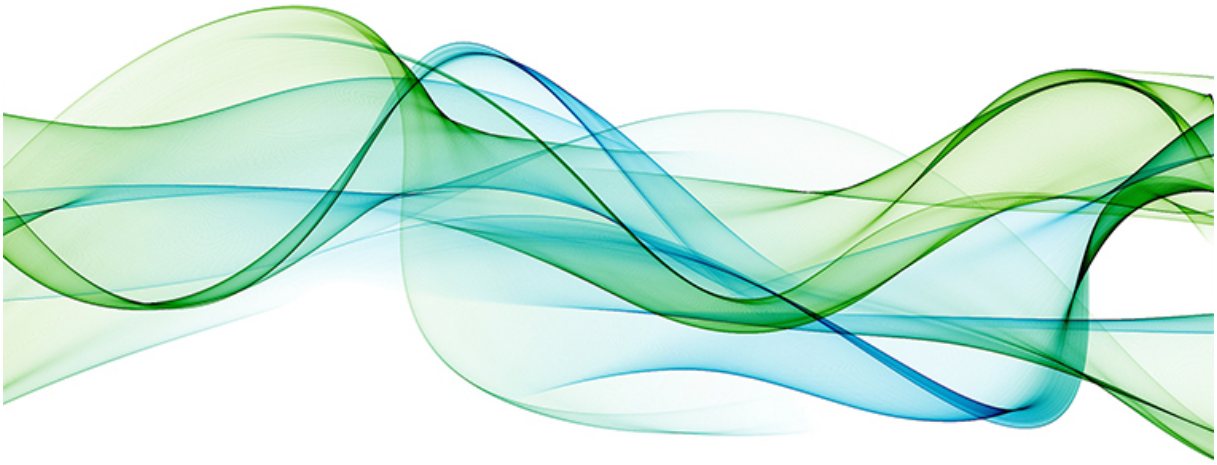
Building Sustainable Coalitions in the Dutch Energy Transition

"A narrative of exploring opportunities for decentral climate change mitigation"



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Abstract

The Energy Transition that we are currently facing gives us the opportunity to evaluate our current energy systems. This is relevant for the Netherlands since there is an ongoing debate whether we should (entirely) move away from gas and change to renewables or 'green' energy sources. Moving to these green alternatives does not only mean technical changes to existing (Grid) networks, but also implies behavioral change for its users and consumers.

Regarding behavioral change, self-governance is gaining momentum in contemporary society. This leads to local initiatives that lead up to taking action in the spirit of going 'green'. To facilitate these initiatives, more research into the scope of potential arrangements for climate mitigation is needed. The preliminary focus of this research is gaining insight in opportunities and determining factors along this process of mitigation, specifically in 'participation coalitions' that have to be established in the light of NPRES. Therefore the central question is: *What are opportunities for collaboration and forming coalitions that benefit the Energy Transition?* This holds implications for actors and stakeholders on different scales. This research aims to provide insights in how potential coalitions contribute to the Energy Transition, how values between different actors are affected and what opportunities and bottlenecks for collaboration are.

Interviews and literature research provided qualitative data. Different potential coalition partners in the north of the Netherlands, each with their own context specific peculiarities were interviewed showing the first skirmishes around organizing RES. This research shows that opportunities for coalitions are region and actor dependent. Moreover, they are interrelated which makes it crucial that these results are read within context: they appear in a mix in this continuous process. To maximize opportunities, it is concluded that aside from participation, awareness and societal support, in order to create a 'solid business case', the biggest contributors and -at the same time limiting factors- are concerned with local benefits, co-ownership, a functioning grid structure, and clear legal frameworks.

Key words: *transition, governance, participation, initiatives, energy cooperatives, coalitions*

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Ronald Bakker
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List of abbreviations

CLEAR	Refers to C.L.E.A.R. framework by Bakker et al. (2012)
NPRES	*Nationaal Programma Regionale Energie Strategie (Dutch)* – National Programme Energy Strategy
RES	*Regionale Energy Strategie (Dutch)* – Regional Energy Strategy
PBL	*Planbureau voor de Leefomgeving (Dutch)* – Planning department for the living environment
SDE+	*Stimulering Duurzame Energie (Dutch)* – Stimulation Renewable Energy
CBS	*Centraal Bureau voor de Statistiek (Dutch)* - Central Bureau for Statistics
G1000	Civic initiative to enhance dialogues in democracy
MKB	*Midden- en kleinbedrijf (Dutch*) – Small and medium enterprises

1. Introduction

1.1 Background and relevance

Like many states, the Dutch government finds itself in a position of having to rethink its energy policies. An important realization is that existing systems (technological, social and economic) need to be reformed to reduce reliance on fossil fuels and to make room for energy alternatives. Important drivers here have been the rising concern over security of supply, coupled with the geopolitical and commercial risks of fossil fuels (Hendriks, 2008). A rethinking of energy strategies has also been triggered by concerns over global climate change, something that may have devastating consequences for a low-lying country such as The Netherlands (Hendriks, 2008).

When discussing sustainability, or when it comes to the climate or climate goals, authorities tend to express great ambitions, even when they do not intend to take a prominent role in the innovation process (Grotenberg et al, 2016). When ambitions do not match their actual ability or willingness to act, a deadlock can occur. On the other hand, when authorities are trying to activate the private sector with their enthusiasm and support and arrange a series of interactions, they can unintentionally accomplish the opposite: a wait-and-see private sector that expects the government to take the lead (Grotenberg et al, 2016). To deal with this potential confusion, there should be clarity about actors' aspirations, their capacities and expectations of other public and private, actors involved.

In contemporary society, self-organization of civilians within the public domain or local level with regards to energy, health and livability are in the spotlights these days (van Meerkerk & Igalla, 2015). This is a time with a strong appeal for the self- organizing capabilities of civilians in tackling societal issues and needs, like the notion of the 'participatiesamenleving' in The Netherlands or the 'Big Society' in the UK (Van Meerkerk & Igalla, 2015). These notions are aimed at collaboration between civilians from the local community. These civilians react to shortcomings in civil services related to the market or the government. Furthermore, Elzenga & Schwenke (2015) argue that it is desirable to develop clear criteria for 'public procurement' within the energy sector.

A good example is the emergence of so called 'energy- cooperatives', where civilians decide to deliver 'sustainable' energy themselves for the local community (Van Meerkerk & Igalla, 2015). At the same time, energy cooperatives are becoming an important factor in the energy transition. Municipalities and energy cooperatives know on what fronts they can team up and when to take distance if cooperatives can function (financially) independently (Hoppe et al., 2016). Furthermore, systems associated with the supply and distribution of energy, rarely attract the attention of network scholars, despite their rising significance in contemporary politics (Hendriks, 2008). However, there are effects with regards to organizing energy collectively on a local scale. As a starting point, this research starts from the hypothesis that there is value in dealing with climate issues; there is possible (future) value in the ability to organize and cooperate on the local level, creating opportunities within the Dutch Energy Transition Context.

1.2 Research goal

Measham et al. (2011) argue that the local level must be leading the climate adaptation and mitigation debate. Therefore, additional research on local level sustainable development is useful. Furthermore, it is desirable to get an in detail understanding of these processes and their possible positive and different effects, in different contexts, for climate change mitigation. Wilson (2006), emphasizes that spatial planning at the local level has a critical role in promoting projects and sustainable development in order to achieve robust adaptation to climate change. On the local or regional level, this could lead to difficulties because of the short-term horizon and interests of citizens, in contrast to the long-term processes and consequences of climate change (Wilson, 2006). To counter this, ideally, established institutions and individual aspirations should reinforce each other in vital coalitions (De Jong, 2016). In this context, vitality refers to energy and productivity to create capacity to act in order to change

regional agendas, realize goals or change the formal or informal 'rules of the game' (Horlings, 2010). Therefore, to facilitate collaboration, vital coalitions between public, private and governing parties could contribute in bridging challenges related to the Dutch Energy Transition. There is a knowledge gap in the influence and role that coalitions can have in sustainable development coping with climate change on different scale levels. Additional research on these developments in relation to differing contexts will contribute to research which has been done on this topic of sustainable development. The rise of coalitions in multiple governance environments is real and in need for a planners' response (De Jong, 2016). It is important to note that these earlier mentioned coalitions do not explicitly exist (yet) in the Dutch Energy Transition context. However, attempts in shaping coalitions are inevitable as the Klimaatakkoord and the Regional Energy Strategy (RES) urge regions to organize 'participation coalitions' (NPRES, 2018), underlining the importance of collaboration on the local scale.

For planners this is relevant since there will be an ongoing shift in power, interests and participation during the Dutch energy transition period. Compared to the traditional governance triangle (with a clear distinction between market, state and society) there are multiple questions that could be reflected upon since there are new mechanisms and phenomena in contemporary society as described in section 1.1. Ideally, when elaborating on these questions, this research will explore whether this process is part of the desired systematic change, when it comes to our view and use of fossil fuels. The objective of this research is to explore how interaction between state, market and society can result in possible coalitions within the local level as a starting point. Therefore, the main goal is exploring opportunities for future coalitions with regards to sustainability and the Dutch Energy Transition. Moreover, the RES (Regional Energy Strategy) that all municipalities have to provide in the near future, specifically calls for 'participation coalitions'. This does not only legitimize researching the importance of shaping coalitions, it will put societal support to the test as well (NPRES, 2018). This research will focus on potential actors in advance of these 'participation coalitions' to explore future collaborations.

1.3 Research questions

The following question is leading for this research:
What are opportunities for collaboration and forming coalitions that benefit the Energy Transition?

This primary research question will be answered by the following secondary questions:
1. Which actors are relevant in the light of the Energy Transition?
2. Between those actors, to what extent is there collaboration and what are obstacles and possibilities?
3. What are coalitions and what are opportunities and bottlenecks?

1.4 Outline

Figure 1 displays the outline to answer the primary research questions. First, a theoretical framework will be established to set the boundaries and context for the research. Hereafter, the methodology will be discussed. Chapter 4 will present the results of the interviews. Chapter 5 will contain the discussion and reflection followed by the conclusion answering the research questions in chapter 6.

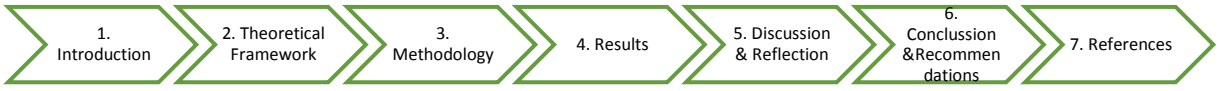

Figure 1: Outline of the research

2. Theoretical framework

In this chapter, the development of 'participation coalitions' will be investigated as (part) of the process of climate change mitigation. Participation coalitions can be defined as different stakeholders developing sustainable energy with opportunities for co-development and co-ownership, which allow revenues to flow back into the regions (NPRES, 2018). Adding to that, during this process, involvement and participation is central (NPRES, 2018). This will be discussed in the background theory in chapter 2.1. Hereafter, in chapter 2.2. the changing role of governance, the market and civil society is reflected upon discussing noticeable shifts in 'traditional' top-down and bottom-up movements. In attempting to find a new balance between top-down and bottom up, the chapter concludes with section 2.3 where different types coalitions, their practical implications and how actors are complementary are explored. At the end of this chapter, the conceptual model is presented that allows structuring and discussing the results in the light of the Dutch Energy Transition in advance of future 'participation coalitions'.

2.1 Background: What are we aiming for?

In this research, the term transition is used because we deal with a wider societal transformation process regarding renewables: a process known as an energy transition (Verbong & Geels, 2008). The next section will elaborate on how this is currently being shaped.

2.1.1 Background: Klimaatakkoord and Regional Energy Strategy

In the Regioniale Energie Strategie (RES), many national agreements from the Klimaatakkoord are put in to practice. This will take place in a nation-wide program consisting of 30 regions (Rijksoverheid, 2019). In the RES, governmental parties, together with societal partners, gas and electricity suppliers, the market and where possible inhabitants, work on choices with regional support. The RES is explicitly meant as a starting point of an execution phase where collaborating parties realize their projects until 2030 (NPRES, 2018). As stated in the Klimmaatakkoord, the RES entails multiple functions. Firstly, it is a product where the region describes which energy goals have to be met and on which terms. Secondly, RES is an important instrument to organize spatial harmonization with societal participation. Thirdly, RES is a way to organize long-term cooperation between all regional parties. Most regions have been working on RES already. Every region has its own challenges and potential and therefore there is room for interpretation as well (Rijksoverheid, 2019). At the same time, it is of great importance that all regions acknowledge the framework and agreements made in the Klimaatakkoord. In order to allow comparison and summation of regional contributions, it is important that the RES (as a final product) is in compliance with national analyzing, monitoring and calculation systematics as developed by PBL (Dutch Planning department living environment) (Rijksoverheid, 2019).

RES is supposed to make agreements from the Klimaatakkoord concrete. An important part in supporting the regions is the National Program RES (NPRES), which serves as a joint between the Klimaatakkoord and the regions. NPRES facilitates, monitors (in collaboration with PBL), develops knowledge and provides clarity to regions but is not responsible for the content and the creation of the RES: this has to be done by the region (Rijksoverheid, 2019). The Klimaatakkoord states that regions have to provide a RES 1.0 on the first of March 2020. In this collaborative effort, the regional supply of energy is developed towards 2030 regarding e.g. electricity, gas and heat. This proposal has to take in account spatial quality and societal support (NPRES, 2018). Moreover, network operators have to map which modifications have to be made to the existing energy infrastructure to connect the generated energy. This is important since they also have to take into account small scale projects like small solar fields and sunroofs associated with local energy initiatives (Rijksoverheid, 2019).

While the goals of the Klimaatakkoord are long term, the Klimaatakkoord also acknowledges that the ways in which these goals are met are uncertain. This asks for an adaptive and iterative process with a realignment every two years (Rijksoverheid, 2019). This adaptation cycle (plan-do-check-act) ensures that RES is in compliance with legal requirements of network operators (Rijksoverheid, 2019).

Participation of stakeholders, businesses and inhabitants is embedded within RES to facilitate an inviting process (NPRES, 2018). It is acknowledged that involving these parties in translating a nation-wide ambition to the regional scale will increase societal support when their interests, considerations and choices are part of the process (NPRES, 2018). Interestingly, it is believed that this can speed up the execution of transition plans and their implementation in the landscape. Moreover, the Klimaatakkoord states that opportunities for co-development and co-ownership are considered when developing energy related projects. This should allow profits for the region and characterizes the so-called 'participatiecoalitie' (Rijksoverheid, 2019). The possible format and implications for this coalition and coalitions in general is explored in section 2.3.

2.1.2 Background: Energy Transition Context

The challenge that regions in the Netherlands face are complex and the spatial impact of the climate and energy transition will be substantial (Rijksoverheid, 2019). Especially when translating climate ambitions to the local scale and projects, the spatial consequences and dilemmas become visible. A transition is an innovation process that develops a system over time that transforms in interaction with other systems, finding a new dynamic equilibrium (Geels, 2011). The term energy transition refers to the transformation of the traditional fuel and energy system into a more sustainable system, which is also part of a wider societal process (Verbong & Geels, 2008). Important to note here is that apart from limitations to fully oversee the complexity of an energy transition, ownership and power are also fragmented which limits the capacity of actors to alter them (De Boer & Zuidema, 2015). According to Geels (2011), the coherence of existing systems weaken and other systems realign during a transition process. Adding to that, "the shift from fossil fuel based energy systems to low carbon energy systems is part of a wider sustainability transition process which encompasses several evolving systems on multiple scales " (De Boer et al., 2018 p.490).

Building on energy systems, The Netherlands relies strongly on its utility networks, such as energy networks. Among the most important utility sectors are electricity, gas and district heating networks. They are the basic infrastructure grids that provide the fundamental conduits through which modern cities and regions operate (Monstadt, 2007). These energy networks are of key importance in terms of sustainability since energy infrastructures become increasingly critical for a well- functioning production, services and infrastructure (Monstadt, 2007). Adding to that, a shift in energy systems also encompasses physical systems such as ecosystems, transport infrastructure or water by e.g. shifting towards the use e.g. electric vehicles (De Boer et al., 2018). De Boer et al. (2018) provide some examples to illustrate the multiplicity of many new interactions occurring between the energy system and physical and social systems consequential to the transition process: the emergence of energy cooperatives, new investment opportunities for energy companies and new market players. Adding to that, more autonomy is desired in the supply of energy, independent of coal centrals and instable regions like the middle-east and Russia (Elzenga & Schwenke, 2015). With this in mind, campaigns or programs could be started, in which the importance of an energy transition towards more sustainability is stressed (Hoppe et al., 2016). It is important that climate change, of which the energy transition is part of, is being implemented in the local policy agendas (Hoppe et al., 2016). This is in line with the multiple functions RES aims for as discussed in section 2.1.1.

2.2 Theory: Where are we coming from?

Moving on from the background established in chapter 2.1; in order to know where society is going, it is helpful to know where it comes from. The next section will elaborate on the shift from traditional (central) governance towards more collaboration and shared governance as societal support and participation gain momentum in contemporary Dutch society with regards to the energy transition.

2.2.1 From Central Government towards Decentralized Participation

In Bussu & Bartels (2014), it is argued that traditional government institutions are no longer adequately equipped to confront the complexities of contemporary society. Moreover, environmental change is characterized by cross-scale linkages that generate uncertainty and nonlinear dynamics (Morrison et al., 2017). Keeping in mind the complex multiscalar character of environmental problems, conventional modes of governance fall short (Lemos & Agrawal, 2006). Where state or market actors play a leading role, they lack the capacity to address those problems. This causes complex interactions and generates the problems of institutional fit we experience in contemporary society (Morrison et al., 2017).

The above-mentioned changes in government styles are part of a broader shift in planning. Where the government used to be directing, it has shifted towards a more collaborative or facilitative style. De Roo (2007) describes this as a shift from a technical rational approach to a communicative approach. In Hassink et al., (2016) the changing relationship between government and citizens is acknowledged, which they call a shift from government to governance. New modes of governance seek to avoid the pitfalls and limitations of earlier approaches. Modern governments increasingly rely on collaboration to realize their policy goals. In this collaboration, governments host non-governmental actors, public and private to solve today's 'wicked' public problems (Salamon, 2000). This can also be recognized in the field of environmental policymaking. With the diminishing capacity of the state to deal with environmental challenges in mind, other actors and institutional arrangements gain interest (Grotenberg et al, 2016).

According to Bakker et al. (2012), local authorities, including municipalities, have a supporting or facilitating role. Furthermore, Lowndes et al., 2006 showed that democracy has moved towards a more participative interpretation. In participatory governance, the government develops a framework and offers support. These newer polycentric forms governance systems are characterized by a nonhierarchical yet interactive constellation of public and private actors at multiple levels (Morrison et al., 2017). This is in line with the facilitative or supportive role of the governments as described in the definition of Bakker et al. (2012). This can be considered one step further on the participatory ladder than what is known as co-production. In Nesti (2017), it is argued that co-production is about the involvement of groups or individual citizens in public service delivery. Co-production can yield gains in program efficiency, effectiveness and quality of services (Nesti, 2017). However, co-production does still not fully empower citizens, in which they decide themselves, as is the case with citizens' or energy initiatives. To accommodate this empowerment, Hassink et al. (2016) identifies two key factors in the interaction between citizens and governments. The first factor is concerned with process-related aspects, such as building trust and a sense of commitment. The second factors is about structural aspects such as rules and regulations. According to Newland (2003), facilitative governance encompasses helping people and their institutions to achieve constructive purposes. This contrasts earlier governmental planning paradigms, which focused more on command-and-control ways over governance. Furthermore, polycentric governance allows for specialization and the division of tasks between central, regional, and local levels (Morrison et al., 2017).

There is an increasing degree of consensus amongst scholars in governance research; both top-down steering and a liberal free-market approach are being outperformed by effective management mechanism in generating sustainable societal solutions on their own (Loorbach, 2010). Loorbach (2010) stresses that a new balance must be found between the state, the market and society to allow

alternative ideas and agendas, fueling regular policy-making processes. Because the effects of environmental change are location-specific, a more polycentric approach would allow for tailor-made mitigation activities to suit local-regional circumstances (Morrison et al., 2017). This is in the spirit of what the RES is ought to be, as described in section 2.1.1. Morrison et al., 2017 also stress that division of tasks improves the efficiency of mitigation measures by matching the appropriate governance level to the geographic scale of the problem. According to Selman (1996), the 'the local 'patch' is the crucial arena in which progress towards sustainability must be made. In this arena conflicts arise, attitudes change and actions are instigated. In addition to this, some level of vision building at the higher-level needs to guide local experimentation (Morrison et al., 2017). This vision building can be embodied by networks of leaders and entrepreneurs who mobilize their unique abilities and qualities order to pragmatically determine choices (Morrison et al., 2017).

It is safe to say that there is a tendency to advance towards desirable norms such as local participation, representation, equity, legitimacy, accountability, innovation, and efficiency (Morrison et al., 2017). There is however, still a misbalance in power between initiatives, the government (having the decision-making power and political legitimacy) and the market (beholding resources, technology and knowledge) in Western- European countries (Oteman et al. (2014). This notion implies a new role for the government: they have to steer the interaction between initiatives and the market in an effective way (Oteman et al., 2014). Providing the citizens' initiatives with a sense of being important and the feeling that their activities contribute to their environment could be part of the facilitative role of the government (Denters et al., 2013). From the perspective of learning and mutual adjustment, local sites need to be connected with each other and their overall experiences need to be assessed at a higher level (Morrison et al., 2017). Furthermore, according to Bakker et al. (2012), the Dutch national and local government consider citizens' initiatives as a (cheaper) provision of alternatives to governmental development programs. From a governmental perspective, this implies that the success of citizens' initiatives is beneficial for the government as well.

2.2.2 From Local Initiatives towards Energy Cooperatives

Nearly all municipalities have ambitious climate and energy goals but lack the means and manpower to execute them in practice (Elzenga & Schwenke, 2015). In 2014, the *Gemeentelijke Barometer Fysieke leefomgeving* stated that municipalities interpret their role as passive facilitating, administrative, regulative and steering (Holmaat & Robben, 2014). This underlines their dependency on other actors to realize their goals. With that in mind, there is a concept that gained importance over the last thirty years: active citizenship. This concept is also concerned with active participation of citizens and shared responsibilities for the spatial environment between the government and civic communities (Boonstra & Boelens, 2011). The call for active citizenship in Dutch policy documents is often accompanied by a call for citizens' initiatives (Dam et al., 2015). This increased demand for active citizenship is accompanied by an increasing number of citizens' initiatives in the Netherlands and has raised questions about the position of citizens towards the government (Dam et al., 2015). Moreover, Boonstra & Boelens state that from a community perspective, active citizenship empowers citizens, increases social coherence and connectivity between social networks and public welfare. In addition, it is also believed that it increases a sense of belonging of participants (Boonstra & Boelens, 2011). However, in some cases citizens have to be mobilized, as initiatives should in some cases not be initiated by the citizens themselves: this demands an active role of the government (Oude Vrielink & Van de Wijdeven 2011). By organizing public consultation evenings, municipalities could raise the awareness by involving the citizens in the decision making process (Hoppe et al., 2016).

Lenos et al. (2006) distinguish three types of citizens' participation. Dating from the 1970s, the first generation of citizens' participation is mainly about the right of having a say in policies created by municipalities. In the early 1990s, the second generation was concerned with interactive decision-making and co-production. The third generation of citizens' participation gained influence in the early

2000s. This generation is characterized by citizens taking responsibility and according to Lenos et al. (2006), the government has a facilitative role. This third generation of citizens' participation has most in common with the concept of citizens' initiatives. From an institutional perspective, civic initiatives are also referred to as 'selforganizing' or 'self-governing' initiatives and emerge from the dynamics within civil society itself (Boonstra and Boelens, 2011). An increasing number of citizens are active in shaping their own neighborhood (Hassink et al., 2016). In contemporary society, the state expects citizens to take responsibility in the participative society and citizens should lean less on the welfare state (Verhoeven & Tonkens, 2013). This underlines the increased importance of citizens' initiatives.

At the same time, there is a reaction to the increasing scale, privatization and liberalization of the energy sector. An urge to act within the energy sector arises; citizens fill in the blanks that are left out by the market and the government (Elzenga & Schwenke, 2015). The government is moving back from a sector that used to be an amenity. This liberated market wherein everyone is free to choose their energy supplier offers possibilities for combining consumer power (Elzenga & Schwenke). Trell et al., (2018) state that renewable energy is not only challenging as it requires incorporation into our landscapes: is also offers opportunities for local or regional socio-economic challenges. The rise of affordable renewable technologies opens possibilities for decentralized energy generation on a relatively small scale (De Boer et al, 2018). This has resulted in a rise of small-scale energy initiatives (e.g. wind turbines or solar panels) instigated by local citizens or entrepreneurs (Arentsen & Bellekom, 2014). These initiatives associated with energy can be framed as focal points in a wider societal transformation process regarding renewable: a process known as an energy transition (Verbong & Geels, 2008). Furthermore, "renewable energy has the potential to provide this transformative power since it can create new jobs, services new economic development models" (Trell et al., 2018, p. 28).

Still, there are various terms for citizens' initiatives at the local scale e.g. grass-root, community and bottom up initiatives. These initiatives often offer the possibility to participate financially in a project (Elzenga & Schwenke, 2015). This allows people with different backgrounds and motivations to come together in one initiative like an energy cooperative. This financial participation element is relevant since it is often linked to the acceptance of renewable energy structures (Hoppe et al., 2015). Furthermore, the members can have their say in the direction they want to go, are co financer and are therefore co-owner of the production installations (Elzenga & Schwenke, 2015). Energy cooperatives also seem to fulfill the desire of citizens to use locally produced energy, which is labelled 'green'. This desire is likely to be fueled by media, claiming that 'green' energy in many cases is 'grey' energy made green through certificates of e.g. Norwegian hydropower plants (Elzenga & Schwenke, 2015). This 'sjoemelstroom' does not in any way contribute to an increase in the production capacity of sustainable energy (CBS, 2014). Literature mentions multiple motives for the establishment of energy initiatives, ranging from political (dissatisfaction with government), ecological (climate change), social (livability) and economic (financial) motives or a combination of those motives (Hoppe et al., 2015). While ecological motives are generally prevailing, they often occur in a mix and are closely linked to other categories (Hoppe et al., 2015).

Energy cooperatives are becoming an important factor in the energy transition. According to Elzenga & Schwenke (2015), energy cooperatives can rely on more support than the municipality because they are well organized, competent, involved and have a good functioning (local) network. Furthermore, local initiatives often permit energy or financial benefits to be distributed locally (Spijkerboer, Trell & Zuidema, 2016). In addition to that, local energy cooperatives want to enhance sustainability, safe costs, boost the local economy and community (Elzenga & Schwenke, 2015). Trell et al., (2018) add that renewable energy can potentially create economic, institutional or social spin-off to some extent, be it small. Therefore, a range of local activities can co-benefit (De Boer et al, 2018). The fact that parties are willing to cooperate does not necessarily mean that the cooperation is in all cases effortless (Elzenga & Schwenke, 2015). The risk that energy cooperatives are becoming a cheap executing organ of the municipality is realistic (Bakker et al., 2012). Another potential bottleneck in this relation is that

municipalities are legally obligated to carefully weigh interests. Furthermore, when civilians take initiatives, this does not automatically result in a withdrawal of the government and business (De Jong, 2016). This implies that not every decision is necessarily beneficial for energy cooperatives (Elzenga & Schwenke, 2015). If it comes to mobilizing from a market perspective, cooperatives often cooperate with solar project developers and are primarily concerned with initiating and preparing the project. They look for a fitting roof, negotiate with the roof owner, suppliers of solar panels, energy companies and mobilize neighbors for collective financing (Elzenga & Schwenke, 2015). Citizens can become frustrated with inflexibility of procedures or the slackness of response by civil servants (Bakker et al., 2012). Adding to that, it is important to overcome obstructive barriers i.e. outdated regulations not suiting the steps needed in the energy transition (Elzenga & Kruitwagen, 2012). Concerning the energy transition, it is advisory that municipalities create their visions together with citizens (Elzenga & Kruitwagen, 2012).

2.3 How do we move on from here?

After having established the background in chapter 2.1, the shift from government to governance and the development of initiatives in 2.2, it is time to explore new interactions between civil society, the government and the market. In exploring this new balance, the starting point is having established institutions and individual aspirations reinforce each other in coalitions (De Jong, 2016).

2.3.1 Coalitions

It is safe to say that public–private collaboration between civic initiatives and market parties is a sensitive process. The search in which actors involved continuously have to exchange wishes and opportunities to reach acceptable solutions for all remains (Grotenberg et al, 2016). Traditionally, organizations relate to social problems from a specific sector and therefore address problems only partially and often independently from those concerned (De Jong, 2016). A way to overcome this difficulty is to build coalitions of various actors being able to adapt to changing circumstances (De Jong, 2016). As a theoretical starting point, this is displayed in figure 2 as an archetypal coalition from a traditional point of view. Sometimes this is achievable by offering space to other parties and responsiveness, sometimes through maintaining a consistent line, strong governance and sometimes by withdrawing and leaving room for others to act (Steen et al., 2014). In line with chapter 2.2, De Jong (2016) acknowledges that in the past years, individuals have become more pro-active and have proved that they can govern and organize themselves, sharing what they have alongside the governmental domain and the market place

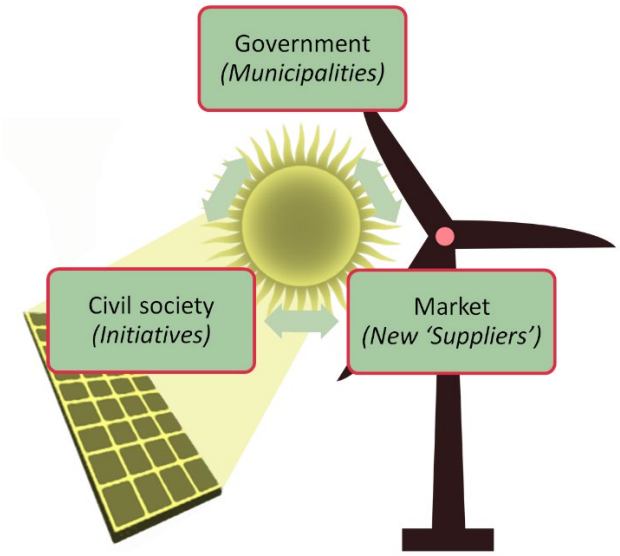

Figure 2: Archetypal coalition

To embrace the idea that every actor (governmental, civic or business either institutional or in individually) can take initiative, has something to contribute and can fulfil similar roles depending on the situation, the term 'coalitions' is used (De Jong, 2016). A coalition consists of diverse autonomous actors who share an ambition in a public arena to develop arrangements and actions (De Jong, 2016). According to De Jong (2016), a coalition is defined by five key elements: ambitions, actors, arenas, actions and arrangements, which will be elaborated later on. Coalition planning helps to bridge views and navigate in the constantly changing landscape. It is not necessarily about working in new coalitions, but about applying different types of coalitions simultaneously without getting lost (De Jong, 2016). De Jong (2015) distinguishes three types of coalitions, displayed in table 1.

Coalition type	**Directive coalitions**	**Collective coalitions**	**Connective coalitions**
	Ambition defines coalition	Coalition shapes ambition	Ambition moves coalition
	One actor has an outspoken ambition that it wants to realize in reconciliation with others taking a directing role in an established arena of stakeholders (De Jong, 2016)	*Actors are partners in a newly created arena of complementary stakeholders, each with something to give and gain in a jointly shaped ambition (De Jong, 2016)*	*To feed their own ambition as well, actors can choose a facilitating role for initiators that start a movement in a spontaneous area proceeding from personal drive (De Jong, 2016)*
Structure	Institutional perspective	Mutual perspective	Individual perspective
Role	Directing	Partnering	Facilitating
Type of Arena	Established arena	Created arena	Spontaneous arena

Table 1: Coalition types, adopted from De Jong (2015), p289

All three types of coalitions differ substantially. However, framing the coalitions allows introducing a framework and language that is enabling actors to make deliberate and explicit choices in coalitional approaches. Each coalition type has its own roles, rules, repertoires, rationalities and responsibilities (De Jong, 2016). Until now, this research assumed that the role of facilitator could only be fulfilled by either the municipality or the market (section 2.3.1). However, when exploring coalitions, this facilitating role can also (partly) be fulfilled by e.g. initiatives i.e. reaching ambitions. Adding to that, civic actors are considered equal with business or governmental actors; collaboration between these actors can lead to creative solutions for complex problems (De Jong, 2016).This multiplicity of roles and approaches demands a wider view on the repertoire of interventions and competences considering everyone is equal (De Jong, 2016). Therefore, the government could well be a stakeholder in another initiative while fulfilling a directing role on other aspects of the same ambition (De Jong, 2016). This underlines the necessity of a suitable mix. According to Van der Steen et al. (2015), assembling this suitable mix should happen deliberatively s at the start of the coalition process. This should ensure that every actor has a clear of understanding of its role to avoid counterproductive behavior. Quite often, the mix evolves over time and therefore it is important to discuss the changes, as timing is crucial in adaptive approaches (Van der Steen et al., 2015).

When it comes to (a common) language, often different labels for similar trends and concepts are used (Schor, 2014). Terms like 'open', 'adaptive', 'co-creation', 'public participation, 'self-organization' and 'cooperation' that are found in e.g. are sometimes old but imbued with new meanings. Most terms relate the participants' desire to create more sustainable and more socially connected societies (Schor, 2014). From a market point of view, these concepts deal with e.g. the sharing of products and services. From a civic point of view, most concepts are concerned with a wish for more empowerment and satisfaction. From a governmental point of view, these concepts deal with complexity and legitimacy (De Jong, 2016). This is displayed in figure 3. Where all three circles meet is where public value is created (De Jong, 2016).

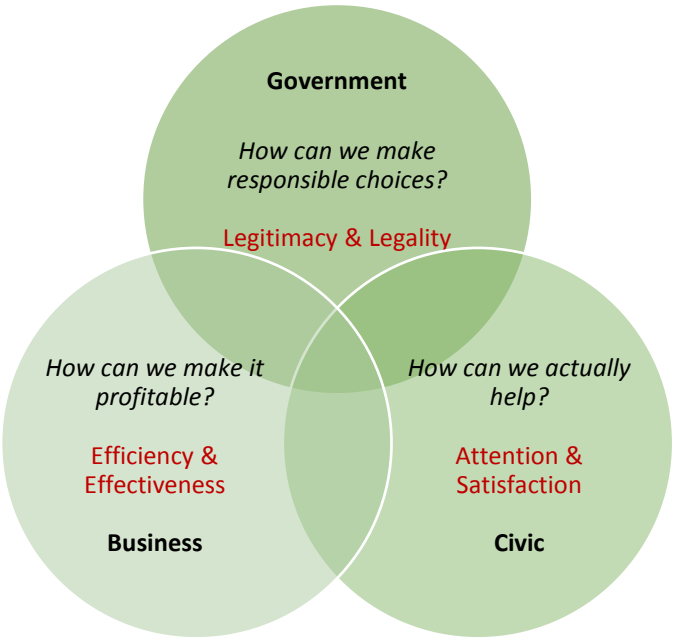

Figure 3: Creation of public value within different domains and values, based on De Jong (2016)

According to Hoek (2013), next to financial values in the business case, one of goals is sustainable value creation incorporating ecological and social values. However, this motif is contested because ordinary people denounce the sharing economy and prioritize economic self-interest rather than sharing (Schor, 2014). Therefore, it is harder to distinct separate roles and responsibilities: the separations between sectors and domains become more fluid (De Jong, 2016). Civilians are not limited to the role of consumer, predominantly concerned with their personal well-being, companies are not always striving for the biggest profit and the government does not have a monopoly on knowing what is best for the people (De Jong, 2016). However, actors are less capable of reaching their ambitions independently. They can benefit from bringing different worlds together in coalitions that are effective, not in spite of, but due to the differences. De Jong (2016) claims that together they can come to better solutions for complex problems than they can achieve on their own. Through information exchange and interaction among citizens and public officials, learning and mutual experience may develop new patterns of relationships (Van Meerkerk, 2014).

This adds to the notion that future coalitions originating from NPRES are dynamic entities. Moreover, if the factor time is taking into account, which is rather important in the context of an energy transition, it is inevitable that new parties enter the stage. Rationalities might move or the political context might change and therefore switching towards another type (or combination of all three types) of coalition might be necessary in order to respond to changes (De Jong, 2016). There are a few take away messages that –at least from a framework point of view- make the distinction between different types of coalitions clear. *While this is aimed at distinguishing existing coalitions on the basis of five attributes, this can also serve as a spectrum in which future coalitions can be positioned*. Table 2 will provide a quick overview and the next section will clarify some nuances.

	Ambitions	Actors	Arenas	Actions	Arrangements
Directive coalitions	Ambition impacts others outside their organization	Unequal power distribution	Formal and political context	Predefined process with clearly formulated deadlines; Consensus building	Hierarchical; No shared ownership
Collective coalitions	Collective ambition around issue	Equal partners; Mutual gains	New arena with committed partners on voluntary basis	Not always an endpoint; Evaluation throughout process	Everyone is ambition owner; Giving up autonomy for returns: Collectivity
Connective coalitions	Formulate ambition to mobilize others	Loose relationship; constantly changing composition	Spontaneous action arena; Personal an informal relationships	No determined course; common sense rather than methodology	Motives rather than jobs; Connectivity rather than collectivity

Table 2: Key factors and their implications for different types of coalitions, based on De Jong (2016)

Directive coalitions: The position of a municipality, or energy company is often stronger than the position of stakeholders like citizens (De Jong, 2016). However, governmental authorities do not necessarily fulfill the directing role: they can also be a facilitator or stakeholder, for example, when an energy company plays a directing role in constructing a field of solar panels (De Jong, 2016). However, according to Bakker at al. (2012) facilitators experience trouble in finding a suitable facilitating role according to the needs of different coalitions. For example, there is too much of a focus on the provision of financial resources, bureaucratic procedures and use formal language (Bakker et al., 2012).

Collective coalitions: In this coalition, we do not talk about stakeholders (as in directive coalitions), but about shareholders since all actors can be considered as equal partners (De Jong, 2016). Actors that do not see advantages in being a partner will not participate: they are not forcibly committed to each other as they often are in directive coalitions (De Jong, 2016). It takes time and effort to let the common ambition grow, but eventually it may develop a sustainable complementary collective with a surplus value for each partner (De Jong, 2016). As the name suggests, this type of coalition is effective when the parties are interdependent and lack the power to work on their own. The attractiveness of partner is inhibited in the fact that the other is different with its own specific contribution (De Jong, 2016). In practice however, when benefits are not realized, there is a risk of partners losing interest: parties pay less attention to the common ambition and focus on the means to achieve it. When governmental authorities are not part of this coalition, they can still fulfill facilitative actions or a partnering role (De Jong, 2016).

Connective coalitions: These coalitions are about the development of actions and ideas (De Jong, 2016). This type of coalition represents local or personal initiatives started by initiators, civic entrepreneurs, social entrepreneurs that mobilize a group of people. Bakker et al. (2012) also stress the importance of civic skills (e.g. basic verbal, social and organizational skills). The members of this type of coalition feel ownership for their own activities from their individual perspective: they do not share a common ambition (De Jong, 2016). In successful connective coalitions, it is important that motivations are intrinsic and contributions are voluntary. When public professionals and officials interfere with the initiative, connective coalitions will lose self-governing character and therefore it is challenging for facilitators to find a good balance between interference on the one hand and lack of empathy on the other hand" (Bakker et al. 2012).

After discussing the background theory in chapter 2.1, in chapter 2.2. the changing role of governance, the market and civil society was reflected upon discussing noticeable shifts in 'traditional' top-down and bottom-up movements. This is summarized in the conceptual model (figure 4) as 'classic governance triangle'. In attempting to find a new balance between top-down and bottom up, this chapter concluded with section 2.3 where different types coalitions, their practical implications and how actors are complementary are explored. This relates to the present situation and the goal of this research: explore future collaborations and coalitions in the light of the energy transition (future).

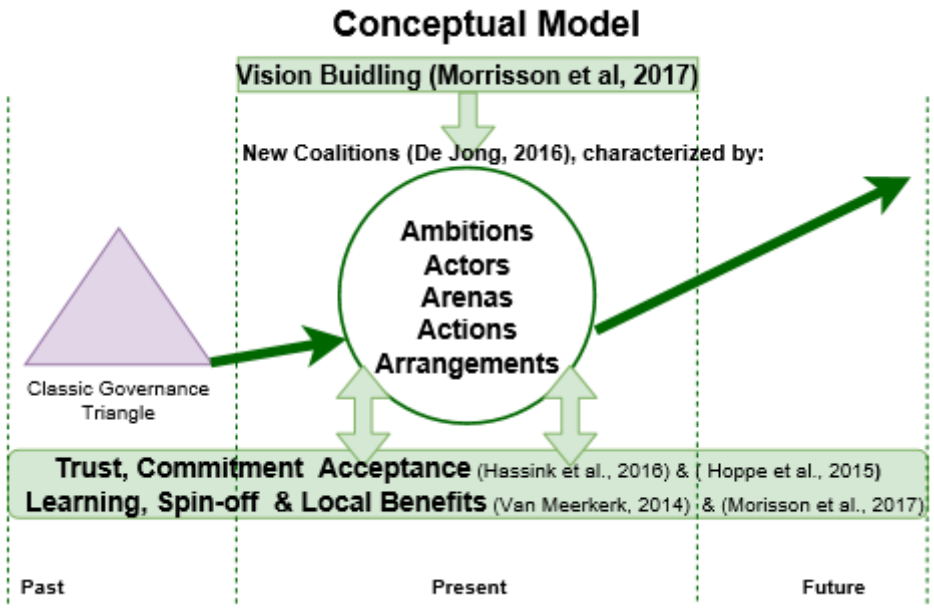

Figure 4: Conceptual model

Vision Building is regarded as an overarching beneficial concept in the Energy Transition. The five key factors from Coalition Planning will provide the narrative for analyzing the results in chapter 4. This allows discussing the results on the basis of the five attributes/ key elements. As displayed in figure 4, coalitions depend and benefit from other concepts alongside the process of mitigation (e.g. learning and mutual adjustment) and make the process iterative. For example: Increased trust and some local benefits result in people willing to participate in initiatives and consequently ambitions can grow collectively in future collaboration (in a potential coalition format) resulting in even more trust and commitment: a self-enforcing cycle in which theoretically snowballs a transition, hence the thick green transitional line.

3. Methodology

This chapter will focus on how this research has been designed and which steps have been taken to come to the final conclusion. Therefore, the used methods are discussed, followed by an explanation of the use of semi-structured interviews. Thereafter, the method of analysis and the use of the CLEAR framework is explained. Lastly, the selected participants are presented and there is room for ethical considerations.

3.1 Research approach

Two methods are used to explore possible coalitions in the energy transition, namely literature review and interviews. This means this research is based on qualitative data mainly. The theoretical framework and conceptual model will provide the frame of reference for discussing the results in the light of the Energy Transition. When available, policy documents of the selected municipalities (or reports by energy cooperatives) have been used to support the preparation of the semi-structured interviews. Section 3.3.1 will elaborate further on structuring these interviews. Figure 5 shows the research strategy and how the different methods combine and add up to results.

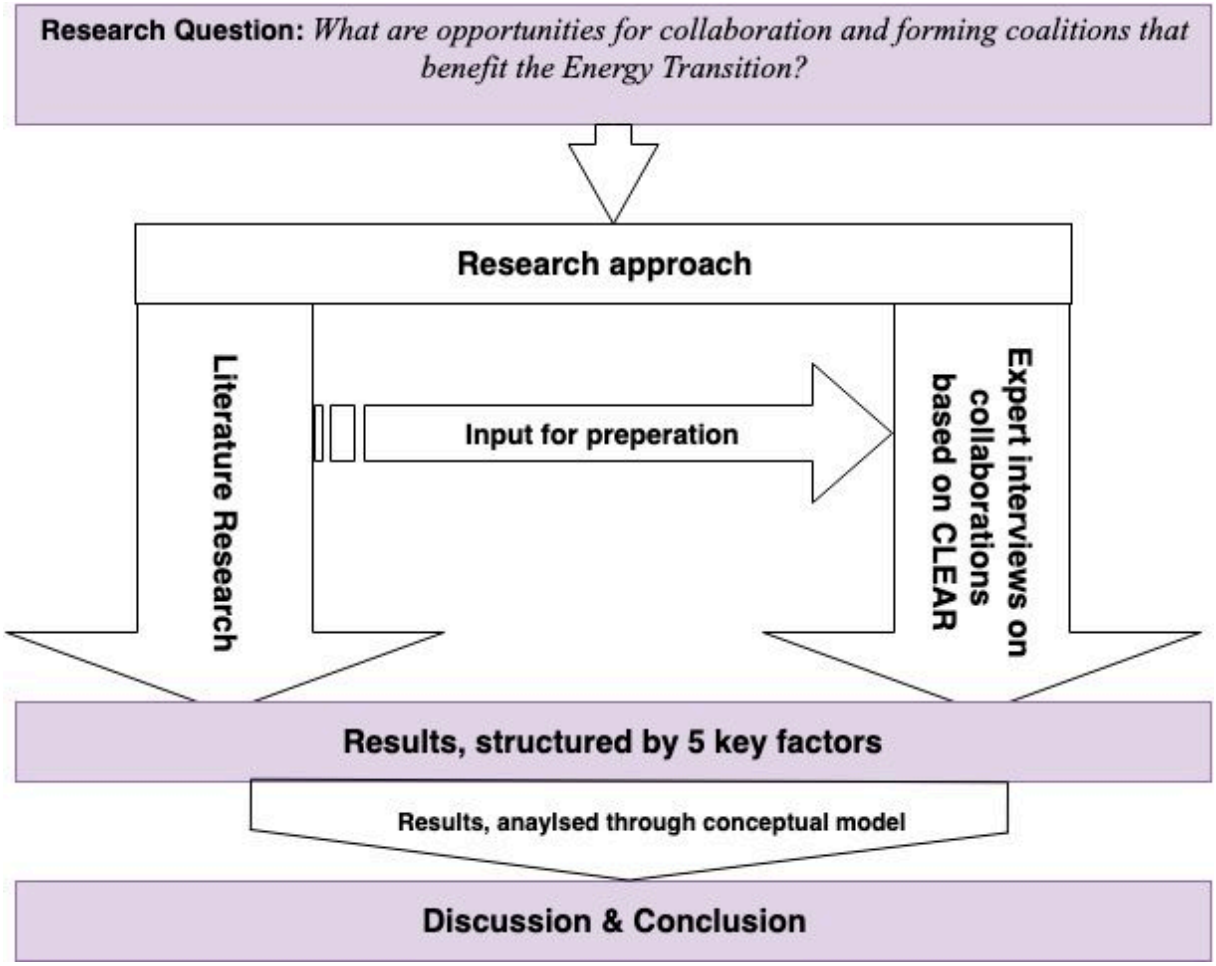

Figure 5: Visualization of the research strategy

3.1.1 Semi structured interviews

This research makes use of qualitative data collection to investigate a contemporary phenomenon (future coalitions involving state, society and the market). This method is preferred in addition to other methods since it allows highlighting valuable elements, which can be connected to each other via multiple interviews, within context. Secondary data or quantitative methods alone do not provide enough in-depth information to be able to answer the research questions.

The goal of the interviews is not to generalize but to understand how individual actors give value to their experiences. This research made use of interviews to understand the social complex dynamics that occur in climate mitigation governance on the local or regional scale. Semi-structured interviews offer the opportunity to gain insight in the motives behind certain methods of actions when it comes to e.g. the facilitation of citizens' initiatives and the functioning of coalitions. The use of quantitative data gathering was considered, but is not preferred as it does not provide insight in the underlying motives of e.g. municipalities and cooperatives. Longhurst (2010) argues that semi-structured interviews are about talking with people. With that in mind, using semi-structured interviews instead of structured interviews, offers the opportunity to ask questions additional to those listed beforehand. This added flexibility is especially valuable when responding to unexpected turns in the interview (Flowerdew & Martin, 2005). Moreover, it offers the opportunity for participants to elaborate on matters they consider important to mention (Longhurst, 2010). Furthermore, being able to talk in person with the participants offers a situation in which the participant might feel more comfortable (Khan, 2014). With this in mind, it is also helpful to interview the participant in a neutral place. In this case, this implies that e.g. aldermen and representatives are being interviewed in their respective offices. Most importantly – when the selected participants are critically questioned- the interviews have to take place in a place in where they feel familiar and where they are able to speak freely (Longhurst, 2010).

3.2 Analyzing the data

This research enhances understanding the role of potential actors in coalition building and leads to a detailed understanding of the relation between the capacities they employ and the success of initiatives. The interviews thus can contribute to further theory development on this topic. In order to allow analyzing the interviews, audio recordings were made. The quality and cohesion of the results depend on the intent of the interview guide (Appendix A).The interviews have been transcribed and coded with help of Atlas.ti. Most data has been coded deductively: the codes originate from the relevant literature and policy documents. The construction of a code system facilitates identifying categories and patterns (Cope, 2010). This is helpful since it helps connect themes and categories, contributing to more nuanced conclusions (Cope, 2010). In addition, inductive coding is used to supplement deductive coding if responses cannot be assigned to deductive codes. This offers flexibility and contributes to a precise process of analysis. Both the deductive and inductive set codes are shown in Appendix C.

3.3.1 C.L.E.A.R. Framework

To create a framework and to formulate interview questions, one concept in particular was used to shape the majority of qualitative part of this research: The C.L.E.A.R. model by Bakker et al, (2012). The C.L.E.A.R. framework "*offers public authorities an investigative method for understanding where the strengths and weaknesses of their existing participation infrastructure are, and help to identify policy responses that might be pursued."* (Lowndes et al., 2006, p.285/286). Hypothetically, this means that structuring the interviews based on this allows investigating participation and collaboration of actors in *potential* coalitions, based on their current experiences of collaboration.

Verba et al. (1995) developed an influential Civic Voluntarism Model to answer the question: why do some citizens participate while others do not? Lowndes et al. (2006) extended this model and formulated their CLEAR model adding two factors. The CLEAR acronym refers to CAN DO, LIKE TO, ASKED and the added TO ENABLED TO and RESPONDED factors. The CLEAR model provides a basis for systematic thinking about potential interventions by facilitators. Where article of Bakker et al. (2012) is limited to the mobilization stage of citizens' initiatives, it still provides insights for facilitators with regards to citizens' initiatives. Based on the CLEAR framework, Bakker et al. (2012) elaborate on which methods and instruments of facilitation can lead to successful citizens' initiatives.

In the context of Bakker et al., the facilitator refers to the government or municipality. In this research, the facilitating role can also be fulfilled by the market, as they are implicitly incorporated in the cooperative legal form concerned with energy cooperatives. This allows determining how governments or other facilitators can contribute to strengthen the citizens' attributes and thus facilitate the citizens' initiatives. The five key factors (displayed in table 2) are concerned with the attributes that citizens need in order to be able to participate effectively in citizens' initiatives from a municipality perspective. Questions were formulated within this line of thought (see appendix A).

Key factor	How it works	Policy targets
Can do	The individual resources that people have to mobilize and organize (speaking, writing and technical skills, and the confidence to use them) make a difference	Capacity building, training and support of volunteers, mentoring, leadership development
Like To	To commit to participation requires an identification with the public entity that is the focus of engagement	Civil renewal, citizenship, community development, neighborhood governance, social capital
Enabled to	The civic infrastructure of groups and umbrella organizations makes a difference because it creates or blocks an opportunity structure for Participation	Investing in civic infrastructure and community networks, improving channels of communication via compacts
Asked to	Mobilizing people into participation by asking for their input can make a big difference	Public participation schemes that are diverse and reflexive
Responded to	When asked people say they will participate if they are listened to (not necessarily agreed with) and able to see a response	A public policy system that shows a capacity to respond – through specific outcomes, ongoing learning and feedback

Table 3: CLEAR framework, adopted from Lowndes et al. (2006), p286

3.3 Ethical considerations

Prior to the interview, the participants will be informed about the length and purpose of the research and that their input is part of this research. When interviews are conducted, personal interaction can be influenced by norms and values, expectations and power structures (Dunn, 2010). In this case, the researcher can be considered an outsider, with interest in e.g. sustainability, energy initiatives and governance. Other than gathering the required information for this research, there are no other interests. All the participants had to sign a declaration of informed consent (see Appendix B). This document describes that their answers will only be used for this research, that it would be recorded and that they could stop the interview at any time if necessary. After completing this research, the data will be kept behind a password on a PC for one year and remain only accessible for the researcher. In addition, participants are guaranteed anonymity if requested. In that case, an alias will be used and their names will not be used in the research. Such confidentiality will help the participants to feel more freely in answering the questions (Hay, 2010). However, the researcher is aware that some quotes might in fact remain retraceable and identifiable with certain participants because they relate strongly to their position and function.

3.4 Participant selection & Criteria

The unit of analyses, or the case, is determined by defining spatial boundary, theoretical scope, and timeframe (Yin, 2003). The theoretical scope is defined based on a literature study. In this case, the units of analysis are potential coalition actors related to energy cooperatives, energy initiatives, (local-regional) governance and market parties. The relationships between actors and the attitudes of actors and stakeholders are prone to change and influenced over time. However, in this research the Energy

Transition is considered a long-term commitment. This study focusses on key actors. Key actors are municipalities, civilians, energy contractors, politicians, national government, land/roof owners, delegations of cooperatives who together (potentially) form and act in coalitions and are willing to cooperate. To make these interactions tangible and better understand energy transitions, a local perspective is used since it reveals these interactions within the context of people's daily environments (De Boer et al., 2018).

Key actors selected in this research are participants with a prominent role or function; they are credible, responsible, representative and could be held accountable for their actions. *Availability and willingness (or a lack of) to cooperate was dealt with during the research period.* Selected participants are regarded potential actors in advance of the participation coalitions as described in the NPRES and the theoretical framework. The researcher is aware that these coalitions do not follow a prescriptive format and are therefore interpreted differently by different actors, which gives the research an explorative character. The interaction between energy cooperatives and the government is also tangible on the municipal level which qualifies these actors as potential actors and participants. Furthermore, Elzenga & Schwenke (2015) state that in their research there was regular contact between energy cooperatives, civil servants and directors. This can be explained by the common interests they share regarding energy use, enhancing social cohesion and the local economy. By investing in these partnerships, governments can stimulate the cooperation between municipalities and market parties (Elzenga & Kruitwagen, 2012). For example, Multiple municipalities even offer roof surface of their own property for free for solar projects (Elzenga & Schwenke, 2015). With these collaborations in mind, this resulted in the selection of the following participants, displayed in table 4. Table 4 gives an overview of the participants interviewed, their role and some general characteristics.

Participant	Role	Location	Date	Duration	Method
Oord	Alderman Steenwijkerland	Steenwijk	29-5	57:38	In Person
Simonse	Alderman Noordoostpolder	Emmeloord	24-6	39:11	In Person
Schiphorst	Chairman ECOldemarkt	Oldemarkt	8-7	52:21	In Person
Hoeksema	CEO EnergieVanOns	Groningen	9-7	1:04:09	In Person
Huisman	Chairman DeWieden-Weerribben	Dwarsgracht	11-7	1:01:18	In Person
Faber	Alderman Sudwestfryslân	Sneek	15-7	45:00	In person
Kessels	National Programme RES	Den Haag	18-7	58:08	In Person
Total				*6:17:45*	

Table 4: The participants

The research runs from 11-2018 until 07-2019. Data collection occurred from 03-2019 until 07-2019. The results are based on the data collected during that period. The data collection period defines the specific time boundaries of the case. Candidates were cooperatives located in the northern part of the Netherlands (Friesland, Groningen, Flevoland and Drenthe) that are currently organizing themselves or have organized themselves and are part of a collaboration or coalition with e.g. the municipality regarding sustainable energy provision. To facilitate different results, multiple municipalities have been selected to fulfill the governmental part within the potential coalition, as displayed in figure 6. Besides the geographical spread, this is also desirable since this research is also about the facilitation and collaboration around energy initiatives involved in local sustainable energy development. Therefore, the selected initiatives are located within the relevant municipal boundaries.

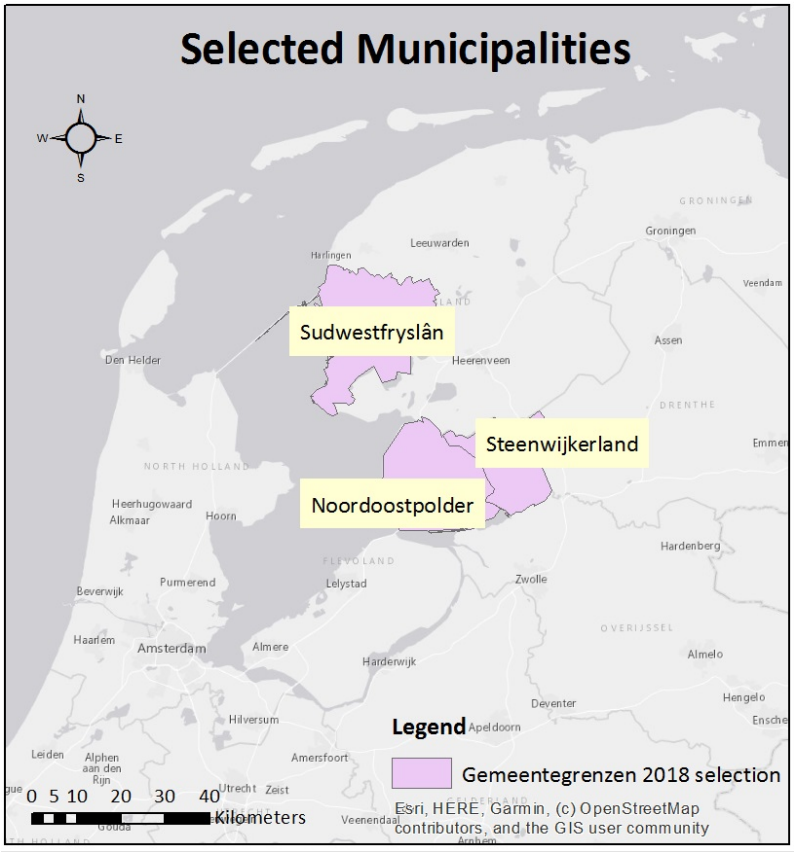

Figure 6: GIS of selected municipalities

The next section will provide a short analysis of every participant, how they function, and how they relate to other actors keeping in mind their potential as a coalition partner.

3.4.1 Participant 1: The municipality of Steenwijkerland

The municipality of Steenwijkerland holds a few good examples of local initiatives concerned with sustainability and energy (Steenwijkerland, 2019). The province of Overijssel and Steenwijkerland facilitated energy initiatives with subsidies (DeWieden-Weerribben, 2019). In terms of collaboration: ECOldemarkt is building, together with the municipality of Steenwijkerland, a large solar field on one of the few uncultivated areas on an industrial terrain located in Oldemarkt.

3.4.2 Participant 2: Energy cooperative: ECOLdemarkt

On the 8th of February 2018, Energy Cooperative Oldemarkt was founded (ECOldemarkt, 2019). This is in initiative from residents that live in Oldemarkt *for* residents of Oldemarkt and surroundings. ECOldemarkt wants to decrease the use of fossil energy and increase self-sufficiency within the region by exploiting solar panels under their own management (ECOldemarkt, 2019). ECOldemarkt received a starting subsidy from the municipality (Steenwijkerland) which covered the start-up costs. ECOldemarkt state on their website that there are consultations every two weeks to discuss collective actions: this collaboration is valued as 'very prosperous'. The realization of this 'sun on land' project has not reached the execution phase yet. The goal of the cooperative is to generate energy collectively and more economically (ECOldemarkt, 2019).

3.4.3 Participant 3: Energy supplier EnergieVanOns

Likewise, EnergieVanOns is on a mission: they aim for 100% locally generated green energy. EnergieVanOns connects almost one hundred energy cooperatives with thousands of customers (EnergieVanOns, 2019). Furthermore, EnergieVanOns works on expanding their 'energy movement' and facilitate administration, customer support and central communication (EnergieVanOns, 2019).

EnergieVanOns (2019) claim that they take over task from energy cooperatives, invest profits back into the region and that locally generated energy is used locally.

3.4.4 Participant 4: Energy cooperative: Wieden-Weerribben

This cooperative has cleared the road for many other initiatives in the region and has been running for several years now. The cooperative is running more than a thousand panels now and has 67 members (DeWieden-Weerribben, 2019). It is a project from inhabitants from the region that want to reduce the use of fossil fuels, stimulate green energy and make the villages self-sufficient (DeWieden-Weerribben, 2019). The project initiated from the business associations Dwarsgracht and the working group 'solar-energy' performed a feasibility study to explore the possibilities back in 2015 and 2016, which makes them one of the first local producers in the municipality of Steenwijkerland (DeWieden-Weerribben, 2019).

3.4.5 Participant 5: Municipality of Noordoostpolder

In their Uitvoeringsprogramma Duurzaamheid (2019), Noordoostpolder express great ambitions and acknowledge that governmental parties have to combine forces to make the energy transition a success. Based on a shared ambition, Noordoostpolder wants to cooperate with society; this should be facilitated by a multi-year programmatic approach with a nationwide integral energy strategies, also known as RES. In line with this, is the to desire to develop societal acceptation for the energy transition through awareness, exchange of knowledge and a sense of urgency amongst their inhabitants (Uitvoeringsprogramma Duurzaamheid, 2019).

3.4.6 Participant 6: Municipality of Sudwestfryslân

In their 'Agenda Sustainable Development' is mentioned that Sudwestfryslân performs above average in terms of sustainable energy (Sudwestfryslân, 2019). This is predominantly due to windmills. Furthermore, it is stated that they want to connect with running initiatives in order to reach their objectives and that they are open for ideas from inhabitants and market parties. Adding to that, Sudwestfryslân aims to modernize legislation barriers and harmonize their current energy infrastructure (Sudwestfryslân, 2019). Sudwestfryslân foresees struggles as they house six of the eleven Frisian cities and the landscape is generally cherished widely.

3.4.7 Participant 7: National Programme Regional Energy Strategy

The RES requires no further introduction as it is discussed earlier in chapter 2.1.1. This programme facilitates regions and aims to enhance execution power of regions (NPRES, 2018). In short, RES is where governments, energy suppliers, inhabitants and market parties work together to make choices with regional support. It is acknowledged that regions face a complex task since the spatial impact of the energy transition will be substantial (NPRES, 2018). Therefore, to facilitate collaboration, the participation part should be embedded within the 'inviting' process, where co-development and co-ownership are focal points in creating local benefits.

4. Results

This chapter will present the findings gathered by the interviews. In the following paragraphs, the gathered data will be described systematically using a different lens: the coalition perspective. In organizing a system, the codes have been grouped together using *the five key factors that distinguish coalitions* as described in chapter 3.2. (see figure 4 p.20 and appendix C), which will provide the ''narrative''. These five key factors are attributes to distinguish between different types of coalitions. In exploring future coalition opportunities it is helpful to relate to these factors. Whilst coding, it became apparent that some interactions are highly context dependent and differ substantially per municipality or area of study. Consequently, these (mainly inductive) codes are linked to the five main topics and discussed throughout. Some results apply to more than one code: in that case, they are presented within the context that holds most value. Municipalities will from now on be referred to as e.g. 'Noordoostpolder' instead of 'Alderman of the municipality of Noordoostpolder'. In addition to the five key sections, four sections are followed up with additional findings (4.1.1, 4.2.1, 4.3.1, 4.4.1).

4.1 Ambitions: Collective ambitions &Mobilizing others

All municipalities have their own ambitions with regards to sustainability but they all experience the pressure from the province and the Klimaatakkoord. These own ambitions are also related to 'getting of the gas' but at the end of the day there is still the societal debate if everyone can afford it. Steenwijkerland is well aware that if they communicate a certain ambition, they have to provide something in return for citizens as well. Steenwijkerland is aware of their strong points and wants to safeguard that the quality of their inhabitants and the region does not suffer from overambitious plans in terms of livability and their national parks. There is an ongoing search for support from civic society. Noordoostpolder often used the term "pioneering spirit", that was present not only among entrepreneurs but also in the municipality itself. When you characterize yourself as pioneering this implies that you are on the edge of driving your ambition. Furthermore, they raise the bar for themselves. They mentioned that in 2030 they have to be energy neutral but decided that they wanted to reach that already in 2025. Noordoostpolder is well aware that they should not overdo their idealism because eventually they will meet resistance and things simply have to be affordable. They strongly belief in "practice what you preach" and they are trying to lead by example by for example electrifying their car park. Like the other municipalities Sudwestfryslân mentions that they want to be in front, but also acknowledge that they have catching up to do. Sudwestfryslân stresses the importance of a government that dares to make long-term commitment and even thinks the Klimaatakkoord is not ambitious enough when looking at the rate of environmental impact. NPRES acknowledge that they get signals that they should start a national campaign to stress the urgency and relevance of the issue. However, NPRES deliberately moves away from the regional deciding tables as ownership should be in the region. However, there are strong national interests which means that these interests should be embedded in the process. They also expect to receive RES concepts where regions are more ambitious than legal frameworks would allow; in that case they want to makes specific efforts.

Energy cooperative ECOldemarkt mentions that there is a limit to ambitions. If for example another cooperative wants to realize 1000 more panels, it simply would not fit the network. Capacity is a big deal: if cooperatives want something, Enexis first has to expand the network capacity. In terms of ambitions and mobilizing people, Wieden-Weerribben went from door with pamphlets and the possibility to calculate things for people if they wanted to talk about that if that was needed to make them join. It was added that the initiative started from an idealistic point of view since the chairman had been working for Greenpeace, but for other people motives could be strictly financially or anything in between those extremes. In that regard, keeping members satisfied is best achieved by delivering benefits where you also have to communicate well with your members.

EnergieVanOns stresses that their ambition is mainly concerned with the way money flows: they want to keep it in the region so it can be spend there again. Furthermore, they facilitate this since that allows everyone to have control over their own energy and therefore owns their energy, locally generated, locally decreased and locally distributed. If they succeed in this, their goal is to be abundant so that civilians can deliver energy to each other. It was stated that their goals is not to keep existing but they are the vehicle to realize projects, to provide control, influence and cost control. Adding that, one of their goals is that locally developed knowledge should be shared and that valuable information is passed through.

ECOldemarkt about motives and ambitions on the local scale:
"Some people that it is nice to organize things collectively in a village, others do it for financial efficiency or they just want to get off the gas in time".

Noordoostpolder about their ambition on a more regional scale:
"Whether you have 86 windmills or 186 windmills, you just have to think big because all the small scale stuff is a waste of time and energy […] Maybe this means that we can help other municipalities in their demand for energy, so be it. I also don't want to cycle in to a windmill when I am at the Veluwe".

4.1.1 Reality Check: Expectation management, Leadership & Actual impact

ECOldemarkt made some remarks about the Dutch government making international deals that eventually resulted in the Klimaatakkoord. Their complaint was that the government could state that we have to provide a certain amount of green energy in 2040, but that everybody that is realistic knows that –with the current strategy- we are still far from meeting that. Furthermore, a point of critique was that they want cooperatives to pursue people to use green energy but at the same this same government grants permission to extract gas not far from their village.

All municipalities mention that there are many knowledgeable people with a good story living in the rural villages. Especially older people that were always in front that can provide targeted advises. This is shown by Wieden-Weerribben, who mentioned that he had experience as a civil engineer and was experienced with projects. EnergieVanOns sees that is now all voluntary jobs but expects that this is going to change as well into a more corporate setting like you see in the north with their umbrella organizations (*Uus Kooperaasje)*. EnergieVanOns thinks that leadership is lacking. It was argued that you have to visit people repeatedly in order to mobilize them but due to over democratizing we somehow do not accept leadership. It was added that everywhere where results are made, there is leadership, results and vision and EnergieVanOns believes politics are lacking behind on those points. Leadership is interpreted in different ways: Noordoostpolder mentioned a few examples of being ''the first'' municipality to have e.g. a sports complex that does not rely on gas. They want to innovate and create milestone projects. This refers back to the pioneering spirit or being in the lead. Steenwijkerland does not consider itself as a leader but strictly a facilitator with the remark that if everybody was a little bit more aware, it would be easier to steer. The main challenge in terms of leadership is considered getting everyone behind you. In that sense, ECOldemarkt states that you need a few people that believe in something and that are able to express their story in a way that makes people enthusiastic. Sudwestfryslân meets some resistance in certain villages but searches the dialogue by stressing that there are (short-term) decisions to be made in terms of RES and therefore rally for some support from inhabitants, be it diffuse. Sudwestfryslân stresses that politics should be stronger leaders since they can provide the context and legislation that allow more sustainable solutions. To benefit the greater cause, there should be space for innovations within legal frameworks without the hassle of inert destination plans.

In terms of impact, Steenwijkerland mentions that eventually it will reach the front door of everyone and therefore you are forced to think about these issues. Furthermore, they strongly believe that when all planned interventions eventually take place, we will live more economically as a society as a whole. In terms of actual impact of energy cooperatives, all participants acknowledge that they are especially important in terms of support, but that the environmental contribution is less big than the societal contribution. Adding to that, NPRES considers energy cooperatives frontrunners that are crucial in triggering a snowball effect in society in terms of awareness or even financial benefits. Both cooperatives mentioned that their contribution in terms of numbers is small. Adding to that, both cooperatives and municipalities consider solar panels and windmills as a temporary solution or transitional solution. Furthermore, the participants struggle to determine the actual impact. All participants acknowledge that this movement is not going to cover our entire energy demand: it is only part of the solution. EnergieVanOns is realistic about the impact of energy cooperatives state that numerically, it is simply too little but looking at the process of awareness, it can be considered essential, inspirational and able to trigger a snowballing effect. It is considered a step in the right direction since in the far future these initiatives probably grow bigger.

Steenwijkerland about participation:
" It is very difficult to manage each other's expectations […] at some point you have to make decisions […] it is not uncommon that you had a lot of partners at the table and that the one person who was not there is the one complaining''.

Wieden-Weerribben about (over)reliance of certain actors or leaders:
"We are looking for a chairman that is active and wants to perform tasks […] if someone disappears, the whole initiative still has to move''. "If I quit my activities I doubt if things will remain the same or if this is being consumed by a bigger whole''.

4.2 Actors: Power Distribution, Partner Relationships & Participation

Steenwijkerland mentioned that it is not always clear if market parties want to team up with *small* cooperatives. As a market actor, EnergieVanOns mentions that umbrella cooperatives are also helpful actors. Those umbrellas are busy with the execution of plans, with roofs, solar fields or making property greener. However, they are a little bit trapped in the execution, and boards become diffuse. Therefore, they are retreating a little because they mainly want to mediate between cooperatives and the province. EnergieVanOns state that they do not have to make profit but that they have to cover their costs. However, they ask themselves whether they have to distribute all the information for free. All participants agreed that at some point there will be a transition from voluntary work towards paid work since this a process of professionalizing and that will happen sooner or later. EnergieVanOns also mentions that it is not always clear who benefits behind the scenes. It is said to be a complicated story where electricity and gas are considered just a service by people. EnergieVanOns states that municipalities do not always consider cooperatives as equal but as a hobby club, which is in their eyes wrong since they house more knowledge, are intrinsically motivated and municipalities are hard to get informed. With regards to project-developers, some participants mentioned that there are "cowboys" that buy substantial amounts of land and force their plans onto society because municipalities lack structural and clear governance, which is something to be aware off in terms of power.

Regarding partnerships, cooperatives maintain strong relationships with their municipalities. At some point, it became apparent that Steenwijkerland wanted to invest in sustainable energy on a relatively short term. While ECOldemarkt was still looking for a fitting location, Steenwijkerland is the landowner of vacant industrial areas; they proposed a ''co-production''. The soon to realize sun on land project that Steenwijkerland develops together with ECOldemarkt came as an ''eventuality'' that fitted their own ambitions as well. Again, one of the main arguments was that it would be beneficial if the benefits would flow back to the community instead of to investors. Still, ECOldemarkt state that at some point

they were worried if they could keep their members happy since they are offered the most promising deals on a daily basis, but it turned that they were remarkably understanding when they kept providing them with newsletters, two to three meetings and elaborating on why we entered this complexity tower. All participants recognize the importance of support. It is generally about informing well, elaborate on difficult points and risks and engaging people in the process.

There were more collaborations going: ECOldemarkt teamed up with EnergieVanOns because they felt the same drive of wanting to make a difference. A determining factor here was that other others supplier often have shareholders and shareholders want to see money. EnergieVanOns is owned by the cooperatives, so the moment you start delivering to them you become shareholder and all the proceeds flow back to the associated cooperatives. According to both Wieden-Weerribben and ECOldemarkt, Steenwijkerland fulfills its facilitating role really well. When they started off, they received a substantial stimulating financial contribution to set them off. Without that contribution, it would not have been possible to start their initiative because there are simply a lot of startup costs that potential members do not want to pay for in advance. Wieden-Weerribben was one of the first cooperatives in Steenwijkerland so it is not strange that other cooperatives look for experience in the region. ECOldemarkt acknowledged that networking can be beneficial: when they started they had a lot of contact with Wieden-Weerribben, and they were under the umbrella of *Uus Kooperaasje* and delivered to EnergieVanOns. Wieden-Weerribben stressed that they were in it for a good cause, did not mind competition and that they do not have to be the only one or the biggest: they want activate and support others as well.

Different from Sudwestfryslân and Steenwijkerland, Noordoostpolder is lucky to have a well-established GRID infrastructure already where they are not dependent on Liander or Enexis (network operator). They can plug in their solar fields straight to the TenneT network, which is one of the reasons they want the solar panels to be there in the first place. Noordoostpolder established an ‘’almost friendship’’ with the initiators of the windmill park and has almost a blind trust in the market. Again, their only prerequisite was that the benefits flowed back to the civilians keeping in mind that from an entrepreneurial point of view there is money has to be made as well. In the Noordoostpolder there are several companies that advise MKB about sustainability, the alderman often attends those meetings to ‘’facilitate’’. This shows the different contexts municipalities deal with.

With regards to participation, all participants are aware that the government has to tilt towards participation but stress that this is big journey. Furthermore, according to all participants, participating in the sustainable lifestyle depends for a great amount on money. That is also why cooperatives are generally considered as a positive contribution since it allows people that do not have the money or space to install solar panels on their own house to participate in a more accessible format. Wieden-Weerribben adds that income is determining whether people can participate in projects and therefore cooperated with the municipality and established the ‘revolving fund’. This is different from other subsidies concerned with sustainability but specifically aimed at removing the obstacles for people to participate in these projects. In terms of future participation, all participant stress the importance of this sustainability movement to create wide societal support. Wieden-Weerribben also mentions that in winning the majority you have to accept that people have motives different from your own. Most participants recognized this struggle and found that there is also a group that simply just do not wants to participate, or joins in at the last moment. In terms of acceptation, all participants mention the feeling of contribution that people get when they participate in making the energy network greener: without the cooperatives, that feeling would not be there and there would be lower acceptation. Sudwestfryslân mentions the different forms of participation. Participation in decision-making is different from participation in projects. It was added that administrators are not used to this new situation at all and that is time to say goodbye to old-fashioned decision-making. All municipalities recognize energy cooperatives as a format for creating participation. With regards to support or a democratic deficit, Sudwestfryslân states that the city council has been democratically chosen, which

implies that indirectly all inhabitants participate. At the same time, they mention that this is not the kind of participation required in this context. NPRES nuances this administrative participation by shifting the focus from civil society towards the parliament. Council members are chosen democratically and they should all be involved in the first place since involving all citizens is simply impossible. Furthermore, Sudwestfryslân adds that there are also housing cooperation's or environmental organizations in the process, and they have not been democratically chosen as well. Both NPRES and the municipalities stress that people have to be involved upfront instead of afterwards with a procedure. In terms of income differences, all participants have good hopes that items and services will get cheaper and more accessible over time since that is just how market economics work.

EnergieVanOns about power imbalances:
"Ministers have no clue about the total challenge that is ahead of us when they propose certain ideas […] it is always about money, it has to be affordable […] I am also astounded that 10 percent of emissions comes from households and regulations in all other sectors stay behind […] you should not exhaust civilians time after time […] it works for the process of awareness but you have to deal with the evil from the source''. "If you are really suspicious you could even state that the real power is not in the hands of politicians but lies with the companies''.

ECOldemarkt about partnerships:
"There is money to be made […] people want to live more sustainable but they do not want it in their backyard […] for all those large scale developments they just get the burdens and not the benefits […] that is why cooperatives are so strong and why they partner up with municipalities with private parties, it involves co ownership, maybe not in a literal sense but the feeling that you are part of something''.

4.2.1 Generational differences; involvement of the younger generation

Some interesting remarks were made with regards to the younger generation. All participating municipalities observed that there is a younger generation that has totally different ideas in relation to sustainable energy and what is acceptable in terms of the landscape.

EnergieVanOns also recognizes the generational differences:
"If you have two children and a busy job you can't be bothered but if you are 50 plus and you have plenty of time […] maybe we should start earlier with education […] the older generation is more attached to material, an own house, second car […] nowadays every has a swap bike, the younger generation does not even want a car […] the mentality of the new generation has already for the changes that we have to make but they are not yet in the position to take the lead […] you have to involve the younger generations, that's why I employ mostly young people''.

4.3 Arenas: Formal and Political Context, Partners & Platforms

Steenwijkerland purely considers itself as a facilitator. However, they want to lead by example by making all their properties greener. Noordoostpolder mentioned multiple times that they are not only facilitating, but also stimulating and directing while staying away from ''the execution phase''. They have a network of pioneers that create symposiums for people from the entire country. These steer towards innovation in the network and they stimulate the municipality while they have the money and the means. In the political arena, Noordoostpolder meets some resistance from time to tome but that friction is said to make them stronger. Noordoostpolder also believed that in the future, there are no longer separate departments for economic affairs and sustainability; they just become one interrelated thing. In a less pro-active manner, Sudwestfryslân organizes special evenings to get in contact with their energy cooperatives; they started bringing them together on a municipal level quite recently. NPRES argues that from their perspective it is impossible to involve all citizens since the issues are to abstract: when reaching the execution phase, citizens will organize themselves when there is certainty about what is going to happen. This shows the struggle of bridging bottom-up and top-down.

With regards to partnerships between cooperatives and municipalities, ECOldemarkt met with Steenwijkerland every 14 days in the pre-procurement phase, which is quite extensive. This is said to permeate obstacles in terms of formal context. Contradicting, EnergieVanOns mentioned that the whole energy transition is being hijacked by language wizardry: the way in in which things are written down and how civilians perceive it are two totally different worlds. Municipalities recognize this issue and emphasize that this is different for every inhabitant. At some point Wieden-Weerribben mentions having a partner in Steenwijkerland when they encountered problems with Enexis. Together with the municipality, they had a good conversation and they were guaranteed that there would be no restrictions. Wieden-Weerribben mentioned that most conversations with the Steenwijkerland and Enexis that took place in the neighborhood centre, which shows that decision-making at the local scale can also move towards a more informal arena.

Steenwijkerland organizes a G1000 as a platform to specifically enhance the participating aspect of society. From G1000 there are several working groups regarding awareness that motivate people to live more economically. All participants noted that regardless of participation, it all starts with isolating your house, because everything that you do not use, you do not have to generate. Furthermore, we often think in solutions, but apart from the monetary part, sustainability is often not in the minds of people yet. To promote sustainability, All municipalities organize activities like ''energy saving markets'' and inhabitants can get free ''energy scans''. Moreover, all municipalities have civic servants (be it recent) specifically assigned to promote sustainability among clubs and associations to inform them about what is possible. What is central in getting a message across is that ideally, everything is free and there should be no barriers for anyone to participate in those events. There is also a power in repeating these actions over and over again.

EnergieVanOns about creating a platform for cooperatives:
"Uus Kooperaasje can be considered an organization that represents members within regional borders […] we try to get some structure in that […] provinces have goals, money and subsides and those domes or umbrella organizations try to streamline what cooperatives need from the bottom and what provinces really want […] the goal is to create some kind of platform that represents all members".

4.3.1 Shared Agendas

Steenwijkerland recognizes the Klimaatakkoord as a strong statement from the government, but initiatives are mainly driven by money. Moreover, developers see subsidies flowing in otherwise they would not act. EnergieVanOns adds to this that everybody wants their own solar park because you get 15 years of subsidizing. Project developers only want big projects because that is efficient but they appear to have a totally different business cases and different values. EnergieVanOns also nuanced the idea of a shared agenda since it would be hard to determine whether values were shared or not, and a shared agenda is not the same as a single agenda. NPRES stress that the RES is the result of the government feeling responsible. Furthermore, it is not just a product or instrument for regions but includes a process to establish collaboration. It is said to trigger movement that otherwise would not have happened. Energy cooperatives would exist but they are not sufficient for reaching national goals.

NPRES about agendas:
"I consider RES as a collaborative agenda […] it is not a plan but it is a set of deals and arrangements to reach a certain goal using certain paths and approaches".

4.4 Actions: Predefined Process, Evaluation & Courses

All municipalities have been developing frameworks lately to accommodate alterations to the energy network. The "Business cases" have to negotiate with network providers to discuss if expanding is possible. All participants stress that in order to make a change, you have to win the majority for you and that starts with awareness. At the same time, municipalities feel the pressure of the RES, so they

see that they have to plan some actions, but explicitly with the participation of civilians. Sudwestfryslân stresses that time is not in their favor and that societal support is influenced by organizing participation. Sudwestfryslân thinks that that on the short term a lot can be achieved in terms of awareness and sense of urgency. NPRES mentioned getting signals that time is indeed short and they want to clarify what should be in the concept RES. They are aware that some municipalities made more progression than others.

ECOldemarkt was already far ahead in their own process of realizing their solar energy initiative but they could not find a fitting roof and were out of options. Teaming up with Steenwijkerland meant that would face a complex system of procurement. As a cooperative, you can ask for multiple offers, but the government has to fit a lot specific procurement rules. In this case, this meant that the whole process had to be transparent. It became so complex that the municipality had to hire a third party to supervise the procurement. Process and continuity wise, Wieden-Weerribben evaluates the 'postcoderoosregeling'. In 15 years, the so-called transition is said to be over and we moved past a critical point and there will be no incentive for the government to facilitate this. It is argued that eventually financial motives will win because when things are little bit less economically, things like this are the first to disappear on the agenda. Nevertheless, it is believed that this is the right format and that things will take a flight from here.

Both interviewed cooperatives are also considering new initiatives like a village windmill or a shared car. They are convinced that people receive those ideas totally different compared to 10 years ago since the urgency is just bigger and people realize that they have to do something together with that feeling of ownership. EnergieVanOns stresses that in the future cooperatives need knowledge, supervision, a structured administration and business case. As the biggest challenge, EnergieVanOns mentioned politics: the RES, budgetary agreements and legal frameworks that are valid now are not necessarily valid in two years. This implies that if you start with something you do not know how it is going to end. Sudwestfryslân also mentions this political uncertainty as something that has to be taken into account for future decision-making. EnergieVanOns outed a lot of critique on the overall process: If RES is what it promises to be it would be great, but it are always the same faces around the table and the majority of society will not be there.

Noordoostpolder mentions that at some point they got so many request for small solar field projects, they stopped taking theme in consideration since they lack a proper vision. There is still much to win in terms of awareness. All participants acknowledge that there is the risk that people in the front row are the ones that just want to make money. However, these people can still play a role in catalyzing and creating awareness, since it has to take off from somewhere. Noordoostpolder is happy with the decisions made by minister Ollongren with regards to building without gas. It is believed that the market is creative enough to solve those problems if everybody sticks to what they are good at. It is also argued that the market is becoming increasingly professional and therefore it is not wise staying in hobby spheres with a windmill or a panel every here and there. Sudwestfryslân does not necessarily see this as something positive when cooperatives keep on growing and potentially lose touch with their initiators and local origin. Local initiatives should be cherished because Sudwestfryslân does not want energy to go through the same privatizing cycle as other services in the history of The Netherlands. This shows that municipalities differ substantially with regards to upscaling their projects.

Steenwijkerland about the overall process:
For the government this is considered a process [...] maybe we make some steps in the next 5 years and then an enormous step in the 2 years after that, but nobody really knows".

Sudwestfryslân about the overall process:
“If you are 70 years old right now and you have your own house […] how realistic is it that you make them spend money on going green […] they simply do not know how long they will be able to live there […] every household has its own dilemma’s’’.

“I just do not have a clear image of this gigantic complex dilemma in which there is a lot of uncertainty […] during the whole process you can either meet a lot of resistance, or maximal acceptation […] which way it is going is uncertain”.

4.4.1 Learning, Monitoring long term & Future problems

All participating municipalities had learning experience with regards to a solar or wind project. Steenwijkerland attempted to realize a solar field from the past where without involving the right people, the whole project bumped into a lot of resistance. Ironically, the same people giving resistance back then have now stood up and think actively to develop sustainable pilots. Sudwestfryslân had their learning moment with a windmill project in the past and still feel the consequences of that today. With regards to the RES and Klimaatakkoord, Steenwijkerland is going to revisit its opinion around wind energy since they have to ‘’provide a mix’’ that suits the RES. Sudwestfryslân houses approximately 15 energy cooperatives and those cooperatives not only working together, they also help other villages in establishing their own cooperatives. There is also a learning curve in awareness according to EnergieVanOns with the remark that you cannot alter your behavior drastically from one moment to another”. Noordoostpolder had its learning moment with a solar park that had been realized on a vacant slot on industrial grounds. This served as a wakeup call since the profits proceeded to the entrepreneurs only and the municipalities have to deal with the spatial fragmentation it creates.

In terms of monitoring, Steenwijkerland acknowledges that a lot has changed and will remain changing in the future and therefore wants to make up the balance in 5 years to check if things catch on. Both cooperatives acknowledged that institutional changes influence decisions. For example, the ‘postcoderoosregeling’ got an upgrade and SDE+ was downgraded. With that in mind, EnergieVanOns mentioned that it would be desirable if there was at least a workable framework with a clear vision since two regions with different visions can still end up at the same point. Noordoostpolder also acknowledges that you simply cannot look ahead that far. That is why most projects have a lifetime of 15 years because everything is changing rapidly and unpredictably.

All participants mentions the ongoing increase in the demand for electricity, and the capacity to generate and store energy. Furthermore, they are aware of the rapidly changing context. ECOldemarkt and Wieden-Weerribben already encountered t problems while looking for a fitting roof with a solid connection that could turn into a viable business case. Furthermore, ECOldemarkt mentions the general misunderstanding of so-called roofs that are available for panels. The reality is said to be totally different, if you narrow it down to what actually fits financially, construction wise and the connection to the net. Another problem they stumbled across was the availability of suppliers of transformators. Waiting for this is a critical factor in the time schedule and is considered frustrating in the sense that cooperatives have to communicate it to their members with a good story. EnergieVanOns mentions that the network capacity is something everybody will walk into. It was added that it eventually it would be fixed because there is plenty of money. However, it is frustrating that it is happening at the beginning of the energy transition while everybody saw it coming and nobody acted. Noordoostpolder also mentions that the biggest obstacle is storage. What makes their situation unique is that they have a special arrangement with Liander with regards to delivering energy back to the net. Still, in hindsight they would have wanted more in hydrogen. Noordoostpolder stresses the potential of hydrogen in terms of storage multiple times throughout the interview. Sudwestfryslân acknowledges that their connection to the energy network is also problematic and stresses that this involves waiting times and these hiccups influence the potential sites for sustainable energy with regards to the RES. NPRES

recognizes the importance of network management and how it influences municipalities in their choices as they want regional network suppliers to check for feasibility and practicability as part of the process. In order to do so, network managers ironically would first need a RES that is concrete which allows them to provide targeted advises for regions. For energy cooperatives, this is problematic as they are, as mentioned earlier, bound to a certain region or scale due to e.g. postcoderoosregeling. NPRES mentions regions differ substantially and that they request different amounts of autonomy. According to NPRES, this is partially due to municipal rearrangements where municipalities still have to reinvent themselves and lack the capacity to organize the desired process. Furthermore, rural and urban areas have different challenges with regards to accessibility and housing.

Noordoostpolder about a future outlook:
"Naturally, there is just a lot energy in this region with people that want to take care of this region. We facilitate, motivate and stimulate that and we can provide them with funds. We have an assigned an energy coordinator who helps people discovering. For businesses, we try to organize things effectively as well, especially now, we have become more flexible. I cannot stress enough that you have to have trust in society if they come with initiatives, please give it the space and think big instead of hobby+. We have to get rid of that mentality because we have to professionalize our way of thinking; in 10 to 12 years, economy and sustainability have become synonymous''.

Wieden-Weerribben has a positivist outlook:
"What we can realize is making our energy supply greener […] at some point we will be able to store it as well and then you could make local networks […] this brings a whole different dynamic and might increase the lifespan of these cooperative formats".

4.5 Arrangements: Shared Ownership, Autonomy & Collectivity

NPRES mentioned that, learning from previous experiences, ownership should be in the region. Financial participation has a strong role in this, as stated in the Klimaatakkoord, and in terms of local ownership it is important that revenues flow back to the local communities, which in turn decreases societal resistance. NPRES is also aware of the danger that commercial market parties take over the market and repress energy cooperatives. Steenwijkerland acknowledge that cooperatives are good ambassadors of sustainability in a wider societal view, creating support. Furthermore, it was mentioned that if they have questions they could always come by but that the municipality are not necessarily co owners or partners. They are independent, so when they face problems they have to solve that by statutes in the first place. All municipalities argue that participation or shared ownership in itself is complicated. In the past people could kick and complain about the municipality but nowadays they are made problem owner and they do not dare to make decisions anymore.

ECOldemarkt originally planned to develop the initiative independently. They had been looking for fitting roof for some time. After they teamed up with Steenwijkerland (which would not have been possible without the right connections, knowing the potential combinations) they explicitly communicated that the ECOldemarkt would take care of the support among their members, and providing them with the information. Steenwijkerland would not interfere in this because they are more likely to trigger some angry neighbor. ECOldemarkt made the deal with Steenwijkerland that they would do the counselling In return they could exploit part of the soon to realize solar park for a period of 15 years. Instead of the initial 400 panels, they could now buy 4400 panels, so it is safe to say that this complex procurement phase is paying itself back. Furthermore, only recently Steenwijkerland provided a framework for sun on land developments. Interestingly, ECOldemarkt also mention that if they would not have stepped towards the municipality to organize things collectively, it would probably not have happened.

EnergieVanOns is planning ahead and will offer the opportunity to take over tasks from cooperatives in the future. They also mention that there is confusion between participation and acceptation: people think that participating automatically means giving money, where it really is about having a say. Furthermore, EnergieVanOns emphasizes that cooperatives often consist of the most opinionated people. With regards to arrangement, they often start the conversation by investigating if certain innovations can be copied to other cooperatives: they claim to be continuously exploring to see if they can tie ends together. To increase participation most municipalities are aiming to create a fund that makes it easier for civilians to participate or make their houses greener. Municipalities mention asking themselves what they want, which in most cases led to broadening of policy frameworks. Steenwijkerland nuanced this by stating that this process is a journey of benefits and burdens. More from a market perspective rather than a bottom-up perspective, Noordoostpolder describe their role as steering and facilitating when referring to a windmill park. They emphasize that it is much more effective to organize activities on a large scale and to minimize fragmentation of the landscape. It was argued that in this windmill park people could participate efficiently. At the same time, they also house smaller cooperatives on for example the library roof. The question is if people can truly benefit from that financially. In contrary to the Steenwijkerland and Sudwestfryslân, Noordoostpolder believes that if you do it, you have to do it big or otherwise it remains just fun and play.

ECOldemarkt about coincidence in organizing collectivity with the municipality:
"Initially we were looking for a roof but ended up on an industrial terrain […] this was possible because this was considered an entrepreneurial development […] the small letters in the destination plan state that generating local energy is in compliance with the functioning destination plan […] this helped us a great deal because otherwise we would also have to negotiate for alterations the destination plan […] that would have set us back at least another year".

Wieden-Weerribben why collective arrangements are important:
"Those big projects can create a lot of resistance […] that's why municipalities prefer the facilitating role' […] and those roofs, they are there anyways and they are not particularly good looking […] Some roofs are owned by farmers […] they get a compensation but it is not even that that much money […] they accept that because it fits their profile as a regional cattle farmer and they too feel this is the future''. "In those cases there has to be a liability insurance in case of a storm or an 'opstal' insurance in case of fire […] there are special insurances for that in The Netherlands".

5. Discussion & Reflection

5.1 Discussion

In this section all the results will be put in the context of the conceptual model (figure 4, p20), using the same logic and order as chapter 4. The most striking differences and resemblances will be highlighted and reflected upon. Thereafter, some reflections are made on the results and the overall process of this research. The results show that the researched potential coalition partners do not necessarily fit within the three coalition types as distinguished by De Jong (2016) as they are not part of a coalition (yet). Firstly, the multiplicity of ambitions, actors, arenas, actions and arrangements in different contexts will be discussed in exploring future collaborations and possible coalitions.

5.1.1 Ambitions

Morison et al. (2017) state that vision building at the higher level needs to guide local experimentation under the guidance of leaders and entrepreneurs who mobilize their abilities. The results show that different actors demand different kinds of leadership and that they all perceive it differently. Municipalities did never consider themselves as leaders. In contrary, they are reluctant to take a directing role and deliberately steer towards participatory processes to create societal support as they are forced to do so by RES. In line with Bakker et al. (2012) and Lowndes (2006), with regards to skills and resources, the results show that some actors just gravitate towards certain positions naturally because they have a certain background or specific knowledge. However, but this is not strictly perceived as leadership.

Based on the results itis difficult to determine whether there is a causal relationship between ambitions (and vision) higher up in the hierarchy and at the local or regional level. Adding to that, the results show that these ambitions can also be counter-productive if certain governmental actions are considered inconsequent. Literature also mentions that it is advisory that municipalities create visions together with citizens (Elzenga & Kruitwagen, 2012). The results show that from an institutional point of view they need to develop a vision but never explicitly that they want to do this with civilians since time and decision-making can be an issue. In the theoretical framework, Grotenberg et al. (2016) touch upon the topic of expectation management. In accordance, the results show that in terms of participation it would be beneficial if these expectations could indeed be managed because decisions still have to be made. In line with expectations, the results show that ambitions are generally realistic about the factual impact figure-wise but stressed that these steps are important for snowballing into bigger impact. The biggest impact unanimously was concerned with awareness and the ability to mobilize the 'majority' with incentives or motivations or a mix of those. This shows that in terms of ambitions, depending on the potential coalition partner, all three coalition types as described by De Jong (2016) can be distinguished (simultaneously) within the overall transition process.

Literature shows that demotivation should and could be prevented according to De Jong (2016). The results show multiple demotivating factors that are indeed predictable were varying from costs, slow procedures to not being able to find a suitable roof. Information provision, in that same spirit is considered important by both De Jong (2016) and Bakker et al. (2012). Throughout the results, this applies as this is crucial in informing and keeping members or partners of the potential coalition interested. In line with Hoppe et al. (2016), the results show that involving citizens in the participation process by organizing e.g. consultation evenings does indeed lead to greater awareness. This increased awareness can in turn grow into bigger collective ambition. Important to add here is that for municipalities there is the ongoing difficulty of reaching everybody. For the market side perspective information provision is going through a transformation since information is becoming more valuable. Adding to that, the results show that energy cooperatives are increasingly important for societal support, creating awareness and ambitions.

5.1.2 Actors

Both literature and results show that network operators, face big challenges in some regions. In line with recent policy documents, the results show that this element of network capacity is crucial in designing a viable business case but differs substantially per region. This is especially relevant since the results show that energy cooperatives are recognized as a format for creating participation.

Supporting and facilitating is extensively elaborated by Bakker et al. (2012) and Lenos et al. (2006). The results show this distinction less clear since it is hard to distinguish between partners and actions and whether they are supporting or facilitating. Support is not always perceived as support and facilitation is more complex then it the name suggests as it comes in many shapes and formats. For example, when municipalities alter frameworks with regards to sun on land this does not automatically mean that more development in that discipline is going to happen. Adding to that, the results reveal that pro-actively supporting and facilitating is difficult since municipalities (generally) do not want to fulfill a directing role anymore. Adding to Bakker et al. (2012), showing possibilities, without any obligations seems to be the trend. This contradicts Holmaat & Robben (2014), where the government considers itself steering. However, the results suggest in line with Bakker et al. (2012) that roles are value judgements, are perceived differently and that this is also a game of language since the results show creative use of the terms supporting, facilitating, motivating and stimulating. This also underlines De Jong (2016), who states that the role of facilitator is a fluid concept and can be fulfilled by multiple actors, whether or not simultaneously.

Trust & commitment, is considered important by Hassink et al. (2016). The results underline this multiple times and show the interrelatedness of these values in relation to other elements as argued in the conceptual model. It should be added that trust and commitment could benefit greatly from a feeling of contribution as mentioned by Denters et al., (2013). The results show that one of the advantages of the cooperative form was that members felt that they were part of something bigger. This in turn, can lead to greater commitment. As an extension on this, Hoppe et al. (2015) mention that the financial participation elements relevant in terms of acceptance. The possibility that financial benefits can be distributed locally (Spijkerboer, Trell & Zuidema, 2016) is considered even more important in the context of acceptance. The results show clearly that this a balancing act of burdens and benefits and if actors get something in return financially, they are more inclined to accept changes. It should be added that motives –which money is one of- often prevail in a mix and are therefore hard to assign to a single condition as mentioned by Elzenga & Schwenke (2015). Furthermore actors motives vary from strictly financial to pure idealistic or a combination of those.

Income class differences are an extension of those motives. Bakker et al. (2012) state that money is a limiting factor to what extent people can undertake actions. In the results, deliberate attempts to bridge this gap can be recognized, lowering the threshold for lower incomes to participate in one form or another for example by the revolving fund. Cooperatives are also considered effective in bridging this gap since they are (relatively) cheaper compared to e.g. placing solar panels on your own house. However, it should be added that there is always a group of society that that simply just do not wants to participate, or joins in at the last moment. Coming back to De Jong (2016), the results suggest that in terms of actors, most potential coalition partners can be positioned in the realm of collective coalitions, since especially the mutual gains aspect is considered crucial.

5.1.3 Arenas

In providing a suitable formal and political context, rules and regulations are considered an important factor by Hassink et al. (2016). Furthermore, De Jong (2016) state that every coalition type has its own rules. The results show examples of co-production where indeed this seems to be the case relating to context specific procurement or destination plans. Furthermore, there were some examples of obstructive barriers as mentioned by Elzenga & Kruitwagen, 2012). The lack of a policy framework for sun on land in some municipalities can be seen as one of these intuitional barriers.

In line with De Jong (2016) with regards to arenas, events concerned with societal support awareness and platforms are recognized as important throughout the results. The results show that efforts are made with regards to societal support and awareness in one form or another. It is general consensus that there should be no barriers for people to participate in those events. G1000 is an example of platform specifically aimed at making decisions with broad support. Following De Jong (2016), the results show that in terms of arenas, most potential coalition partners notice both a shift and desire that moves from directive coalitions towards collective coalitions. In the words of the conceptual model, this means moving from a political formal context towards newly created arenas with committed partners on a voluntary basis.

5.1.4 Actions

In literature, Morrison (2017) mention the element of learning and new skills as well as Van Meerkerk (2014). As argued by the conceptual model, the results show that there is clearly an element of learning involved in the process of coalition building since there is no predefined process (yet) that dictates certain actions. Furthermore, there are mutual experiences between municipalities and cooperatives and information is being exchanged. The results show learning moments from e.g. previous projects that were not fruitful in hindsight. From a cooperative point of view, everything that is new can be considered learning; drawbacks also lead to learning or at least involve a learning curve. This also depends on how it is perceived and communicated. In order to make progress, learning can be considered crucial as there is ongoing increase in the demand for electricity, and the capacity to generate and store energy. This implies that learning is not limited to being a side effect but also a prerequisite for the energy transition. The first signs of this already show in the results because there are hints that people receive those ideas totally different compared to 10 years ago since the urgency is bigger together with the feeling of ownership.

Slow procedures are a demotivating factor both mentioned by Bakker et al. (2012) and De Jong. (2016). Interestingly, NPRES (2018) states that the execution of transition plans is speeded up by increased societal support derived from interests being part of the process. Judging by the results this is quite a statement since generally, more actors and interests make up for a longer, more complex, more expensive process. Furthermore, this depends on the scale and impact of the ‘transition plan’.

In the words of De Jong (2016), the results show that in terms of actions, all researched potential partners consider themselves in the realm of collective coalitions, as there is no predefined process. However, there is a course but it should be added that the current political climate is instable, threatening continuity and certainty for future initiatives. Both the Klimaatakkoord and RES are recognizing the benefits of the ability to monitor. The results show that all potential coalition partners are aware that this is an ever-changing process, so monitoring in a wider (transitional) sense is considered just as relevant as monitoring numerically. Adding to the loosely defined course, future problems are already poking through: the network capacity and the connection to the grid.

5.1.5 Arrangements

When discussing mitigation within the local context, Measham et al. (2011) argue that the local scale must be lading in the climate scale mitigation debate. Furthermore, Morrison et al. (2017) state that attention should be given to tailor-made mitigation activities that suit local-regional circumstances. Judging by the results, in line with Morrison et al. (2017), attempts to make use of this local-regional circumstances can be recognized. The results show that regions differ substantially and this implies that mitigation measures translate differently. In addition, the results show partial awareness of complementarity between regions. This is something that eventually will be investigated by RES and would ideally utilize local-regional circumstances.

The results show that that co-production can indeed lead to effectiveness and quality of services as discussed by Nesti (2017). Active citizenship is said to increase coherence and sense of belonging (Boonstra & Boelens, 2011). Judging by the results, this needs some nuancing since there were some counterproductive experiences. This was referred to as a project from 'outsiders' to 'outsiders', not including or willing to cooperate with the 'native' residents. This shows that these initiatives do not always lead to more support: they can polarize as well. In terms of conditions, local financial benefits or mutual gains are considered important by Morrison et al. (2017). This was argued to be a main contributor in the conceptual model. The results show this relates to ownership as well. In accordance with De Boer et al. (2018), results show that local activities can co-benefit from energy initiatives. Not only does this lead to acceptance (balance between burdens and benefits), it turned out to be a prerequisite for all participants that all benefits would flow back to the community. This shows that benefits and rewards seem indeed an important motivation as argued by De Jong (2016). The results showed different enabling actions as argued by Bakker et al. (2012) put in to practice. All participating municipalities have contributed financially, provided start subsidies or offered roofs, which can be interpreted as an investment in civic infrastructure. The results show that in terms of enabling, this is perceived as important facilitation-wise since it allows initiatives to start with a more attractive business case for their future members. This also depends on the philosophy of the municipality.

In terms of fragmented ownership, ownership and power are fragmented within the energy transition, which limits the capacity of actors to alter them (De Boer & Zuidema, 2015). The results show multiple opportunities to deal with this complexity. These developments fit with the opportunities for co-development and co-ownership as proposed in RES. This implies that –when using the framework by De Jong (2016) - none of these developments are realized through strictly directive coalitions. The results show that ownership and co-development is considered valuable since it provides the feeling of being part of something. This shows that ownership can also be experienced in a wider sense than physical or economic ownership. While the results show that participation or shared ownership in itself is complicated, in terms of arrangements, all potential coalition actors acknowledge that shared ownership is crucial and therefore should be positioned in the realm of collective coalitions.

5.2 Reflection

Before jumping to conclusions, reflections have to be made, both content and process-wise. The theoretical framework and the qualitative data provided valuable perspectives for potential coalitions in the Dutch Energy transition. A survey would not have provided the meaningful answers that were important in this research. The conducted interviews are of good quality and provided valuable information. However, of the variety of aspects discussed in combination with not many participants lead to less generalizability of the results. The next section elaborates how the results should be valued.

5.2.1 Reflection on Outcomes – Interpretation of Researcher

The coalitions of this research were studied in framed the context of the classic governance triangle. In this research, this resulted in Energy suppliers (market), cooperatives (civil society) and municipalities (government). De Jong (2016) uses five attributes to distinguish between three different types of coalitions. Because this research did not study existing coalitions but explores opportunities in advance of future (participation) coalitions, this research design provides some direction in where on this spectrum the 'participation coalition' in the light of RES could be placed.

Interpretation-wise, based on the response of all participants, table 5 shows the strengths and weaknesses for these coalitions in relation to 'participation coalitions'. In short, in terms of ambition, there should be both bottom up-and top down movement. Unequal power distribution as well as a too formal and political context does generally not contribute to the new coalition. In terms of actions, from an institutional point of view there should be a clear course (e.g. Klimaatakkoord) with flexibility and room for evaluation and experimentation. In terms of arrangement, there is the danger that cooperatives are losing autonomy and therefore the shared ownership and revenues flowing back aspect are considered crucial. This shows that the 'participation coalition' as part of RES has most in common with collective coalitions.

	Ambitions	**Actors**	**Arenas**	**Actions**	**Arrangements**
Directive coalitions	Ambition impacts others outside their organization	Unequal power distribution	Formal and political context	Predefined process with clearly formulated deadlines; Consensus building	Hierarchical; No shared ownership
Collective coalitions	Collective ambition around issue	Equal partners; Mutual gains	New arena with committed partners on voluntary basis	Not always an endpoint; Evaluation throughout process	Everyone is ambition owner; Giving up autonomy for returns: Collectivity
Connective coalitions	Formulate ambition to mobilize others	Loose relationship; constantly changing composition	Spontaneous action arena; Personal an informal relationships	No determined course; common sense rather than methodology	Motives rather than jobs; Connectivity rather than collectivity

Table 5: Positioning future coalitions in the spectrum of existing coalitions, based on De Jong (2016)

5.2.2 Reflection on Research Process

During this research, the final version of the Klimaatakkoord was presented. Furthermore, the first skirmishes around RES are taking place. While there were no *specific* interview questions incorporated about these subjects, later on in the research trajectory some questions regarding key points of the RES were discussed. This choice was deliberately made as RES became more prominent on actor's agenda's and is considered especially relevant within the context of collaborations and coalition planning. Secondly, the timeframe in which interviews were undertaken became bigger than was planned. Planning and meeting arrangements with (especially) alderman is time consuming and in some cases took several weeks to establish an appointment. Moreover, some cases stated throughout the communication process that they felt that they would not be able to answer the questions openly without becoming too political. Others forwarded invitations to policy associates within the same municipality, which in their turn were either too busy or did not feel competent enough to answer the questions, even after an outline of the interview was sent to them beforehand. This has several implications for the data: Firstly, not all interviews explicitly mention the RES that is relevant in terms of participation coalitions. Secondly, postponement through communication meant that interviews that were framed beforehand could not always take place: this resulted in different compositions of the intended potential coalition partners. This demanded flexibility from the researcher since some cases are more reconcilable than others in terms of their jurisdictional/ municipal characteristic. Thirdly, in hindsight the interview might have been a bit long. While a lot is covered, participants often fall into repetition after a certain amount of time, which makes it harder for the researcher to assign those statements to a specific section and theme. This hints that that some interview questions might have been too similar. It should be mentioned that the interviews contain speculations about future endeavors, which give this research an explorative and to some extent even open-ended character.

Most importantly, it is crucial to read these results within context. This research took place in the north of the Netherlands and findings cannot be generalized for the rest of The Netherlands. Adding to that, energy cooperatives are not representative of society as a whole. If a small village starts an initiative with 50 members, the results with regards to e.g. ambitions only apply to a small percentage of that village (if there is a total of 3000 inhabitants): there are a lot of cooperatives and initiatives but there is still a significant amount of society not participating in these processes at all. It would have been valuable if the non-participating or more reluctant part of society was also researched. In hindsight, it would also have been desirable to interview network operators like Enexis, Liander or Tennet.

For planning practice, this research is relevant since there will be an ongoing shift in power, interests and participation during the Dutch energy transition period. This research contributes to closing knowledge gap in the influence and role that future collaborations and coalitions can have in sustainable development, coping with climate change on mainly the local scale level. Systems associated with the supply and distribution of energy rarely attracted the attention of scholars despite their rising significance. Not much research has been done in exploring participation coalitions mentioned in NPRES and therefore the conclusions of this research are especially interesting for local governments who have most of their policy in its infancy. Compared to the traditional governance triangle (with a clear distinction between market, state and society) this research shows multiple opportunities and implications that show a shift: this should be reflected upon in the current planning debate and result in new and improved legal frameworks and international agreements related to climate change mitigation at the local or regional scale.

6. Conclusion

This research has aimed to explore opportunities for collaboration and forming coalitions that benefit the Energy Transition. A theoretical framework was established to provide the context in which this process is taking place. The methodology used mainly based itself around a framework provided by Bakker et al. (2012) and allowed the researcher to systematically select and question the participants. The results hold implications for actors and stakeholders on the local scale mainly. Moreover, this research touches on how coalitions can contribute to the Energy Transition and how they affect values of actors. Firstly, the secondary questions will be answered followed by the main research question.

1. Which actors are relevant in the light of the Energy Transition?

To start off broadly, relevant actors are governmental parties, together with societal partners, gas and electricity suppliers, the market and where possible inhabitants, that work on choices with local and eventually regional support. These actors are not limited to realizing more renewable energy: they also play a role in the required societal support and awareness that municipalities and regions need. Due to decentralization, municipalities lagging behind on those developments. Market parties and network operators are also part of this process, as they hold expertise, funds and control assets that are crucial in building viable business cases with mutual gains. Governmental and market do not play a directing role in this (in this research) but this relation is intensively in development right now. As a societal partner, energy cooperatives can rely on more support than the municipality because they are well organized, competent, involved and have a good functioning (local) network. Energy cooperatives are becoming an important factor or even focal points in the energy transition. This means that network operators have to map which modifications have to be made to the existing energy infrastructure to connect the generated energy since they have to take into account small scale projects like small solar fields and sunroofs associated with local energy initiatives or cooperatives.

2. Between those actors, to what extent is there collaboration and what are obstacles and possibilities?

In this context it becomes clear that actors are less capable of reaching their ambitions independently. However, when collaborating there still a misbalance in power between initiatives, the government (having the decision-making power and political legitimacy) and the market (beholding resources, technology and knowledge). Collaborations are challenging but inevitable: municipalities need support because they are ordered by international agreements and RES to organize participation with society in redesigning their energy networks. In this research this led to collaborations with cooperatives, market parties and attempts to mobilize inhabitants. Regarding obstacles and possibilities for collaboration: it depends, what is perceived as positive by one actor can be perceived negative by another e.g. large scale projects with regards to efficiency from a developer stance point versus acceptability from a neighbor stance point. Positive effects generally perceived from collaborating are: less dependent on fossil fuels, less dependent on instable regions, greener energy, local benefits, local cohesion, increased awareness and participation, increased ecological and social values, learning and spin off activities. These size of these effects differ per actor and context. Obstacles encountered are: division in society due to income class differences that do not allow everyone to participate. Furthermore, there can be loss of coherence (or even polarization in the local community) a change of identity or fragmentation of the landscape. Another determining factor for collaboration in order to create a solid business case, are the Grid Connections. All researched actors struggle with the uncertainty around network capacity. Not only is their capacity limited, there is much uncertainty about how and when they are going to be future proof. This makes anticipation and collaborating with other actors in a changing context and the RES rather difficult. This also limits active promoting by leaders since there is too much uncertainty involved for future endeavors.

3. What are coalitions and what are opportunities and bottlenecks?

It is safe to say that public–private collaboration between civic initiatives and market parties is a sensitive process. As mentioned earlier, the fact that parties are willing to cooperate does not necessarily mean that the cooperation is in all cases effortless. The point of coalitions is having

established institutions and individual aspirations having reinforce each other. A coalition consists of diverse autonomous actors who share an ambition in a public arena to develop arrangements and actions. Judging by this research, future coalitions will be in the 'collective coalitions' realm and consist of a setting in which in terms of ambition there is a balance between bottom up-and top down movement. Unequal power distribution as well as a too formal and political context does generally not contribute to the coalition. In terms of actions, from an institutional point of view there should be a clear course (e.g. Klimaatakkoord) with flexibility and room for evaluation and experimentation. In terms of arrangements, there is a danger that cooperatives lose local binding. Therefore, shared ownership and revenues flowing back are considered crucial and a great opportunity deal with this eventuality. A potential bottleneck in this coalitional relation is that municipalities are legally obligated to carefully weigh interests. In terms of support this means that partners can become frustrated with e.g. inflexibility of procedures or the slackness of response by civil servants.

What are opportunities for collaboration and forming coalitions that benefit the Energy Transition?
Participation coalitions as a part of RES still face some challenges, but opportunities arise. Firstly, RES should be a product where the region describes which energy goals have to be met and on which terms. Secondly, RES is an important instrument to organize spatial harmonization with societal participation. Thirdly, RES is a way to organize long-term cooperation between all regional parties. To contribute to those goals and to form coalitions, the participation part should be embedded within the 'inviting' process, where co-development and co-ownership are focal points in creating local benefits.

With regards to the first point, all coalition partners benefit from a framework of rules and regulations that are up to date and adapted to the future challenges suiting the steps needed in the energy transition. This research shows that this is not always the case. Moreover, ambitions should not be too political, able to withstand a changing political landscape, and provide a common language and vision that every coalition partner can get behind. It should be added that time is ticking for municipalities since RES is hot potato for some of them, depending on how well equipped they were before the Klimaatakkoord. Noteworthy is that this research showed different perceptions and preferences with regards to leadership but a clear vision should always be part of it. Common values here are realism, an honest story, accessibility and transparency. All these values contribute to trust, and trust is considered important, increasing mutual trust between partners, societal support and commitment.

Secondly, cooperatives and regions in various geographical contexts differ in terms of support. Some places are better equipped than others in terms of social cohesion or open space. For municipalities, it is a great opportunity to make use of the willingness of cooperatives. Recognizing their capabilities could yield great benefits for coalitions since cooperatives generally bring increased support and awareness, which are common coalition partner and RES values. These values are desirable in the context of a transition if you want to plan your next step with societal support. When cooperatives function and contribute well, they can influence municipal decision-making and new policies. With that in mind, forming coalitions can be a great opportunity to harmonize local efforts, and eventually even complementarity between regions.

Thirdly, what has proven to open up opportunities for long-term cooperation is the shared ownership factor. This contributes greatly in distributing benefits and burdens and deals with the prerequisite that local benefits should be distributed locally. When shaping coalitions, there is an ongoing quest of finding mutual gains, which contributes greatly to acceptance among potential partners. For the long-term, as mentioned earlier, coalitions can benefit greatly from clarity and involvement around network issues. Lastly, coalitions open up possibilities to learn. Learning is crucial as there is an ongoing increase in the demand for energy. Learning is not limited to being a side effect but also a prerequisite for the Dutch Energy Transition.

6.1 Recommendations

Considering the pressure municipalities feel and the growth of cooperatives in the last years, it is recommended to look how they develop in terms of power, influence and activities. Future studies with a larger scope can lead to a more complete understanding of how (established) coalitions within the Energy Transition context can be organized effectively. Subsequently, more in depth conclusions can be drawn about necessary conditions dependent on the geographical influences caused by social, physical and institutional characteristics. It would be interesting to monitor the activities currently undertaken related to RES and examine whether there are any developments of ambitions, motives, awareness and acceptability. Furthermore, the generational aspect brought up by some participants was interesting. It would be interesting to research if the current status quo making the decisions is anticipating on this. This reminiscent of what the philosopher Alan Watts once said in his lectures “The improving has to be done by the persons who need improving”. As soon as you embrace this, you will automatically have to accept this is an ongoing and iterative process. Lastly, complementarity between regions is mentioned several times throughout this research. While the inventory of energy initiatives and cooperatives in the RES currently is in full development, opportunities regarding this complementarity, linking different regions and local patches together is definitely worth investigating. Adding to that, it would be interesting to research how big Grid-network operators search the dialogue with municipalities and cooperatives from a participative perspective.

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Appendix A: Interview Guide

Aan de hand van deze Interview Guide zullen de interviews worden afgenomen. Het biedt een handvat voor het verloop van het interviews en ik zou dit graag aanhouden voor analyse.

Goedendag, mijn naam is Ronald Bakker. Ik studeer momenteel Environmental & Infrastructure Planning aan de Rijksuniversiteit Groningen en momenteel ben ik bezig met het schrijven van mijn Master thesis. Binnen deze thesis wil ik verkennen hoe mogelijke coalities tussen overheid en burger effectief kunnen zijn in de huidige energie transitie. Dit onderzoek zal zich daarom richten op verschillende actoren binnen deze coalities en te vragen naar hun ervaringen. Met dit interview hoop ik een goed inzicht te krijgen vanuit uw visie op dit onderwerp.

Inleiding & Formaliteiten
1. Heeft u er bezwaar tegen als ik dit interview opneem?
2. Ik ben met u in contact gekomen via …. en daarom wil ik u graag interviewen.
3. Het interview zal vermoedelijk ongeveer 30- 60 minuten in beslag nemen.
4. De opname zal gebruikt worden voor analyse en gebruikt worden voor het beantwoorden van hoofd en deelvragen van mijn master thesis.

Context
1. Kunt u kort iets over uzelf vertellen? ?Hoe bent u actief geworden en wat is uw motivatie?
2. Wat is uw rol of functie binnen samenwerkingsverbanden omtrent energie? Met welke partijen werkt u momenteel samen?
3. Hoe actief bent u betrokken op dagelijks niveau?

Kern
1. Hoe belangrijk is het aanpakken van de huidige klimaatproblematiek voor u?
Wat is uw mening over de energietransitie zoals we die momenteel in Nederland doormaken?
Wanneer u kijkt naar de energietransitie, ziet u energiecollectieven direct als een positieve of negatieve bijdrage?

2. Heeft 'energie' een andere betekenis voor u gekregen?
Hoe belangrijk is de manier van opwekking voor u?
Heeft u door samenwerking meer ambities m.b.t. energie en duurzaamheid?

3. Voelt u dat uw mening of gedrag sterk veranderd is t.a.v. energie en energieverbruik?
Is er in de afgelopen jaren iets in uw denken veranderd waardoor u nu dit soort samenwerkingen anders bent gaan waarderen?

4. Wat zijn de voornaamste beweegredenen achter deze samenwerking?
Wat zijn de laatste ontwikkelingen aangaande de samenwerking en het realiseren van energie?
5. Zijn er buiten deze samenwerking andere initiateven of netwerken waar u deel van uitmaakt?
Vertegenwoordigd u een achterban?
Wat doet u om deze uit te breiden en/ of tevreden te stemmen/ te betrekken?

6. Is er op de korte termijn winst te halen met het te realiseren/ gerealiseerde initiatief?
Is er op de lange termijn op dit gebied (nog ofwel meer) maatschappelijke winst te halen?
Betaalt de investering in tijd danwel geld zich naar uw mening genoeg terug?

7. Wat zijn tot nu toe de grootste obstakels geweest?
In hoeverre is regelgeving stimulerend of remmend?
Hoe verloopt de communicatie tussen de partijen?

Wie neemt de verantwoordelijkheid/ is er aansprakelijk wanneer er zich problemen voordoen?

8. Op welke manier wordt u geholpen door uw coalitiepartners?
Voelt u zich op enige manier geremd of belemmert door een of meerdere partijen?
Als u het helemaal voor het zeggen had - bijv. als minister - wat zou u dan als eerste veranderen?

9. Op wat voor manier stelt u anderen in staat hun doelen te behalen?
In hoeverre voelt u zich afhankelijk van een of meerdere coalitiepartners?
Wat zijn in uw ogen kritieke voorwaarden voor het goed functioneren van deze samenwerking?

10. Voelt u zich ook verantwoordelijk om actie te ondernemen of problemen op te lossen?
Wie neemt het voortouw? Ziet u uzelf als leider?
Hoe zijn de machtsverhoudingen binnen dit samenwerkingsverband?
IS er sprake van leiderschap binnen de coalitie; door wie en op welke manier?

11. Hoe beoordeelt tot nu toe het proces van verduurzaming?
Is alle besluitvorming voldoende transparant? Hoe worden besluiten en genomen en hoe worden deze vervolgens gecommuniceerd?
Heeft u acties moeten ondernemen die u liever niet had ondernomen?
Heeft u compromissen moeten sluiten: verwacht u daar iets voor terug?

12. Zijn er problemen waar u tegen aan gaat lopen /verwacht tegenaan te lopen?
In hoeverre vind u dit samenwerkingsverband dynamisch/ in staat zich aan te passen?
Is er genoeg ruimte voor aanpassing of eigen ideeën?

13. Hoe wordt het voortbestaan/ continuïteit van duurzame initiatieven gewaarborgd?
Zijn er scenario's of afspraken in geval een partner wegvalt of zijn ambities bijstelt?
Is er de capaciteit/ zijn er de middelen om deze veranderende context op te vangen?

14.Als deze samenwerking/ coalitie niet zou bestaan, wat zou er dan fout of goed gaan?
Wat doet u als het beleid veranderd?
In hoeverre heeft u impact op het 'totale' transitie beleid en partijen?

<u>Bedanken van de participant & Aanbieden Informed Consent Formulier</u>

Appendix B: Informed Consent

Toestemmingsverklaringformulier

Titel van onderzoek: Sustainable Coalitions in the Dutch Energy Transition
Verantwoordelijke onderzoeker: Ronald Bakker

Ik studeer momenteel Enivrionmental & Infrastructure Planning aan de Rijksuniversiteit Groningen en schrijf mijn master thesis. Binnen dit onderzoek wil ik verkennen hoe verschillende coalities effectief kunnen zijn ten aanzien van de 'energietransitie'. Dit onderzoek is daarom gericht op actoren die betrokken zijn of deel uitmaken van 'coalities'. Door het afnemen van dit interview hoop ik waardevolle inzichten aangaande dit onderwerp te kunnen bemachtigen.

Ik dank u hartelijk voor de bereidheid om deel te nemen aan dit onderzoek!

Door dit formulier te tekenen, gaat u akkoord met de volgende punten:
- U verklaart dat u bent geïnformeerd over de aard, methode en doel van dit onderzoek.
- U gaat er mee akkoord dat het interview wordt opgenomen.
- U bent zich er van bewust dat het opgenomen materiaal uitsluitend voor analyse en/of wetenschappelijke presentatie gebruikt zal worden.
- U bent zich er van bewust dat de resultaten gedeeld zullen worden met Rijksuniversiteit Groningen voor het afronden van een master thesis.
- U neemt deel aan dit onderzoek op geheel vrijwillige basis.
- U kunt ten allen tijde besluiten aan te geven te willen stoppen met dit interview zonder opgave van reden.

Ik hoop u hier mee voldoende te hebben geïnformeerd. Bij eventuele vragen:

Ronald Bakker
Telefoonnummer/ E-mailadres

Naam participant:

Datum: Handtekening participant:

Appendix C: Codebook

Explored Element	Narrative	Subcodes	Type	Source
Ambitions	Impacting others	Vision building	Deductive	Morrison et al., 2017
	Collective ambition	Demotivation	Deductive	De Jong, 2016
	Mobilizing others	Information provision	Deductive	Bakker et al., 2012
		Expectation management	Inductive	
		Leadership	Inductive	
		Actual impact	Inductive	
Actors	Power distribution	Network operators	Deductive	Rijksoverheid, 2019
	Equal partners	Supporting & Facilitating	Deductive	Bakker et al., 2012
	Relationship	Trust & Commitment	Deductive	Hassink et al., 2016
		Feeling of contribution	Deductive	Denters et al., 2013
		Acceptance, financial	Deductive	Hoppe et al, 2015
		Motives	Deductive	Hoppe et al., 2015
		Income class differences	Deductive	Lowndes, 2006
		Generational difference	Inductive	
		Perception of role	Deductive	De Jong, 2016
Arenas	Formal and political	Rules & Regulations	Deductive	Hassink et al., 2016
	Committed partner	Shared agenda	Inductive	
	Spontaneous arena	Events concerned with societal support and awareness	Inductive	
		Platforms	Inductive	
Actions	Predefined process	Learning & new skills	Deductive	Trell et al., 2018
	Evaluation	Local policy agenda	Deductive	Hoppe et al., 2016
	No course	Slow procedures	Deductive	De Jong, 2016
		Monitoring long term	Inductive	
		Future problems	Inductive	
Arrangements	Shared ownership	Adaptation to local context	Deductive	Agrawal, 2010
	Autonomy	Fragmented owernship	Deductive	De Boer & Zuidema, 2015
	Collectiviity	Co-developement/ co-owner	Deductive	Rijksoverheid, 2019
		Co-production	Deductive	Nesti, 2017
		Increased coherence & sense of belonging	Deductive	Boonstra & Boelens, 2011

		Local financial benefits	Deductive	Spijkerboer, Trell & Zuidema, 2016
		Municipalities paying for costs	Deductive	Elzenga & Schwenke, 2015
		Municipalites offering roofs/space	Deductive	Elzenga & Schwenke, 2015