterate between field study and further theoretical research to develop the framework. With this research strategy in mind, let us move towards developing a research methodology.

#### 4.2 Core concepts: Transformative impact relations and powering

Following the systematic combining strategy, I first describe how I arrived at the conceptual challenges of the research and how I chose to tackle these challenges.

##### *Arrival at conceptual challenges*

To understand how I arrived at the conceptual challenges, it is necessary to first understand how this study began and how that led to the first reorientation.

My initial interest in CCAs stems from personal experiences developing my own social innovation and working in an organisation that primarily developed social innovations. Throughout these experiences, I noticed that the majority of the impacts came from informal collaboration with people who were officially outside of the innovation, such as seemingly independent contest organisers, public in-

stitutions, and other outsiders. This gave me a hunch that, in general, impact creation in more social innovations occurred through informal channels rather than the institutional design prescribes. To delve deeper into this hunch, I had already analysed critical works by people like Andrew Stirling (2019) in the literature of innovation sciences about other perspectives on how innovation proponents obtained power. It was when I started the project on CCAs that further confirmation of my hunch led me to research this in more detail.

At the start of this study, there was a research grant from the CCA knowledge network, KNOCA, about how CCAs achieved impact. I applied for this grant with a wide range of experienced CCA researchers and practitioners. During the preparation for this research proposal, I had open one-on-one conversations with these researchers about their perceived largest obstacles to CCA impact. These discussions revealed two key insights. Because each CCA was run in such different contexts, it was difficult to apply lessons from one CCA to future CCAs. An Italian practitioner, for example, observed a major difference between the rules of 'proper CCA conduct' developed in countries with stricter institutions and the reality of organising CCAs in Italy, which relied much more on swaying public opinion. Aside from the various political contexts, there was also a significant difference in who was involved in organising the CCA. The researchers and practitioners stated that their personal involvement in CCAs had a large impact on how people and organisations that were not traditionally CCA-focused helped CCA organisers. Although the research grant was later turned down, these two insights encouraged me to try to understand how CCAs reached impact in diverse contexts (challenge 1) with the help of very diverse actors (challenge 2). Table 1 describes these conceptual challenges and my chosen approach.

**Table 1:** Concepts and analytical approach for the research

<b>Conceptual challenge</b>	<b>Core concept in thesis</b>	<b>Methodological issues</b>	<b>Analytical approach</b>
Develop insights for transformative CCA impact that is applicable in diverse contexts	Transformative impact relations	What relations are included or excluded? What types of transformative impact to consider?	Consider theoretically determined relevant relations and actor assessments of transformative impact
Develop insights for transformative CCA impact that can be executed by diverse proponents	Powering	Which relations to consider? How to deal with uncertainty of causality in power relations?	Consider theories of change of actors involved and follow relation priority from actors

#### 4.2.2 Transformative impact relations

The first challenge is to find a concept that describes how CCAs realise impact without relying on generalised contexts. As I have argued in the literature review, the theory of transformative social innovation does this well with its concept of “*conditions under which social innovation initiatives cre-*

ate transformative change" (Pel et al., 2020, p. 1). However, by making this term specific to CCAs and adding perspectives of relationality, plurality, and uncertainty, I adapt this term to: "CCA relationships that favour long-term transformative impacts on sustainability governance". The term "**relationships**" includes the relationality perspective by highlighting how CCAs simultaneously influence and are influenced by the system. The term "**transformative impact on sustainability transformation governance**" includes the plurality perspective by referring to any impact that causes fundamental change in the system, without defining which impacts should exist. The term "**favour**" includes the uncertainty perspective by focusing on the direction of influence rather than its absolute effect.

This idea raises two methodological questions: which relationships should be included or left out, and what kinds of changes should be taken into account? First, the critical realist point of view emphasises how important it is to choose which relationships to include in advance: I will only learn about the relationships that I am researching. I chose to use the Transformative Social Innovation Framework's relations as an analytical approach because they are well-grounded in a plethora of case studies that function similarly to CCAs. A second issue is deciding what kind of transformative impact I want to include. Despite the ideal of leaving this open from a pluralistic perspective, research boundaries must still be defined. The question then becomes: "Who should be in charge of establishing these boundaries?" I leave this decision to those involved in the CCAs because they can best describe the impacts they want. The disadvantage is that actors may overestimate their impact, especially if they support CCAs. To a large extent, I have reduced this risk by using the uncertainty perspective in the term "favor." Any remaining risk for blind spots and overestimations is acceptable given my goal to demonstrate the limitations of current theory and provide starting points for future research.

#### 4.2.3 Powering

The second conceptual challenge is to develop recommendations for realising impact that can be implemented by diverse range of proponents. At first, I chose the P<sup>O</sup>wer IN Transitions framework because of its emphasis on how actors empowered themselves through resource mobilisation (Avelino, 2017). However, during the case study, I observed that actors strategically manoeuvred to gain access to new resources rather than empowering themselves with pre-existing resources. This led me to consider the powering framework (Kok et al., 2021), which focuses on acquiring resources through strategic manoeuvring and collaboration. The framework's use of the term "**powering**" includes the relationality and plurality perspectives because it sees power as being constructed from a network of relations of each actor, which are not limited to official relations with institutions but can also include personal relations and relations of relations.

The concept of powering has two methodological issues; which power relations should be included or excluded, and how to describe causality when so many other factors are at play at the same time. The inclusion of power relations is similar to the inclusion of impact relations, and will therefore be treated similarly by relying on proponents' judgements. The problem of causality is more difficult to address because it is nearly impossible to draw definitive causal links, despite the fact that it is also the area that can provide the most understanding. As an analytical approach, I choose to rely on the proponents' theories of change. This has the same advantages and disadvantages as the earlier choice about relation prioritisation. A further argument for this choice is that even if the proponents' theory of change is flawed, it still reveals the proponents' motivation for acting the way they do.

### **4.3 Study approach: Descriptive case study**

The analytical approaches and research strategy should allow for a high density of information about the case as well as a high level of detail in the description. The analytical approaches often require a deep understanding of actors' actions and motivations. The research strategy of systematic combination requires that I am able to reanalyse collected data later in the process from a different perspective. A descriptive case study accomplishes this (Yin, 2018). Some may argue that this choice of study approach limits the extensibility of the insights for future CCAs. However, CCA cases vary so greatly in terms of who is involved in running them and the political context that even a study of all CCAs run thus far does not cover the full range in which CCAs can have transformative impact. Instead, the relational nature of the developed framework allows for insights for new cases.

#### **4.3.1 Method of data collection**

So, how can I make sure that this descriptive case study is good for reorientations, as described by the systematic combining strategy? I do this through a combination of detailed insights from a wide range of proponents and semi-structured interviews. Because I am interested in agency, the interviewees should have knowledge of the decision-making surrounding the powering of CCA relationships and/or be the ones who do the powering. This means I will start with people from organisations that helped launch, run, and advocate for a CCA. I will look for these interviewees through preliminary desktop research and additional referrals. Because the research strategy requires the ability to reinterpret interviews after reorientation, I use a semi-structured interview format. Depending on the involvement of the interviewee in the CCA impact realisation, interviews last 45 minutes or longer. The risk of COVID lockdowns and isolations limits the medium of the interviews to video communication applications. I use Microsoft Teams and Zoom. To preserve the richness of details in the interviews, I record them with the consent of the interviewees, transcribe them automatically, and make only minor edits, such as removing filler words and false sentence starts. Because CCAs occur in a very political realm and I ask about proponent strategies, the interviewees remain anonymous.

#### **4.3.2 Case selection**

It had few options when it came to selecting the case. The first CCAs were held simultaneously in France and the United Kingdom in 2019, and four more CCAs have been held since then. The first criterion for case selection was the availability of information about how the CCA was conducted. I chose this criterion so that I would be able to quickly find suitable people to interview and because it indicated that the CCA organisers might be open to talking. The second criterion was that the CCA showed strategic manoeuvring. This could be viewed as a case of confirmation bias. However, the thesis's goal is to demonstrate the limitations of current understandings of how CCAs generate impact. Even if only a few cases contradict the established understandings, this would broaden the conceptualizations of CCA impact to include more pathways. It would also help to understand why the impact of this CCA was not realised in the ways that most theories predicted.

Two cases met these criteria, one in France in 2019 and one in Germany in 2021. I chose the German case because, unlike in France, the strategic manoeuvring seemed to be present at the start of the CCA and because the case had been conducted more recently. With the research methodology identified and the case chosen, I can now begin to develop a preliminary framework for studying the case.

## 5 Preliminary framework

In this section, I will develop a preliminary framework with which I will gather data about the case. As I mentioned in the study approach paragraph in the methodology, I started out this research using different theories. As I have already argued why I changed the theories, I will focus here on the theories that I ended up using. First, I will describe the theory with which to understand how CCAs can have transformative impact, then I will consider how actors use their agency to contribute to power dynamics, and lastly, I will merge these insights into one framework.

### 5.1 How to reach transformative impact: Transformative Impact Relations

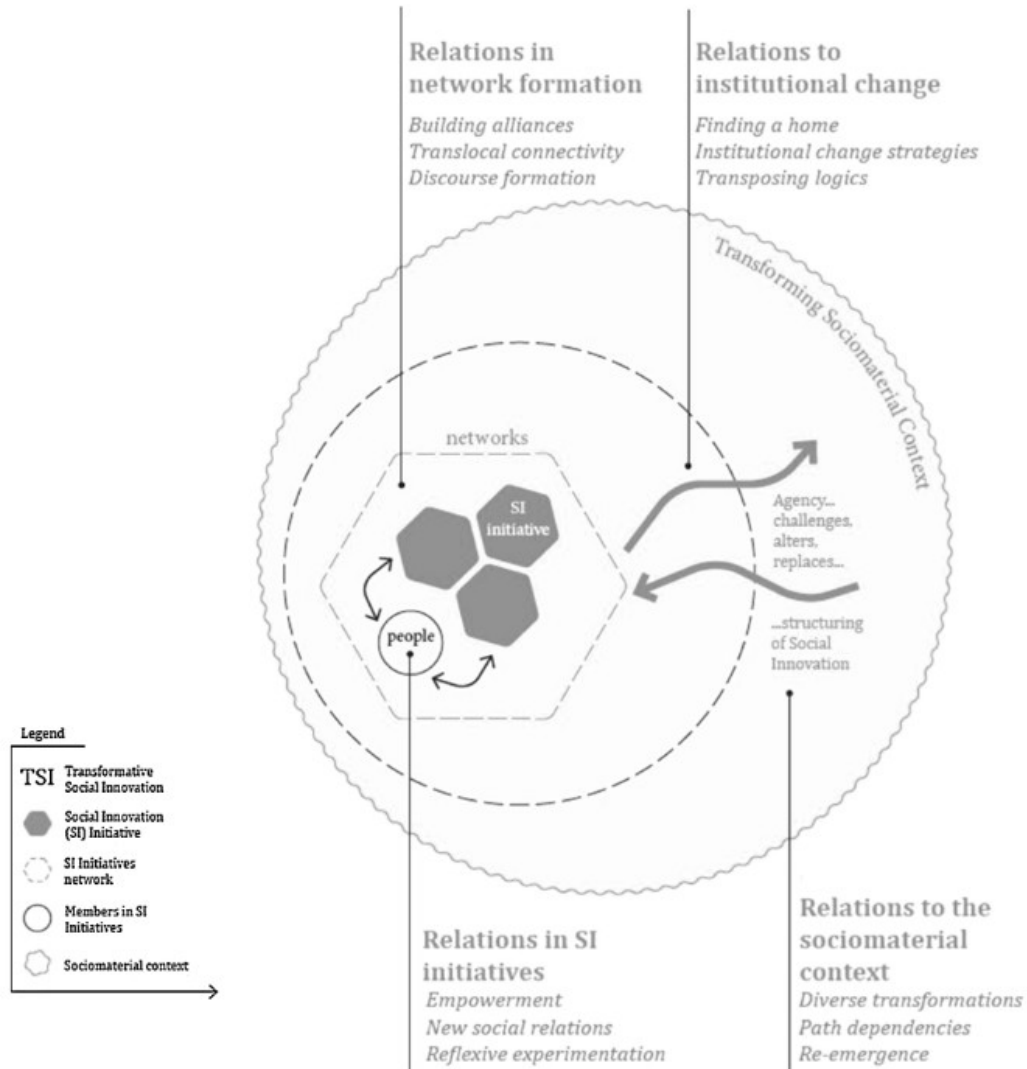
In the field of innovation sciences, there is one clear theory that explains how social innovation gain impact whilst taking Stirling's perspectives of plurality, uncertainty, and relationality into account: the Transformative Social Innovation (TSI) framework (Pel et al., 2020).

The TSI framework was developed by a consortium that performed transdisciplinary research on 20 different social innovations. This framework focuses on the conditions under which social innovation generates transformative change. The social innovations are seen as transformative to the extent that they challenge dominant institutions in a socio-material context. The framework describes 12 propositions organised into four levels of relationships. Each of these propositions describes how the relationships surrounding initiatives can have transformative impact. The levels range from relations within the social innovation initiative, relations to the initiative ecosystem, relations to institutions, and finally relations to the socio-material context.

The TSI manifesto integrates the perspectives of plurality, uncertainty, and relationality rather well. It specifically focuses on actors who are not powerful as of yet and who have multiple reasons for participating in the social innovation initiative. Second, it integrates uncertainty because it shows which relations favour transformative impact rather than describing controlling mechanisms. The framework also recognises that power is relational by describing how power dynamics operate in strategic action fields. However, this concept is not fully worked out.

The reason that the framework does not fully work out relational power is that it uses the social innovation initiative as its unit of analysis rather than the actors that are involved in the initiative. As such, there is no mention of how CCA proponents can act to realise the initiative relations. This also includes how the powers of the actors together make up the total power possibilities of the initiative.

These missing answers to IS critiques are addressed in part in the following subsection, which examines the power of actors.



**Figure 2:** Overview of the Transformative Social Innovation framework (Pel et al., 2021)

As previously stated, the transformative social innovation framework describes four levels of relationships. For each set of relations, there are three propositions that are developed. I will proceed according to the study approach and take on these propositions in our preliminary framework because of their grounding in a large body of theoretical and empirical research.

*Relations within initiatives*

The first set of relations, those that are within initiatives, contribute to transformative change because they shape the relations that the initiative fosters in the socio-material system, as well as the fact that they are shaped by this system to some extent (Pel et al., 2020). According to the framework, the social innovation initiative provides a space where different motivations of actors can come together and



are combined in such a way that tensions between actors are overcome and where the actors can find the psycho-social empowerment to enact change. Translated into three distinct propositions, this becomes:

- **Proposition 1.** SI initiatives provide spaces in which new or alternative values can be promoted and aligned with new knowledge and practices—in a process of reflexive experimentation that supports both members' motivations and their moves towards collective 'success' and 'impact'.
- **Proposition 2.** Manifesting new/alternative interpersonal relations is one pivotal way in which SI actors are able to create the right conditions to challenge, alter, or replace dominant institutions.
- **Proposition 3.** People are empowered to persist in their efforts towards institutional change, to the extent that basic needs for relatedness, autonomy, and competence are satisfied, while at the same time experiencing an increased sense of impact, meaning, and resilience.

#### *Relations in network formation*

The second set of relations, those in the 'ecology of the initiative', highlights how initiatives interact with other social entities in order to get resources and become empowered. The framework describes three types of network building: building alliances in the direct action fields that it is involved in; (dis)empowerment from similar SI networks in other parts of the world; and shaping the language that is used to discuss the socio-material issues. This results in the following propositions:

- **Proposition 4.** The transformative impacts of SI initiatives depend greatly on the changing tensions within and stability of the action field(s) that they operate in.
- **Proposition 5.** Translocal networks are a key source of empowerment for local SI initiatives.
- **Proposition 6.** Discourse formation and its mediation through communication infrastructures crucially enhances the reach of SI network formation.

#### *Relations to institutional change*

The third set of relations, between the initiative and dominant institutions, highlights how these institutions can (dis)empower the initiative while also being changed in several ways by this process. The framework describes three relations between the initiative and institutions: how its specific association with institutions provides it with resources at the cost of having to operate in part according to the logics of those institutions; that the initiative can employ various strategies for changing other institutions; and that the initiative can also use its relations to different types of dominant institutions to critically question the broader institutional logics. This results in the following propositions:

- **Proposition 7.** SI initiatives need to find an institutional home in order to access vital resources; this often entails a balancing against the desire for independence from (critiqued) dominant institutions.
- **Proposition 8.** In order to bring about institutional change, SI initiatives need to combine different forms of institutional entrepreneurship, and proactively adapt these strategies in re-

sponse to changing circumstances. This is done through providing local alternatives; advocating, lobbying, and protesting; embedding into existing institutional arrangements; building a 'platform' and movement for institutional change; and engaging with processes of cultural change.

- **Proposition 9.** SI initiatives reconsider and reconfigure the broader institutional logics in which dominant institutions are embedded, by learning across different institutional logics and by reinventing, recombining, and transposing specific elements from one institutional logic to another.

#### *Relations to socio-material context*

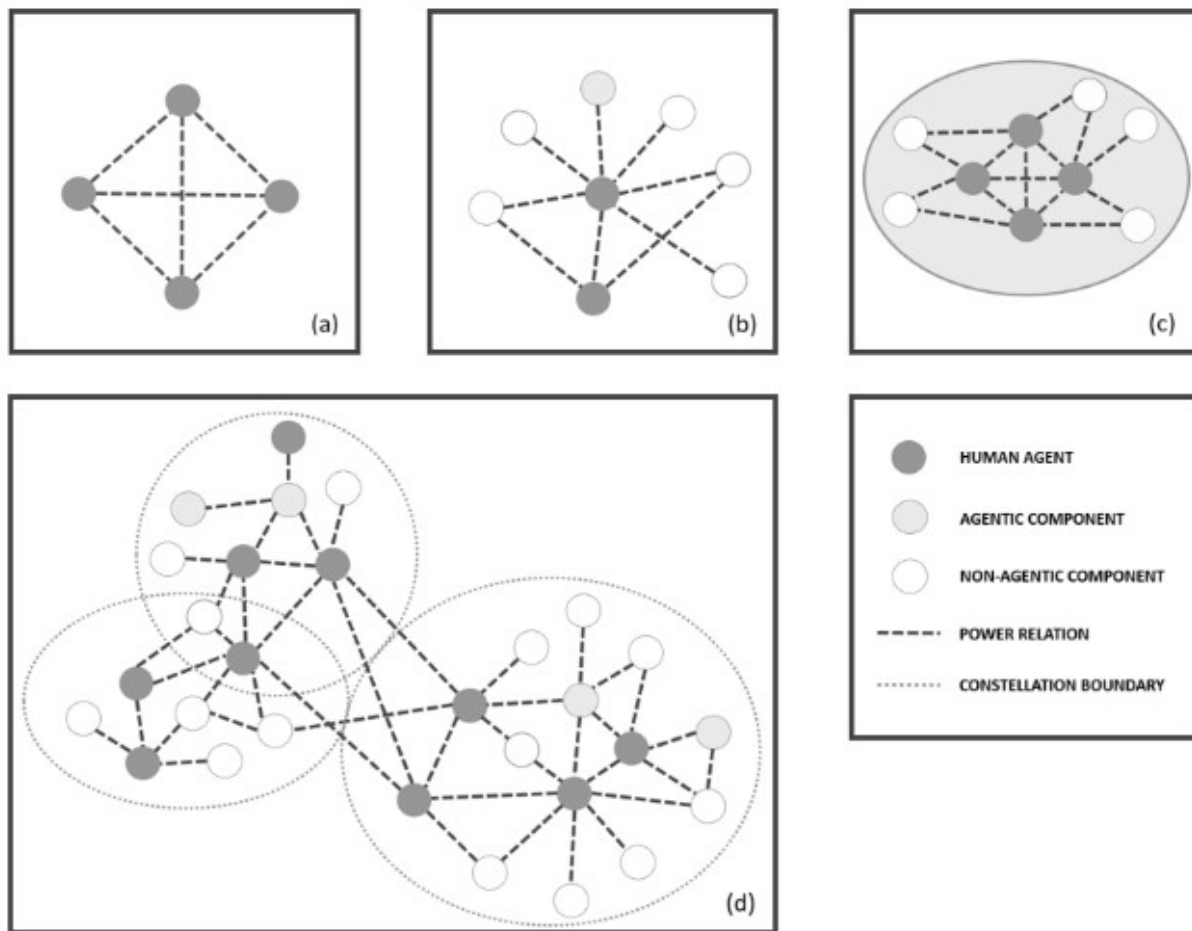
The fourth and last set of relations, between the developments of the socio-material context and the initiative, highlight how initiatives can only be defined in relation to what the socio-material context looks like. The framework describes three ways in which the socio-material context provides a background to initiative relations: that initiatives and their ambitions are strongly shaped by the socio-material context, that the innovativeness of the initiatives is only in how they deviate from the evolving socio-material context, and that the initiatives are driven by plural interests and forms and can try different tactics to influence this pluralism. This leads to the following three propositions:

- **Proposition 10.** The rise of SI initiatives and their particular transformative ambitions are strongly shaped by the historical development of the wider socio-material context.
- **Proposition 11.** SI initiatives are only innovative against the background of an evolving socio-material context. Activities of innovating and inventing present but one historical appearance of SI, next to other less conspicuously innovative activities of re-invention, advocacy, and maintenance.
- **Proposition 12.** Evolutionary diversity is an integral element of TSI processes, reflecting the historical diversity of the transformative ambitions of SI initiatives and the diverse motivations of the people involved in them.

In general, the relations and propositions described above suffer from several limitations. The most important factor is that there is little causality described in the framework. I tackle this issue by specifically considering causality in the analytical part that will follow.

## **5.2 How to make things happen: powering**

The powering paper builds on complex adaptive systems theory. This body of work describes how aggregated human and non-human entities can have agency, using Stirling's definition of agency as an entity's ability to orient itself between prehensible pathways. These aggregated entities together can be semi-coherent, and therefore they can be distinguished in more or less similar constellations. An example of such a constellation can be an organisation, but it can also be a social movement or a way of performing societal work. This agency is not necessarily restricted to humans, but can also come from non-human entities, such as energy markets. The agency is then constructed through the interactions of these human agents and agentic components with one another and with non-agentic components. Figure 3 shows a visualisation of how agency is built up and how this is formed by power relations.



**Figure 3:** Schematic visualization of structure, agency and power in complexity. Specified for several (sub)systems: (a) power relations between human actors; (b) structure-agency interactions; (c) collective embedded agency in agentic components such as organizations and finally (d) power relations in several constellations (each consisting of agentic components, human agents and non-agentic components) that can be considered to constitute a complex adaptive system. (Kok et al., 2021)

The paper further categorises multiple mechanisms through which power relations influence system dynamics. Because this categorization is not described in more detail and because I am specifically interested in the establishment of initiative-system dynamics, I do not use these categories but rather will define our own categorization of how power relations operate in the case of Transformative Social Innovations.

As the next step in the study approach, I will now expand the theory of the Transformative Social Innovation framework with insights into how proponents' actions aid in the realisation of transformative impact relations.

These powering propositions must describe how SI proponents obtain agency, how this agency is transformed into powering the realisation of SI relations, and how this powering process influences

and is influenced by the SI relations. Following these descriptions, I can distinguish three propositions from the powering theory. (Kok et al., 2021).

**Proposition\* 13.** Agency within SI comes from power relations between human agents and (non)agentic components and takes place in plural overlapping collectives.

This proposition says that SI initiatives show the kind of agency that is described in the powering framework. This means that, according to this hypothesis, any group of people or parts can be seen as having agency, depending on how powerful they are in relation to the outside world. Aside from that, it is important to note that the fact that agency can happen in more than one group does not mean that the choice of how to identify groups is irrelevant. Rather, it means that the identification of relevant collectives should be guided by the specifics of each case, rather than by more traditional, hierarchical distinctions between individuals, divisions, organisations, and collectives.

**Proposition\* 14.** To help realise SI relations, SI proponents empower themselves through the creation and operationalization of power relations

The next hypothesis looks at how SI supporters try to use their power to bring about change. The POINT framework defines (dis)empowerment as the process by which actors gain access to resources, gain access to strategies to use those resources, and gain willingness to use these strategies (Avelino, 2017). Because the powering framework states that power resources are ultimately derived from power relations that agents possess, I translate these three mechanisms of (dis)empowerment into the concept of creating and operationalizing power relations. This means that agents seek out and take advantage of beneficial power relations with others based on differences in agency.

**Proposition\* 15.** Choices within SI relations are based on the power relations of its proponents.

The final hypothesis considers how actor power relates to the realisation of SI relations. Here, I follow the idea of "situated agency", which states that agents will perceive the world to the extent that they can interact with it. This would imply that actors prefer to promote SI relations that they can realise with their power relations over those that would be most transformative from a cockpit perspective.

### **5.3 Powering Transformative Impact Relations**

The powering framework's processes complement those of the TSI framework. This means that a framework that combines both theories simply connects the processes without requiring any conceptual changes. Because the powering framework emphasises actions at their most fundamental level, treating the powering processes as the medium through which decision-making and acting occur at the four levels of the TSI framework is the most natural way to connect the theories. This means that I will describe the agency processes at each TSI level through the language of the powering framework.

If the context and how it changed over time were unknown, the relationships between the actions and the CCA would be meaningless. The consortium that developed the TSI framework described the context through so-called Critical Turning Points, points in time that contained events with a particularly large influence on the future of the social innovation. However, as they noted in their reflections, focusing on a few key points obscures ongoing processes that do not directly lead to action (Pel et al.,

2017). Because of my focus on conditions that favour transformative impact rather than causal relationships, I want to avoid this ignorance of ongoing processes. Therefore, I summarise the case by providing a narrative description of the events surrounding the CCA, and then I test the proposition using these summarised data.

In sum, the preliminary framework reflects the Transformative Social Innovation framework, with the addition of three preliminary propositions. Figure 4 gives an overview of these resulting propositions.

## 6 Case

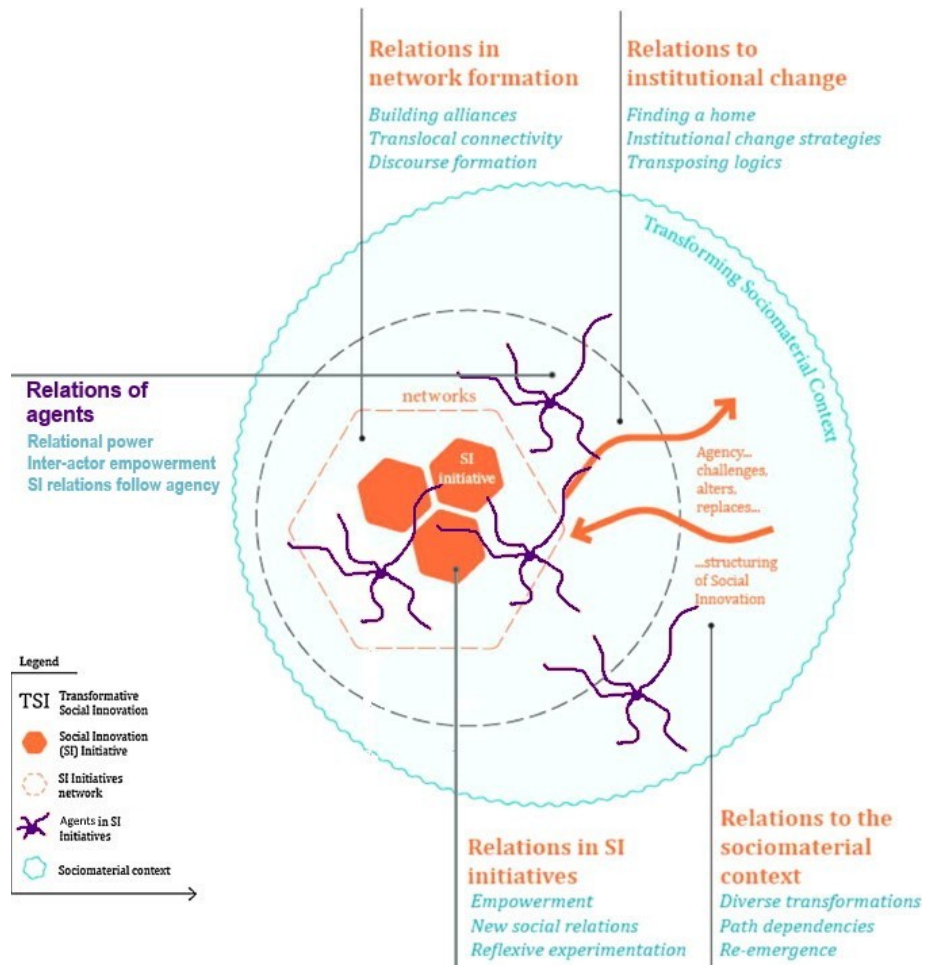


Figure 4: Overview of relations of the preliminary framework (adapted from Pel et al., 2020).

### study of the 2019 German ‘Burgerrat Klima’

The case can now be studied using the prepared preliminary framework. I considered the organisations and bodies mentioned in the Burgerrat Klima recommendations report. I specifically focused on the actors who could be suspected of having the most knowledge about strategy decision-making and implementation, such as involved CEOs, persons in charge of strategy development, and people who executed these strategies. I ended up contacting 2 organisers, 3 facilitators, 2 CCA oversight bodies, and CCA participants. I managed to interview at least one person from every organisation, except for one of the organisers. They referred me to the other organiser for insights in their activities. Table 2 summarises who I contacted and when.

**Table 2:** Overview of people contacted in chronological order.

Ref Nr.	Organisation	Primary role	Type of contact	Remarks
-	Organiser a	Implementation	-	No response
-	Organiser a	Implementation	-	No response
-	Organiser a	Implementation	-	No response
-	Organiser b	Strategy	-	Referred to #8
-	Organiser b	Implementation	-	Rejected
-	Organiser b	Implementation	-	Rejected
1	CCA gov-ernance a	Decision-making	interview	
2	Facilitator a	Implementation	interview	
-	Facilitator b	Strategy	-	No response
-	Facilitator b	Implementation	-	Referred to #3
3	Facilitator b	Strategy	interview	
4	CCA gov-ernance b	Informed colleague of #7	interview	
-	Facilitator C	Strategy	-	Referred to #5
5	Facilitator c	Implementation	interview	
6	Organiser a	Implementation	interview	
7	CCA gov-ernance b	Strategy	mail	
8	Organiser a	Strategy	Interview, mail	
9	Participant	Implementation	interview	
10	Organiser a	Strategy	interview	
11	Participant	Informed observer	interview	
12	Participant	Implementation	interview	
-	Politicians	Receiving end	-	Could not get connection
-	Ministry	Receiving end	-	Could not get connection

In my approach, I asked the person to refer me to someone else in their organisation if they were unavailable, or to other organisations they thought should be included. On June 6th, 2022, I sent out the first interview requests to members of the facilitating organisations, executive organisations, two lobbying organisations, and the Scientific board. From the 13 people I approached, I received six acceptances, two redirections to other people, and five lack of responses. I sent out three more invitations to replace the rejections on June 15th, and I received one acceptance, one referral, and one rejection. Following this, I conducted eight interviews with actors from all of the organisations that I approached, with the exception of Mehr Demokratie, which referred me to the BBK. The interview with the scientific board of directors was conducted by someone who had not been involved but was intimately familiar with the reasoning of the person approached. Throughout the interviews, I was referred

to two participants who had been involved in realising CCA conditions, and I was approached by a participant who had not been involved with impact realisation but did provide a different story about impact realisation from a critical corner via an open call. Throughout the research, I had the idea to approach actors who had been the destination of impact realisation efforts. However, I was unable to approach these individuals. My contacts did not want to share contact information or make a first contact because the actors at the receiving end were important members of the German parliament and ministers.

## **6.1 The story**

To create a narrative description of the CCA impact realisation, I asked the CCA proponents how they had gotten involved with the Burgerrat Klima. Their answers can be roughly divided into four periods: Germany's first citizens' assembly, lobbying for a German citizens' climate assembly; running the CCA; and finally, CCA follow-up.

### **6.1.1 2018-2019: Burgerrat Demokratie**

Citizens' assemblies gained global popularity after Belgian writer David van Reybroeck (2011) published the best-selling book 'Against Elections' and a citizens' assembly in Northern Ireland succeeded in enacting policy changes on taboo topics such as gay marriage and abortion in 2016 (An Tionól Saoránach, 2018).

Two people who would be very important in the formation of a German citizens' assembly were affected by these events. Mehr Demokratie was founded in 1988 with the goal of using direct democracy methods like referendums to make the German federal government more democratic. They first learned about citizens' assemblies in 2016, when they read an article in a German newspaper about a successful citizens' assembly in Northern Ireland. Mehr Demokratie felt the need to distance itself from the radical right party *Alternatieve für Deutschland* after they associated with direct democracy in a statement in 2018 (Ralf-Uwe Beck & Tim Weber, 2018). Because the AfD was so strongly associated with direct democracy, the citizens' assembly's deliberative democratic methods appeared to be a more promising way to get people on board than direct democracy methods, which were associated with the radical right. In the same year, a smaller organisation also became interested in citizens' assemblies. The BBK was established in 2008 with the goal of achieving climate protection measures by supporting citizen initiatives and referendums. In 2018, the founder of BBK was convinced by the book by David van Reybroeck about the potential of deliberative democracy. From then on, they wanted to realise a citizens' climate assembly in Germany.

At the time that these organisations got the idea to organise a German citizens' assembly, an opportunity presented itself. In their coalition agreement, the German government stated that they would form an expert committee to investigate the potentials of direct democracy for the German democratic system. However, the end of the coalition's term was nearing, and the government had not yet taken any steps to launch this committee. Mehr Demokratie saw this need for the government to quickly fulfil its promise as a good opportunity to lend their services. Together with the Potsdam Institute of Advanced Social Studies (IASS), Mehr Demokratie offered to organise a citizens' assembly on how the German democratic system could be updated. Mehr Demokratie used their network to find funding for this assembly, which they launched in 2019.

This first citizens' assembly was where the later organisers of the Burgerrat Demokratie first worked together, from the two facilitators IfOK and Nexus Institute to the scientific overseer IASS. The BBK's founder once worked closely with Mehr Demokratie and was thus able to attend the assembly's organising meetings. It was also at this assembly that the key players first got the idea to hold an assembly on the climate.

### **6.1.2 2019-2020 Towards a second (and third) citizens' assembly**

It was 2019, and the first assembly had gotten a lot of attention, including from the government. At this time, there was an increasingly large call for a citizens' assembly on the topic of climate change. Not only had participants from the Burgerrat Demokratie brought this up, but also France, the United Kingdom, and Schotland were just getting started with CCAs. At the end of 2019, Mehr Demokratie took the lead and collected 400K euros in funding for organising a CCA.

But at the time, the experiences of other CCAs showed that CCA recommendations did not always have the desired effect on climate action. As a result, the norm emerged that a CCA should only be organised if it had a political mandate and the government committed ahead of time to how it would respond to the results. This norm was also the main recommendation in the evaluation of the Burgerrat Demokratie in Germany.

After visiting the other CCAs, Mehr Demokratie and the facilitators made a project plan and started lobbying political parties, the parliament, and ministries for a political mandate. They did not accomplish this on their own. President Schauble, the patron of the Burgerrat Demokratie, had spoken to the Altstenrat. This body can be seen as the most influential part of the German government, consisting of the president of the federal government and the 23 most experienced members of parliament. After hearing Schauble, the Altstenrat agreed to give the mandate. However, there was one condition: the assembly could not be on the topic of climate. The argument was that because the government had just released its climate plans, there was no need for additional input on this topic. Instead, the Altstenrat proposed the topic of what Germany's role should be in the world.

Before committing to a citizens' assembly that did not have a focus on climate change, lobbyists for the assembly looked into other options. They went to the ministers to see if they wanted to host a CCA instead. Simultaneously, they proposed finding funding for the climate assembly themselves. However, neither the ministers nor the Altstenrat wanted to host a CCA for the same reason as before. According to some organizers, the real reason was that the majority of Altstenrat politicians would not benefit from having climate debates so close to federal elections.

Mehr Demokratie and the facilitators decided at this point to comply with the Altstenrat's demands and organise a citizens' assembly on Germany's role in the world. This would take place between the autumn of 2020 and the spring of 2021. As a result, there was no chance of a politically mandated CCA emerging prior to the federal elections. However, the actors felt that a climate assembly was too important to put off.

#### *Proceeding without mandate*

This is when they began to consider hosting a CCA without a political mandate. They discussed this possibility with potential scientific advisory board candidates. Mehr Demokratie could not officially



support this effort because running a non-mandated assembly alongside a politically mandated one would be politically unacceptable, and they did not have the resources to organise two assemblies at the same time. Because the BBK was not involved with the other citizens' assemblies and had the necessary connections and knowledge to organise a CCA, they took over the leading role.

But there was a problem. It was preferable to have an organiser with a high public profile, which the BBK did not have because it operated primarily in the background. Members of the proto-scientific board, on the other hand, had reported the discussions about running without a political mandate to a movement in which they were involved: Scientists for Future. With this movement, they decided to write a manifesto arguing that the CCA could be legitimate without a political mandate (Hagedorn et al., 2021).

When the BBK learned about this manifesto, they saw in Scientists for Future a solution to their missing public profile and asked them to be a co-initiator of the CCA. Scientists for Future agreed and announced on December 16, 2020, that they would launch the Burgerrat Klima—at the same time that Scientists for Future officially published the manifesto for a CCA. It is worth noting that there were more efforts to promote CCAs at this time. On the same day that the CCA was announced, the climate action group “Klimamitbestimmung Jetzt!” surpassed the 50K signature threshold for a petition to the Bundestag to host a CCA.

### **6.1.3 Jan 2021-Jun 2021 Burgerrat Klima**

At this point in time, it was the end of 2020, and there were only 7 months until the federal elections. In January 2021, BBK and the facilitating organisation met with IPG as an additional facilitating organisation to discuss the project plan. At the same time, BBK wrote funding proposals to several foundations. Although some foundations declined funding because of the lack of a political mandate, they managed to collect 6 million euros in funding. This allowed them to pay for the process, the facilitators, and hire people for the Burgerrat Klima organisation.

The idea was always that the climate assembly would have an impact through lobbying and journalism rather than through a prior political mandate. The BBK organised public relations, political contacts, and social media through an internal team. The first thing they did was establish a host of governance bodies for the Burgerrat Klima, which included a scientific and civil society advisory board, a scientific council, and a civil society support network. These governance bodies could provide legitimacy for the CCA in two ways.

On the one hand, the presence of prominent and powerful people provided legitimacy and the means to acquire power. Examples include how the prominent climate scientist Ortwin Renn was appointed to the Scientific Board, where they could gather important and diverse scientists in support. Second, the organisation derived legitimacy from numbers. The civil society advisory board included 22 organisations representing various aspects of society, and the support network even included 86 organisations. This allowed the BBK to claim to have the support of the 70 million people that these organisations represented.

The support group helped the climate assemblies by participating in social media campaigns and making the climate assemblies trend on Twitter on the day the recommendations were released. Although the intention was for these working groups to organise themselves into internal working groups in or-

der to maximise impact, this did not happen. After a few weeks, the working groups had become inactive.

The BBK also tried to get political support by appointing a political patron. They had asked five people who could be trusted by the majority of the population and who were nonpartisan. The BBK considered (former) presidents of parliament, German presidents, and a former member of the German High Court. One of these persons, former President Horst Kohler, agreed to become a patron under the condition that the BBK removed some climate-activist language from their website.

The BBK also tried to get politicians and parliamentarians to see how important the CCA was. They informed politicians with climate portfolios about the CCA even before the assembly began. They also met with climate policymakers from political parties. This lobbying was hampered throughout the assembly when the federal legal court ruled that the government's existing climate plans were not sufficiently in line with the Paris Agreement. As a result, the government isolated itself from the outside world in order to quickly develop new plans. Despite this, the BBK was able to meet with a number of politicians. When BBK discovered that politicians were more willing to meet if citizens from their district were present, they started to invite participants to every meeting. Throughout the CCA, more and more participants were willing to do this as they became more in favour of it.

In addition to lobbying, the actors tried to create a public movement. Two BBK employees were in charge of maintaining social media activity and reaching out to the media. Social media activities included updates about the climate assembly process as well as public statements made by politicians in support of the assembly. A particularly effective campaign was to hand out the results of the assembly to all major faction leaders. When the support network shared this news, it reached trending status on Twitter for that day.

#### **6.1.4 Jun 2021–Jun 2022: Burgerrat Klima follow-up**

Following the presentation of the climate assembly recommendations, all efforts shifted to getting the recommendations to be discussed in the federal election. This was organised by the BBK and participating citizens, and also occurred through outsider interests.

The BBK lobbied by writing to coalition negotiators with relevant climate assembly recommendations. The coalition negotiations were very closed due to the coalition's composition, which spanned a broad political spectrum. According to anecdotal evidence, coalition negotiators appeared to have discussed the climate assembly results during the negotiations. Furthermore, the facilitating organisations and Mehr Demokratie were invited to help write a section of the coalition agreement stating that the government would host more citizens' assemblies.

Citizens also mobilized. After the last session of citizens, the online group stayed longer to discuss the process. A few citizens from this group bonded and decided to stay in touch. Furthermore, the BBK established messaging groups that citizens could join to stay informed, as well as one where they would be asked to contribute to talks with politicians or interviews for further research, such as the document you are currently reading. Several citizens wrote to their local candidates for parliament, which resulted in some discussions. One notable activity was the writing of an open letter to the government by 20 citizens demanding that the results of the climate assemblies be taken seriously, with

five people actively participating in the letter's creation. The BBK advised on who to contact and facilitated group feedback on the open letter.

The release of the climate assembly's recommendations was covered by both liberal and conservative public media. Furthermore, many local media outlets covered stories about citizens from the same region. They focused on how the citizens' experiences were or what a citizens' assembly was in the first place, with less emphasis on the content of the recommendations. The daily news show planned to discuss the climate assembly results on the day of their presentation, but this did not happen due to other news about federal climate policies breaking that day.

After the coalition came together, the BBK's last lobbying efforts were focused on the Ministry of Economic Affairs. With the help of a public relations consultancy, the BBK had started talks with the ministry, which would report back after six months to assess how the government had implemented its new policy. The BBK wanted to convince the ministry to give their feedback publicly. However, as these talks began, Russia invaded Ukraine, starting the largest European war since the Cold War. After the ministry had not responded to the CCA discussions for a half year, they sent the state secretary to give public feedback.

## **6.2 The analysis**

The narrative description above raises several questions. Why did actors do the things they did? Why did they succeed in getting funding and reaching trending status on Twitter but not in getting a political mandate? This section analyses the narrative description with the propositions of the preliminary framework. Table 3 summarises this analysis.

**Table 3:** repositions of the preliminary framework and their support

Relations within SI initiatives
<p><b>1. SI initiatives provide spaces in which new or alternative values can be promoted and aligned with new knowledge and practices—in a process of reflexive experimentation that supports both members' motivations and their moves towards collective 'success' and 'impact'.</b></p> <ul style="list-style-type: none"> <li>+ CCA itself is an experiment with new forms of decisionmaking</li> <li>+ Proponents are in favour of CCAs with different values and worldviews</li> <li>- Citizens who doubted climate science felt unheard and alienated</li> </ul>
<p><b>2. Manifesting new/alternative interpersonal relations is one pivotal way in which SI actors are able to create the right conditions to challenge, alter, or replace dominant institutions.</b></p> <ul style="list-style-type: none"> <li>+ Within the CCAs, all participants are equal as German citizens</li> <li>+ Proponents went beyond client-provider relationship and worked as equals as CCA proponents</li> <li>- Dominant institutions of technocratic-stakeholder agenda-setting remained</li> </ul>
<p><b>3. People are empowered to persist in their efforts towards institutional change, to the extent that basic needs for relatedness, autonomy, and competence are satisfied, while at the same time experiencing an increased sense of impact, meaning, and resilience.</b></p> <ul style="list-style-type: none"> <li>+ Proponents had established a high level of trust through previous collaboration.</li> <li>+ Proponents gave each other autonomy to experiment</li> <li>+ CCA participants gained competence throughout the assembly</li> <li>- Some participants felt a diminished sense of impact when the government remained silent about the implementation of their CCA plans</li> <li>- Online communication hindered participants to connect with each other</li> </ul>
Relations in network formation
<p><b>4. The transformative impacts of SI initiatives depend greatly on the changing tensions within and stability of the action field(s) that they operate in.</b></p> <ul style="list-style-type: none"> <li>+ Transformative impacts involved many 'outsiders', such as MPs, influential individuals, journalists, and civil society organisations</li> </ul>
<p><b>5. Translocal networks are a key source of empowerment for local SI initiatives.</b></p> <ul style="list-style-type: none"> <li>+ Proponents visited other CCA organisers to learn about design features</li> <li>No further resources were shared translocally</li> </ul>
<p><b>6. Discourse formation and its mediation through communication infrastructures crucially enhances the reach of SI network formation.</b></p> <ul style="list-style-type: none"> <li>+ Proponents purposefully referred to how government had mandated earlier CAs and to the success of some previous CCAs</li> <li>+ Proponents were hindered by organisations that employ the term of CCAs as form of participation-washing</li> </ul>

**Table 3 (continued):** Propositions of the preliminary framework and their support

<b>Relations to institutional change</b>
<p><b>7. SI initiatives need to find an institutional home in order to access vital resources; this often entails a balancing against the desire for independence from (critiqued) dominant institutions.</b></p> <ul style="list-style-type: none"> <li>+ Proponents oriented between institutional homes in participatory governance, civil society advocacy, and institutional homelessness</li> <li>+ Proponents balanced desire for independence by diversifying their resource base</li> </ul> <p><b>8. In order to bring about institutional change, SI initiatives need to combine different forms of institutional entrepreneurship, and proactively adapt these strategies in response to changing circumstances.</b></p> <ul style="list-style-type: none"> <li>+ CCAs in general provide a local alternative to institutional processes of climate policymaking</li> <li>+ Proponents focused a lot on lobbying as theory of change, in addition to protesting and promoting cultural change processes</li> </ul> <p><b>9. SI initiatives reconsider and reconfigure the broader institutional logics in which dominant institutions are embedded, by learning across different institutional logics and by reinventing, recombining, and transposing specific elements from one institutional logic to another.</b></p> <ul style="list-style-type: none"> <li>+ Proponents combined institutional logics from privately-run lobbying and governmental participatory processes</li> <li>+ Proponents visioneered about a future where CCAs are integrated with other forms of creating democratic legitimacy and with localism</li> </ul>
<b>Relations to sociomaterial context</b>
<p><b>10. The rise of SI initiatives and their particular transformative ambitions are strongly shaped by the historical development of the wider socio-material context.</b></p> <ul style="list-style-type: none"> <li>+ The 2019 COVID pandemic had a significant impact on the CCA's organization.</li> <li>+ The proponents used the unilateral signing of the Paris Agreement to depoliticize the need for governmental climate action</li> <li>+ The government's response to the CCA output was hampered by Russia's invasion of Ukraine in early 2022</li> </ul> <p><b>11. SI initiatives are only innovative against the background of an evolving socio-material context. Activities of innovating and inventing present but one historical appearance of SI, next to other less conspicuously innovative activities of re-invention, advocacy, and maintenance.</b></p> <ul style="list-style-type: none"> <li>+ Prior to the American Revolution in the 18th century, the innovative component of CCAs was the mainstream definition of democracy.</li> <li>+ CCAs are an offshoot of the deliberative minipublics movement, which has been around since the 1970s.</li> </ul> <p><b>12. Evolutionary diversity is an integral element of TSI processes, reflecting the historical diversity of the transformative ambitions of SI initiatives and the diverse motivations of the people involved in them.</b></p> <ul style="list-style-type: none"> <li>+ To date, each national CCA has experimented with its composition, such as how to facilitate deliberation and integrate with larger society.</li> <li>+ The deliberative democracy movement was founded on the concept of democratic fairness, but it is now being promoted as a more effective way to make policy decisions on contentious issues. Some actors also use CCAs to postpone taboo decision-making</li> </ul>

**Table 3 (continued):** Propositions of the preliminary framework and their support

Relations of agents
<p><b>13. Agency within SI comes from power relations between human agents and (non)agentic components and takes place in plural overlapping collectives.</b></p> <ul style="list-style-type: none"> <li>+ Proponents agency differs based on their relations with other agents and components</li> <li>+ The agency that led to impact realisation within CCA occurred in collectives of actors whose agency was greater than the sum of its parts.</li> </ul> <p><b>14. To help realise SI relations, SI proponents empower themselves through the creation and operationalization of power relations</b></p> <p>→ 14 adapted: <b>To help realise SI relations, SI proponents empower themselves through the creation and operationalization of power relations and change the agency of others to contribute – sometimes setting in motion chains of changed agency that are outside of the original actor's control.</b></p> <ul style="list-style-type: none"> <li>+ Proponents improved their agency by creating and using power relations</li> <li>- Proponents created and changed components to empower others</li> <li>- Proponents can sometimes set in motion a chain of changed agencies that are beyond their control</li> </ul>
<p><b>15. Choices within SI relations are based on the power relations of its proponents.</b></p> <p>→ 15 adapted: <b>SI proponents actively seek to change their power relations to realise desired SI relations – They will only sometimes choose to consider other SI relations when they have an easy opportunity to do so or when they are faced with major obstacles.</b></p> <ul style="list-style-type: none"> <li>+ In some cases, proponents chose to make an impact with the power relationships that they possessed</li> <li>- proponents strategize to alter their power relations in order to achieve the desired transformative impact relations for the CCA</li> </ul>

### 6.2.1 Relations within social innovation initiatives

*Proposition 1. SI initiatives provide spaces in which new or alternative values can be promoted and aligned with new knowledge and practices—in a process of reflexive experimentation that supports both members' motivations and their moves towards collective 'success' and 'impact'.*

The first proposition is mostly supported. The Burgerrat Klima provides space for new and alternative values. All actors interviewed say they support democratic climate governance, meaning that they want German citizens to have more influence on climate goals. However, they further had differing goals that motivated them, such as promoting more ambitious climate governance, creating more open debates, connecting communities, and restoring citizens' trust in democracy. Although some of these values clashed, they could all be realised through the organisation of a CCA. The CCA also showed signs of reflexive experimentation, and indeed, it is itself a result of reflexive experimentation. CCAs offer a shadow democracy that allows new ideas to be tried. The CCA meetings show outsiders that citizens can work with informed and nuanced opinions. Furthermore, the CCA proponents wanted to experiment further. Without my asking, most actors described social imaginaries of citizens' assemblies in a future democratic society.

Actors also had to compromise their wishes. The actors took different stances on whether CCAs should open up or settle climate debates. The CCA opened up debates by establishing a "Parliament of Things", in which citizens imagine themselves as various important non-living objects with a say in

policymaking, inviting artists to stimulate different forms of decision-making and reasoning. Some of the facilitators went further and went beyond the two assigned questions in their facilitations. Other aspects of the CCA were designed to bring debates to a close. The scientific board chose the eight questions for the CCA with input from civil society and politics, with the goal of answering questions raised by many stakeholders in society. It should be noted that the majority of the measures served multiple purposes. Another reason for limiting the scope of the CCA to eight questions was to make the results more easily accessible to the media.

There was also a problem for some participants who came from a context of climate denial. They felt alienated because of the assumed shared goal of helping the German government reach the Paris Agreement.

***Proposition 2.** Manifesting new/alternative interpersonal relations is one pivotal way in which SI actors are able to create the right conditions to challenge, alter, or replace dominant institutions.*

There are clear signs that the people in the Burgerrat Klima are trying to make new connections with each other. The facilitators worked closely together, even though they would on paper only work as service providers (facilitating the CCA discussions) and clients. Instead, they worked together to promote the realisation of a CCA and co-created the CCA plan. In addition, the participants were treated differently than they would have been in the dominant institutions. All the participants were treated the same, as citizens, and were stimulated to have the same minimum understanding of climate change and to express themselves for the same amount of time. For example, the facilitating organisations have the goal of allowing people who have not yet expressed their opinion to speak first.

The innovation also reproduced dominant institutions. The biggest example is that experts set the agenda. Although the citizens were able to take greater initiative at a later stage, these efforts were still mediated by the BBK, which some participants found controlling.

***Proposition 3.** People are empowered to persist in their efforts towards institutional change, to the extent that basic needs for relatedness, autonomy, and competence are satisfied, while at the same time experiencing an increased sense of impact, meaning, and resilience.*

The CCA proponents implicitly tried to empower each other when they were trying to get a political mandate and explicitly empowered the participants throughout the CCA. The CCA organisers had worked closely together before, and they all reported that they trusted each other to do their jobs well. Furthermore, they gave each other room to make their own decisions. For example, each facilitating organisation was responsible for their own subgroup of participants, where they could decide how much they wanted to control the conversations and how much they wanted to deviate from the given questions. The participants were also empowered. This was one of the main goals for most of the participants: a sense of dignity and a feeling of competence. The proponents stimulated participants and the civil society support group to organise their own actions; and all actors mentioned that they saw the participants become more competent on the issue of climate change policies. The CCA organisers also took specific measures to promote a sense of impact, meaning, and resilience. Politicians were invited halfway through the CCA to give their feedback, and successes were celebrated in the chat groups.

Several participants mentioned their disappointment when they did not hear for a long time about what happened with the CCA. Further hindrances came from the fact that all meetings had to be conducted online due to the Corona pandemic. This made it unappealing for participants to talk to each other between meetings and have informal fun.

### ***Powering***

With knowledge of how internal relations led to impact, there remain questions about how these relationships were formed. How did they manage to work together without a political mandate? And how did the initiative find so many people and organisations to join their boards? I will analyse these questions below, using the powering terms.

*How did the actors decide to work together without political mandate?*

*Then the window [of opportunity] seemed to be already very closed and then [...you] always need someone who says, "well, I don't stop here anyway" [2]*

There were several factors that allowed the actors to organise a CCA without the normally required political mandate. One fundamental benefit was that the facilitators and BBK had worked with CCAs extensively and trusted each other. It was this trust and proven track record that allowed the organisations to take the risk of starting the project, convinced individuals to take part in the governance bodies, and gave funders the trust that finances would be well spent. This initial momentum unlocked further options. The financing paid team members to organise further assembly funding and communications. A second factor was the relations that the organisations had. Mehr Demokratie would have been a well-suited candidate to run the citizens' assembly due to their organisation size, experience in the field, and neutral stance on climate issues. However, this organisation was unavailable because it was organising the Burgerrat Deutschlands Rolle in der Welt. The BBK was initially not well suited because it did not have the public profile to draw a lot of attention to the CCA. However, this low profile also allowed them to remove any association with their climate activist past. To overcome the issue of legitimacy, Scientists for Future joined the CCA as co-initiator. Mehr Demokratie was able to assist due to a lack of other resources by sharing much of their knowledge and contacts informally.

*How did the initiative find the people and organisations for their governance boards?*

One other influential factor was that the Burgerrat Klima had a large number of people on their governance boards. This occurred through both informal networks and using the networks of other actors. For example, the head of the scientific board had already been involved with the assessment of earlier citizens' assemblies in Germany and already knew the head of the BBK. It is through this experience with the topic and the personal connection, that Ortwin Renn agreed to be the chair of the scientific board before it was certain that a CCA would be organised. Through their extensive knowledge of different scientific fields related to climate assemblies and due to their network and reputation, they could assemble the rest of the scientific board. For the civil society advisory board, this happened differently. Here, the BBK wrote to many organisations with an invitation to join. Once the first organisations had joined, their networks and reputation made it easier for further organisations to join.



### 6.2.2 Network formation processes

*Proposition 4. The transformative impacts of SI initiatives depend greatly on the changing tensions within and stability of the action field(s) that they operate in.*

The Burgerrat Klima had a large number of people and groups working for and against the assembly. Civil society organisations provided credibility by using their names, sharing social media posts, and communicating with their members by hosting talks and sharing the progress of the CCA in their newsletters. The facilitators alternated between acting as neutral companies that simply facilitated the deliberations as professionally as possible and lobbying politicians to give the climate assembly a mandate. They also planned the CCA before they were sure that they would get a mandate.

A second group consists of current system actors. The Altstenrat, the highest office in the federal parliament, had authorised another citizens' assembly, which had the effect of limiting the resources that were available for the CCA. On the other hand, the organisations that organised the CCA could benefit from the mandate that they had gotten for the other citizens' assembly. The government had shown its trust in the methods that these organisations used. Parliamentarians were also a viable source of power for the CCA. Although their parties might not support the CCA, they could provide the BBK with information about how to lobby their party and even help put in a good word for their more influential colleagues. During coalition negotiations, some of these MPs would advocate for the assembly's recommendations. A third example of help from the establishment was German former President Horst Kohler. They became patron of the CCA and therefore lent their legitimacy. A last example is the one that was already mentioned, how Scientists for Future lend their legitimacy to the initiation of the CCA.

*Proposition 5. Translocal networks are a key source of empowerment for local SI initiatives.*

According to the theory of Transformative Social Innovation, translocal networks are an important source of empowerment. This is not visible within the Burgerrat Klima. The organisers did visit other CCAs to learn about the process of organising and to get ideas on how to make the process more rigorous. However, there was no direct support translocally in the sense that no shared things were written, campaigns were held, or resources were shared. An important reason is that there was as of yet no strongly organised translocal network that the organisers could use. Since the assembly has concluded, such a network has been founded.

*Proposition 6. Discourse formation and its mediation through communication infrastructures crucially enhances the reach of SI network formation.*

The proponents of the Burgerrat Klima actively sought to control discourse. A large negative discourse is that an increasing number of organisations use the term "citizens' assembly" without carrying out the work, resulting in a damaged reputation of CCAs. Instead of speaking out about these forms of participation washing, the proponents stressed the success of the citizens' assembly in Ireland and the fact that both the UK and France had mandated CCAs. Furthermore, they stressed that the German government had mandated a citizens' assembly from the same facilitators and that they had the support of a German ex-president, while remaining silent about the fact that the German government did not want to mandate a CCA. Furthermore, when the German Supreme Court overruled

the government's climate plans, the proponents criticised the government and pitched their CCA plans as a possible solution

### ***Powering***

For the network of CCAs, there are many unanswered questions. How did the CCA get support from a large civil society group, a patron, and many MPs? And how did actors get in touch with the public media?

#### *How did the initiative assemble and activate the civil society support group?*

To assemble a large civil society support network, the BBK had two employees available. These employees wrote to a large number of civil society organizations. Only some organisations replied. However, once several highly reputed organisations joined, other organisations also started to join. When this momentum caught on, organisations even started to approach the BBK instead of the other way around. The attraction of other organisations did not extend to different sectors. For example, BBK was not able to convince any unions or religious organisations to join.

To get the most out of the support network, the BBK asked it to spread social media messages and host workshops. The BBK also wanted the network to start lobbying. The BBK had too few resources to coordinate this and asked the support network to organise it themselves, which did not happen.

#### *How did the CCA get a patron*

The BBK approached five people with the right reputation and political neutrality to be patron of the Burgerrat Klima. This included former Bundestag and parliament presidents, as well as former members of the federal high court. The person who would become the patron initially declined for unrelated reasons. However, after the previous assembly's success, they changed their mind and agreed to participate if the BBK removed activist language from their website. In case none of the preferred patrons would have been interested, the BBK had prepared a list of alternative candidates, including former environment ministers.

#### *How did the initiative get MPs to promote the CCA?*

The BBK sent letters to all members of parliament that were somehow concerned with climate. According to some actors, most politicians will support the concept of CCAs once they understand how they work in greater detail. So, the BBK decided that getting the attention of members of parliament and letting them take part in CCAs was the biggest challenge. The BBK hired consultants to learn how different political parties worked internally and to find ways to get the attention of important politicians. Through these consultants, they were able to get photos where they handed the CCA report to the main candidates for prime minister. Furthermore, the BBK would send letters to a large number of MPs to see who would respond. Once the first people responded, it became a self-reinforcing cycle in which MPs would give BBK more insights into party structures, connect the organisation with prominent members within their own parties, and publicly endorse the organisation on social media. Another factor that aided the BBK in reaching out to politicians was that most of them were willing to hear stories from randomly selected citizens, particularly if they were from their Bundes-

land. As a result, the BBK requested that participants join them in discussions with political party members.

*How did actors get their message out in media?*

The BBK did not actively seek out public media organizations. They did, however, generate press coverage through social media campaigns, which were supported by a civil society support group. Furthermore, local journalists approached CCA participants on their own initiative. The fact that the initiative could reach trending status on social media on multiple occasions drew the attention of journalists. The BBK trained the participants on how to get their message across with journalists. Overall, it was difficult for all actors to get the contents of the CCA out because most media outlets were more interested in how the participants experienced the CCA.

### **6.2.3 Institutionalisation processes**

*Proposition 7. SI initiatives need to find an institutional home in order to access vital resources; this often entails a balancing against the desire for independence from (critiqued) dominant institutions*

The Burgerrat Klima looked for several institutional homes. The first was participatory governance, in which it would gain resources and legitimacy from governmental bodies. However, because the parliament refused to support the institution, there were signs of institutional pluralism, with civil society also providing funds and, eventually, legitimacy. In this process, there were still efforts to combine institutions, such as proposing to political parties that they provide legitimacy support in exchange for funding from civil society. Even though the assembly was ultimately organised and resourced by civil society, there was still an institutional home in the sense that methods of change were aimed very much at official policy making processes, by requiring political parties and members of parliament to take up parts of the proposals and aiming to get policies implemented through coalition agreements. The fact that citizens' assemblies were included in the coalition agreement, which was co-written by CCA actors and Mehr Demokratie, was the clearest indication that there were still ambitions to find an institutional home in participatory governance.

When asked, most actors said they would have preferred to have had a political mandate and financial resources, though some actors questioned the benefit of this and emphasised that a political mandate often comes with restrictions on freedom and democratic qualities. The CCA also showed elements of institutional homelessness. An example is how the BBK became a Trägerverein for the CCA. This is unusual in citizens' assemblies and is similar to the commissioning that would normally come from the government.

*Proposition 8. In order to bring about institutional change, SI initiatives need to combine different forms of institutional entrepreneurship, and proactively adapt these strategies in response to changing circumstances.*

The Burgerrat Klima actors demonstrated various forms of institutional entrepreneurship. The CCA in general is an attempt to provide local alternatives to the government's existing climate agreement. However, it does not provide a full alternative because the recommendations do not go into the same details as the climate agreement does. This was also expressed by politicians, who would have pre-

ferred to receive specific instructions on what citizens wanted in terms of concrete options rather than broad objectives.

A second form of entrepreneurship was the use of advocacy, lobbying, and protesting. Lobbying ranged from individual members of parliament to influential political party members to coalition negotiators to the new government's ministry of the environment. Lobbying was not only done one-on-one but also in the public media. Protests were done by participants, who gathered in front of the parliament to push for an official response to their report. A third option was to incorporate citizens' assemblies into institutional structures. This is most evident in how the coalition agreement mentions the use of citizens' assemblies as an important tool of the government in the future. Furthermore, some of the actors imagined that the assemblies could be made more permanent in the future and combined with other forms of democratic innovation, such as direct democracy or local workshops. Furthermore, some of the actors imagined that the assemblies could be made more permanent in the future and combined with other forms of democratic innovation, such as direct democracy or local workshops.

Lastly, there were efforts to change culture, such as making people more aware of how important climate change is and showing that it does not have to be a divisive subject. Media outreach aimed to change citizens' perceptions of what democracy is. One example of success is when participants became involved in their local communities to help them become more sustainable and organised.

***Proposition 9.** SI initiatives reconsider and reconfigure the broader institutional logics in which dominant institutions are embedded, by learning across different institutional logics and by reinventing, recombining, and transposing specific elements from one institutional logic to another.*

There is evidence that the broader institutional logics were changed. The German CCA is based on the institutional logic of government-mandated and privately-run citizens' assemblies, where hidden politics play a significant role in achieving change. The Burgerrat Klima changed this logic by having the mandate come from private parties. There is further experimentation going on with combining logic. Some actors wanted to combine CCAs with referendums and community activities. The CCA could also be applied to different scales. One of the actors mentioned that national CCAs could be used to inspire local governments to change their policies.

### ***Powering***

Here, a big question about the CCA remains. Why did the actors not succeed in getting a political mandate? There were also other questions about how success was achieved. How did the assembly get such a large amount of funding? Why did the participants mobilise? And how did the actors try to influence the writing of the coalition agreement?

*How did actors fail in getting government commissioning of citizens' assembly?*

It is unclear what the actors could have done to get a political mandate. The actors attempted to lobby various political parties and ministries for a mandate. This was helped by the fact that some of the organising actors already had good connections with the sitting government and because former citizens' assemblies in Germany had already worked with powerful actors.

*How did the assembly get funding from civil society?*

Because of their previous experiences with the two assemblies, the actors had an idea of which foundations might be interested in funding the CCA. The experience and connections of Mehr Demokratie, who assisted informally, and the high level of trust among the organising actors were the most important factors in why the networks received funding. Furthermore, after receiving a first fund of 400K euros, the team was able to develop additional funding. Not all foundations approached provided funds, which some specifically stated was due to a lack of governmental mandate.

*How were participants motivated to mobilise to write an open letter, protest before the government, and talk to local representatives?*

The participants were added to a digital group that facilitated communication and strategy, as well as a forum where they could respond to BBK requests for assistance. Once a participant had helped once, they were often asked to help again. The social psychological methods described in the TSI framework were used to motivate participants to help. Another reason is that some participants had prior experience and knowledge of how to communicate with politicians through their previous experiences and jobs. As a result, one of the participants wrote to their local representatives and was invited to take part in a discussion. One of the more conservative politicians who agreed to meet with the participant stated that one of the main reasons was that they were not a member of civil society but a citizen with no official interests. The idea for an open letter came from a group of participants who remained in the discussion space after the previous meeting. Apart from writing the letter, they indicated that there were few activities. Actors in the BBK, on the other hand, estimated that more participants had been active, though they did not know for sure. Some participants stated that they were less motivated because they were overly guided by the BBK, whereas others stated that this guidance was beneficial and that more outreach and guidance should have been provided.

*How did actors try to influence the writing of the coalition agreement?*

The BBK had two advantages in communicating with coalition negotiators. First, they approached a number of politicians before any of them were appointed as coalition negotiators. Second, they had learned quickly who had been appointed as coalition negotiators through their public relations consultant. Because BBK actors had already interacted with many coalition negotiators prior to their appointment (and thus had a more open agenda to listen to others), these negotiators were more willing to read BBK's mails. However, it is unclear to what extent the negotiators implemented the suggestions from the emails, as they were extremely closed in their communications. This was due in part to the fact that the coalition was formed across a large political divide and thus could not leak too much information during its formation. There was some anecdotal evidence that the negotiators were influenced: there was a similarity in the coalition agreement text and CCA recommendations, and key CCA actors were involved in writing a section in the coalition agreement about citizens' assemblies.

#### 6.2.4 Shaping of the transformative social innovation by socio-material context

***Proposition 10.** The rise of SI initiatives and their particular transformative ambitions are strongly shaped by the historical development of the wider socio-material context.*

The rise of the Burgerrat Klima coincided with a number of historical events. One particularly influential one was the Corona pandemic, which had the effect of forcing all activities to be conducted online at the time of the assembly's running. This removed location as a limiting factor for participation but added problems for people with children or those who did not have good digital skills. Another unintended consequence was that less trust could be built in meetings, both between participants and between actors and politicians.

Another consequence was that there was less bonding both between participants and between actors and politicians. The trend has been that the effects of climate change have become much more visible in recent years than they were a decade ago. This is partly because all of the world's governments have signed the Paris Agreement, which makes it official that they will do a lot to stop global warming from getting worse. As a result, it was easy to find enough information and openings for the CCA news. Furthermore, it compelled the organisers to proceed with the Burgerrat Klima even if there was no mandate, because the need for effective climate policies was too great to wait for later governments that might be more willing.

Russia's invasion of Ukraine half a year after the coalition agreement was made in Germany was a third important factor in the lobbying phase. The CCA had hoped to receive responses from the government to the assembly plans at this time, but this did not happen due to the government's preoccupations.

***Proposition 11.** SI initiatives are only innovative against the background of an evolving socio-material context. Activities of innovating and inventing present but one historical appearance of SI, next to other less conspicuously innovative activities of re-invention, advocacy, and maintenance.*

The citizens' assembly movement is currently experiencing a popular wave. However, fundamental parts of the practise have been around for much longer. The first citizens' assemblies were held 20 years ago, with the deliberative democracy movement 50 years old and political ideas prevalent before the American Revolution 350 years ago.

***Proposition 12.** Evolutionary diversity is an integral element of TSI processes, reflecting the historical diversity of the transformative ambitions of SI initiatives and the diverse motivations of the people involved in them.*

There appears to be evolutionary diversity, as all CCAs conducted to date have experimented with various forms of deliberation, organisation, and sharing of results. The CCA community tries to get a grip on this diversity by collecting and developing best practises through translocal networks but does not enforce them. Some actors also advocate for a CCA to postpone decision-making and silence protest.

#### ***Powering***

There is no agency to discuss here.

### 6.2.5 Powering processes

I now consider the last set of relations that are relevant, those of the SI agency. These propositions are also less established as the previous ones and are therefore open to change.

**Proposition\* 13.** Agency within SI comes from power relations between human agents and (non)agentic components and takes place in plural overlapping collectives.

The proposition about how agents try to bring about change is partly true, but it needs to be fleshed out more. First, it appears that proponents gain more agency and thus change their power relations by creating and utilising power relations. Examples of where new power relations are created include how MPs are brought into contact with the BBK and provide the BBK with insights into the inner party's workings or give the CCA a higher reputation by publicly endorsing it, as well as how the political consultancy bureau was hired and provided information to the BBK about which coalition negotiators were chosen. Power relations were put to work in multiple ways. For example, communication and trust between participants and the BBK were used to ask participants to assist in meeting politicians. And the double membership of people between the scientific board of advisors and Scientists for Future was used to create a collaboration between the two organisations to call for the CCA.

However, actor empowerment is only part of the story. The other part is that CCA proponents change the agency of others. An example is how the Bavarian prime minister persuaded the Altstenrat to hold a citizens' assembly, or how participants decided to combine their pre-existing agency of writing to politicians with their new agency of knowing and caring about CCAs to lobby their local representatives for CCAs. This is not limited to one actor influencing the agency of another, but it has the potential to start a chain reaction of changing agencies. Examples include how some journalists began writing about CCAs because it was trending on social media, inspiring other journalists to follow their lead, or how the addition of civil society organisations to the support network encouraged other civil society networks to join. As a result, I propose changing the proposition to:

**Proposition\* 14.** To help realise SI relations, SI proponents empower themselves through the creation and operationalization of power relations

The proposition regarding how agents try to create change is partially supported, but it requires further development. First, it appears that proponents gain more agency and thus change their power relations by creating and utilising power relations. Examples of where new power relations are created include how MPs are brought into contact with the BBK and provide the BBK with insights into the inner party's workings or give the CCA a higher reputation by publicly endorsing it, as well as how the political consultancy bureau was hired and provided information to the BBK about which coalition negotiators were chosen. Power relations were put to work in multiple ways. For example, communication and trust between participants and the BBK were used to ask participants to assist in meeting politicians. And double membership of people between the scientific board of advisors and Scientists for Future was used to create a collaboration between the two organisations to call for the CCA.

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atives for CCAs. This is not limited to some actors influencing the agency of other actors, but can set in motion a chain of changed agency. Examples include how some journalists began writing about CCAs because it was trending on social media, inspiring other journalists to follow their lead, or how the addition of civil society organisations to the support network encouraged other civil society networks to join. As a result, I propose changing the proposition to:

**Adapted proposition\* 14** To help realise SI relations, SI proponents empower themselves through the creation and operationalization of power relations and change the agency of others to contribute – sometimes setting in motion chains of changed agency that are outside of the original actor's control.

**Proposition\* 15.** Choices within SI relations are based on the power relations of its proponents.

The last proposition looks at how the freedom of CCA supporters affects their relationship choices. This claim is largely unsupported by the case. Only in a few cases did the actor's power relationships influence the type of CCA impact relations this actor desired. The only instances in which CCA relations follow power relations are in minor decisions, such as how the participant chose to write local representatives because of their previous experience writing representatives. One larger example of how power dynamics shaped CCA relations is how the actors chose to organise the CCA in the absence of a political mandate. This does not appear to be the main strategy for the actors, given that they have tried extensively to obtain a political mandate and have mostly gone out of their way in interviews to emphasise that they would not recommend running a CCA without a political mandate.

What happens more often is that actors want to realise certain impact relations and seek ways to make this realisation happen. As suggested by hypothesis 14, they do this by empowering themselves or changing the agency of others. In other words, actors empower themselves in order to realise a certain impact, rather than realising impacts that happen to fit their power position. Therefore, I adapt the proposition to:

**Adapted proposition\* 15.** SI proponents actively seek to change their power relations to realise desired SI relations – They will only sometimes choose to consider other SI relations when they have an easy opportunity to do so or when they are faced with major obstacles.

## 7 Discussion of results

Now that I have matched and refined the theoretical framework using the Burgerrat Klima case study, I can reflect on the questions and what this study did and did not show. This is done with the research goal of understanding how CCA proponents can realise more transformative CCA impacts in mind. I will first address the study's strengths and limitations, and then answer the research questions.

### 7.1 Answering the research questions

I answer the research questions in this section. I will first tackle how the realisation of transformative CCA impact can be studied. Then I explain how human agency drives the realisation of transformative social innovation impact. I then respond empirically to the questions of what transformative impact relations were present in the Burgerrat Klima and how the proponents aided in their realization.



### **7.1.1 RQ 1: How can the realisation of transformative CCA impact be studied?**

To deal with the fact that I did not have the theoretical framework or empirical data at the start of the research, I developed a special research question to discuss how you can study this problem. I used Dubois and Gadde's (2014) research strategy of "systematic combining" to be very open about the choices I made and what I learned from them during the research process.

Table 4 shows my research redirections. These redirections suggest that the research strategy of systematic combining was beneficial, as both theory and practise inform the framework. An inductive approach would have ignored the well-grounded theories from the transformative social innovation framework. On the other hand, a deductive approach would not have revealed that CCA proponents create change by seeking out new power relations and empowering others. A researcher with other backgrounds or more experience might have chosen to link the TSI and powering frameworks. However, basing this decision on real-world observations prevents confirmation bias and therefore is more legitimate from a critical realist viewpoint.

I should also say that my starting point still has a big gap between theories and analytical focus. On the one hand, I had already looked into Stirling's views of plurality, relationality, and uncertainty. On the other hand, I was still trying to categorise different types of CCA proponents. I also had a vague definition of CCA impact. Later redirections of my analytical focus were inspired in part by theoretical influences and empirical observations, but also by a better understanding of the implications of a critical realist worldview and a developed ability to adjust my analytical focus accordingly. As a result, the redirections not only show the development of this research but also the development of myself as a researcher.

**Table 4:** Redirections within the research process

Redirection	Phenomenon of interest	Analytical focus	Theoretical influences	Empirical observations motivating redirection
Departure point	Enlarging the impact of CCAs on policy and society	Type of CCA actors and how their actions enable or constrain CCA impacts	Configuring Fields Approach, CCA Impact on policies Responsible Research and Innovation framework of impact on society	-
1 <sup>st</sup> redirection (Start of case study)	Realising transformative CCA impact on socio-material milieu	Forms of power and (dis)empowerment that actors undergo and conditions under which transformative CCA impact is created	CFA, Transformative Social Innovation, POINT	Practitioners, evaluators, and academics involved with CCAs pointing out the high influence of the context and describing informal pathways to impact
2 <sup>nd</sup> redirection (data analysis of case study)	Realising transformative CCA impact	How CCA proponents use their power to realise transformative CCA impact relations	CFA, TSI, Powering framework	First interviews of case study revealing that the actors work in various different configurations and got power from their relation to others
3 <sup>rd</sup> redirection (data analysis of case study)	Realising transformative CCA impact	How CCA proponents power transformative CCA impact relations	CFA, TSI, Powering framework	Case study showing that actors have as strategy to empower others and actively seek to empower themselves in order to reach desired impact relations

### 7.1.2 RQ 2: How does agency and power connect to transformative social innovation impact

The second research question is theoretical in nature, attempting to connect perspectives of plurality, uncertainty, and relationality to human agency and power to that of transformative initiative impact. This study develops three propositions to connect these two applications. How do these propositions connect the applications?

**Proposition 13.** Agency within SI comes from power relations between human agents and (non)agentic components and takes place in plural overlapping collectives.

Proposition 13 describes how actors have agency and how this agency turns into power. Agency occurs in a variety of settings for social innovations, which means that different entities, including humans, systems, organisations, and consortiums, may be involved. Furthermore, these agencies result from relationships between the collective and other agents and components.

In other words, power within social innovations rests not only with specific actors (e.g., the official organiser), but rather in collectives of actors and components (e.g., the head of an organisation who has a high standing in the press, but also an employee of the same organisation who has created a trustful relationship with partnering organizations)..

**Proposition 14\*** To help realise transformative SI initiative relations, SI proponents empower themselves through the creation and operationalization of power relations and change the agency of others to contribute – sometimes setting in motion chains of changed agency that are outside of the original actor's control.

Proposition 14 describes how this power within social innovations develops over time. SI proponents are able to expand collectives, and therefore their power capabilities, by engaging in new links with others. Furthermore, they are able to use their existing power to change components and the agency of other collectives.

In layperson's terms, this means that someone in favour of a CCA can do a specific thing (e.g., get in touch with a member of parliament). Interactions with others (e.g., having the talk with the MP) can then change the agency of others (the MP now knows about CCAs and about their merits), which can set in motion a series of events beyond the proponent's control (the MP takes initiative to discuss CCAs with their party colleagues, who put it on the party program, which creates press, etcetera).

**Proposition 15\***. SI proponents actively seek to change their power relations to realise desired SI relations – They will only sometimes choose to consider other SI relations when they have an easy opportunity to do so or when they are faced with major obstacles.

Proposition 15 describes how actors decide how they use their power to help realise transformative impact. The main method I observed in the case study is that actors will promote changes in power that benefit a desired transformative impact pathway. Furthermore, the actors will use their existing power to promote transformative impact pathways that complement their desired impact pathways. Only when the actors are having difficulty realising their desired transformative impact relations will they choose to promote relations that are already within their influence sphere.

To illustrate, a CCA supporter is aware of their own and others' capabilities. They use this knowledge to pursue their goals (e.g., having a politically mandated CCA influence a coalition negotiation), rather than goals that happen to be more easily reached (having a politically mandated non-climate citizens' assembly influence a coalition negotiation). Only if their goals are out of reach, will they adapt their strategies (have a CCA influence coalition negotiations without a political mandate).

### **7.1.3 RQ3: What were the transformative impacts of the Burgerrat Klima and how did its proponents help realise these impacts?**

All of the proponents wanted to make the German climate debate more democratic. Other goals included educating the public about the dangers of climate change, convincing the government to work hard to meet the Paris Agreement, forcing the government to be more transparent about their climate choices, advancing climate debates, and changing politicians' perceptions of what German citizens want.

The Burgerrat Klima provided space to align new values with knowledge and practises (prop. 1). Wishes of proponents to open up and close down climate debates were both accommodated within the CCA through things like involving politicians and civil society organisations in determining the questions of the CCA and in letting the participants create visions and integrate the values of 'things' aside from their own values. Furthermore, the proponents created conditions to challenge the government's

climate policy cycle and the expectation of having a government mandate by treating all participants as German citizens and cooperating beyond their roles as service providers and clients (Prop. 2). To persist in their efforts towards institutional change, the proponents ensured that there was a strong trust between them, while they fulfilled the participants' basic needs of relatedness, autonomy, and competence, while at the same time celebrating successes and creating a sense of meaning (prop. 3).

The proponents also built a network to help realise the CCA and spread its results. They engaged with civil society organisations, scientists, members of parliament, ministers, and influential individuals and asked them for their help (prop. 4). Furthermore, they associated themselves with the successful citizens' assembly in Ireland and with the political mandates for the CCAs in France and the UK, and framed themselves as a solution to the government's rejected climate plans (prop 6.).

The proponents also attempted to institutionalise CCAs. They used institutions to find resources (prop. 7). They tried for some time to get resources from the government in the role of participatory governance, before choosing to partly invent their own institutions (the Tragerverein) and get support from civil society. In order to bring about institutional change, the proponents used different forms of institutional entrepreneurship (prop. 8). At a basic level, they entrepreneured by offering an alternative to the government's climate plans. However, they also used other methods, such as lobbying to get the plans in the coalition negotiations of the new German government or in the plans of local governments, protesting, and actively pushing for social and public media attention. In these efforts, the CCA proponents blended institutional logics, such as having private parties act as lobbyists and working closely with civil society organisations and private organisations (prop. 9).

## **7.2 Strengths and limitations of this research**

I will first reflect on the research methodology, after which I tackle the execution of the research.

### **7.2.1 Research methodology**

In the section on methodology, I talked about the problems with the ways of analysing data and the way the study was done.

My analytical approach to describing how CCAs realised transformative impact worked well. I discovered that basing relevant relationships on theory was a prod that provided enough insights into how the initiative developed and that no need for additional relations arose during the interview. This choice even highlights potential areas of strategizing that the actors have not yet mentioned, such as leveraging the availability of translocal networks to strengthen CCA impact. On the other hand, the absence of findings for these propositions could also imply that they are less relevant to CCAs. Further research could shed light on these issues. The decision to rely on actors' assessments of impact did not appear to result in the overestimation of causality that I had expected. Many actors were open about their uncertainty about the consequences of their actions. Sometimes actors would mention that they believed a certain impact had occurred (for example, that participants lobbied in their own time). However, also at these places, the actors mentioned that they did not know these things for sure.

I used actors' change theories and relational priorities to analyse power and agency. This approach revealed processes of change I had not considered, such as the actors' theory of change's more networked agency than the framework's. However, I could not include all power relations actors' per-

spectives because these were prominent people with busy schedules that were hard to approach. Instead, I relied more on the central actors' insights, something I wanted to avoid in the study. After completing most actor interviews, my research was refocused again. I was at a disadvantage because I had not specifically prodded for actor-component relationships. Because of the detailed transcriptions and an open interview structure, I was able to reinterpret the data. This shows the suitability of this choice for this study. Third, I had no full overview of the case until the last interviews, partly because I only talked to key actors last. As a result, I could not use these insights to ask more specific questions about how the first interviewees achieved their goals. To compensate, I recontacted some interviewees over email with additional questions. However, I could have prevented this situation by speaking to one central actor at the start of the interviews already.

As a result, the limitations of the study approach were primarily due to my bias towards more central actors involved in the realisation of CCA impact and the fact that my second reorientation occurred only after I had completed the majority of the interviews. If I had to redo the study, I would [1] begin by interviewing a key actor as the first interviewee to gain a deep level of insight into the proceedings of the CCA; [2] space out the actor interviews over a longer period of time to reorient throughout the interviews; and [3] allow more time to approach more distributed actors after my first set of interviews.

### **7.2.2 Execution of the research**

The execution of the research provided both strengths and limitations for the insights. First, as a Master's student, I had both advantages and disadvantages. On the one hand, actors were eager to express their opinions. Even though some of these opinions were requested to be kept off the record, they did give me a better understanding of what motivated the actors to do what they did and how the actors perceived the actions and strategies of others. One disadvantage is that I may not have much credibility with some actors. Several actors declined the interview invitation by directing me to general websites, implying that they did not believe I had enough background information to speak with them. Another disadvantage is that it is apparent that I am a proponent of CCAs. My research goal specifically mentions how their impact can be improved to be more transformative. As a result, actors may have presented a more overstated and visionary view of how CCAs could have an impact. If this were the case, it would divert attention away from realistic and short-term strategies that could have a more transformative impact.

The second aspect was that the interviews took place via video communications software instead of in-person. I noticed that it took some time for interviewees to trust me, and that this process was hindered by the delays and lack of body language introduced by video communication. Because some actors hesitated when I asked for warm connections or about their motivations, it is possible that things would have been different if they had met me face to face. On the other hand, having the interviews online made it easier for me to meet with actors, which was especially helpful given how busy many of them were.

Another point to consider was how much I knew about the actors' work before speaking with them. The actors talked a lot about the Burgerrat Klima's manifestos, social media posts, and videos. I had not studied most of this data because I assumed it would be irrelevant given my focus on the informal actions of proponents. However, knowing about these pieces would have allowed me to better ask

how they were established, as they were frequently part of the power relations that I studied. In hindsight, it would have been beneficial to conduct a media analysis before beginning the interviews.

### **7.3 Further research**

I will divide the areas for future research into how CCA proponents can make CCA have a transformative impact and how to bridge the gap between the impact of an individual agency and the impact of innovation.

#### **7.3.1 How proponents can realise transformative CCA impact**

One important area of future research is how actors outside of the core social innovation initiative are involved in realising CCA impact. This would allow for more insights into the distributed agency involved in realising impact, and could provide important insights into, for example, what motivates actors in public media, government, and other sectors to become involved in CCA impact realisation.

A second point is to apply the insights of this thesis to other cases of citizen climate assemblies. It is especially helpful to look at cases where the assembly is mandated by the government and where the action field is different from Germany. CCAs in Spain or Austria would be suitable candidates.

A third direction for further research is to broaden the analysis beyond after-the-fact interviews to action research, in which theories of how to achieve impact would be implemented and adapted throughout the entire process of organising a citizens' assembly. The potential CCA in the Netherlands would be an appropriate candidate. This could lead to more insights and also progress actual transformative change—an important end goal of this research.

A fourth area of research could be to look at how specific CCA recommendations have changed over time to bring about transformative change. There are over 50 different policy recommendations in the current case. It would be interesting to see how and through which pathways a certain CCA recommendation is promoted. This can provide more detailed insights into how individual actions are carried out in a more scattered field of action.

#### **7.3.2 Bridging the gap between individual agency and innovation impact**

The research has also given insights for innovation sciences literature, especially the theories of Transformative Social Innovation and the powering framework. For Transformative Social Innovation theory, it is interesting to perform more case studies with social innovations that are involved with existing dominant and counter-trend institutions, such as CCAs. This could show whether this consequently leads to having a more distributed action field and whether propositions of translocal connection and intersectional collaboration are patterns that come back.

Secondly, it is interesting to look for patterns between what types of collectives are used at what scale of relations. For the powering framework, it is interesting to further inquire about the different types of power relations that exist between collectives. This would allow us to discuss how the power to get someone's attention differs from the power to convince someone.

Lastly, it is interesting to test further whether actors will change the agency of others versus empowering themselves.

## 8 Conclusion

I set out this thesis to better understand how citizens' climate assemblies proponents can help realise transformative impact. Using insights from innovation sciences, I demonstrated the importance of including perspectives of plurality, uncertainty, and relationality in understanding transformative CCA impact. Specifically, I developed a framework to connect CCA proponent actions to the realisation of transformative CCA impact, drawing on theories of transformative social innovation and powering, as well as a case study of the Burgerrat Klima of 2021 in Germany. With the development of this framework, I was able to address the research questions with which I wanted to work towards the research goal. Now I will discuss the impacts that these findings have on the three identified audiences: CCA researchers, innovation scientists, and CCA proponents.

### *Impact for CCA researchers*

The research demonstrates that the people and organisations involved in the realisation of CCA impact have motivations that differ from one another and, more importantly, from what most CCA research assumes. CCAs are frequently assumed to be part of the democratic system (Boswell et al., 2022; Goodin & Dryzek, 2006; Setälä, 2017). Even more recent and nuanced perspectives frequently assume that all actors share the same goals (Boswell et al., 2022). This study has demonstrated that this is not the case. Instead, research would benefit from a focus on what actual CCA proponents would like to see. The involvement of governments is a second point of interest. Much of the CCA research papers concentrate on how governments can organise CCAs and how proponents can persuade governments to give CCAs a mandate. This research demonstrates that while obtaining a political mandate is a goal for most CCA proponents, there are other ways to get governments to implement the CCA results. These methods could be further explored in future research.

Through the lens of relationality, this study shows that people who are considered to have little power can have a lot more power in certain relationships. Furthermore, these power dynamics do not always exist between organisations or institutions, but can also involve specific individuals within those organizations. As a result, future research could look into the informal networks of CCA proponents and how these networks can help with impact realization.

Through the lens of uncertainty, this research demonstrates that CCA proponents frequently have far less control than is assumed in much theory. The proponents are unable to ensure that the CCA is covered in the media or that certain people are persuaded. Instead, they must work with uncertainty. This means that they will bet on multiple horses and spread the risks of failed attempts by working with different partners and institutionalising in different parts of society. Future research can explicitly consider what CCA proponents can do and how this relates to what these proponents want to achieve.

### *Impact for innovation scientists*

This thesis demonstrated that incorporating powering concepts into the Transformative Social Innovation framework enriches both theories on transformative impacts and powering. The addition of powering concepts to the Transformative Social Innovation framework means that the framework can focus on the role of a diverse range of actors and how they contribute to the realisation of important relationships. This addition is useful for any researcher who wants to generate actionable insights

from their research. By applying the Transformative Social Innovation framework to a real-world case study and contextualising it, the powering literature is strengthened.

In a broader sense, this thesis applies innovation sciences to governance innovation. Social innovation theories have already pushed for the application of innovation science concepts to more socially oriented innovations. However, these innovations usually operate outside of existing systems of power. They cover topics like basic income and participatory budgeting. CCAs are even more linked to existing systems of doing than these examples, requiring an even greater amount of relational thinking, as the aggregation of actors into coherent and separate systems is extremely difficult here.

### *Impact for CCA proponents*

It distinguishes four main impacts for CCA proponents. First, the developed propositions in the thesis framework provide CCA proponents with a tool to reflect on how they try to realise impact. For example, the propositions on powering processes, which describe how actor agency relates to social innovation agency and how powers can change, can provide proponents with terms and concepts to describe what their goals are, what power relations they currently have, and which power relations they would like to establish.

Second, the thesis demonstrated that proponents can overestimate the amount of action others will take to help their cause, as evidenced by civil society support networks failing to organise themselves and participants lobbying less than the organisers estimated. A third implication is that proponents can learn from the strategies used in the Burgerrat Klima. Multiple CCA proponents from various organisations mentioned that their informal influence strategies would also be useful in the case where a CCA does have a political mandate.

What is particularly interesting is how the Burgerrat Klima proponents spread their risks and opportunities. They tried to get support, money, and power from many different sources in many different parts of society. This meant that they had more beneficial power relations to these sources than if they did not have alternatives. Lastly, this thesis demonstrated that CCA 'outsiders' such as ex-patrons, journalists, and civil society organisations can play an important role in realising transformative CCA impact. These people are then also recommended to identify their beneficial power relations and use them to empower or change the agency of those in the influence network of CCAs. An example from the study is that citizens have a large influence if they contact representatives from their district.

### *Concluding words*

This framework includes a set of 12 propositions that describe how CCAs can have transformative impact, as well as three propositions that describe how actors can realise these impacts. These propositions only provide a piece of the puzzle, with more work needing to be done on further developing and testing the propositions and bringing them into practice. What these propositions do show is that actors have much more specific power relations than absolute power dispositions, that institutions are much more diverse than previously assumed, and, most importantly, that a much larger and more diverse group of CCA proponents can contribute to the struggle for a just and flourishing world.



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## Appendix A: Interview guide

### 0.a Personal introduction

- Thanks for taking time
- Thomas, Master student innovation sciences in TU Eindhoven, The Netherlands
- Interested in CCAs as way to create momentum for fair climate policy, therefore this research in how to increase impact most effectively

### 0.b Start interview

- Take about 45 mins
- Used for master thesis, aim to have results in October in the form of a thesis paper and a workshop. These will be shared in due time.

### Informed consent:

- confidential: anonymised collection of data
- Record and Transcribe interview (redact pieces that reveal identity or personal opinion). Recordings deleted once I have transcription.
- Interviewed person get opportunity to give feedback on my interpretations of their answers before final thesis version

### QUESTIONS

1. (Warming up) How did you/your organisation get involved with the German CCA?
2. What are you/your organisations goals for the impact of the CCA?
  - Why?
3. How did you/your organisation try to reach these goals?
  - Why did you choose these strategies?
  - Did you change your strategies over time? If so, why?
4. What would have been different if someone else/another organisation would have taken your place in realising impact? In other words, what are your unique skills, experiences, resources that helped you in performing your strategies?
5. What resources would a person in your position benefit from in a hypothetical next CCA?

### OPEN CARD

*This study takes on an innovation sciences perspective, which studies among other things the role of strategies and organisational resources in the implementation of innovations, such as the CCA. This emphasises the importance of collaborating strategically with other organisations and people to overcome specific barriers to impact rather than attempting to gain as much legitimacy as possible. This is compared to current understandings of realising impact, which focus more on how CCAs should be designed and how to inform people about the workings of CCAs, etc.*

6. To what extent do you think that there are these types of power struggles and cooperations between the CCA and other organisations?
  - If they are there: how big of a role do they play in realising impact?
7. Do you have any other insights that we have not discussed yet?
8. Is there someone else that I should talk to?