Using DK2020 experience to improve the Climate Alliance

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Abstract:

This study explores the experiences of identified stakeholders in the DK2020 collaboration in regards to climate change adaptation and how their experience can be used to improve outcome of the Climate Alliance. Interviews were held with Realdania, CONCITO, the Region of Southern Denmark as well as representatives from Vejle and Varde Municipality respectively to analyze their individual experiences and understand the power dynamics that dominate both the DK2020 collaboration as well as the Climate Alliance. In the DK2020 collaboration, the power dynamics of the stakeholders varied greatly depending on the role of the stakeholder and for municipalities a variation was mostly seen depend on the entered phase of the project. The experiences of the stakeholders was mostly seen as a success with improved stakeholder communication, although the stakeholders also pointed towards challenges in terms of organisation, lack of engagement of stakeholders, lack of resources to handle the requirements, and common barriers affecting the planning process. The power dynamics amongst the stakeholders will mostly remain the same going into the Climate Alliance, however changes in roles will happen with the coordinating authority as well as in regards to the contribution of the municipalities to the collaboration. Four pieces of advice is given based on the interviews and the state of the art, which is for the Climate Alliance to ensure value generation for all stakeholders, look into common barriers of adaptation, increase the resources for implementation, and lastly, pass on more responsibility to the region.

Preface

This report was written as a thesis project for the final semester of the masters program, *Environmental Management and Sustainability Science*, at Aalborg University. The project period took place between 01-02-2024 and 07-06-2024. This thesis will be investigating the DK2020 collaboration in terms of what experiences the stakeholders involved have had during the collaboration and what initiatives can be implemented for them to better the outcome of the Climate Alliance.

Acknowledgements

The project group received supervision from supervisor Anna Brigitte Deeg and Martin Lehmann. The project group would like to express gratitude for their guidance and assistance during the project period. Moreover, the group would like to give thanks to all respondents who took the time to participate in interviews as well as others who used their resources to contribution to this study.

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Anna Stejner Bie   Emilie Bødker

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Guidelines for reading

In this report, the Harvard Referencing System is used and sources are therefore referenced as follows: [author, publication year]. In the case of a sources being without a publication year [nd.] will be written instead. When interviews are used throughout the report, they will be referenced as follows: [Stakeholders last name, interview year] and if edits are made in the used quotes [ed.] will be added to the edited text. All tables, figures and similar objects used in the report are labelled according to chapter numbers and afterwards in chronological order. All figures, tables and pictures used throughout the project are self made and referenced with a source if relevant. Abbreviations will be used throughout the report and will be written as the full definition followed by the abbreviation, the first time it is used as follows: Multilevel Governance (MLG). After this only the abbreviations will be used. The term "Climate change adaptation" and "climate adaptation" are in this project synonyms and used interchangeable.

Interviews

For this report all interviews were held in Danish, which means all quotations have been translated from Danish to English. The interview guides and transcriptions from all interviews can be made available by request to: abie19@student.aau.dk, although the respondent will be asked for permission and if this is not given the group upholds the right not to forward the transcriptions.

Contents

Introduction 1

Climate change is shown to impact the weather and is causing more frequent extreme events which also become more intense over time [IPCC, 2022,p. 14]. In order to avoid damages to cities and nature, it is necessary for countries and local areas to adapt to this changing future. It is therefore relevant to consider how climate change adaptation initiatives are implemented and whether or not they are sufficient to protect us against the next extreme event. This thesis seeks to investigate how municipalities can use experience in climate change adaptation from the DK2020 collaboration going into the Climate Alliance.

1.1 DK2020

Based on the Paris Agreement from 2015 on keeping the temperature increase below two degrees, an international network of the worlds 97 biggest and most ambitious cities was made to collaborate on developing and exchanging solutions on the topic of climate [Realdania, 2023a]. This network is called C40 and has developed The Climate Action Planning Framework (CAPF) which is based on fulfilling the Paris Agreement [Realdania, 2023a]. In 2019 Realdania, which is a Danish self-endowed philanthropic association that work with the built environment, took initiative to fulfil the Paris Agreement in Denmark on a municipal level and created the collaborative network called DK2020 [Realdania, 2023a], [Realdania, 2023b, p. 5]. DK2020 follows in the footsteps of C40 and therefore all municipalities joining DK2020 have to make a climate action plan (CAP) that complies to the CAPF. In order for their plan to comply to the framework they also need to make a climate adaptation plan that show how a path for achieving net-zero emission by 2050 could look like [Realdania, 2023a]. The DK2020 collaboration is managed by the Danish green think tank CONCITO that along with C40 provide the municipalities with the tools and knowledge they need to ensure a high level of quality in the CAP's [Stat of green, 2023]. Within DK2020 there is a peer learning process, were municipalities share knowledge with each other, that is organised by five geographic organisations (DGO's) corresponding with the Danish regions [Stat of green, 2023]. The DGO's are also responsible for direct technical support and guidance of municipalities which is tailored to their regional context but in line with global goals [Stat of green, 2023]. The DGO's were first introduced during phase one at a later phase compared to when the DK2020 collaboration began and the pilot municipalities were appointed [Realdania, 2023a].

A visualization of the participating municipalities is seen in figure 1.1 below.
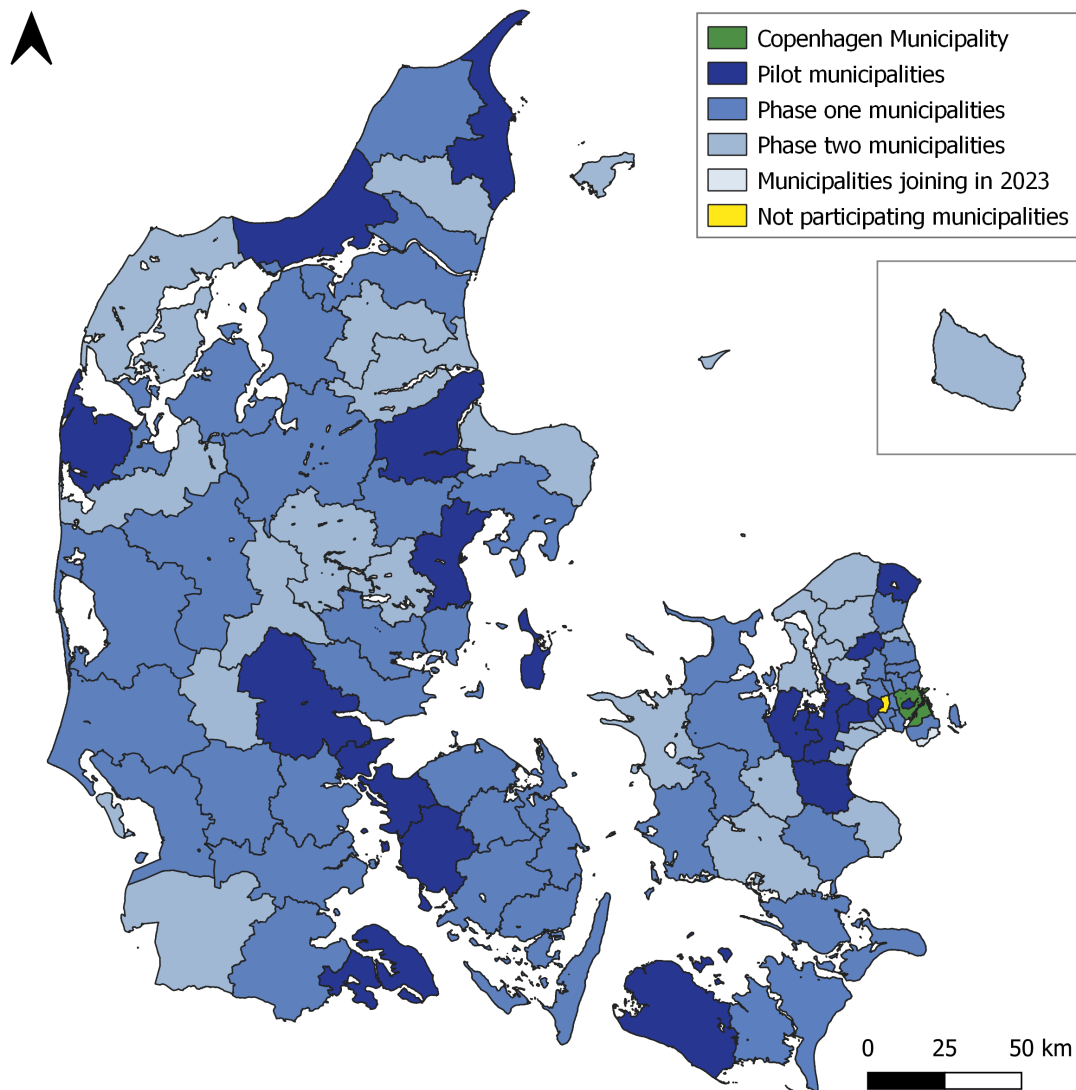
Figure 1.1. Visualization of Danish municipalities entering the DK2020 participation at various phases.

As show in figure 1.1, in 2019 the first 20 municipalities was selected for the pilot project of the DK2020 collaboration and by 2020 another 44 municipalities joined the projects making it a total of 64 municipalities [Realdania, 2023a]. In 2021, another 31 municipalities joined and by 2023, 96 municipalities have joined DK2020 with Copenhagen already being a part of C40. The DK2020 collaboration reached its end in 2023. The same year, Local Government Denmark (KL), Realdania and the five Danish regions created a continuation of DK2020, called the Climate Alliance, with the purpose of supporting the work of the municipalities when they are to go from plan to action and attempt to implement their CAP's [Realdania, 2023a]. In 2024 all 98 Danish municipalities have joined the Climate Alliance which will create the settings needed, for the municipalities to implement their CAP's [Realdania, 2024]. The Climate Alliance will support the municipalities by supplying the resources and knowledge needed to minimize barriers that the municipalities and regions may face when implementing their CAP's [Realdania, 2024]. The collaboration that is the Climate Alliance it set to run from 2023 till 2028 [Realdania, 2024].

In the context of DK2020, a CAP is defined by strategic document that describes the plan of action that a municipality has developed in order to become climate neutral by 2050 along with ambitious milestones to help reach the target [C40 Cities Climate Leadership Group, 2020, p. 4]. The action plan has to illustrate how a municipality plans to implement climate change adaptation that can improve the resistance of the municipality when it comes to climate change [C40 Cities Climate Leadership Group, 2020, p. 4]. In the implementation of the action plan, the municipality needs to establish a transparent process that follows up on the implementation and continually updates the action plan [C40 Cities Climate Leadership Group, 2020, p. 4].

1.2 Climate change adaptation in the Climate Alliance

As part of the CAPF, cities or in this case municipalities have to identify and assess all possible and relevant climate risks [C40 Cities Climate Leadership Group, 2020]. Climate risks involve e.g. flooding, heatwaves, and droughts; a CAP should therefore start with a presentation of possible risks that can affect the given municipality [CONCITO, 2023]. When an overview of these risks are made, the municipalities should hereafter seek to create goals or objectives as well as actions in order to reduce or remove those risks. Multiple plans could be made for either specific municipal areas or for specific climate risks if this is assessed to be relevant by the individual municipalities [CONCITO, 2023].

When planning for a changing climate, it is unknown whether or not the initiatives implemented by planners will work as intended when future weather actually arrives [CONCITO, 2023]. Due to the amount of uncertainties, a risk of climate change adaptation planning is the implementation of unnecessary initiatives, and thereby planning for a future climate that will never occur [Haasnoot et al., 2019]. This could also lead to greater costs of implementation, and thereby creates an unnecessary use of resources [Haasnoot et al., 2019]. It is therefore important for municipalities to consider future climate scenarios with a balanced point of view and keep this in mind when selecting climate change adaptation initiatives for their Climate Alliance plans [CONCITO, 2023].

1.3 State of the art

Danish municipalities are thereby required to consider climate change adaptation necessities within their borders as well as their planning practices. To gain a further understanding of the dynamics and challenges of climate change adaptation planning in Denmark, literature surrounding the topic is investigated creating a picture of the challenges and developments within the field.

1.3.1 Climate change adaptation research of Danish adaptation approaches

Articles regarding climate change adaptation in Denmark are mostly covering the issues of flooding whether it comes from the sea in terms of storm surges, as precipitation, or as high ground water levels creating damages when combined with the two prior mentioned weather events [Burda og Nyka, 2023], [Sorensen et al., 2016], [Halsnæs og Kaspersen, 2018], [Su et al., 2021], [Henriksen et al., 2023]. The majority of the articles also seek

to either better or solve problems identified in current practice. This is seen in Quitzau et al. [2022] and Fryd et al. [2020] which focuses on improving the general adaptation planning methodology and approach. Payment models are also presented by Panduro [2022], Fryd et al. [2021] and Anker et al. [2021] looking into how relatively large expenses of climate change adaptation can be justly distributed between stakeholders, and lastly how the private sector or local individuals can become invested in contributing to adaptation [Alkhani, 2020], [Nedergaard og Baron, 2023], [Hoffmann, 2020].

Several articles mention general issues regarding the topic of climate change adaptation planning such as the problem of planning for an uncertain future, as it is not known how much heat, precipitation, or to what extent of sea level changes it is necessary to plan against [Fryd et al., 2020], [Anker et al., 2021]. Halsnæs og Kaspersen [2018] also point to the fact that current used models in climate change adaptation planning such as damage cost models hold a great deal of uncertainty as they usually draw on general data creating average values that either tend to over- or underestimate the actual damages of a given event.

For a municipality to implement climate change adaptation, there is a need for resources in terms of both personnel and money. Andersen [2012] presents the issue of a lack of resources given to the topic of climate change adaptation making it difficult for the municipalities to decide on whether to spend their money on repairing damages caused by climate change or if they should make investments to avoid future damages. Hoffmann [2020] adds to this issue, that even if a municipality prioritizes to construct adaptation initiatives, newer initiatives would most likely have higher annually operation costs. This is due to the fact that it today is sought out to install so-called blue-green adaptation measures where nature elements and multifunctionality are involved to a greater extent. To avoid over-implementation of adaptation measures and thereby spending unnecessary resources, Zhou et al. [2012] argues that municipalities could focus on the most vulnerable locations instead of sticking to the current approach, where an equal amount of adaptation coverage is sought out. This would, however according to the author, create an amount of inequality when it comes to e.g. flood risk management, but it can suit as a measure for municipalities to reduce expenses [Zhou et al., 2012]. City planners therefore has to weigh out various options when deciding upon the use of the sparse resources of a municipality.

One way to prioritize the resources could be to change the understanding of how water and climate change adaptation as a whole should be handled within cities. Fryd et al. [2020] argues that instead of trying to control the water, city planners should strive towards planning with the water that inevitably will come. Currently in the wording of Fryd et al. [2020], 'The Wet City' is presenting itself during cloudbursts with roads and depressions transformed into canals and small lakes, taking over from 'The Dry City' known from everyday life, and the city image that was originally planned for. The goal should, according to Fryd et al. [2020], be to bring the understanding of 'The Dry City' and 'The Wet City' in city planning. Burda og Nyka [2023] points to the fact that climate change adaptation already now has become and integral part of city planning. According to the author, there is no longer planned for hard boundaries between water and city, and water is increasingly integrated within city environments creating new urban spaces and helping temperature regulation [Burda og Nyka, 2023].

A last way to change the approach to climate change adaptation planning is to look into the possibilities of adaptation approaches adding value to a society, whether it be a smaller or larger community. Quitzau et al. [2022] presents an eight step methodology of strategically and systematically including local societal goals and thereby creating adaptation measures which will benefit the citizens. The steps include amongst others a screening, GIS analysis mapping elements such as roads, buildings, and recreational areas, mapping of involved stakeholders, and lastly discussing future developments of the location [Quitzau et al., 2022]. This approach is meant for city planners to use when planning for new climate change adaptation measures, and if used it can help push adaptation planning towards the needed development.

Another topic brought forward by several articles is the possibility or the necessity for municipalities and other stakeholders to collaborate in adaptation planning. Wiborg et al. [2014] looks into climate change adaptation in rural and open landscaped areas and pointed out that the municipal borders are a barrier for producing and implementing optimal solutions. In the report it was highlighted how cross-municipal collaboration should be prioritized as well as strengthening the dialogue between stakeholders. Also when it comes to managing floods from water streams such as Gudenåen, Nielsen og Pedersen [2023] points to partnerships and communication as an important asset. Although to create a functioning collaboration across municipal borders, Fryd et al. [2021], Wiborg et al. [2014], and Nielsen og Pedersen [2023] underpin the necessity of also creating a horizontal power structure instead of involving all stakeholders at an equal level. The lack of leaders was experienced to create difficulties when larger decisions had to be made. Such a leader could be from a higher administrative level e.g. at region or state level. Lastly is was suggested by Wiborg et al. [2014] and Anker et al. [2021] that the state should create guidelines on how to distribute resources when multiple municipalities are involved but all benefit from initiatives implemented in one municipality.

Multiple sources also point to the increasing need for involving the public in climate change adaptation as mentioned in this section [Hoffmann, 2020], [Fryd et al., 2020], [Hoffmann, 2020], [Wiborg et al., 2014]. The extent to which citizens should be involved however varies between sources. Fryd et al. [2020] point that public interests, habits and preferences should be considered by city planners when planning new climate change adaptation solutions in an area, meaning that there should undergo an amount of communication between the municipality and nearby residents during the planning process. Hereby it is assured that these new urban spaces will be of use to locals [Fryd et al., 2020]. Fryd et al. [2020] has a less demanding approach to climate change adaptation compared to e.g. Hoffmann [2020] and Zhou et al. [2012] who suggest that citizens should actively participate in maintenance of adaptation measures whether it be economical participation or through physical labour, but also that it depends on the type of climate change adaptation to be installed. To activate public engagement Nedergaard og Baron [2023] argues that the sense of place felt by individuals should be considered and possibly enhanced, as this is shown to affect the willingness of citizen participation. A last involvement measure, mentioned by Wiborg et al. [2014], is to look into the possibility of borrowing or renting land from land owners such as farmers, to "park" excess water from the cities during e.g. extreme precipitation events, and solve the issue of cities not knowing what to do with water during an extreme event. There are therefore different possibilities for involving the public

at various levels of commitment of the citizens. As the resources of the municipalities for climate change adaptation seems to lack, it could be beneficial for them to pull more on citizen engagement.

A last subject touched upon by the articles found in the search process, is the theme of using increasing available technological possibilities to solve climate change adaptation uncertainties and issues, which also gives an impression of the general tools that can be used in the near future. Sorensen et al. [2016] mentions a general observation, that by using technology to translate climate change and its consequences and putting it into a local context of e.g. a municipality, it is easier for stakeholders to grasp the complexity of the subject. By doing this municipalities also seem to better be able to plan for future adaptation initiatives [Sorensen et al., 2016]. Both Sorensen et al. [2016] and Halsnæs og Kaspersen [2018] found that by using area specific data instead of average values to calculate and map out vulnerable locations, a great amount of uncertainty is reduced, saving the resources of municipalities. Halsnæs og Kaspersen [2018] pointed to using data such as local infiltration rates, whereas Sorensen et al. [2016] highlighted the use of both historical data of city development and floods as well as satellite and in-situ data to map out potential areas needing implementation of climate change adaptation measures. Technology thereby holds great potential in aiding authorities implement initiatives.

Looking more at the temporary measures put into use during extreme events such as cloud bursts or storm surges, Henriksen et al. [2023] suggest creating a digital twin of cities or countries which should be drawing on information from global or national sensors and databases to provide a real-time image of adaptation needs across municipal boundaries. The tool can also be connected to a database predicting weather patterns in the near future, making it possible to identify vulnerable areas during e.g. an upcoming drought season or cloudburst impact [Henriksen et al., 2023], which could be a valuable asset for municipalities as they then are able to focus the temporary adaptation measures in needed areas and thereby avoid over-implementing in others. Technology therefore seem to provide great potential in optimising climate change adaptation planning, but as mentioned by Henriksen et al. [2023], the creation and maintaining of e.g. a digital twin, is a time consuming task that requires significant investments and collaboration between stakeholders.

There are therefore several challenges within climate change adaptation planning which leaves room for improvement both within municipalities but also on a larger scale. Due to this projects' focus on a specific adaptation partnership taking place across municipalities and multiple stakeholders, it is therefore relevant to look into the history of similar climate change adaptation projects as well as the experiences and knowledge created from such projects. The following section will contribute with an overview of found cross-municipal climate change adaptation project.

1.3.2 Cross-municipal climate change adaptation projects in Denmark

The climate change adaptation projects found in the searched literature present a variety of scopes as well as end goals. Project sizes varies from a couple municipalities or a single region to involving every municipality in Denmark. The oldest project identified, named Black, Blue and Green (2BG), began in 2007 and ended in 2011 [Fryd et al., 2009], whereas

the Climate Alliance is the only known project to be currently active [C40 cities, 2023].

The majority of the projects look into the climate issue of water either in cities from precipitation or within coastal areas from storm surges and the rising sea level. Projects such as Cost to Coast Climate Challenge (C2C CC) [Coast to Coast Climate Challenge, 2022], Vand i Byer (Eng: Water in Cities) [Lindgaard-Jørgensen og Feilberg, 2013], and Vind over vandet (Eng: Win against water) [Regional Udvikling, 2010] can be mentioned within this category, although Regional Udvikling [2010] also aims to understand how climate change in general will affect different areas similar to the goal of the DK2020 collaboration [Realdania, 2023a]. These projects thereby also consider the potential damages from e.g. drought.

The project, Klimatilpasning på Tværs, (Eng: Climate Change Adaptation Across) has a different take on adaptation planning as it seeks to rethink the way municipalities plan climate change adaptation across municipal borders as well as how the costs of adaptation should be distributed [Anker et al., 2021], [Anker og Janfelt, 2020]. As mentioned in the introduction, the DK2020 collaboration between municipalities and stakeholders aims to help municipalities achieve the Paris Agreement both in terms of adaptation as well as mitigation and thereby goes beyond the theme of climate change adaptation [Realdania, 2023a].

An overview of climate change adaptation projects involving collaboration across municipal borders can be seen in figure 1.2 below.
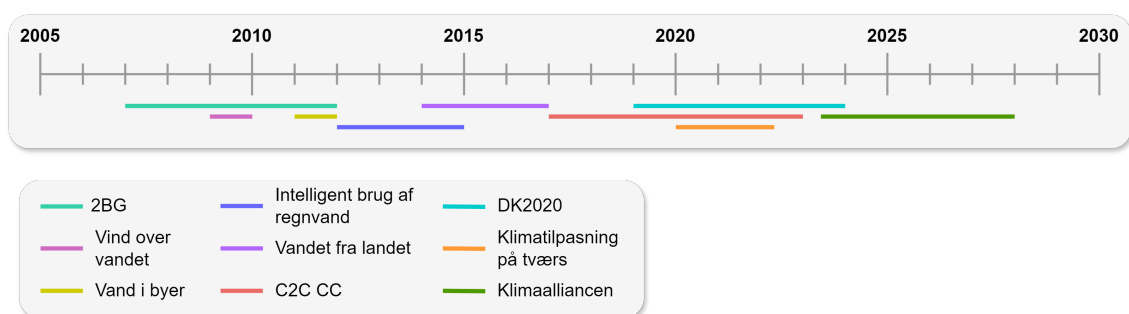
Figure 1.2. Timeline of cross-municipal climate change adaptation projects.

The next couple of sections will cover a more thorough description of three selected projects - DK2020, C2C CC, and Climate Change Adaptation Across - whose conclusions and experiences are assessed to be relevant in terms of either their scope or focus for the upcoming work of this report where the DK2020 and the Climate Alliance is in the centre of focus. Of this latter reason, the DK2020 collaboration as well as its conclusions is to be highlighted in sections below. C2C CC is also chosen, as it is one of the few projects covering a large scope of collaborative municipalities and the project furthermore involved multiple stakeholders making it somewhat similar to the DK2020 project. Lastly, the project, Klimatilpasning på Tværs, is selected, as the project itself concentrates on improving collaboration in climate change adaptation across municipalities, even though it might not be large of geographical size compared to the others.

DK2020

The DK2020 collaboration is described in section 1.1 above, and learning from the different phases have been summed up in several reports [Esbjørn et al., 2021], [Lind og Hansen, 2023], [Bundgaard et al., 2021], [Tollin et al., 2023]. Esbjørn et al. [2021] present results from the pilot project involving learning from the 20 municipalities that originally entered the partnership in 2019. Here, several challenges within climate change adaptation were discovered within these first couple of years. First, it was concluded that many municipalities still had to update their climate change adaptation efforts and that working within the full understanding of risk such as the collective water cycle seemed to be a new approach for them. Second, it was found that the the DK2020 collaboration created incentive for the planning departments within municipalities to keep the broader aspect of planning in mind, but it also provided a challenge in terms of quantifying added values such as nature protection, biodiversity and culture and thereby prioritizing them in decision making. Lastly, it was concluded that climate as a subject demands for prioritization both from internal leaders and politicians, but it also requires engagement from partners and the citizens of the municipalities [Esbjørn et al., 2021].

As all 96 municipalities, who had joined the partnership by 2023, had to finish creating the CAP, a report was made again summing up experiences and recommendations from CONCITO on how to better the work going forward [Lind og Hansen, 2023]. Variation was seen across municipalities in terms of e.g. tackling the uncertainty aspect, understanding and using climate resilience in planning practice, and citizen involvement. Due to these differences it is e.g. recommended that climate change adaptation initiatives should be planned with the possibility of potentially changing strategies in the future, and that a common understanding of how to strive towards climate resilience could provide some clarity for planners and politicians when making decision on new implementations. Moreover it is recommended that citizens should be more involved in planning of adaptation initiatives as well as they should be made aware of how climate change will affect their everyday life. Several other recommendations were also made, such as look into new financial options involving e.g. the private sector, setting requirements for planning in potential flood areas, and enhancing the connection between science and experience [Lind og Hansen, 2023].

As also mentioned in section 1.1, that the work of DK2020 is now continuing under the name, the Climate Alliance. There are therefore many possibilities of drawing on experience from the DK2020 collaboration to better the process and outcome of this newly entered partnership.

C2C CC

Second, is the C2C CC. This project was partly funded by the EU LIFE-program with more than half of its 90 mio. DKK budget and ran from 2017 until the end of 2022. Involved in the project was mostly municipalities from Central Denmark Region as well as three municipalities from the North Denmark Region with Central Denmark Region as the project leader [C2C CC, nd.]. An overview of the involved geographical participants is shown in figure 1.3 below.
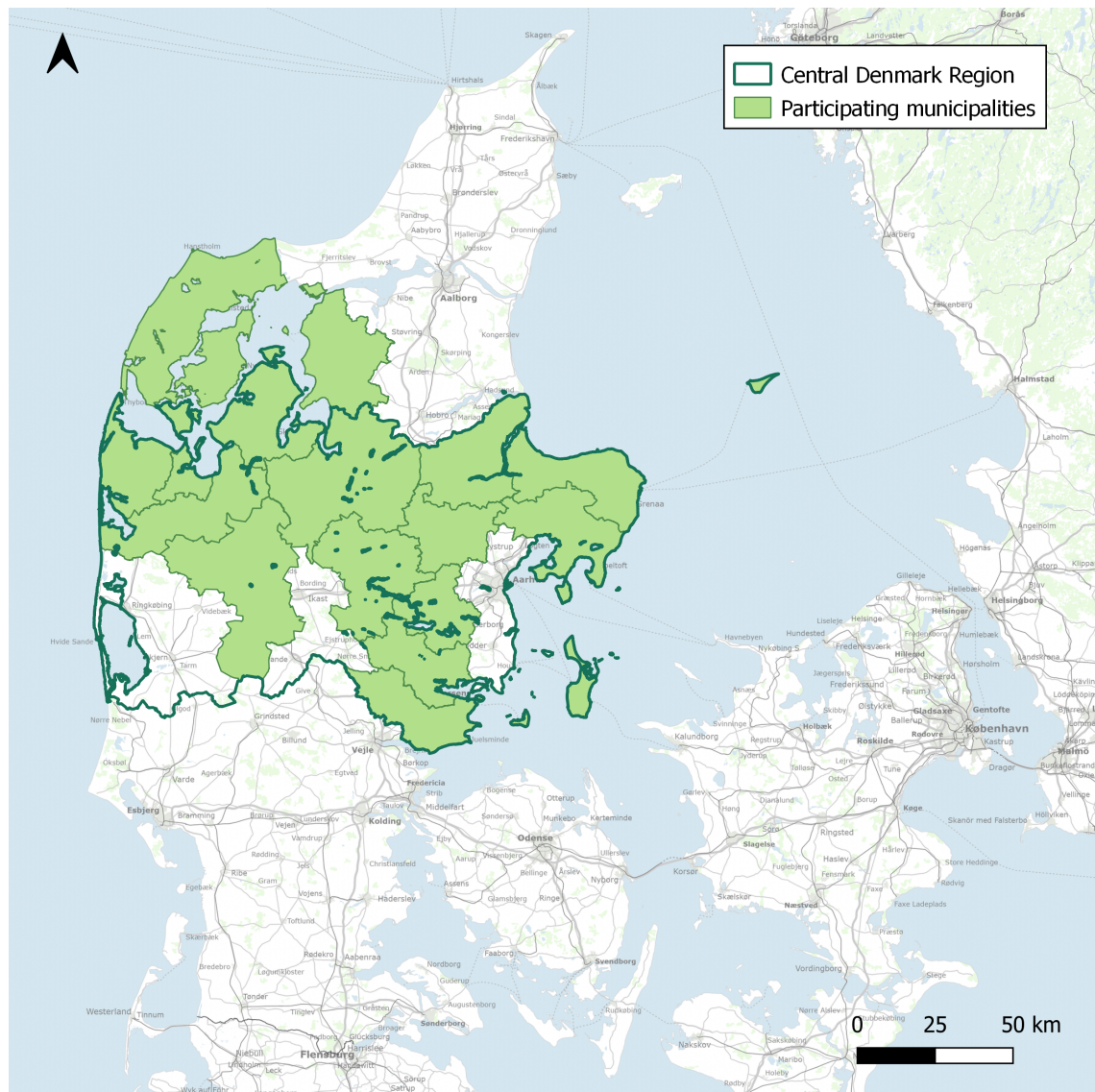
Figure 1.3. Overview of participating region and municipalities in C2C CC.

Other stakeholders were also involved such as Universities, governmental institutions, and various utility and water management companies. The aim of C2C CC was to create plans for climate change adaptation involving water that would add value to local society instead of taking it away [C2C CC, nd.].

One of the outcomes of C2C CC was that the definition of climate change adaptation developed as the project progressed. The understanding of adaptation went from a means to protect buildings, infrastructure, and nature to becoming a holistic, dynamic, nature-based planning approach to be planned with cooperation between stakeholders considering non-monetary values in order to consider future aspects [C2C CC, 2022]. Ørsted Nielsen og Wejs [2023] made a report where they sum up main points from the C2C CC partnership and provide recommendations for future partnerships. Future partnerships were recommended to involve more political leaders and utility companies for representation purposes and for them to move the projects forward and to use bottom-up approaches as well as existing experience to learn from. Open dialogue and clear definition

of project tasks would also help create a foundation for the project going forward. Lastly, it was recommended that participation should be obligatory as stakeholders then prioritize the task ahead and that partnerships going forward should create frames for knowledge sharing amongst similar stakeholders which could be managed by an official secretariat [Ørsted Nielsen og Wejs, 2023].

According to C2C CC [2022] even though the C2C CC partnership is terminated, a new national scoped partnership is planned to begin in 2025 involving also biodiversity, green transition and will look into not only the planning of new projects but also project funding in general to see that more projects are implemented.

Klimatilpasning på Tværs

A last project to be highlighted in this section is the project called Klimatilpasning på Tværs which was initiated by the Capital Region of Denmark in January 2020 to "*present new angles to known issues in relation to implementation of holistic climate adaptation projects*" [Region Hovedstaden, nd.]. The project ended in March 2022. Involved partners were among others municipalities of the region, universities, authorities, as well as an insurance company [Region Hovedstaden, nd.]. An overview of the involved municipalities and region, is seen in figure 1.4
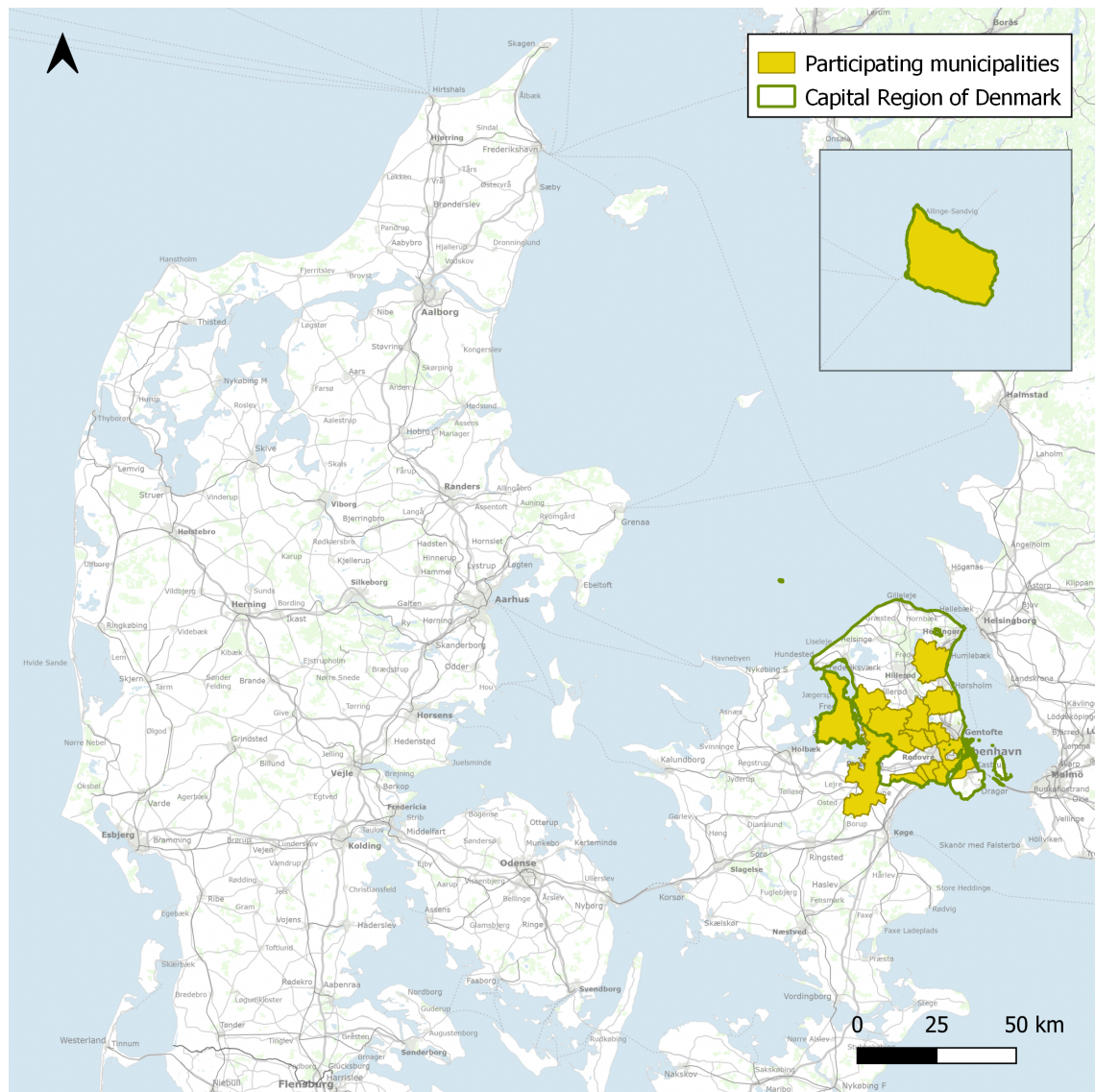
Figure 1.4. Overview of participating region and municipalities in Klimatilpasning på Tværs.

Using the knowledge gathered during the project, Klimatilpasning på Tværs, a road map containing experience on how best to work together in cross-municipal projects was created [Klimatilpasning på Tværs, nd.]. Here, it was found that when planning climate change adaptation initiatives across municipal borders, it is important to keep in mind that both the implementation of adaptation initiatives as well as building a relation to and trust amongst other involved stakeholders takes time. Especially trust and open dialogue is mentioned to be important when it comes to collaboration. It was furthermore pointed out, that taking into account each others perspectives will help create a common ground both in terms of issues but also in terms of potential solutions [Klimatilpasning på Tværs, nd.].

Another part of the road map contains recommendations on how to approach the planning of cross-municipal adaptation projects [Klimatilpasning på Tværs, nd.]. Three aspects are highlighted. The first is to begin with planning of simple initiatives and thinking of specific tasks or products instead of trying to create the holistic approach from the beginning.

Secondly, it is important that the tasks or products are meaningful for the individual participant, as it creates incentives for the parties to act and seek implementation. The third and last point of how to plan and implement adaptation projects across municipal borders, it to stay invested and active with the project even though it at times might not seem like any progress is made. Furthermore, time and resources for evaluation and discussion is mentioned as a part of this step.

The project contributed to the creation of the Danish Regions' seven recommendation for a national climate change adaptation plan. These recommendations were amongst others for the measures to follow the geography of the water, to create more joint coastal protection efforts, to use nature-based solutions and that regions should promote learning and knowledge sharing across borders [DKNK, 2022].

1.3.3   Thesis contribution to current research

Cross-municipal climate change adaptation projects have been conducted throughout the years although with different focus and on different scales. Several reports have been made summing op experience from the undergone partnerships, putting forward recommendations to consider for the next collaborations. This thesis will be an extension of such work, as this project also seeks to better the process and outcome of future adaptation partnerships. This thesis will, however, investigate the topic on a smaller scale compared to other reports published from e.g. the DK2020 collaboration. Two municipalities will be chosen as case areas and the collaborative structure and outcome from their point of view as well as the point of view of other involved stakeholders will be examined. Looking at the peer-reviewed research done, only one article touched upon the experience of adaptation projects across municipal borders, making the research in this thesis a valuable contribution, as this thesis will seek to understand how larger adaptation projects are approached from different point of views. However both the before mentioned article as well as the reports published on the above mentioned adaptation projects will form as a foundation of knowledge to consider while unfolding the challenges and possibilities of climate change adaptation on a municipal level.

Research question 2
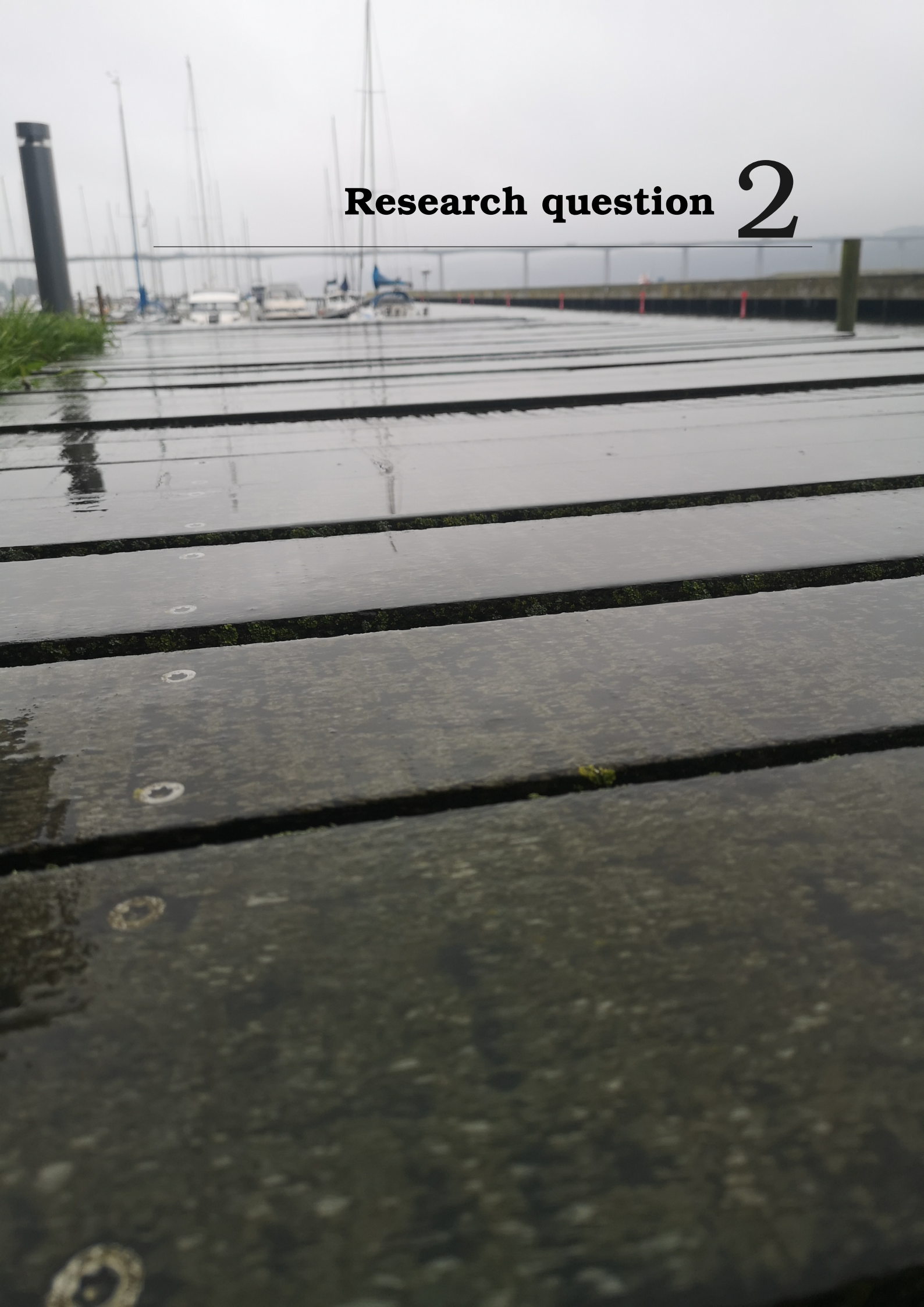
The literature review demonstrated that there have been numerous climate change adaptation projects to learn from during more than the last 20 years, yet peer-review literature show little focus on this topic. As municipalities participating in the now finished DK2020 collaboration recently continued into a similar collaboration named the Climate Alliance, it presents an opportunity to investigate how lessons and experiences from DK2020 can improve the outcome in terms of collaboration and individual gains across stakeholders of future partnerships. The research question to be explored in this thesis is therefore as follows:

How can identified stakeholders use experience from their collaboration with climate change adaptation in DK2020 to determine what initiatives can be implemented for them to better the outcome of the Climate Alliance collaboration?

The scope of this thesis is limited to the organizational part of the DK2020 collaboration. The thesis will focus on the climate change adaptation aspects of DK2020, but some aspects of climate mitigation may be overlapping with climate change adaptation and will therefore also be included in this thesis. The Region of Southern Denmark will be used as the geographical scope of this thesis as this is the scope of the project Tollin et al. [2024] that this thesis is produced in collaboration with. The thesis is from there scoped down to two case areas, Vejle Municipality and Varde Municipality. This project will not be looking in to the specific objectives that Vejle and Varde Municipality has written in their CAP's. It will instead focus on the experiences that the municipalities have had when making their CAP's. When looking at the initiatives that can improve the outcome of the Climate Alliance, the word 'outcome' implies the improvement of future results, meaning the collaboration between stakeholders during the re-certification of the action plans as well as the process of implementation of the action plans.

The research question is split into four sub-questions as shown below:

1. What relationships are there between identified stakeholders within the DK2020 collaboration?
2. Which experiences have the stakeholders had in DK2020?
3. What relationships will there be between identified stakeholders within the Climate Alliance?
4. Considering the relationships of the Climate Alliance, what initiatives can be implemented to better the outcome of this new collaboration based on DK2020 experiences?

Research Design 3

This thesis seeks to investigate how experience from the DK2020 collaboration can help better the outcome of the collaboration of the Climate Alliance. Figure 3.1 below illustrates the research design of this thesis.

State of the art

Theory of science

Interview

Power theory + MLG

1:
What relationships are there between identified stakeholders within the DK2020 collaboration?

2:
Which experiences have the stakeholders had in DK2020 when attempting to reach their set objectives?

3:
What relationships will there be between identified stakeholders within the Climate Alliance?

4:
Considering the relationships of the Climate Alliance, what initiatives can be implemented to improve the outcome of this new collaboration based on DK2020 experiences?

How can identified stakeholders use experience from their collaboration with climate change adaptation in DK2020 to determine what initiatives can be implemented for them to better the outcome of the Climate Alliance collaboration?

Figure 3.1. Illustration of research design.

The research design is built upon four sub-questions all aiming to contribute to the answering of the research question which is seen at the bottom of the figure. The literature review is meant as a knowledge foundation presenting research and the current state of climate change adaptation planning and projects. From here the theory of science creates a frame of focus and understanding around the research done in this thesis. Looking into the sub-questions, all of these will, as illustrated, be answered based on data gathered from interviews with informants presented in section 4.2 below. Lastly, Power theory and multilevel governance theory (MLG) will contribute as perspectives to the analysis of all of the sub-questions.

The first sub-question looks into the relationships between the identified stakeholders within DK2020 and the power relations there are in these relationships. Here, interviews with identified stakeholders will provide knowledge of their relationships, and the theory will be used to analyse these relationships in order to understand the dynamics that influenced the DK2020 collaboration. This part of the analysis will be structured with each individual stakeholder having their own section starting with Realdania and ending with the municipalities. Both Vejle and Varde Municipality will be placed within the same section as is was not possible to distinguish between the municipalities during the interviews with the other stakeholders. The order of each section is based on the vertical hierarchy of the identified stakeholder in the DK2020 collaboration with the stakeholder at the top of the hierarchy being the first section in the chapter. Under each section, subsections will be based on every stakeholders view on the particular stakeholder that the main sections is about. The order of the subsections will be the same hierarchical order as is seen in the sections. E.g. for the Realdania's section, it would begin with a subsection regarding Realdania's view on their own role in the DK2020 collaboration. The next subsection will then be CONCITO's view on Realdania's role in the collaboration and so on until it ends with both Vejle and Varde Municipality's view on the role of Realdania in the DK2020 collaboration. Each section will, however, always start with the stakeholder in questions' view on their own role in the collaboration. Power theory and MLG will be included continuously in the section to analyse the views on and relationships with the stakeholder in question.

The second sub-question seeks to investigate what experiences the stakeholders have had while being a part of the DK2020 collaboration. Data from the interviews will again be the foundation for describing the experiences of the stakeholders, while power theory and MLG will be used to help to understand the experiences they have had. The findings of sub-question one regarding the organisation and relationships of the DK2020 collaboration, will be used in the answering of sub-question two as a knowledge foundation of existing dynamics. This part of the analysis will, like sub-question one, be structured with sections based on the individual stakeholders starting with Realdania and ending with the municipalities. However, with this sub-question the subsections are structured based on the thematic focus that each stakeholder had during their interviews when talking about their experiences. This means that not all sections will have the same subsections as it will depend on their individual experiences expressed during the interviews. Power theory and MLG will be included continuously in the section to analyse the experiences that the given stakeholder have had.

Sub-question three is in many ways similar to sub-question one, but sub-question three will be focused on how the relationships have changed from the DK2020 collaboration to the Climate Alliance. Just like sub-question one, power theory and MLG will be applied continuously to illustrate the relations between the stakeholders that will take place in the Climate Alliance. This will provide ideas of what kinds of initiatives will be possible to implement in the new project considering these relations. With this part of the analysis the sections will again be structured based on each stakeholder, but here only the stakeholders own view on their own up coming role will be illustrated. There will thereby be no subsections on the stakeholders' views on each others roles in the Climate Alliance. This is chosen due to the fact that the respondents, during the interviews, expressed limited

knowledge of the role that each other will take on as the work of the Climate Alliance for some stakeholders has just recently begun.

Lastly, sub-question four will build on the conclusions from previous sub-questions and seek to identify initiatives that can improve the collaboration of the Climate Alliance. This is done by considering the relationships between the stakeholders and their past experiences from the DK2020 collaboration. To answer this sub-question, both power theory and MLG is used to discuss why some approaches to the identified issues could be more or less suitable based on the relationships and experiences found in the previous sub-sections. Furthermore, the findings from the state of the art in section 1.3 will be used to support the findings of the discussion as well as to bring forward other perspectives and points of views on how to approach the identified issues. The structure will be based on the before mentioned issues that the stakeholders have pointed out throughout the analysis and that are assessed to not have been considered going into the Climate Alliance. Each section will discuss how the involved stakeholders should approach the given issue as well as possible ways to make the needed changes in order for them to better accommodate these issues in the work with the Climate Alliance.

3.1   Conceptual framework

In this thesis, the conceptual framework will have a similar purpose as it is described by Miles og Huberman [1994]: "*A conceptual framework explains, either graphically or in narrative form, the main things to be studied - the key factors, constructs or variables - and the presumed relationships among them.*" [Miles og Huberman, 1994, p. 18]. The concepts to be described is climate action planning, climate change adaptation and experience, as these concepts can be interpreted in various ways and the understanding of these concepts will form a foundation for understanding the following study.

The first concept relevant for this thesis is the concept of climate action planning. As described in chapter 1, the DK2020 collaboration requires for municipalities to create a CAP, meaning that they have to involve climate action planning in this process. Climate action planning is in this thesis defined as "*(...)   the planning of climate mitigation and adaptation – climate action (...)*" [Tollin et al., 2023], and the planning process or methodology therefore involves both planning for mitigation and adaptation. Although this thesis focuses on the adaptation aspect of the DK2020 collaboration, the mitigation aspect and the work related to this topic is still a part of the stakeholders' process of climate action planning taking up time and resources and thereby limits the stakeholders' possibilities to progress within adaptation approaches.

Closely related to climate action planning is the second concept, climate change adaptation, which, as described in chapter 1, is a required part of the DK2020 collaboration. The understanding of this concept is similar to that of the Intergovernmental Panel on Climate Change (IPCC) in the report "*Climate Change 2022: Impacts, Adaptation and Vulnerability*" from 2022, where climate change adaptation "*(...)   entails the process of adjustment to actual or expected climate change and its effects in order to moderate harm or exploit beneficial opportunities.*" [Begum et al., 2022, p. 177]. This therefore means that all kinds of changes in climate are relevant to consider and not just those of water as mostly

looked into in Denmark as seen by the conclusions of section 1.3. From an earlier report of the IPCC, Burton et al. [2001] states that "*Adaptation is adjustment in ecological, social, or economic systems (...)*"[Burton et al., 2001]. This older source is chosen, as the definition is assessed to be the most fitting of the understanding of adaptation in regards to the scope of the thesis. The definition above therefore enables the involved stakeholders to implement changes that go beyond simply constructing adaptation measures within cities and look into broader structures within all and any involved organisation. Specifically this part is relevant for this thesis, as the structure of the DK2020 collaboration is in focus. Relating it all to the work of this thesis, climate change adaptation within climate action planning in DK2020 therefore allows all stakeholders to make adjustments through multiple, varying measures, of cause within their legislative scope of reach. This definition of climate change adaptation will also be applicable for their future work within the Climate Alliance where implementation is in focus.

The third and last concept deemed relevant for this thesis is the term experience. As the term is part of the research question, defining the understanding of it is imperative and the definition will to a great extent shape the results of the thesis. The general definition of experience according to Cambridge Dictionary is "*Knowledge or skill that you get from doing, seeing, or feeling things.*"[Cambridge Dictionary, nd.]. According to this definition, experience can therefore be both gained knowledge or skills which both can be relevant when talking about climate change adaptation in climate action planning. Furthermore the definition point to that experience is gained while doing, seeing or feeling things, which also can apply to the DK2020 process, as things are done, seen and felt. But as this is a general definition, it is meant to apply to all scenarios and circumstances, which also make it somewhat vague to work with. This thesis will therefore draw on the definition of experience in a planning context.

To bring in the planning context, the concept of experience and learning is inspired by case-based planning. Hammond [1990] states that, "*Case-based planning is the idea of planning as remembering. Planning from cases means remembering successes so that they can be reused, remembering failures so that they can be avoided, and remembering repairs so that they can be reapplied.*" [Hammond, 1990, p. 386]. Experience in the context of this thesis, means that the involved stakeholders should be seeking to remember their own and each others actions and decisions made throughout the DK2020 collaboration and then store these, if not in their respective memory, then in written or recorded form, for them to later evaluate on these actions and decisions as well as their outcomes. If this is done, it should be possible to reuse successes, avoid failures and reapply repairs as put by Hammond [1990], going into the Climate Alliance. Hammond [1990] also states, that the memory of the planner as well as the learning process is important to utilize when going into new plans, and for this reason this thesis seeks to understand what experiences the involved stakeholders have had with DK2020 through interviews. With this, the hope is to enhance the success of the work of the Climate Alliance as well as minimize already experienced failures.

The connection between the above described concepts is seen in figure 3.2 below.
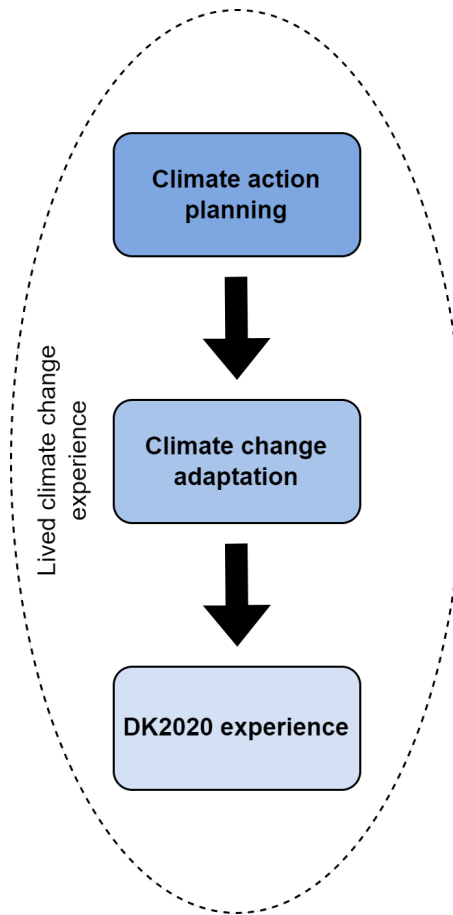
Figure 3.2. Illustration of the connectivity of the concepts in the conceptual framework.

The concepts are in the sections above described in the same order as shown in figure 3.2, where the main concepts are illustrated by the square boxes, and connected though arrows implying the scoping of the concepts used for this thesis. Climate action planning is a main concept correlating with the main topic of this thesis, DK2020. Since climate action planning involves both the mitigation and adaptation aspect, climate change adaptation is placed beneath and is in this thesis considered as a sub-category of climate action planning. Last, is the concept of experience in the figure, referred to as DK2020 experience. This concept is placed last and thereby scoped by climate change adaptation, meaning that the aspect of experience used in this thesis is experience from all involved stakeholders from previous climate change adaptation projects as a part of the concept of climate action planning of DK2020.

Because it can be argued, that the work and thereby the experience that the stakeholders have from the DK2020 collaboration to some extent is shaped by previous lived personal or professional experience regarding climate change occurrences and climate change adaptation, all of the above described concepts are encircled by whatever experience the stakeholders have picked up throughout their lives, as illustrated by the stippled circle in figure 3.2. This goes for both personally for the individual interviewed person but also for the organisations that the respondents work within, as these organisations also contain lived climate change experience.

All of the concepts are furthermore encircled as it cannot be avoided that each of the concepts individually have been shaped by a stakeholders lived experiences and that the experiences that a stakeholder has with each concept will in itself create new experiences. Those experiences that does not directly contribute to the specific DK2020 experience through the path in figure 3.2, will become a part of the lived experience. As they are layered here, it is possible that they might end up shaping the DK2020 experience through an unforeseen path. The understanding of experience in this thesis is therefore seen in a boundary of DK2020, however, it is assumed that previous personal and professional experience also shape the data collected through interview and furthermore contribute to the conclusions drawn in this thesis.

In practice climate change adaptation is also greatly affected by experience, as experience can be argued to be one of the main reasons for change happening in the field of climate change adaptation. In 2011 a extreme precipitation event took place in Copenhagen causing major flooding issues and it costed billions to restore the city to its prior state. This event was experienced by thousands and caused the municipality as well as the utility company to implement climate change adaptation so that they would be better prepared for a similar event in the future [HOFOR, nd.]. Climate change adaptation is about planning for the future, but the specificity of that future is not known, and therefore this lived experience is important as it through extreme events can show a snippet of what is to come.

3.2   Theory of science

Theory of science is a meta discipline where reflections are made on knowledge and science [Klausen, 2005, p. 13-14]. Theory of science is used to look at how knowledge is created and what preconditions there is in science [Klausen, 2005, p. 13-14]. The scientific theoretical approach that will be used in this project is relativism.

3.2.1   Relativism

Relativism builds on the understanding that social and conceptual contexts are shaping the views and standpoints of stakeholders meaning that there cannot be a neutral standpoint. There is thereby no final truth as knowledge and claims all are affected by individual, cultural and societal contexts. Each individual will therefore have their individual point of view on a given topic [Baghramian, 2015]. These aspects are relevant to consider when working with interviews, as such a method presents standpoints representing the individual respondent which may or may not correlate with other standpoints expressed by other respondents. As each respondent will have an unique context it is important to approach interview data critically and keeping in mind the various structures that affect the individual respondents. In order to attempt to gain a full overview of the experience across different stakeholders multiple interviews are held with involved stakeholders. It is, however, important to keep in mind that a full overview can never fully be presented through the interviews of this thesis, as the view of a large portion of involved people is not presented.

As the work within climate change adaptation, as well as the general topic, to a great extents is shaped by experiences, the relativism of the statement of each respondent can be assumed to vary greatly. It should therefore be kept in mind that no respondent will be able to present a more or less accurate representation of the DK2020 collaboration compared to others. All of their experiences and opinions are to be considered correct. It will, however, be possible to compare these experiences with each other and from here seek to understand the underlying reasons for potential diverging experiences.

3.3 Case study

Through the method of case study it is possible to investigate an activity or process in detail in order to achieve a thorough understanding of the dynamics of these activities or processes [Creswell, 2009,p. 177, 193]. In this project two municipalities from the Region of Southern Denmark are chosen as cases. Choosing this region was the first scoping process, and the decision was made based on convenience as well as the information and potential respondents available. AAU is currently doing research in collaboration with the Region of Southern Denmark and thereby has large amounts of data gathered on the DK2020 topic as well as knowledge of involved stakeholders making this selection of scoping area convenient [Tollin et al., 2024].

From here two municipalities, Varde and Vejle, are chosen based on specific criteria, which can be seen in table 3.1 below.

Case Criteria	Rationale
Similarities	
Area size and coastline border	Municipalities should be susceptible to the same climate risks both inland and from the sea
>10.000 inhabitants in the largest city	Larger cities should create larger vulnerability for loss of values during climate risks
Differences	
Entry of DK2020 collaboration	Municipalities should have had different experiences from joining the partnership
Yearly budget	Municipalities should have different resources available for prioritization of climate change adaptation

Table 3.1. Chosen similarities and differences for case areas.

By having the above differences between the case municipalities the aim is for the results to provide a type of scale of results that can be transferable onto other municipalities with the same similarities. Whether this will be possible will, however, depend on the responses of the respondents interviewed as well as the contextual specificity of the final report conclusions.

3.3.1   Case presentations

In this thesis the two case areas, Vejle and Varde Municipality are chosen as mentioned in the previous section. Both municipalities are located in Jutland and in The Region of Southern Denmark, as illustrated by figure 3.3 below.
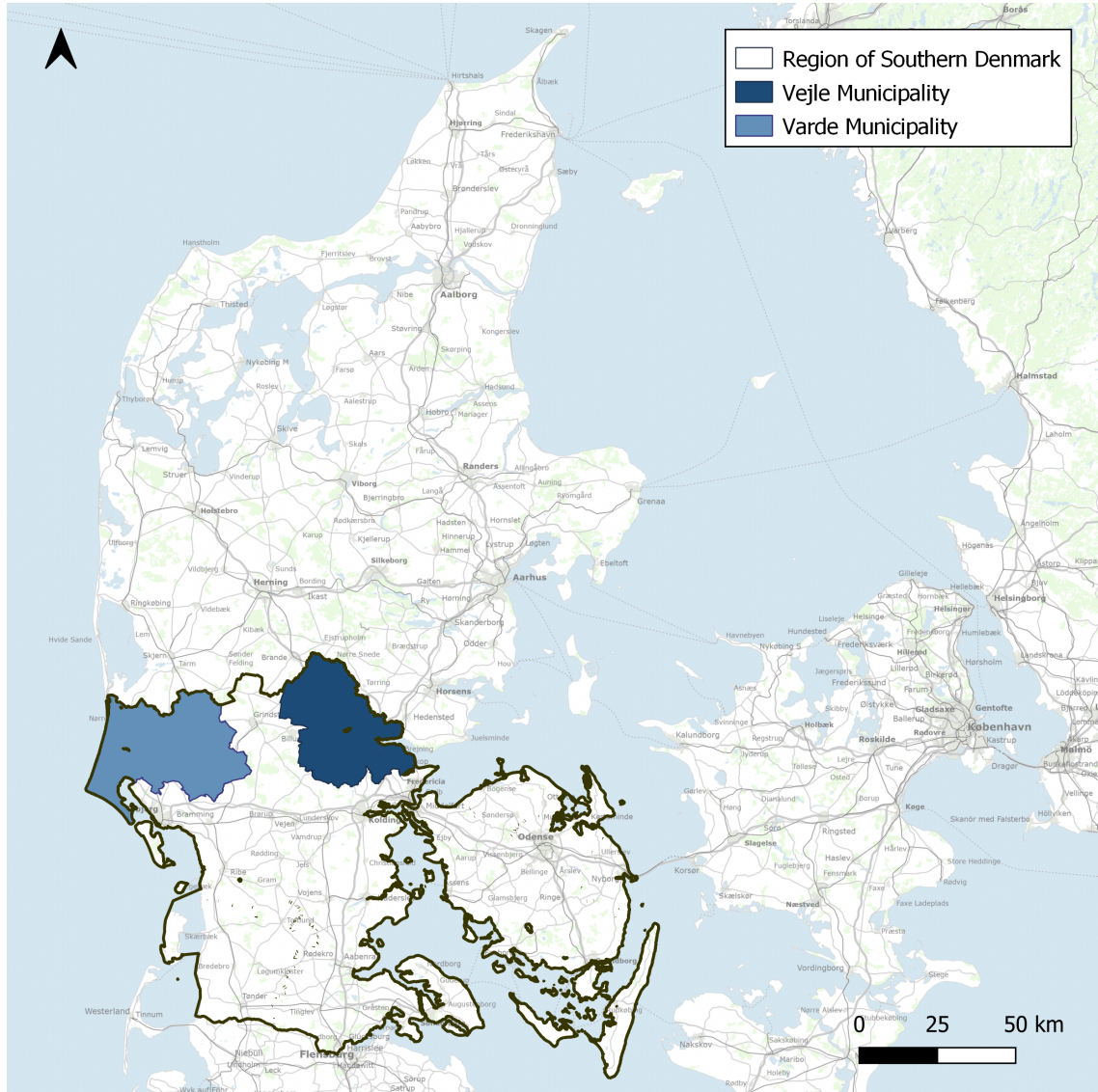
Figure 3.3. Overview of geographical locations of case areas.

From the figure 3.3 it is seen that both of these municipalities have coastal borders and can therefore both be affected by storm surges as a climate risk. They furthermore have a large inland area which depending on the slope of the terrain can contribute to accumulation of rainwater in case of extreme precipitation events.

The following sections will include short introductions of the chosen case municipalities.

Vejle Municipality

Vejle Municipality has the size of 1.059 km^2 with 121.696 inhabitants giving the municipality a population density of 115 inhabitants/km^2 [De Kommunale Nøgletal, 2024]. Vejle Municipality's largest city, Vejle, has 61.310 inhabitants [Danmarks Statistik, 2024a] and is thereby amongst the ten largest cities in Denmark. The main occupations within the private sectors are trade and transportation, service professions, and industry each constituting between 10-25 % of the total occupation in the private sector, with the primary sector making up around 3 % [The Region of Southern Denmark, 2023b, p. 48]. The municipality had in 2023 a budget of close to 8 billion which is above the national average of 4,3 billion with an annual budget pr. person of 65.230 [Danmarks Statistik, 2024b].

The municipality was chosen as one of the pilot municipalities of DK2020 and thereby entered the collaboration in 2019 [Realdania, 2019] and is in the DK2020 collaboration categorized as a provincial city-municipality [Ea Energianalyse, 2023, p. 31].

Varde Municipality

Varde Municipality has the size of 1.240 km^2 with 49.798 inhabitants giving the municipality a population density of 40 inhabitants/km^2 [De Kommunale Nøgletal, 2024], and has therefore a smaller population density compared to that of Vejle. Varde Municipality's largest city, Varde, has 14.108 inhabitants [Danmarks Statistik, 2024a]. The main occupations within the private sectors are, in Varde, also trade and transportation, service professions, and industry each constituting between 15-20 % of the total occupation in the private sector, with the primary sector making up close to 10 % [The Region of Southern Denmark, 2023a, p. 48]. The municipality had in 2023 a budget of close to 3,6 billion which is below the national average of 4,3 billion with an annual budget pr. person of 71.847 [Danmarks Statistik, 2024b].

The municipality entered the DK2020 collaboration in the fall of 2020 when the pilot project first was expanded and phase one municipalities were appointed [Realdania, 2019]. The municipality is in the DK2020 collaboration categorized as a rural-municipality [Ea Energianalyse, 2023, p. 31].

In this chapter the different methods to be used throughout this thesis are presented. Firstly, the approach to the state of the art is described. Lastly, interview as a method to collect data will be presented along with the selection of informants and a description of the treatment of the interview data.

4.1 State of the art

A state of the art provides a review of existing literature that is relevant to the topic at hand [Blessing og Chakrabarti, 2009, p. 217]. The purpose of a state of the art is to get a foundation for the research and identify and refine the focus of the research question so it is relevant in light of existing literature. In this way the state of the art will also provide a justification for the purpose of and the rationale behind the research [Blessing og Chakrabarti, 2009, p. 217]. In order to make sure that the state of the art includes a wide range of literature while still remaining within the scope of the research topic, a set of criteria must be set up along with a particular approach and purpose for the state of the art. For this state of the art the purpose is to illustrate how climate adaptation is currently planned in Denmark and what challenges there might be as well as to gain an understanding of where the climate adaptation planning is moving towards according to current research. In order to make sure that no gray litterateur is overlooked, the state of the art will have both a perspective from an academic point of view as well as the view of other cross municipal climate adaptation projects, this state of the art will therefore be in two parts. The first part will take form of a more systematic review that only includes academic papers and the second part will be more semi-systematic with a focus on previous climate adaptation projects.

4.1.1 Part one

When setting up the approach for the first part of the state of the art, a more systematic approach was applied. First, a criteria for chosen databases were made. It was decided to use the AAU database library under the category 'Environment and climate' which provided 20 different databases. This criteria insured that only databases of relevance to the topic were selected and that there was access to the literature from the database. An initial search was done on all 20 databases with the search words "climate adaptation" and "klimatilpasning" to get an overview of which databases held the most literature on climate adaptation in both Danish and English as the scope of this study is within Danish borders. With this initial search it was found that the database, ProQuest, had the most literature on climate adaptation in English and the database, The Danish Research Portal, had the most literature on climate adaptation in Danish.

The search string, that was used while searching in the database ProQuest, was "Climate adaptation" in the abstract and "Denmark" in the full document text. The search was scoped further to only literature published after 2004, literature that was peer reviewed and written in English. This search string produced 110 hits. The search string that was collected for the database The Danish Research Portal was "klimatilpasning" and further scoped to literature that was peer reviewed and with open access. For this database it was not necessary to set a yearly scope as there was no literature from earlier then 2011 and all literature found was either in English or Danish. This search string produced 21 hits.

The 131 hits were reviewed and examined by the title and abstract based on if the literature was about climate adaptation in Denmark. From this process, 29 articles were found and moved to the program RefWorks in order to get an overview of the literature. Lastly, a final review of the articles in RefWorks took place, where all sources were read more thoroughly with a specific focus on the previously mentioned purpose of the state of the art in order to determine if they were deemed relevant. The final review resulted in 16 articles which have contributed to the first part of the state of the art in chapter 1.3.

4.1.2   Part two

The approach for the second part of the state of the art was more semi-systematic. With a semi-systematic approach it is possible to get an overview of how a specific field has progressed over time, which is also the purpose of this second part of the state of the art [Snyder, 2019, p. 335]. When getting an overview or timeline of a field it also creates a fundamental understanding of the field and gives background knowledge that can be used for further research [Snyder, 2019, p. 335]. This is also the goal for this second part of the state of the art where the purpose is to get an overview of climate change adaptation projects involving collaboration across municipalities, how they have turned out and what experience can be drawn from it.

For this part of the state of the art, instead of using the AAU database engine, databases of prominent and acknowledged organisations in Denmark that work with climate change adaptation were used. The selected databases are:

- Klimatilpasningsportalen, a portal with data and reports on climate change and climate change adaptation created through a collaboration between ministries, government agencies and other stakeholders,
- Realdania, a self-endowed philanthropic association that works with the built environment, and
- Concito, a green think tank.

The selection criteria for the search were publications on projects surrounding climate change adaptation in Denmark across multiple municipalities. This resulted in 12 publications on 9 projects which all were used in 1.3 to create a timeline as well as overview of the projects and progress that have been made within this field of work.

4.2   Interview

To gain knowledge about Vejle and Varde Municipality's experiences in the DK2020 collaboration in regards to climate change adaptation, interview is used as a method. The information gathered from these interviews is also used to investigate initiatives to help better the outcome of the Climate Alliance. In this section, the selection of informants is elaborated upon along with the benefits and potentials that the semi-structured interview has and how the interview data have been processed.

For this report it was decided to use semi-structured interview as this allows the interviewer to ask follow up questions if necessary [Kvale og Brinkmann, 2015, p. 49]. The semi-structured interview follows an interview guide with a focus on specific themes that have

open ended questions that makes the interview seem more like an every day conversation [Kvale og Brinkmann, 2015, p. 49]. This makes it possible to get an understanding of the informants own perspective on the issue and how it effects they everyday life [Kvale og Brinkmann, 2015, p. 49].

4.2.1   Selection of Informants

In order to get different perspectives on the experiences of DK2020 in the work with climate change adaptation, four types of informants were selected:

- A climate coordinator from each of the municipalities
- A member of the city council from each of the municipalities
- An informant from The Region of Southern Denmark
- An informant from Realdania and CONCITO

Having informants with different backgrounds and roles within the same field gives a more optimal coverage of the issue that is being researched. A total of eight interviews were conducted. An overview of date and time of conducted interviews can be seen in table 4.1 below.

Respondent name	Job title	Date	Duration [tt:mm:ss]
Municipal employee			
Christine Schoop Gärtner	Team leader of Business and sustainability, Varde Municipality	10/04/2024	00:57:57
Jette Vindum	Climate coordinator, Vejle Municipality	12/04/2024	00:43:03
Lisbet Wolters	City architect and Head of climate, Vejle Municipality	05/04/2024	00:43.30
City council member			
Preben Friis-Hauge	Chairman of Planing and technical Committee, Varde City Council	09/04/2024	01:02:28
Søren Peschardt	Chairman of the Climate-, Nature- and Environmental committee, Vejle City Council	05/04/2024	00:14.43
The Region of Southern Denmark			
Boris Schønfeldt	Chief consultant, Climate adaptation and Climate mitigation, DGO employee	12/04/2024	00:52:54
Realdania			
Pelle Lind Bournonville	Special Advisor/Head of Projects	09/04/2024	00:53:29
CONCITO			
Tue Damsø	Project manager, DK2020, The climate alliance	24/04/2024	00:57:28

Table 4.1. Overview of conducted interviews. The interviews are held either in person or online.

The informants was selected by first looking into the list of informants that was used for Tollin et al. [2024] and selecting the ones relevant to the case areas Vejle and Varde and using the Tollin et al. [2024] connection to Realdania. As a supplement to informants found through Tollin et al. [2024], some informants was also found by looking through Vejle and Varde Municipality lists of their different committees and their members on their individual websites. From these lists, the city council members, in charge of climate

change adaptation, was selected. When contacting the selected informants, some refereed to other colleagues that they found to be better suited to the topic which then afterwards were contacted instead.

As a result of a delay in the scheduled arrival time and changes to Søren Peschardt's calendar, the interview with the respondent was cut short. As compensation, arrangements were made for Lisbet Wolters to stand in for Peschardt when the latter mentioned ran out of time for the interview. However, it is necessary to be aware of the fact that when the interview switched from Peschardt to Wolters, the interview changes point of view from a city council member to a municipal employee.

During the interview with Boris Schønfeldt from The Region of Southern Denmark he clarifies that he have not been worked at the region for that long and only have been employed from 01/12/2023. This means that he has some difficulties with speaking on what experiences the region as an organisation have had in the DK2020 collaboration. Therefore when speaking on experience Schønfeldt is reflecting on his own lived experiences from his professional life but all in relation to the regions' role in DK2020.

4.2.2   Treatment of interview data

Before beginning all of the interviews with the individual informants, they were each asked for their consent on recording of the interview and the use of their quotes in this thesis. All informants gave their consent with the promise that all quotes used would be send to them to receive their final approval of the quotes and the interpretation of these quotes, which was done. From this process, a few respondents returned with comments which then have been incorporated into the thesis. During the interviews, it was also made clear to the informants that they should answer the questions from their own point of view and not on behalf of the entire organisation that they are a part of. However, if the informants use words like "we", or others that indicate that they are talking about the entire organisation through e.g. the general use of the organizations name, it is assumed that they are responding on general experiences within the organization. As the respondents have had the opportunity to comment on the interpretation of their quotes, it is assumed that there have been made no errors in this regard.

All interviews were recorded and transcribed with the use of Microsoft Teams. In order to make sure all interviews were transcribed correctly the interviews were proof read and edited manually where necessary.

All interviews have been coded based on witch sup-question the data seek to answer. Thereby three different codes were used in the first read through of the data and the interviews were then separated in to three parts corresponding with these three codes. Each part were then additionally coded based on the structure of the different chapters in the analysis. As an example chapter 6 is structured based on the identified stakeholders within the DK2020 collaboration and thereby the data used for this chapter was both coded based on the sub-question and based on the identified stakeholders in DK2020. The same way of coding was used for the rest of the analysis.

In this chapter, power theory and multilevel governance theory (MLG) are described. The six types of power will be used to illustrate the different types of power that the identified stakeholders in the DK2020 collaboration as well as the Climate Alliance hold and thereby help to describe their roles and relationships. MLG will contribute to the understanding of their relationships by pointing towards ways to improve them. Power theory and MLG will also be used when analysing the experiences that the stakeholder have had in DK2020 and how these experience along with their relationship can help identify initiatives that can improve the collaboration of the Climate Alliance.

5.1 The six types of power

Power as a concept is central when trying to understand the way in which an organisation works. Organisational development can differ depending on what variations of power is present and can influence which actors or groupings interest will be favoured over others. Power is an expression of the structures that maintain and change between actors. When actors influence each other through social interactions, there will also naturally be a development and/or change in power when those actors interact. Power is also influenced by the different regulations, status, disposal of resources and etc. that have been developed over time through power struggles [Christensen og Jensen, 2019, p. 14]. Therefore, power is seen as necessary and unavoidable in any social interaction [Christensen og Jensen, 2019, p. 15]. To analyze the power dynamics of the DK2020 collaboration and the Climate Alliance, the six power dimensions will be used.

Within the DK2020 collaboration and the ongoing Climate Alliance, various actors interact with each other and it is therefore safe to assume, that there are active power dynamics within the process. In this thesis the focus will be on the power between the stakeholders: Realdania, CONCITO, the Region of Southern Denmark and the case municipalities including both the internal power of the municipalities between city council members and the municipal employees as well as the power between the first named stakeholders and the municipality as a whole.

Power can be categorized in many different ways. The categorization used in this thesis is seen in figure 5.1 below and is based on Kousholt [2019] and Kousholt [2020].

Figure 5.1. Illustration of six types of power. Figure inspired by Kousholt [2019] and Kousholt [2020].

Beginning at the top of figure 5.1 is *expertise power*, where a stakeholder has power over others within a field due to the fact that he/she is an expert within the given field. A reason for this can be due to good past experience.

The next type of power is *legitimacy power*, where the leader simply has power because it is announced somewhere in the hierarchy that this stakeholder is the leader. The amount of legitimacy power a stakeholder has, depends on the accessibility of this title. If gaining the leader title is deemed an easy job, then the legitimacy power is considered low, whereas the harder it is for a stakeholder to become a leader within the field, the more legitimacy power is gained.

The third kind of power is *coercion power*, where a stakeholder has power to "punish" others by withholding access to resources. This could e.g. be to withhold grants or make sure that another stakeholder is treated badly, if the stakeholder does not live up to deadlines or provide the necessary quality in their work.

The fourth is *reward power*. This kind of power is similar to that of coercion power, but is to be understood as a contrast to it. Here a stakeholder has power over others because he/she is able to "reward" other stakeholders by giving out resources. This could e.g. be to increase the grants given out as a result of good work or to promote individuals.

Next is the *information power*, where a stakeholder has the ability to obtain, process, and store knowledge, as well as influence the amount of power obtained by other stakeholders. The more knowledge a stakeholder gets hold of, the more power the stakeholder will obtain, as others will look to this stakeholder for answers.

The last type of power is the *model power*, which is sometimes referred to as referent power. In this case a stakeholder has power over others if they has become a role model for the other involved stakeholders. If a stakeholder shows commitment to a given project while creating an environment that makes the project approachable and understandable, power is gained. For this type of power to have its effect, the other stakeholders involved has to accept them becoming a part of the project and the appertaining processes.

These six types of power will in this thesis be used to understand the roles and relationship between the identified stakeholders of the DK2020 collaboration and the Climate Alliance. Power theory will also be used when looking at the experiences the stakeholders have had and how their power relations influence those experiences. The theory will be able to highlight underlying structures that exist within the collaborative projects, as well as make clear possibilities and challenges of the upcoming work within the Climate Alliance. The specific types of power will be applied based on how they are expressed by the individual stakeholders. The relationships of the individual stakeholder will therefore be explained first and will then afterwards be put in relation to which stakeholder is expressing a certain type of power in the given situation. The theory will be applied on both a structural level, looking only at the stakeholders as institution, as well as on an individual level, as differences between e.g. the municipalities of Vejle and Varde can be relevant to highlight.

5.2   Multilevel Governance Theory

Multilevel Governance (MLG) is a tool to be used in analysis of how decentralized decision-making processes occur and take place, in a setting where sub-national level governments and civil society have an increasing role and influence. The term 'multilevel' refers in the theory to there being multiple levels both vertically and horizontally of different state and non-state actors, such as the sub-national, national and the supra-national level [Saito-Jensen, 2015, p. 2].

The theory suggests that the policy making is no longer reserved for only central, monopolizing actors, but that the governmental power to a greater extent is affected by multiple actors at various levels. Due to these changes in power, there is an increasing necessity for interaction and reconfiguration of the relationships between involved actors. According to the theory, in order for these different levels of state and non-state actors to define a common goal, the levels must somehow become aligned [Saito-Jensen, 2015, p. 2].

5.2.1   Components of multilevel governance

As a governance structure can consist of both hierarchical and horizontal interactions a framework is presented by Homsy et al. [2019]. This framework takes into account how the different involved actors, both state and non-state, interact with each other across levels and governance structures in order for them to achieve sustainability and foster a well functioning multilevel governance system [Homsy et al., 2019]. The five components are: co-production of knowledge, framing of co-benefits, engagement of civil society, provision of capacity, and sanctioning and coordinating authority.

Co-production of knowledge vertically and horizontally. Through this concept, local knowledge is meant to become a part of the discourse in collaboration with technical analysts as well as main policy makers. It will thereby be possible to identify the actors that are not involved in the processes in policy creation as well as knowledge generation. The component is meant to built trust amongst the involved parties, who will also gain a greater understanding of each others stands and values. For this component to work, it is required that expectations and commitments are met, but the goal is that it in the end will contribute to more effective implementation of policies and decisions and enhance the prioritization of sustainable solutions [Homsy et al., 2019].

Framing of co-benefits. This concept points to a way of motivating local governments or others to undertake environmental actions that otherwise might not have been decided upon by emphasizing the positive impacts of the action. In a general sustainability context, these impacts could be reduced energy costs, job production or increased public health. Such focus could build consensus and encourage action within local societies as residents become further invested in the problems and are able to see the importance of these issues in the context of their own lives [Homsy et al., 2019].

Engagement of civil society. This concept points out the power of grassroots initiatives and bottom-up efforts when seeking to make changes. Citizens often collaborate with universities in monitoring environmental change and it is seen in more wealthy cities that the more educated residents to a higher degree have an interest in policy discussions and

sustainability. Governments can thereby be motivated by its citizens if the latter views environmental issues as important [Homsy et al., 2019].

Provision of capacity. Sustainability is a complex problems to handle and it is therefore important that the stakeholder handling this issue has the necessary resources to do so. In order for a multilevel governance system to function, it is necessary that the involved stakeholder are able to mobilize the needed resources if they are to achieve a capacity capable of handling the occurring and upcoming sustainability problems. Resources can be of both professional, technical, and financial character [Homsy et al., 2019].

Sanctioning and coordinating authority. This last concept regards the need for a sanctioning and coordinating power in charge of distribution of externalities as well as the organisational structure. The role of this actor is to enforce solutions on decentralised actors and secure the coordination between stakeholders to keep them engaged within the process. The power is meant to be distributed across the different involved levels, but this appointed authority upholds the actors commitment to the framework goals and presents sanctions in case of inaction. In a multilevel governance system, a coordinating leader is important to assure that public policy goals are met [Homsy et al., 2019].

DK2020 and the current Climate Alliance collaboration seek to solve the complex issue of fulfilling the Paris Agreement on municipal levels and implementing sustainable change. Both of these collaborations involve different levels of governments as well as multiple non-state stakeholder such as CONCITO and Realdania all shaped by the constraints the supranational C40 guidelines. The above mentioned components of multilevel governance will be used to understand the reason for why the stakeholder have had their individual experiences from the DK2020 collaboration, as well as what is lacking within their multilevel governance system for them to minimize or avoid experiencing the same negative aspects going into the Climate Alliance. The different components of multilevel governance will be applied to the context of the understanding of the stakeholders roles in DK2020 and their expressed experiences. The experiences and roles that the stakeholders have had will be explained first and will afterwards be put in relation to the components of multilevel governance. The theory will both be applied to the understandings and experiences that the stakeholders have had individually within their own organization as well as to the understandings and experiences that the stakeholders have had with the other stakeholder during collaboration.

Stakeholder relationships in the DK2020 collaboration 6

In this chapter, the relationships between the identified stakeholders within the DK2020 collaboration will be illustrated with data from the interviews held with each stakeholder. Throughout the chapter each stakeholders' role in DK2020 will be illustrated individually based on both their own as well as the other stakeholders view on that particular stakeholder in question and each view will be presented separately in subsections. Continuously throughout the sections power theory and MLG will contribute to analysis of results presented in the chapter.

6.1   Realdania

In relation to DK2020 Pelle Lind Bournonville from Realdania sees Realdania as the initiator of the DK2020 collaboration and the one who engages other stakeholders in the collaboration.

> "*I have worked with DK2020, well, since it was born, in two specific conversations. First between me and my CEO, and then later between me and the former head of C40 in Denmark and the CEO of CONCITO (...) I definitely acted as its godfather.*" [Bournonville, 2024].

As described above Realdania was the one who had the conversation with both C40 and CONCITO about starting the collaboration between the three stakeholders within DK2020, and the respondent further states that they were in involved in deciding who should be the partners of the collaboration [Bournonville, 2024]. In continuation here Bournonville [2024] also makes a point of stating that Realdania is the one who have had the chairmanship in DK2020.

> "*We are one of the three partners in the larger partnership, as KL and the regions joined as a financially contributor to the whole thing. In DK2020, because it is our project, we have the chairmanship on both steering group levels.*" [Bournonville, 2024].

Here, Bournonville [2024] describes how after the larger partnership was formed, KL and the five regions of Denmark also joined the collaboration. The respondent also adds that, as an addition to being the initiator, Realdania are also a financial contributor to the whole of DK2020. Being the financial contributor of the whole project gives Realdania *reward power* and *coercion power*, because they have the power to decide what money goes to who depending on the relationship they have with the other stakeholders. With this Realdania also are able to use *Provision of capacity* to make sure the resources are mobilised to the places that need it to make sure the DK2020 collaboration is successful. Bournonville [2024] also describes how Realdania has the chairmanship on two steering group levels and with this was very closely involved in the collaboration.

> "*I was the chairman of the practical steering group, so I was very close to the secretariat [within each region, ed.]. I was involved in all aspects and corners of the entire project.*" [Bournonville, 2024].

Bournonville [2024] describes Realdania as being involved in all aspects of the DK2020 project. From Realdania's point of view it can be seen how they are a very important and an essential part of the DK2020 collaboration as they are the initiator, the financial contributor and, according to the respondent, involved in all aspects of the project. With this, Realdania have a lot of *legitimacy power* because they are the ones who started the whole project and got all the other stakeholders involved. As Realdania also holds the chairmanship of the project they also have the role of *Sanctioning and coordinating authority* which becomes even more evident with them also being a big financial contributor to the project.

6.1.1 CONCITO on Realdania

In the interview with CONCITO, Tue Damsø from CONCITO does not talk much about Realdania and their role or how their experience was with Realdania. Damsø [2024] only mentions Realdania in one context.

> "*There were only 20 municipalities involved [in the pilot project, ed.], and it was exclusively CONCITO, C40, and Realdania that were part of the collaboration (...) In the subsequent project [when another 44 municipalities joined DK2020 in phase one, ed.], Realdania then partnered with KL and the five regions.*" [Damsø, 2024].

Damsø [2024] only mentions Realdania by name in this the context of them partnering up with other stakeholders in order to get them involved in the DK2020 collaboration. Even after being asked more about the organisational structure of DK2020, Realdania specifically was not mentioned by the respondent. Answering these questions, Damsø [2024] talked more about DK2020 as a whole. With this is can be questioned if Realdania really was as involved in all aspects of the collaboration as Bournonville [2024] describes.

Damsø [2024] does, however, add while commenting on the quotes that in the larger management of the DK2020 collaboration, Realdania have had a central and indispensable role where they have guided CONCITO in their way of approaching the project as a whole. The respondent furthermore points out that he has been in contact with Bournonville [2024] multiple times over the last three years regarding the strategic aspects of the project as well as the general challenges that arose [Damsø, 2024]. Realdania has thereby used their role as a *sanctioning and coordinating authority* by helping to coordinate the DK2020 collaboration. They have further used their *expertise power* in terms of adding CONCITO guidance on the management of larger climate change adaptation projects.

6.1.2 The Region of Southern Denmark on Realdania

In the interview with Boris Schønfeldt from the Region of Southern Denmark, when talking about Realdania and their role in the DK2020 collaboration it was only mentioned in relation to CONCITO. Schønfeldt [2024] sees Realdania playing a big part in the DK2020 collaboration with their financial contribution making it possible for them to involve important stakeholders. "*(...) Realdania has contributed by financing CONCITO's involvement.*" [Schønfeldt, 2024]. This thereby emphasizes Realdania's *coercion* and

reward power in relation to CONCITO. This gives, however, again an opportunity to question whether Realdanias provides an accurate picture of their own role in the DK2020 collaboration.

By contributing financially to CONCITO's part in the collaboration, Realdania made sure that there was a knowledge-based foundation that could create political action along with Realdania bringing C40 to Denmark. The respondent talks about how the employees in the municipalities are able to use the information they get from CONCITO and Realdania to turn a conversation with the politicians around and get them to make decisions that create climate action Schønfeldt [2024]. He later adds: "*We wouldn't have had that connection it if Realdania hadn't initially supported C40 and brought it home to Denmark. So both CONCITO and Realdania have played an enormously big role.*" [Schønfeldt, 2024]. Realdania's partnership with CONCITO and C40 is important for the way in which Schønfeldt [2024] sees Realdania. From Schønfeldt [2024]'s point of view Realdania is able to bring home the right stakeholders with the right knowledge to Denmark and financially support that knowledge link so that it can promote political action in the local communities. By doing this Realdania used *co-production of knowledge* and *framing of co-benefits* to create political action and thereby getting the municipalities involved in the DK2020 collaboration.

6.1.3 Vejle Municipality on Realdania

During the interview, Jette Vindum from Vejle Municipality comments on the role of Realdania in the creation of the DK2020 collaboration:

> "*There was this project that came via Realdania and CONCITO where they made this pilot project, where 20 municipalities could sign up to participate in the project and receive some professional feedback in order to develop a climate plan that met the goals of the Paris Agreement.*" [Vindum, 2024].

Vindum [2024] mentions that Realdania were the ones who, with CONCITO, came to them with an opportunity for the municipality to be a part of the DK2020 Collaboration. Much like in the interview with CONCITO, this is the only time Vindum [2024] mentions Realdania even after being asked more in to the relationship between themselves, the Region of Southern Denmark, Realdania and CONCITO. This can indicate that there between Realdania and Vejle Municipality is no noticeable connection and that Vejle therefore is not affected by the power that Realdania has. The same power dynamics are, however, still in play as it is current for all other participating municipalities.

6.1.4 Varde Municipality on Realdania

Christine Schoop Gärtner from Varde Municipality was also asked about what they thought about their collaboration with Realdania.

> "*Realdania has facilitated some webinars and theme days, kick-off events, and such, and I have no doubt at all about how much they have pumped into it, and it has always been of very high quality, what we have been presented with, and the conferences that we have attended (...) but the daily collaboration has mostly been with the regions across municipalities and with CONCITO.*" [Gärtner, 2024].

Here, Gärtner [2024] describes how Realdania have facilitated events that, Realdania themselves, according to the respondent, have spent a lot of resources on in order to increase the quality of it all. With this, Realdania is seen to have some *information power* that they use to pass on knowledge that the municipalities need to get started with the collaboration. Thereby they also contribute to the *co-production of knowledge* as well as *framing of co-benefits* in order for them to promote success of the DK2020 collaboration. However, the respondent also points out that in the daily work of the DK2020 collaboration, Realdania have not been involved. Thereby, the view of how much Realdania have been involved in the different aspects of the DK2020 collaboration can depend on the point of view.

From Realdania's own point of view they may be right in saying that they have been very involved in all aspects of the project, but from a municipality's point of view they may not see Realdania as being as involved. This thereby points to the respondents having different understandings of when a stakeholder is involved and the level of involvement that needs to occur for them to reach to the same conclusion. Realdania might see themselves as being involved in all aspects which for Bournonville [2024] means them communicating with the local DGO's, and through this reaching the local level of involvement. There are, however, an additional level for them to be involved with in terms of the municipalities which can be argued to be unnecessary for them to communicate with, since they strive towards having the overall managing role of the collaboration and therefore does not need to be concerned with the low scope issues happening within the individual municipalities.

Below is an illustration of the different types of power that Realdania holds over the other stakeholders.
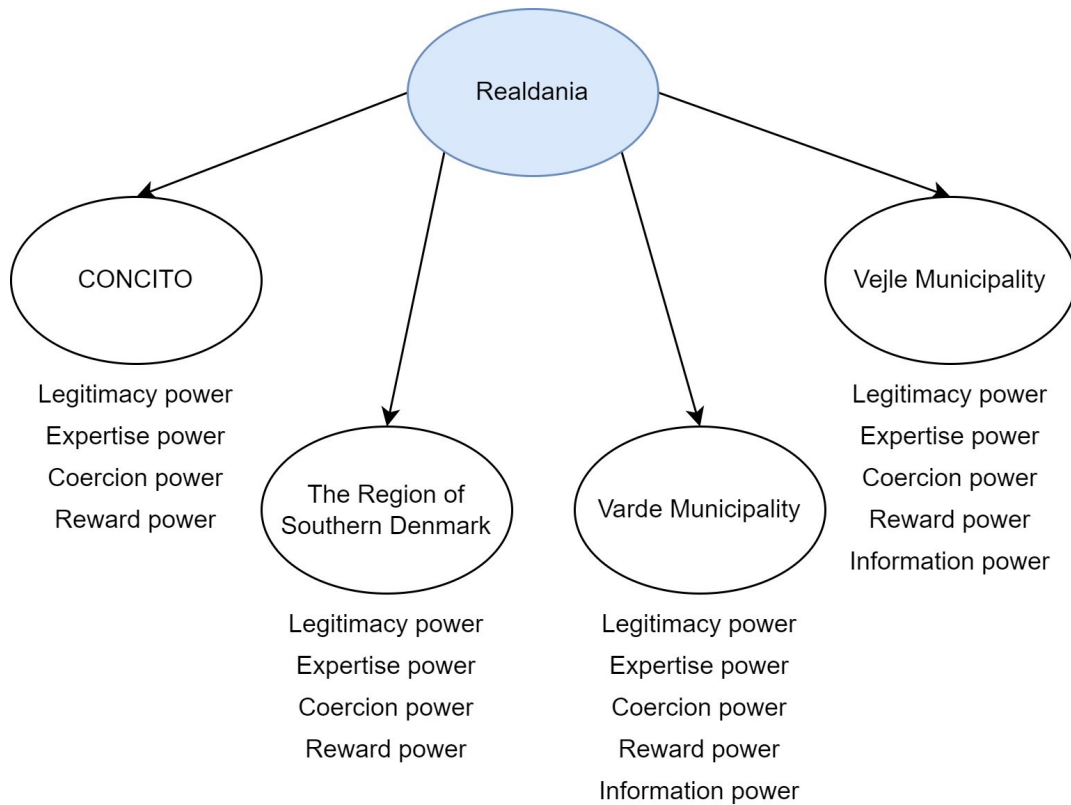
Figure 6.1. Illustration of Realdanias power relations.

6.2 CONCITO

In the DK2020 collaboration Tue Damsø from CONCITO views CONCITO as being mainly responsible for the DK2020 project [Damsø, 2024]. Damsø [2024] further elaborates their role by saying:

> "*We were very involved. I mean, we were the overall project manager and responsible for the professional aspects. For us, we planned conferences and events, arranged newsletters, and served steering groups at the national level. We provided training and mentoring for these regional or geographic organizations, the regional representatives. We provided mentoring for municipalities at specific points along the way. And then we have been responsible for creating guidelines and webinars, and translating some of this international best practice into practical applications, (...) That was one of the things we did. We have been responsible for summary analyses of the project, international dissemination, and all sorts.*" [Damsø, 2024].

Here, Damsø [2024] describes how CONCITO was the project manager and responsible for the professional aspects. With this is can be said that CONCITO during the DK2020 collaboration had *legitimacy power* because they had so many responsibilities in the collaboration in the form of planing conferences, making newsletters, mentoring

municipalities and generally being in close contact with the local organizations. A big part of their role is *co-production of knowledge* in relation to the local organizations. Throughout the interview Damsø [2024] continuously talked about their relationship with the local organizations and further elaborates on how they mentored the municipalities.

> "*They [CONCITO, ed.] are responsible for holding regular monthly meetings and providing comments on drafts continuously along the way and helping them succeed with this process with all the mentoring they needed for the project, which is a very complex climate planning task. We collaborated with the geographical organizations (DGO's) continuously, and then we had agreed on certain taking points [on the progress of the municipalities, ed.] (...) where we provided direct feedback to the municipalities.*" [Damsø, 2024].

The DGO's mentioned by the respondent refers to the common name for both the regions as well as The Local Government Regional Council (KKR) from each of the regions that include the mayors from the municipalities in the region and a number of local council members. In the quote, it can furthermore be seen that part of CONCITO's role in relation to the municipalities is to be in close contact with them during the development of their climate action plans and giving direct feedback. By CONCITO having this mentoring role in the relations to the municipalities and the region they hold a lot of *information power*, because they are able to control what information they pass on and what they do not. From CONCITO's point of view it can be seen that they see themselves as the project manager and responsible for the professional aspects of DK2020. In addition to this, CONCITO is also in close contact with the local organisation, especially the municipalities while they develop their CAP's.

6.2.1   Realdania on CONCITO

When tackling about CONCITO, Pelle Lind Bournonville from Realdania first mentions the approval process that the CAP's go through:

> "*It's CONCITO and C40 employees who have gone through every single CAP, both in the halfway check-up and they also provided feedback to the municipalities on what they were missing. And in the approval process, the stamp you receive with an approved CAP, it's CONCITO and C40 who provide the stamp.*" [Bournonville, 2024].

Here, Bournonville [2024] describes how CONCITO and C40 are the ones who approve the CAP's and give the DK2020 stamp of approval to the municipalities. With CONCITO being amongst the ones who approve the climate action plans they gain a lot of *coercion* and *reward power*, as they are able to give or withhold the DK2020 stamp depending generally on the set criteria of the CAPF, but there is a possibility for their opinion to be influenced on the relationship they have with the individual municipality. In addition to this, Bournonville [2024] talks about how CONCITO provides feedback to the municipalities on what they are missing in order to get the stamp. Their *coercion* and

reward power can thereby also be seen in terms of the amount of guidance they are willing to give to the municipalities.

When asked about who the municipalities during the DK2020 collaboration were to contact in case of questions Bournonville [2024] explains:

> "*In terms of expertise, first it was CONCITO. CONCITO then taught these regional or geographic organizations (DGO's), where they then became the first point of contact. And then in those cases where the first point of contact in the DGO's were not able to answer a specific question, it would be forwarded to CONCITO for them to answer it instead.*" [Bournonville, 2024].

In this quote, Bournonville [2024] explains how CONCITO was the first point of contact for the municipalities when they needed extra expertise. However later on, CONCITO educated the DGO's on how to answer some of the questions from the municipalities and then CONCITO became second point of contact. Thereby, it can be said that CONCITO also have used their *information* and *expertise power* in their relationship with both the regions and the municipalities. This is due to the fact that CONCITO is able to control what information they are willing to pass on depending on that kind of questions they no longer wants to get from the municipalities. However this is not the only situation in which CONCITO provides their expertise. "*CONCITO has been present [in peer-group meetings, ed.], and there have also been other external participants in those discussions to enrich the conversations along the way.*" [Bournonville, 2024] The peer-groups that Bournonville [2024] mentions in this quote is cross regional groups made by CONCITO that gives the municipalities an opportunity to discuss similar challenges found when working with the CAPF. With this it can be seen that CONCITO, from Realdania's point of view, have been in contact with the municipalities in many different ways and thereby uses *co-production of knowledge* in a lot of their work.

6.2.2   The Region of Southern Denmark on CONCITO

Much like with Realdania, Boris Schønfeldt from the Region of Southern Denmark also sees CONCITO as playing a big part in the DK2020 collaboration, not with a financial contribution but with their professional contribution. Schønfeldt [2024] describes how CONCITO have been involved as a professional knowledge partner, which they used in case of: "*(...) questions from your mayor or municipal director, or just yourself when you work, where you think: How is it with this? (...) So both CONCITO and Realdania have played a huge role.*" [Schønfeldt, 2024]. Here, it can also be seen that CONCITO have supported the Region of Southern Denmark by providing the information they needed to support the municipalities. This thereby underline the *information* and *expertise power* they have in this relationship. Throughout most of the interview Schønfeldt [2024] talks about how CONCITO have made an analysis on the CAP's of the municipalities and the solutions that they have chosen [Schønfeldt, 2024]. Here, it can be seen that CONCITO in this situation again uses *co-production of knowledge* to get a collective view on the climate change adaptation work that have been done within the different municipalities.

6.2.3   Vejle Municipality on CONCITO

As seen in 6.1 Jette Vindum from Vejle Municipality describes how CONCITO and Realdania came to them with an opportunity for the municipality to be a part of the DK2020 collaboration. With this opportunity CONCITO would also mentor the municipality in how to make the CAP in a way that makes sure it lives up to the Paris Agreement.

> "*We had a consultant at CONCITO who we met with once a month, every other month and kind of went through, the subjects of how we thought our climate plan looks like and what it should contain, and then we spent that hour getting some mentoring (...)*" [Vindum, 2024].

In the quote, Vindum [2024] elaborates on how they had regular mentoring meetings with CONCITO that helped make sure their climate plan was of high quality. Vindum [2024] added to the subject when reading the quote, that CONCITO helped them shape the CAP so that it would fulfill the requirements, meaning that they themselves did not set the requirements for their CAP. However, some aspects of the process were made by the municipality themselves. This goes for plans directed towards the politicians and the public which CONCITO had not contributed to [Vindum, 2024]. With this it can be seen that Vejle municipality saw CONCITO as a mentor through out the DK2020 collaboration that made sure their CAP was of good quality. This shows how CONCITO's *information and expertise power* have given them *model power* as well, through their mentoring role in relation to the municipalities.

6.2.4   Varde Municipality on CONCITO

In the interview with Varde municipality, when talking about CONCITO the focus is mostly on their role as an expert in relation to Varde municipality. Christine Schoop Gärtner from Varde municipality mentions in the interview how CONCITO have arranged webinars.

> "*CONCITO have held some excellent webinars for us (...) C40, which is the one responsible for the entire certification, we have not had much collaboration with actually. It has mostly been CONCITO, who has been a gate keeper between us and them, so [if we wanted to get in contact with 40, ed.] we have first had a dialogue with CONCITO, and CONCITO had then on our behalf a dialogue with C40.*" [Gärtner, 2024].

Here it can be seen that all contact with C40 went through CONCITO where Gärtner [2024] describes CONCITO as the gate keeper to C40. With this it can be said that there is a complete disconnect between C40 and the municipalities and they therefore have no relationship at all. The relationship between the municipalities and C40 have thereby been dependant on CONCITO and their willingness to pass on questions and information. There is thereby a significant amount of *information power* in this particular part of the municipalities relationship with CONCITO along with *coercion and reward power*.

Gärtner [2024] goes on to explain that the municipality also have had scoring meetings with CONCITO.

> "(...) along the way you get scored by CONCITO, then you have such scoring
> meetings with CONCITO, where they then sit (...) and say: 'This does not live
> up to the Paris Agreement, what can we do here?'" [Gärtner, 2024].

CONCITO thereby have a role as a *sanctioning and coordinating authority*, because they are the ones in charge of making sure the municipalities CAP's live up to the Paris agreement and can give them a good or bad score and thereby uphold the municipalities' commitment to the goals of DK2020. This also makes CONCITO's *coercion and reward power* very clear. Preben Friis-Hauge from Varde City Council, like Gärtner [2024], explains that CONCITO was the ones who help the municipalities get the last parts of the CAP right in order for them to get their DK2020 certification from C40 [Friis-Hauge, 2024]. With this it can be seen that Varde municipality sees CONCITO as the gate keeper to the DK2020 certification but also the ones that help them get the certification.

Below an illustration of CONCITO's identified power relations can be seen.
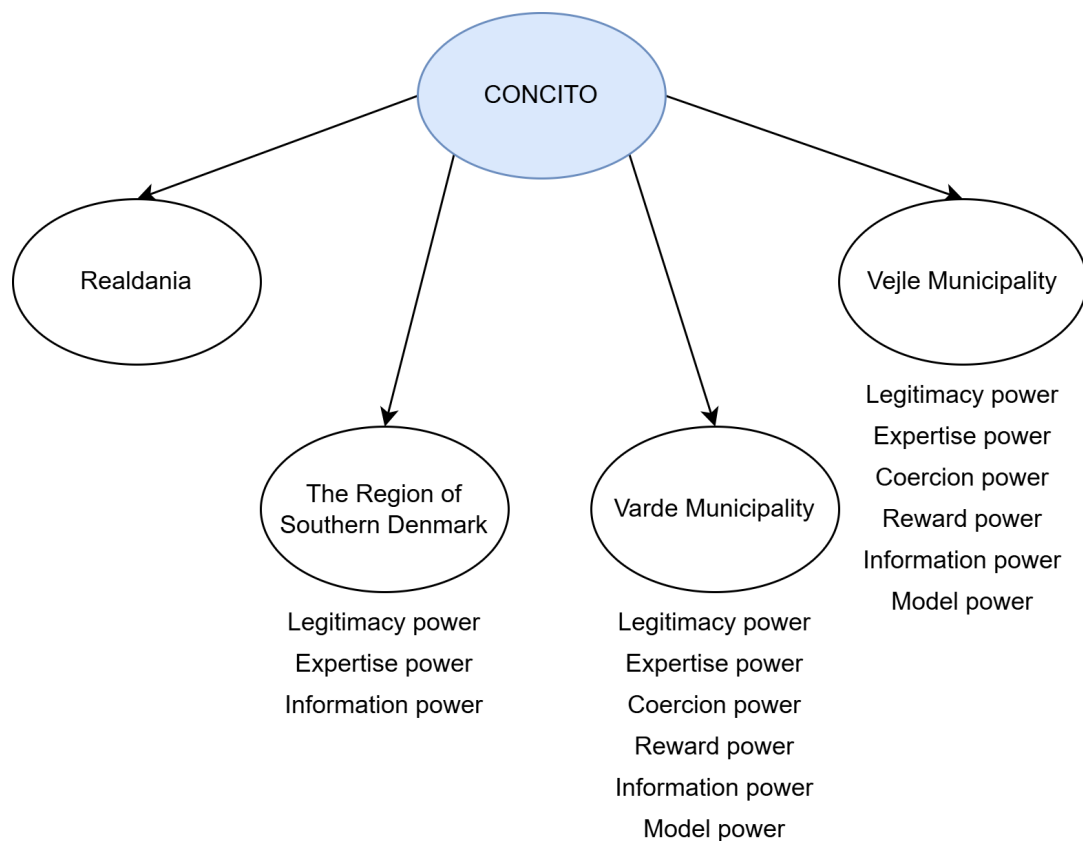

Figure 6.2. Illustration of CONCITO's power relations.

6.3   The Region of Southern Denmark

The Region of Southern Denmark was involved as a partner in the DK2020 collaboration. As mentioned in section 6.1, the region of Southern Denmark is one of the contributors to the collaboration. Other responsibilities of the regions were included in the partnership agreement, as mentioned by Boris Schønfeldt from The Region of Southern Denmark:

> "*There was a formal cooperation agreement, a partnership agreement, which said that the five geographical regions each had to establish geographical organizations [DGO's, ed.] which had to support the preparation of these DK2020 plans. And that the organization, it had to be staffed with the right competencies and ensure that it had the needed volume and size.*" [Schønfeldt, 2024].

As described above, each region, as a partner, had to create positions within their organization to support the work of creating DK2020 plans. These employees would become part of the so called DGO's. Schønfeldt [2024] further adds that the region contributed with resources in terms of financial resources: "*Some financial resources are put into a common pool of money to support things. I think we play a significant role in that cooperation and help.*" [Schønfeldt, 2024]. The Region of Southern Denmark thereby sees that they are an important part of the DK2020 collaboration and have some *legitimacy power* both from being a part of the partnership and by contributing with *provision of capacity* in adding financial resources.

The respondent further states: "*(…) It is a bit of the regional role to try to support [the municipalities, ed.] and also to be accepted as if it is actually being done with the best of intentions (…)*" [Schønfeldt, 2024]. The Region of Southern Denmark is, according to Schønfeldt [2024] looking to help its municipalities in achieving their goals within the DK2020 collaboration, but there can be some difficulties in trying to build this relationship. A reason why the the municipalities might not accept the help of the region at face value is elaborated upon later on.

> "*(…) in some areas, there may be a bit of… competition is perhaps the wrong word, but there is a division in this role of authority that both regions and municipalities have, and some areas are so close to each other, that the surface between them sometimes can be filled with a bit of friction in figuring out where we [both, ed.] are on one or the other [area, ed.].*" [Schønfeldt, 2024].

Schønfeldt [2024] explains that there exist friction between the regions and the municipalities, as their field of authority can come close to overlapping and thereby creating a struggle in figuring out which authority actually is in charge. But the respondent also highlights that being aware of this helped building a very strong relationship and collaboration within the DGO of Southern Denmark. Here it can be said that even though the region do have *legitimacy power* in their relationship with the municipalities, both in legally sense and in the DK2020 collaboration, it might not be as strong as the *legitimacy power* that Realdania and CONCITO have in their relationship with the municipalities.

Legitimacy power is strongest if it considered earned by other stakeholders, and the respondents statements points towards this might not yet have been the achieved, as the municipality to some extents does not seem to accept the power of the region.

6.3.1 Realdania on The Region of Southern Denmark

When talking about how the DK2020 collaboration came to be structured the way it was, Pelle Lind Bournonville from Realdania, explains: "*We very quickly structured something where concrete tasks were made for the people who are sitting within these regional secretariats [the DGO's, ed.].*" Bournonville [2024]. Then doing this Realdania gave the region *legitimacy power* that in turn also gives them the opportunity to influence the DK2020 collaboration. In the beginning of the collaboration, the regions were, according to the respondent, given tasks by Realdania for them to manage. He further describes:

> "*It was first CONCITO [who was the point of contact, ed.] and then CONCITO taught these regional or geographical organizations (DGO's), and then they [the DGO's, ed.] became the first point of contact (...) It was be better to have some employees and some knowledge persons who were sitting even closer to the municipalities (...) We would have had to staff CONCITO with something like 15-20 employees to be able to continue with that, and it was not the good long-term solution. The good long-term solution was to get it down in level, close [to the municipalities, ed.].*" [Bournonville, 2024].

Bournonville [2024] talks about how the regions or DGO's became first point of contact instead of CONCITO in order for them to save resources. By being appointed to take over some of CONCITO's role, the region also receive some of their *legitimacy power*. According to the respondent, having knowledge persons to ask locally, provides better support for the municipalities. With this it can be said that Realdania and CONCITO acknowledge that the region have some *information power* that they them self do not have. By doing this they are also able to use *co-production of knowledge* to built trust between the region and the municipalities by getting in more contact with each other.

When asked about what the regions contributed with to the DK2020 collaboration, Bournonville [2024] responds:

> "*[They contributed, ed.] In many ways, with their own employees, of course, and it still is their own employees as well. In other words, the vast majority of the budget goes to staffing both out in the DGO's (...) So they are completely involved in the subject of it and have been executing out there. The regions have then come up with some, with a little extra in cash - financial resources (...)*" [Bournonville, 2024].

According to the respondent, the regions are providing resources in terms of both personnel and money to the DK2020 collaboration. As mentioned in the quote, a large portion of the money from the project generally speaking, were used for staffing the DGO's, and points to the fact that they have been deeply involved in the project as an executing authority.

He later on describes more specifically the tasks that they were given:

> "*It is very much them who are responsible for the practicalities of arranging these peer-group meetings, so they are also sitting there, and you could also say that they are persons of knowledge.*" [Bournonville, 2024]

The respondent describes how the regions were involved with the municipalities again in terms of being a person of knowledge, they can contact but also the regions having a practical and organising role in the peer-groups, mentioned in section 6.2 above, and thereby are a *sanctioning and coordinating authority*. With this it can be seen that the region also have *information power* in their relationship with the municipalities, but also have *reward and coercion power* in their organising role. With the region being responsible for the daily work with the peer-groups they are also able to organise the meetings of the municipalities in a more or less beneficial way for the municipalities depending on what kind of relationship they have to them.

6.3.2 CONCITO on The Region of Southern Denmark

As mentioned above The Region of Southern Denmark was taught by CONCITO how to give advice to the municipalities, and was also advised by last-mentioned when their competencies ran short. Tue Damsø from CONCITO elaborates:

> "(...) there are geographic organizations, DGO's, (...) and there was the idea that they should be in charge of the ongoing sparring with the municipalities. They are responsible for having regular monthly meetings and commenting on drafts continuously along the way and help them succeed with this process in all the sparring they needed for the project, which is a very complex climate planning task. We sparred with the DGO's continuously (...)" [Damsø, 2024]

The respondent talks about how the DGO's, which also involves the regions, were put in charge of communication and sparring with their individual municipalities, as well as having meetings and advising them on the contents of climate action plans. As Damsø [2024] mentions, the DK2020 collaboration was a difficult task and for that reason CONCITO also kept in contact with the DGO's to assists them when necessary.

Part of why the region was involved as a partner is described by Damsø [2024]:

> "*I think there is great value in having partners who geographically are closer to you, who can come out and drink coffee and hear how things are going. We [CONCITO, ed.] can't do that in all of the country's municipalities, because then I wouldn't do anything else, but (...) it's valuable to have someone who is speaking with the same accent and someone who is closer to the municipalities.*" [Damsø, 2024].

As described in the quote, Damsø [2024] sees an advantage in having more employees closer to the different municipalities, both because it relieved them from continuously traveling across the country to gain insight of the individual municipality, but also because there, according to the respondent, is value in having a local representative that knows the dialect and the local spoken language. It is therefore the job of a region, to talk to the involved climate employees in charge of their DK2020 work within each municipality of the given region about the process and be visible in the process. Therefore, the region also have some *model power* that can make the project approachable and understandable because they are from the same area and therefore see thing from the same point of view. With this it will also be easier for the region to use *framing of co-benefits* in their meetings with the municipalities, than it would have been for CONCITO and Realdania that do not necessarily see things from the same point of view.

6.3.3 Vejle Municipality on The Region of Southern Denmark

When asked about how much they had communicated with The Region of Southern Denmark, Jette Vindum from Vejle Municipality replied:

> "*Nothing more than the fact that, they have been proactive in relation to getting this energy and carbon accounting done on behalf of all of us [the municipalities in The Region of Southern Denmark, ed.]. These first years, they paid for it and then the next years we pay 15,000 a year or something (...)*" [Vindum, 2024]

According to Vindum [2024], during the DK2020 collaboration, they only communicated with the region about the carbon accounting and the process of obtaining those. This stands in direct contrast to what was said by Damsø [2024] in the section above. Therefore, there may not be as much value for all the municipalities in having a local representative, like the region, close to the municipalities as Damsø [2024] thinks there is.

The respondent also mentions that the region had begun collecting data due to DK2020, "*It is probably because of DK2020 that the region became a part of it [gathering data, ed], and said, 'Now we are making data.*" [Vindum, 2024]. Here it can be seen that the region use their *information power* and *provision of capacity* to get this energy and carbon accounting done on behalf of all municipalities and thereby also get a *co-production of knowledge* because all the municipalities now have a the energy and carbon accounting done with the same approach and standard.

When asked about the role of their region in the DK2020 collaboration, Lisbet Wolters from Vejle Municipality, responded:

> "*It [The Region of Southern Denmark, ed.] is just there. It is just some kind of structure. (...) I don't know what to use them for. Well, if they came with some knowledge or some resources or could make some calculations or something like that, otherwise I don't know. I don't have any picture of them at all. (...) And it may also just be me who have not discovered that they have some gold over there.*" [Wolters, 2024]

Wolters [2024] explains that she at the moment does not see the need for the region, but also adds that there could be use for them if they can supply them with resources or knowledge or other contributions that the respondent is not aware of. It can, however, be worth mentioning that the DGO's were, as mentioned previously, not introduced at the same time as Vejle - a pilot municipality - began working on their CAP. This could be a reason for them not having a more meaningful relationship. Thereby, it can be said that the *model power* that the region does have is not as prominent in their relation to Vejle Municipality, due to their status as a pilot municipality where they therefore have a lot of knowledge themselves and of that reason does not need the region as much as others may need them.

6.3.4 Varde Municipality on The Region of Southern Denmark

Christine Schoop Gärtner from Varde Municipality, talks about The Region of Southern Denmark's climate team:

> "*They [The Region of Southern Denmark, red] have had a climate team, where they had one [employee, ed.] on adaptation and one [employee, ed.] on reduction and one [employee, ed.] on such daily dialogue with us (…) We knew that when it's adaptation [we need help with, ed.], then we'll just call the adaptation team, and they will help us. They will probably say: 'I was just talking to so-and-so from Nordfyn Municipality. You just need to talk together.'*" [Gärtner, 2024].

Gärtner [2024] explains that they in their work with DK2020 used the region a lot and that it assisted them in their journey. Here the Region of Southern Denmark would, according to the respondent, use their *information power* and take on their role as a *sanctioning and coordinating authority* to connect municipalities with each other who they knew were either experiencing the same issue, have solved the particular issue, or have an answer to the question asked. The respondent adds that "*The region has coordinated [DK2020, ed.]*" [Gärtner, 2024], and points to their role generally within the DK2020 collaboration. She further states, that "*(…) the day-to-day collaboration has mostly been with the regions across the municipalities (…)*" [Gärtner, 2024].

Gärtner [2024] elaborates further on the region taking another role upon itself:

> "*So we were first put into a forced marriage [with other municipalities, ed.] by our own region [when municipal groups were created, ed.], which was sort of like: 'Well, we've looked at your challenges, and we think you'll be a good fit'. (…) it [the groups, ed.] were something that we were appointed, where we were appointed Vejen and Esbjerg together with Aabenraa, I think, and Haderslev. (…) and then it was about speaking together and say: 'We have this challenge.' 'Well, so have we.' 'Can't we sit down together, then? I think it might sound like my building case officer should talk to your building case officer.' and 'My energy planner need to talk to your energy planner.'.*" [Gärtner, 2024]

As mentioned by the respondent, The Region of Southern Denmark created groups of municipalities to use for sparring during the DK2020 collaboration. The groups were created based on the phase that the municipalities entered the collaboration in. These groups were all orchestrated by the region adding to their role as a *sanctioning and coordinating authority.*

A final task that the region had, according to Gärtner [2024] is a task also mentioned by Vindum [2024] in the section about Vejle Municipality, "*They took the lead in purchasing CO2 accounts for all the municipalities that wanted them. This is how we got CO2 accounts that lived up to the current requirements (...)*" [Gärtner, 2024]. Here the Region of Southern Denmark increased their *model power* as they showed the way forward for the municipalities in terms of climate accounts.

Preben Friis-Hauge from Varde City Council was also asked about the collaboration with the other stakeholders of the DK2020 collaboration such as the region, "*We [city council members, ed.] do not sit in such forum (...) purely politically [I know that, ed.], KL is involved somewhere, and regionally, Danish Regions are looking in from somewhere (...)*" [Friis-Hauge, 2024], and adds that he does not have that kind of knowledge since the employees of the municipality handles the day-to-day work [Friis-Hauge, 2024], which could be why the respondent did not mention more about the collaboration with the region.

Friis-Hauge [2024] does, however, talk a little bit about the role of the region from the municipal perspective:

"*(...) the regions do not have the skills for a lot of things (...) There is no reason to coordinate intensely in many areas between the two [the municipalities and the region, ed.] because we have different competencies on what it is we are allowed to do as a municipality and what the region is allowed to do as a region.*" [Friis-Hauge, 2024].

In the quote, Friis-Hauge [2024] elaborates on the fact that that there is a separation of authority in terms of subjects, and also mentions the difference of competencies, there, according to the respondent, is between the region and the municipality, as they have different areas to focus on.

The respondent does, however recognize, that there is some dialogue between the two parties:

"*There is some dialogue, crisscrossing [between the region and the municipality, ed.] (...) [But, ed.] They are two very different worlds. The regions have the task they have with health and psychiatry, and then there is a little bit of regional development and public transport and soil, drugs and the environment, soil pollution and things like that. And then the municipalities have everything else. It is not the case that the region is a political layer that decides and approves what the municipalities do.*" [Friis-Hauge, 2024].

There are some discussions going back and forward between the region and the municipalities, as also mentioned by Gärtner [2024], but the respondent also adds that the region has its areas of authority and furthermore does not have specific power over the municipalities on all other subjects and therefore do not have *legitimacy power* in that aspect.
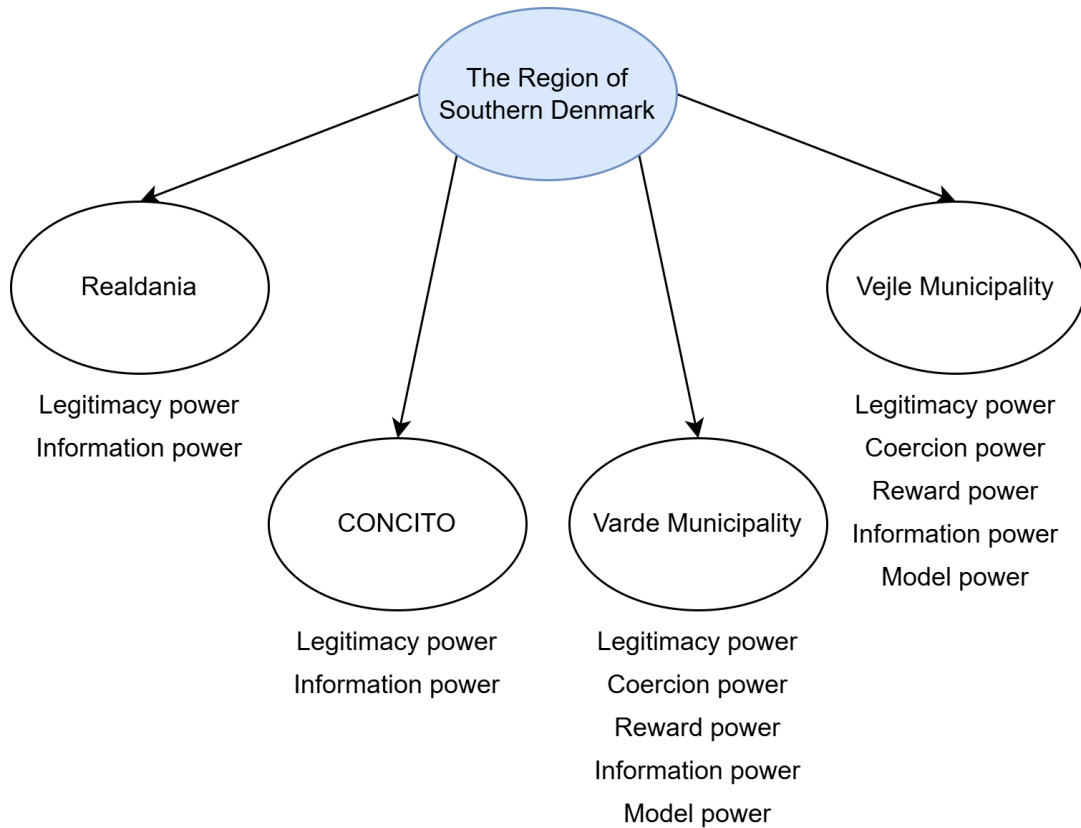
Figure 6.3. Illustration of The Region of Southern Denmark power relations.

6.4 Municipalities

In this section the role of the municipalities in the DK2020 collaboration will be illustrated based on how the stakeholders view the municipalities. Each stakeholders' view on the municipalities will be presented individually and the power that the municipalities holds will be illustrated continuously with each stakeholder. In addition to this the municipalities role will also be analysed in the context of MLG.

6.4.1 Vejle Municipality

Vejle Municipality joined as mentioned previously the DK2020 collaboration during the very beginning, in the pilot project phase of DK2020. Jette Vindum from Vejle Municipality talks about the practical concepts of entering the collaboration: "*(...) There we made an application to the city council in April 2019, that we should apply [for the DK2020 pilot project, ed.], and they said yes to that, and then we did it.*" [Vindum, 2024]. The official application was, according to the respondent, made from the municipal employees for the city council members to agree upon and approve.

Søren Peschardt from Vejle City Council mentions how entering DK2020 put focus on the climate topic internally within the city council:

> "*We were one of the first municipalities to be part of that collaboration, so that was the starting point for getting it off the ground looking at the municipal political effort in terms of climate. (...) Up until then, there were some discussions also in Vejle City Council about whether climate challenges were man-made at all (...)*" [Peschardt, 2024].

With this is can be said that the DK2020 Collaboration made it possible for the city council to use it as a way of *framing of co-benefits* in relation to climate action.

The DK2020 collaboration requires the use of resources to e.g. employees as also mentioned in the previous sections. Some of these resources in terms of money come from Realdania and the region, but the municipalities does also contribute with financial resources: "*It is paid per municipality per capita. Therefore, we pay a lot of money to a secretariat employee (...) There is a [secretariat employee, ed.] in each geographical organization.*" [Vindum, 2024]. With this money that they pay to be a part of the collaboration gives the municipalities some *legitimacy power* along with it being a voluntary partnership. This money goes towards a secretary hired by the Climate Alliance working within the DGO's. As Vejle Municipality is a municipality that has a large population compared to e.g. that of Varde Municipality, they are spending more money for their participation and therefore will have a little more *legitimacy power*.

Money is a theme that was touched upon by several of the respondents. Peschardt [2024] mentioned the resources of the municipality in a context of implementation of climate change adaptation:

> "*We are a privileged municipality. We are in a good place. We have a healthy economy and so on (...) but we also have some challenges and one of the challenges [is that, ed.] the municipalities in general in Denmark (...) they are quite tightly controlled by the Minister for Finance and thus by the Danish Parliament (...)*" [Peschardt, 2024].

The respondent explains how there are limited resources given to the municipalities from state actors, meaning that they have to prioritize how and where to spend it. Lisbet Wolters from Vejle Municipality also points out the fact that the municipalities are governed by a cap of construction for how much money they are allowed to spend on construction of e.g. climate change adaptation initiatives and therefore are limited in their use of their *provision of capacity* [Wolters, 2024].

One way to save resources is to use knowledge already created by learning from the other municipalities in the DK2020 collaboration. Peschardt [2024] points to that: "*(...) I am very much advocating [during the DK2020 collaboration, ed.] that we do not reinvent the wheel every time, but that we look around within Denmark: 'What do other municipalities do in similar situations?', and that we constantly learn from each other and best practice?*"

[Peschardt, 2024]. Using *co-production of knowledge* and learning across municipal borders could be a way to save their limited resources.

Vindum [2024] explains to what extent this is done in practice within their municipality:

> "(...) as we are a pilot municipality, there were only 20 municipalities that were the first, so (...) the others have only just begun with their climate work. We are not quite on the same level." [Vindum, 2024].

The respondent points to a fact also mentioned earlier in this section, that Vejle Municipality was chosen for the pilot project, and thereby started making their climate action plans before other municipalities. This resulted in Vejle Municipality as well as the other pilot municipalities having some *information power* in relation to the other municipalities from the other phases of the collaboration because they have more experience with the work. According to Vindum [2024], it was therefore difficult to actually use *co-production of knowledge* during DK2020 and learn something from the other participants. The respondent does, however, mention a few collaborative partners, that they have used:

> "(...) Fredericia, Assens and Sønderborg are some of those in the Region of Southern Denmark, which are also pilot municipalities like us (...) We can use each other for, 'Well, you are doing that too?' and try to get some good ideas [from them, ed.]. The politicians also request that we remember to ask the others what it is they are doing and where might there be someone who can inspire [us, ed.]." Vindum [2024].

Other pilot municipalities such as Fredericia and Sønderborg, who were presumably going through the same tasks at the same time as Vejle were therefore considered to be of use in terms of knowledge sharing. The respondent furthermore confirms the fact that the city council members has pushed for them to use *co-production of knowledge* as also mentioned by Peschardt [2024]. This they also did according to Vindum [2024], as she mentions how the pilot municipalities and all municipalities generally have meet once a year.

Wolters [2024] also talks about the role they played when they had finished their CAP before the end of the DK2020 collaboration:

> "(...) it took a long time before it [DK2020, ed.] was completed. Then, we already had our [climate action, ed.] plan, because we were some of the first [to enter DK2020, ed.] (...) afterwards, we were the kind of people who were pulled in to talk about what we had done." [Wolters, 2024].

Wolters [2024] points to the fact that they as a municipality were not occupied with making the CAP for the entirety of the collaboration as they had begun before and therefore finished before most other municipalities. They were then used as an advisor to the other stakeholders to draw from their experiences and here gained *model power* in their relation to the other municipalities because of their *information power*. With this it can be argued

that Vejle Municipality also have gained some *expertise power* because of the amount of *model power* and *information power* they have. Thereby Vejle also gains some *coercion and reward power* because they are able to pick and choose who they want to share their knowledge with.

6.4.2   Varde Municipality

Christine Schoop Gärtner from Varde Municipality talks about how the municipality joined the DK2020 collaboration: "*(...) it works in such a way that you get a political decision saying; 'Now we have to do this DK2020 [project, ed.]', and afterwards there is some civil servant - which was me - who finds out what is this [collaboration, ed.] actually.*" [Gärtner, 2024]. According to Gärtner [2024], the decision to join were made by the city council members and then the task was handed down to a municipal employee to handle the daily work of the project. The tasks created the by the city council members are through their *legitimacy power* passed on to for the municipal employees to take on.

Preben Friis-Hauge from Varde City Council further elaborates on their work specifically in term of DK2020: "*It is the employees who work with the daily operations under of DK2020 (...) And then we [city councillors work, ed.] very politically with: what do we spend money on, or do we need to redistribute some resources (...)*" [Friis-Hauge, 2024]. The setup of Varde Municipality is therefore similar to that of Vejle Municipality where the day-to-day work is done by the municipal employees and the more administrative and financial decisions are up to the city council members to make. Varde Municipality therefore have the same *provision of capacity* issues as Vejle Municipality.

The respondent also adds that they in the city council were the ones to decide upon whether or not the municipality should join the DK2020 collaboration, as it in principle is a voluntary project to join [Friis-Hauge, 2024]. Varde Municipality therefore, again, have *legitimacy power* as it was the case with Vejle Municipality.

Varde municipality joined the DK2020 collaboration during phase one in 2020. Gärtner [2024] elaborated on being a phase one municipality:

> "*(...) the vast majority of municipalities were [in, ed.] phase one, there were a lot of resources, and there were a lot of neighboring municipalities as well, and [these, ed.] municipalities would be able to match us in terms on how far they were in the process.*" [Gärtner, 2024].

The respondent points to the amount of resources there were available for them to use, and also points to the fact that they could mirror their progress in other municipalities process, that were also a part of phase one. This was not the case for Vejle Municipality because they were only were 20 pilot municipalities. Therefore, Varde Municipality had more *information power* then Vejle when talking about the amount of other municipalities to draw information and inspiration from and have a bigger opportunity to use *co-production of knowledge.*

Gärtner [2024] further elaborates on the construct of the collaboration between the municipalities: "*They [the stakeholders of DK2020, ed.] have forced the municipalities to cooperate. (...) It was the climate coordinators across municipalities, who had to put all kinds of people together [to cooperate, ed.].*" [Gärtner, 2024] As a main aspect of the DK2020 is for the municipalities to work together, there is a risk of if becoming a chore if forced upon them. However, making the municipalities collaborate were, according to the respondent, a foundational aspect of the DK2020 project [Gärtner, 2024].

[Gärtner, 2024] talks during the interview about several types of collaborative groups that Varde Municipality had participated in during DK2020. One group was briefly mentioned, which was used for knowledge sharing across the Region of Southern Denmark, where they according to the respondent were around 11 or 12 municipalities [Gärtner, 2024]. However, the collaborative group that was mentioned the most by the respondent, were the so-called partner groups created by the region which were also previously mentioned in section 6.3. Here, Varde Municipality were partnered up with Aabenraa, Haderslev, Vejen, and Esbjerg Municipality for them to exchange experiences and ideas [Gärtner, 2024]. Gärtner [2024] explains the use of the groups:

> "*(...) it has been about saying: 'We have this challenge.' 'Well, so do we.' 'Can't we sit down together?' (...) 'I think it might sound like my building case officer should talk to your building case officer. My energy planner should to talk to your energy planner.'*" [Gärtner, 2024]

The network groups were used for coordinating across different municipal employees who could benefit from discussing procedures, approaches, or practices. According to Pelle Bournonville from Realdania, so-called peer-groups were also created for the municipalities to share knowledge and solve problems across regional borders for a specific issue Bournonville [2024] and thereby not for everyday contact as it was the concept for the other groups mentioned by Gärtner [2024]. Through these various groups the Varde Municipality could increase their *co-production of knowledge* during communication with municipalities with similar issues. They would, furthermore, be able to address their contained *information* regarding climate change adaptation and their previous experiences with the topic and their local solutions previous implemented.

6.4.3   Realdania on the municipalities

Within the financial aspects of DK2020, the money is distributed to the different stakeholders. Pelle Lind Bournonville from Realdania talk about how the municipalities are involved: "*The municipalities are both in number and in terms of the amount of grants the ones that receive the most [money, ed.] from us. It is very much the municipalities that are the consumer of what we do (...)*" [Bournonville, 2024]. Bournonville [2024], describes the municipalities as the consumer of DK2020 and are therefore also the ones who receive the most financial contribution from Realdania. Here, some of the municipalities' *legitimacy power* can be seen in Bournonville [2024] calling the municipalities the consumer. The DK2020 collaboration is considered dependent on the participation of the municipalities. Without the municipalities to "consume" the collaboration or the "product", then the

project would lose significance due to no municipalities available for consumption of the product. The product would thereby begin to lose importance and impact.

One thing, that it can be assumed that the municipalities spend some of these resources on, is participating in knowledge sharing. As stated in the previous section, Bournonville [2024] mentions peer-groups:

> "(...) The peer-groups were organised within each phase [of DK2020, ed.]. (...) It was organised across the regions, so it was a way where you could gather several [municipalities, ed.], who were struggling with the same challenges, and most municipalities were members of more than one [peer group, ed.]. For example, Vejle, was insanely far on resilience because of their experience with RC100 [100 Resilient Cities, ed.]. They really helped lift [the group, ed.]. On the other hand, they sat as complete beginners on mitigation." Bournonville [2024]

Bournonville [2024] explains how these peer-groups were to focus on one single theme touched upon by DK2020, such as mitigation or resilience. In the groups, the goal was to bring together employees from various municipalities from all over the country who both had experience within the specific field and also municipalities who were newcomers to that field, for them to share knowledge, and learn from each other. Hereby knowledge was also shared across municipal borders. The respondent also mentions, that due to the fact that one group only discussed one topic, municipalities could be involved with multiple groups and thereby expanding the knowledge sharing across municipalities and regions further. By doing this, different municipalities can have *information power* in some groups and no *information power* in another group depending on what kind of experience they have. By having these groups they used *co-production of knowledge* to share the *information power* from one municipality to the others and ultimately contribute to the enrichment of the entire organization as the knowledge would spread.

Bournonville [2024] also elaborate on the role of a municipality entering at the pilot phase of the project in relation to municipalities from other phases: "(...) In some cases, they [the pilot municipalities, ed.] have been involved and played some kind of role in relation to this. But not really. There is also a bit of competition among them [the municipalities, ed.]." [Bournonville, 2024]. The respondent mention here that some of the municipalities, who entered at the pilot phase of DK2020 to some extend have been collaborating with the municipalities from other phases, but not to its full potential. According to Bournonville [2024], this can be due to competition between the municipalities. With this it can be said that Bournonville [2024] sees the pilot municipalities having some *coercion and reward power* over the other municipalities. This underlines Vejle Municipality's *coercion and reward power* which was mentioned earlier.

Having all these different groups and all this communication across municipal borders were encouraged by Realdania so they could save time and resources:

"*'Don't go down a road where you think you have to develop the whole thing yourself, when five other [municipalities, ed.] have already made the same mistakes. Now just take their experiences and then make it even better (...)' There are no copyrights (...)*" [Bournonville, 2024].

The municipalities were recommended to talk together and use each other as much as possible since there were no legal ownership on e.g. the process or structure of the CAP's. By doing this during the ongoing DK2020 collaboration, improvements within different municipalities could be implemented. As *provision of capacity* demands, for the DK2020 collaboration to be successful it is necessary to make sure that knowledge can be mobilised with in the collaboration.

6.4.4   CONCITO on the municipalities

Tue Damsø from CONCITO talks about the work with the framework when creating the CAP's:

"*(...) You have some criteria [in the framework, ed.] on how to make that [climate action, ed.] plan: that you get it anchored widely in the municipal organization, that you have a good managerial and political anchoring of the work, that you talk to the important stakeholders within the municipality about their preferences and priorities, and that you get them involved with the plan, so that they become co-owners of it.*" [Damsø, 2024].

The respondent explains that the municipalities had to accommodate the specific way of work that is required for them to have their CAP's certified by C40. To do this they had to e.g. work thoroughly with the project internally, and contact other stakeholders that might not have been involved in climate change adaptation in earlier projects. In this quote it is clear that Damsø [2024] sees *framing of co-benefits* with the stakeholder in the municipality as being very important if the municipality wants to make a good CAP, they therefore have to become "co-owners" and thereby increase their internal engagement of the process.

Some work within the municipalities were therefore required, but as the respondent points out, "*They [the municipalities, ed.] have signed up for [the DK2020 collaboration, ed.] themselves, you could say. They even applied to join (...)*" [Damsø, 2024], and thereby underpins that the work necessary to some extent were brought on through internal agreement. Again the *legitimacy power* of each municipality is highlighted.

Damsø [2024] lastly touches upon the subject of the municipalities, and the legal boundaries that surrounds them:

> "(...) generally, the municipalities are enveloped by legislation. In principle, they have a mandate through the municipal authority rules to do a lot of things. [But, ed.] there are a number of limitations on their work [within the field of adaptation, ed.] (...)" [Damsø, 2024].

In the quote, Damsø [2024] explains that the municipalities do have the possibilities of acting and making decisions but the respondent also acknowledges that they to a great extent are bound by many legal and administrative boundaries when it comes to climate change adaptation, limiting their possibilities of making changes. A *sanctioning and coordinating authority* in terms of the parliament is in charge of the setting the boundaries of which the municipalities shall to work within. Here no stakeholder holds more *legitimacy power* compared to that of legislation.

6.4.5   The Region of Southern Denmark on the municipalities

Boris Schønfeldt from the Region of Southern Denmark address how the municipalities have gone into the work of the DK2020 collaboration: "(...) it [DK2020, ed.] has been a voluntary effort." [Schønfeldt, 2024]. He points out, that the effort the individual municipalities put into this DK2020 collaboration had an aspect of a voluntary effort as the progress was driven by the workers within the municipalities. Joining DK2020 was, as mentioned earlier, not mandatory and the municipalities therefore have the *legitimacy power* to decide whether or not they would like to be involved in the project. Schønfeldt [2024] elaborates on this aspect of the internal work of the municipalities in saying that it usually is, "(...) the individual climate worker in the municipality, who is actually just told by his city council: 'Now we need some action, it has to go fast, now we have to be able to see some change.'" [Schønfeldt, 2024]. According to the respondent, it is the city council of the individual municipality that to some extent drives the decision making forward and then afterwards pass those tasks on to the municipal employee for them to fulfill these tasks. Such aspect was also pointed out by Gärtner [2024] in section 6.4.2. A reason for the city council members to pushing for change, could be due to political pressure from the outside, either from the surrounding political landscape or from the general agenda of societal opinions. Here the *coercion* and *reward power* of the public or the media can become a factor to consider when making decisions for the municipality.

This dynamic of the city council members setting the agenda can however be difficult:

> "*All the people I meet on my way in this, are people who are passionate about it personally. They fundamentally have a sustainability mindset, a climate mindset, a concern for society (...) it can get a little personal when you experience the decision that was supposed to be made and is completely obvious, but wasn't made by the politicians or by the bosses, or that it wasn't prioritised to the same extent as you wanted. It can affect you personally (...)*" [Schønfeldt, 2024].

In the quote, it is explained how working within a political organisation, where the decisions are not made by you, can be a difficult environment to work within, if you do not agree with the decisions made by the city council or the boss. This might not be current for all employees all over Denmark, but that is the main amount of the people, that the respondent meets.

A difference is, however, to spot elsewhere: "*The people who have mainly been hired to make the climate action plans have had different educational backgrounds (...)*"[Schønfeldt, 2024]. Schønfeldt [2024] have thereby notices with his work, that the employees working within the municipalities have undergone various education, given them different competencies to address the task in DK2020 and thereby have different types of *information power*.
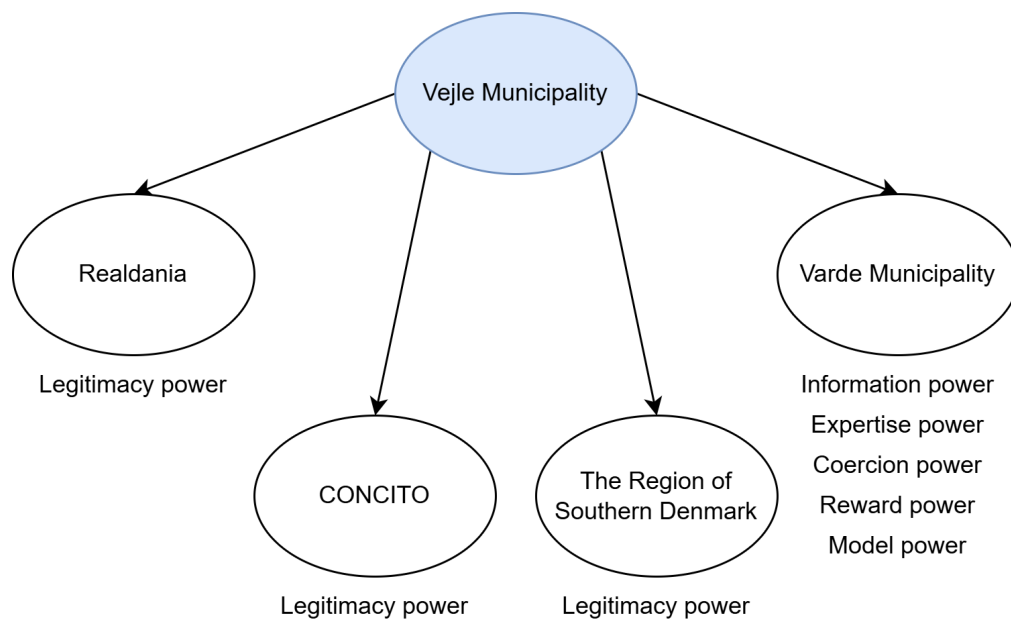
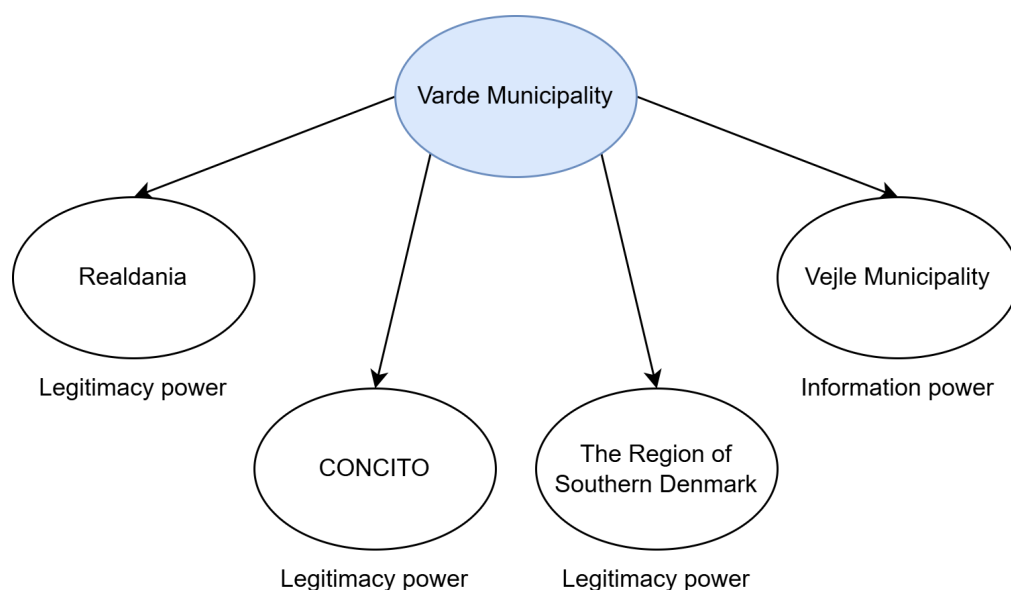**Figure 6.4.** Illustration of Vejle Municipality power relations.

Figure 6.5. Illustration of Varde Municipality power relations.

6.5 Sub-conclusion

This chapter looked into the relationships between the different identified stakeholders within the DK2020 collaboration and the types of power these relationships hold as well as the components of MLG present. Here it was found that Realdania is the initiator of the DK2020 collaboration and thereby held a lot of *legitimacy power* over the other stakeholders. Because Realdania held the chairmanship they also had the role of *sanctioning and coordinating authority*. One of Realdania's main roles in the collaboration was being a financial contributor to the other stakeholders which also gave them a lot of *coercion power* and *reward power*. By being the financial contributor Realdania were also able to use *provision of capacity* to make sure the DK2020 collaboration was successful.

In this chapter it was also found that CONCITO was the knowledge partner of the DK2020 collaboration and thereby held an amount of *information power*. With this power CONCITO were also able to use *co-production of knowledge* in their relation to the municipalities. CONCITO's main role in the collaboration was to mentor the municipalities and help them with developing their CAP's and the stakeholder thereby also had *model power* in their relationship with the municipalities. In this relationship the municipalities also saw CONCITO as the gate keeper to the DK2020 certification and therefore CONCITO also had a lot of *coercion power* and *reward power*.

In relation to the Region of Southern Denmark it was found that a big part of their role in the DK2020 collaboration was to support the municipalities in achieving their goals within DK2020. This role could in some instances be difficult due to friction between the stakeholders. The way in which the region supported the municipalities was by helping with the energy and carbon accounting for all the municipalities and giving advice based on their local knowledge. The region also used their local knowledge to create groups of municipalities with similar issues and thereby use *co-production of knowledge*. Here it can be said that the regions *information power* have been important in their relationship with the municipalities and have used this to gain more *model power*. The power of the region was, however, found to depend on the phase of which the municipalities entered the DK2020 collaboration.

It was found that the municipalities have some *legitimacy power* because their participation in the DK2020 collaboration was voluntary. It was also seen that the city council was able to use the DK2020 collaboration as a way of *framing of co-benefits* to create climate action. When it comes to the DK2020 collaboration itself, there was a lot of *information power* between the municipalities. This power could be seen in the peer-groups where they shared information by using *co-production of knowledge* and the more information a municipality had to give the more *information power* they had and could thereby also gain some *expertise* and *model power* over the other municipalities. This was e.g. seen with Vejle Municipality as a pilot municipality.

Stakeholder experiences from the DK2020 collaboration 7

In this chapter the identified stakeholders' experiences from DK2020 expressed in the interviews will be analysed with the use of power theory conclusions drawn from chapter 6 and MLG. Throughout the chapter the experiences of the individual stakeholder will have its own section that will be structured based on the different themes of experiences expressed by the respondents in the interviews. These different themes on the stakeholders experiences will continuously be set in context to both power theory and MLG.

7.1 Realdania

This section will investigate the DK2020 experiences of Realdania in terms of organization of the collaboration, the resources available, the collaborations between municipalities and the region as well as the projects' contribution for future work within Realdania.

7.1.1 Organization of the DK2020 collaboration

Pelle Lind Bournonville from Realdania, comments on his experiences with the DK2020 collaboration: "*From Realdania's side, I have no regrets. I never thought: 'It's such a shame. Why didn't we do this instead'*" [Bournonville, 2024]. The respondent is therefore all in all satisfied with the outcome and the process of the collaboration but does not reflect further on their internal experiences. This could in the words of MLG be due to a lack of *sanctioning and coordinating authority* positioned above Realdania in the DK2020 collaboration meaning that no authority is present to uphold accountability in terms of the organizational structure.

Bournonville [2024] does however, reflect on the structure of the collaboration as a whole:

> "*(...) we were essentially was laying the tracks while we were moving because there was such a demand. And I think that - in some way - is positive, and then we make some mistakes along the way, and we can live with that as long as we deliver something really, really quickly (...) Even though, you know, that's how it is, and there are some risks in that. There might be some smart people who say, well, you should have done X, Y, and Z, which we didn't do, but on the other hand, we now have 96 municipalities with completed CAP's, which we wouldn't have had if we had taken more time to think about it.*" [Bournonville, 2024].

Bournonville [2024] describes how there was not a lot of time spent on planning the actual DK2020 collaboration project due to the high demand from the stakeholders and the fact that they wanted to deliver results very quickly. The fact that the *sanctioning and coordinating authority* to some extends did not have a plan for the project that they were in charge of can be argued to not be the most optimal process, due to the risk of unforeseen events affecting the project. However, since Realdania holds a great amount *expertise power* in planning large climate change adaptation projects, some risk is removed.

In continuation he also reflects on the fact that they might have made mistakes due to them being affected by this outside pressure, but, in his opinion, it would not have been possible to have 96 municipalities with completed CAP's if they had taken more time to think it all

the way through and therefore would not have done anything differently if he were to do it again. Despite of some problems in the planing and organisation of DK2020 Bournonville [2024] still sees the DK2020 collaboration as a big success. It is deemed as such since the collaboration has contributed to Realdania having more focus the planning aspects which has resulted in them having the opportunity to create so-called sister projects and campaigns e.g. Plan22+ [Bournonville, 2024].

Bournonville [2024] backs his statement of the project leading to great results by referring to an evaluation made of the collaboration that has not yet been published:

> "*[Generally, ed.] It is a very positive evaluation. It is very clear in its explanation of the need we have fulfilled. And it is very clear both in the counterfactual analysis, that had we not provided this for the municipalities and created this collaboration around it, then climate planning in Denmark would not have been in the same place. It just wouldn't have. It is very clear about the results we have achieved.*" [Bournonville, 2024].

Here, Bournonville [2024] explains that the evaluation that they have made shows very positive results of their work and that without the DK2020 collaboration the Danish municipalities climate planing would not have been at as high of a level that it is today. This is due to the results that Realdania have made in the form of having the municipalities create individual CAP's.

A reason for the respondent to comment on evaluations of the collaboration as a whole, can be due to Realdania being the *sanctioning and coordinating authority* of DK2020, where they thereby are in charge of managing the project and have to ensure public policy goals, which in this case would be having all municipalities finishing their CAP's. Opposite to the theoretical conclusions drawn above, Realdania can be held accountable in reputation for the project outcome and the results it generates. This could therefore be a reason for the respondent to highlight the evaluations compared to their internal experience.

The respondent does, however, mention an aspect where the evaluation showed less succeeding results:

> "*Of course, it also points towards some things that we can do better and one of the things that it points in the direction of, is how you have succeeded in getting the political level engaged in the machine itself. That has been difficult. We had gotten the political level organised, locally, but the political level of the overall partnership could have been better.*" [Bournonville, 2024].

The not yet published evaluation shows that some aspects of the political landscape was not involved to the extent that could have been optimal. According to the respondent, this was one of the challenges the organization of DK2020 produced. They thereby failed to secure full *engagement of civil society* and it can be argued that they also did not tap into the *legitimacy power* that politicians have similar to that of city council members, as mentioned in section 6.4.

7.1.2   Resources within the municipalities

Bournonville [2024] also reflects on how the municipalities has approached the task given their available resources. During the interview, he was asked about his view on the municipalities' experiences with being a part of the DK2020 collaboration:

> "*It has been a difficult task. I think it has been challenging in itself to make the [Climate Action, ed.] plans. The framework is relatively simple when you look at it, but when you have to live up to it, there are many aspects that needs to be considered.*" [Bournonville, 2024].

With this Bournonville [2024] explains how the complexity of the CAP Framework is what have made the task challenging for the municipalities to work with despite it's simplistic look. This could be due to the fact that the CAP has to be tailored to all aspects of the municipality which seem simple enough, but having to execute it is much more complicated and may require a lot of resources [C40 Cities Climate Leadership Group, 2020]. The broad scope of the requirements were also mentioned in section 6.4. Therefore if a municipality does not have the needed *expertise power* within the field, as it was seen with Varde Municipality, the process will require added use of *co-production of knowledge* through sparing and communication with other stakeholders.

In addition to this the respondent has also seen that the municipalities have struggled with having the right resources.

> "*Sometimes there have been some resource challenges. There has actually also been a relatively clear challenge in having sufficient competencies. In the sense that there weren't many experienced climate action planners out there, and those that were, were snapped up, and it turned out to be insufficient. They then started steal from each other. It actually meant that a handful of the very last municipalities that reached the goal did came in last because their employees transferred along the way.*" [Bournonville, 2024].

The lack of educated planners with the needed resources in terms of competencies, made it very difficult for some municipalities to finish their CAP within the appointed time frame. As the DK2020 collaboration required a relatively large use of resources for the municipalities, their rate of progress would to a large extend depend on their access to the needed resources where municipalities with smaller access in the process would fall behind municipalities with better access to resources. In the context of MLG it can been seen that *provision of capacity* have been an important part of the individual success of the municipalities. Some municipalities have had problems with resources and thereby *provision of capacity*, in the form of competent climate planners. This lack have meant that some CAP's have taken a longer time then necessary to be completed.

7.1.3   Collaboration between municipalities

Despite the stealing of planners, mentioned in previous section, Bournonville [2024] thinks that the collaboration between the municipalities - at least in the peer-groups - worked well.

> "*I have a clear impression that the cooperation between the municipalities in these peer-groups has gone really well and has been a huge value for them. And I have not at any point perceived any dissonance or conflict between them.*" [Bournonville, 2024].

The respondent has the impression that, when it comes to the peer-groups, there have not been much conflict between the municipalities. *co-production of knowledge* has been important for the success of the peer-groups, and as the municipalities have contributed to this success, they have thereby supported the success of DK2020.

He does, however, acknowledge that his knowledge on the success of municipal collaboration is limited: "*Since I am in the top management of a large project, like this, I therefore only have an anecdotal knowledge base.*" In terms of knowing how the municipalities thrived within the DK2020 collaboration, Bournonville [2024] can therefore not be considered a firsthand source, as he himself has not experienced the actual collaboration between municipalities in progress. This can be considered normal for a stakeholder being the *sanctioning and coordinating authority*, where their main goal is to keep track of externalities and secure coordination.

The respondent also explains how he has experienced that the collaboration and communication between the municipalities have changed with DK2020 collaboration:

> "*(…) one of the things that the municipalities have said (…) is that now they talk to each other in a completely different way than they did before. They have developed a common language. They now have something in common to talk about because they have all gone through this process.*" [Bournonville, 2024].

The participating municipalities have, according to the respondent, expressed that their way of communicating and collaborating have changed as a result of the DK2020 collaboration. A reason for this is the creation of a common language to talk about climate action planing which can increase their *co-production of knowledge*. This common language is something that Bournonville [2024] thinks can help the municipalities, especially when it comes to collaborating on climate change adaptation:

> "*I think it's a relevant question regarding climate change adaptation because they sometimes need to think in a different direction. Especially so that they don't just move the problems across municipal borders. I also think they have created some forums where they can have these conversations (…)*" [Bournonville, 2024].

Here, Bournonville [2024] explains how it can be difficult for the municipalities to collaborate when it comes to climate change adaptation that goes across their administrative borders and that the conflict might become to difficult for themselves to resolve. As they in such larger projects already are communicating across stakeholders vertically and horizontally, having now obtained a common language to address their issues, can be a way for them to better the outcome of future collaborations. Having a *sanctioning and coordinating authority* to ensure the *framing of co-benefits* in having a common language has, according to the respondent, bettered the municipalities' abilities to plan and implement climate change adaptation.

7.1.4 Collaboration between the regions and the municipalities

Bournonville [2024] also comments on his experience of the collaboration between the regions and their municipalities. According to the respondent, DK2020 has lead to a forum where there is room for such vertical collaboration, and this has in itself been a success [Bournonville, 2024]. The respondent thereby points to how some of the success of DK2020 stem from the *co-production of knowledge* that was created with the collaboration with the municipalities and the regions.

He also sees them being more involved together in planning of larger climate change adaptation initiatives, however, there should be limits to this collaboration:

> "*(...) [in the topic of climate change adaptation, ed.] there is a clear need for some form of regionalized planning initiated by the state because there's too much bickering between the municipalities and the regions. It is the regions that should take some kind of leading role but it doesn't work. The regions can easily support it, but they can't lead it.*" Bournonville [2024]

Bournonville [2024] thereby has the impression that the municipalities can have some trouble collaborating with the region when it comes to climate change adaptation. This tension was also mentioned by Schønfeldt [2024] in 6.3. Here, Bournonville [2024] sees the benefit of having a *sanctioning and coordinating authority* to assure that the goals are meet without having too much conflict. Even though it was concluded in section 6.1 that Realdania in DK2020 functioned as the *sanctioning and coordinating authority*, the respondent states that when it comes to the handling such larger tasks this role should lie at state level. Such solution can bring benefits in terms of *provision of capacity*, as it can be argued that a newly created state authority would be able to gather more resources compared to the regions. Furthermore, a state level stakeholder would have the potential to hold more *model* and *legitimacy power* than the region as there would be no history of tension between the stakeholders.

7.1.5 Contribution for future work

A last experience from the DK2020 collaboration for Bournonville [2024] to highlight is the fact that it has improved their chances of making changes on a higher, national level.

> "*We have also succeeded in getting them [the municipalities, ed.] to orient themselves a little more internationally. Now we are standing on a really, really strong platform in terms of talking with the state.*" [Bournonville, 2024].

With this Bournonville [2024] points out that DK2020 have expanded the horizon of the municipalities by making them look more so at what the international standards are instead of just looking at national standards and thereby raising their level of ambition. Bournonville [2024] also state that the DK2020 collaboration has given Realdania more warranty in their communication with the Danish state about climate planing on a national level. Realdania is thereby able to use both their gained *expertise power* and *framing of co-benefits* to talk to the Danish state about them taking more action when it comes to initiating climate mitigation and climate change adaptation in the future.

7.2 CONCITO

This section will investigate the DK2020 experiences of CONCITO in terms of building up competencies and resources during the collaboration as well as their experiences with the work of the municipalities and their reflections to received feedback.

7.2.1 Building up competencies and resources

When reflecting on the experiences from the DK2020 collaboration, Tue Damsø from CONCITO highlights the process of building up competencies:

> "*Before DK2020, there hadn't been an NGO in Denmark that had taken the lead in supporting the climate work of the municipalities in this way. It wasn't really something that was prominent in a Danish context, but it is now, because we have established it. There has been a broad amount of competence building in the Danish municipal landscape, I would say, also among us. And hopefully, we can also deliver on the plans that have been made, but so far, it [the DK2020 collaboration, ed.] has certainly generated quite a lot of interest just by the fact that it succeeded in getting them [the CAP's, ed.] made.*" [Damsø, 2024].

Here, Damsø [2024] explains how, because CONCITO was the first NGO to support the municipalities in their climate work there have been a competence build up, meaning that the learning curve have been steep. Damsø [2024] also point out that the attention they have received and the interest they have seen is just based on the fact they have been successful in the goal of DK2020 in terms of creating CAP's for all involved municipalities.

With this it can be assumed that there also have been some challenges along the way regarding competencies within CONCITO. This is also something that Damsø [2024] mentions:

> "*There was also a challenge for all of us with climate change adaptation. The pilot project actually went by without us having a climate change adaptation expert attached. This was the first person I was allowed to hire when I came on board, and you could definitely feel that it made a difference, It's difficult to retrofit that, but one of the lessons we've learned is that it's valuable to have both academic breadth and depth in competencies when you have a project like this.*" [Damsø, 2024].

Damsø [2024] points out that an expert in climate change adaptation was attached somewhat late in the project which had made the process quite challenging. This can be seen as an insufficient *provision of capacity* in regards to competencies and that there have been a lack of *co-production of knowledge*. With this, the respondent also says that this lead to them learning the importance of having a variety of competencies involved in the project. This is not just an aspect that the respondent has experienced in regards to CONCITO; this is a takeaway for all involved stakeholders in the DK2020 collaboration.

> "*I think it is important in something like this [the DK2020 collaboration, ed.] that everyone involved in the project has the necessary competencies to handle the task. It's really difficult with something like this because it's so broad, and not everyone at every level has the right skills. We were probably aware of that too late, that in some places they were mostly working on adaptation and didn't have much experience with reduction plans (...) Some are good at engagement, and others are good at economics. And because making these climate plans is such a holistically extensive task, no one is a specialist in everything, so putting together a team where you cover at least 80-90% of it and being aware of where you have knowledge gaps can help a lot.*" [Damsø, 2024].

The respondent goes more into detail about the importance of involving many people with different skills and areas of knowledge especially when it comes to projects similar to the DK2020 collaboration, where it is required to work holistically. With this it can therefore be said that the importance of *co-production of knowledge* became more apparent as the collaboration progressed.

A last aspect, mentioned by Damsø [2024], is the need for an organization to have not just the right competencies but also the right amount of these resources:

> "*This project is an enormous task, a huge mastodon, and it would have been nice to have more personnel involved, so you could have worked just every other weekend, but I think that's just how it is with this [green, ed.] transition.*" [Damsø, 2024].

Due to the demand and time frame of the DK2020, the respondent had to work overtime several weekends, which, could have been avoided if more people had been brought in to handle their appointed tasks and if the *provision of capacity* in regards to competencies had been more sufficient.

7.2.2 Municipalities working with DK2020

[Damsø, 2024] talked in the interview about how the municipalities had to change within their own organisation in order for them to participate in the DK2020 collaboration:

> "(...) for many municipalities, this [the work of DK2020, ed.] has been a new task and for those where it was not a new task, then parts of it were a new task. (...) they've just never worked with the full scope of climate change adaptation. And those who were already strong on climate change adaptation, haven't necessarily been strong on mitigation and vice versa. (...) It [the task of making a CAP, ed.] is larger for some [municipalities, ed.] than others, but there are new elements for all of them that they had to familiarize themselves with and capture and understand how they work with [the CAPF, ed.]." [Damsø, 2024].

It was, according to the respondent, different depending on the size of each municipality and their *provision of capacity*, how large the task of making CAP's were for them. He also points to the fact that the DK2020 collaboration has brought something new to all municipalities, even though they might already have been familiar with work in climate change adaptation making at least some aspects of it a new task. Damsø [2024] thereby, says that non of the municipalities had the right *provision of capacity* for the task and all had to build up competences in someway or another as mentioned earlier.

Damsø [2024] further elaborates on the scope of the task that the municipalities faced: "(...) for all municipalities, this has been a learning task. It's bigger for some than others, but there are new elements for all of them that they had to learn, understand, and figure out how to work with. And of course, that has been difficult." [Damsø, 2024].

The requirements of the CAPF were, as mentioned in section 6.4, based on various aspects of planning and required detailed work and knowledge of ones municipality. Due to this, the municipalities have all no matter how experienced had to undergo a learning process. According to the respondent, this also meant that they had to understand and test new ways of working. Having to cover all aspects of the a planning process all the while trying to understand the approach of the process, can be assumed to have resulted in unnecessary work done within each municipality. Even though they might have gained knowledge on internal structures and local contexts, it can be assumes that due to the broad scope of the process, not all of this information is relevant going into the Climate Alliance.

7.2.3 Feedback from the municipalities

During the interview, Damsø [2024] was asked about his experience on the experiences of the municipalities and how they have received the task of making the CAP.

> "We have continuously conducted status surveys where we asked them if they were satisfied with the partnership and what they needed help with, and they have been overwhelmingly positive (...) So I have the impression that they have received it very well." [Damsø, 2024].

The respondents' impression of the experiences of the municipalities is based on the surveys that have been made throughout the span of the collaboration. Damsø [2024] is thereby not the firsthand source of this experience, as it was the case for Bournonville [2024]. Receiving such feedback have, however, proven to be of great value as it has allowed for them to continuously adjust aspects of the collaboration more to the liking of the stakeholders and thereby use *co-production of knowledge* to better the their experiences. Damsø [2024] explains:

> "*When the Climate Council comes out with a status report, and we say [to the municipalities, ed.], 'This is what it significant, this part doesn't matter for your planning, just keep going,' or 'Now the IPCC has come out with a report, and it says this, you can use this for your plans'. They [the municipalities, ed.] have been really happy with that, whereas the more detailed 30-40 page guidelines with tools; those they have also liked, but not nearly to the same extent. So, that's something we've taken note of. If we can digest and break it down into more manageable bites, they really can absorb that [knowledge, ed.] very quickly.*" [Damsø, 2024].

Here, the respondent explains how he was surprised by how important it was for the municipalities, that CONCITO presented knowledge to them in a way where it is easily approachable for them. The municipalities does, according to the respondent, prefer to have official reports from either IPCC or the Climate Council shortened down and put into direct context of how it can contribute to and improve upon their way of planning. By doing this CONCITO uses their *information power* in order to get a *co-production of knowledge* that makes the municipalities already complicated work with the CAP easier and thereby improves their experience. There is some aspect of general logic to this, as it makes sense for one to prefer receiving new knowledge that is directly approachable instead of having to spend additional time and resources only for you to digest the knowledge yourself. Having CONCITO involved to 'translate' long and technically difficult reports therefore is of great value to the development of the work of the municipalities and helps to make their *provision of capacity* more sufficient.

7.3 The Region of Southern Denmark

This section will investigate the DK2020 experiences of the Region of Southern Denmark in terms of organization of the collaboration, the collaboration between municipalities and the region as the work of the municipalities in terms of fulfilling the CAPF.

7.3.1 Organization of the DK2020 collaboration

Looking at the experiences that Boris Schønfeldt from the Region of Southern Denmark had during the DK2020 collaboration different themes arise. One of the themes is the structure that was created for the DK2020 project:

> "*There can be a large distance between the national organization and down to the individual climate worker in the municipality (...) it is a challenge in this that there are some links that, in their own way, do not make things run as quickly and smoothly as one would like.*" [Schønfeldt, 2024].

Schønfeldt [2024] explains how there, within the organization of DK2020, can occur hindrances due to the size of it all, that prevent the change from begin implemented quicker. The respondent further elaborates on this:

> "*(...) it [DK2020, ed.] is a very large, complex organism or organization that we have built up to, of course, also a complex problem or a complex challenge, but sometimes you can think: 'But shouldn't we just do it?' And that's where it becomes a bit: 'Oh, there has to be a knowledge partner, a think tank and then there has to be a source of funding, which, by the way like all others, also has their own agenda. And then we have to meet, and we have some laws and some rules, and who exactly should pay for it [the DK2020 collaboration, ed.], and how do we do that?'*" [Schønfeldt, 2024].

Schønfeldt [2024] again criticises the pace of which things are done within the DK2020 organisation due to all the involved stakeholders who all have to receive money from somewhere and all have their own agenda, as also mentioned by the respondent. All of these different stakeholders and agendas contribute, according to the respondent, to the distance between the top and bottom layers of the organization as it was mentioned in the quote earlier and makes *framing of co-benefits* a difficult thing to do.

Even though the respondent sees room for improvement within the general organization of the DK2020 collaboration, it becomes clear that these issues are not the fault of the individual involved stakeholders. Schønfeldt [2024] was asked about the collaboration with Realdania and CONCITO:

> "*(...) it has worked well. When I think back to the pilot project, we were all untested (...) But it has been a huge strength to have CONCITO as a professional partner, because you meet some questions from your mayor or municipal director, or just yourself when you work, where you think: 'What about this?' (...) The knowledge and value that lies in it, it has been invaluable (...)*" [Schønfeldt, 2024].

There were issues throughout the organization, but the respondent points to the fact that it has been new for all of them to participate in DK2020 and is generally satisfied with the way the collaboration have turned out. He especially highlights CONCITO and their contribution to the project as a knowledge partner. As mentioned in chapter 6 there were frequent communication between the Region of Southern Denmark and CONCITO whenever difficult questions from the municipalities arose, and this structure has according to Schønfeldt [2024] been invaluable. Thereby Schønfeldt [2024] point out the importance

of CONCITO using their *information power* to share information with the region and thereby increase *co-production of knowledge* between the stakeholder.

Schønfeldt [2024] also adds that he has experienced how also the municipalities were happy with the way the partners generally had approached the process of DK2020:

> "*It has also been reflected by several climate coordinators on the floor that involving this international viewpoint (...) and involving the larger issues of the world, it motivates [them, ed.]. You receive this knowledge, and remember that it is sort of a pep talk (...) It makes it possible to go back [to the municipal work with DK2020, ed.] with renewed vigor (...)*" [Schønfeldt, 2024].

Having the world view approach behind the entire purpose of DK2020 has, according to the respondent, generated willpower and motivation amongst the climate coordinators within the process. As mentioned in section 6.3 the respondent has experienced that many of these municipal employees that are working with the DK2020 collaboration and climate change adaptation generally seem to be passionate about their work and improving society which fits with them being motivated by receiving more information about how to apply it to their local context. The respondent also adds: "*And we would not have gotten that coupling if Realdania had not been out supporting the C40 in the first place and taking it home to Denmark*" [Schønfeldt, 2024], and thereby points towards Realdania being the reason for having the broader perspective brought into the municipal climate change adaptation planning. It can here be seen that the municipalities are able to use this broader perspective from Realdania to get a *framing of co-benefits* within the municipality.

Schønfeldt [2024] also reflect upon the role of the municipalities and how most of the work of the DK2020 collaboration has taken place at this level.

> "*Locally, I think that the fact that it is the municipality that has a hold of the citizen. It is the municipality that is close to the citizens (...) they make the local decisions, they can ensure the consequences of the local actions. This is priceless. So apart from the fact that it [the organization of DK2020, ed.] is a big monster, when I take it apart, I can argue that it has worked. And it does.*" [Schønfeldt, 2024].

In the quote, the respondent explains that it makes sense for the planning and implementation to take place locally within the individual municipalities and the knowledge these local employees have has furthermore deemed been a valuable part. Schønfeldt [2024] also points out that it is the municipalities that has a hold of the citizens and it is therefore at this level of DK2020 it is possible to get an *engagement of civil society*, he however does not mention if this have been achieved. And even though Schønfeldt [2024] in the beginning criticised the structure and size of the DK2020 organization, the respondent cannot deny that it, according to him, has worked in achieving what it was put in the world to do.

The respondent does, however, see an issue that can affect the work of DK2020 and other future projects within climate change adaptation: "*(...) it will run into some problems*

if the climate management does not understand how to support or handle this [need to implement climate change adaptation, ed.] (...) [to prioritize it from all ranks, ed.] can be difficult." [Schønfeldt, 2024]. As mentioned in 6.4 leaders such as bosses and city council members within the municipalities are able to affect the decision-making through either rank or during an internal voting. Within all layers of the DK2020 organization leaders are making decisions based on strategies and opinions. Therefore, if e.g. climate change adaptation is not prioritized amongst the strategies that these leaders follow, then making the needed changes can and is, according to the respondent, a difficult task. Therefore, is can be said that there is a need for *framing of co-benefits* on a political level so that the right decisions er made.

7.3.2   Collaboration between region and municipalities

Another theme brought forward by Schønfeldt [2024], is how the DK2020 has brought the region and the municipalities closer together in collaboration. In section 6.3 he mentioned how there sometimes were a bit of competition or tension between the two stakeholders regarding the distribution of area of authority. The respondent reflects upon how the DK2020 collaboration has changed this.

> "*Then we have this role of the region. What is it that we are an authority over, what is it that we have authority in, and what is the role we actually play in this context (...) in my opinion, we have had an insanely good and close collaboration with the municipalities. In any case, I have felt that we have created a game board that turned out very equal to play on, and we could thus be in joint dialogue at eye level. (...) I actually think that with DK2020 we have (...) come down to a height where we can be in dialogue in a completely different way, and that, I think, has strengthened the field tremendously.*" [Schønfeldt, 2024].

Schønfeldt [2024] explains how the collaboration between the Region of Southern Denmark and the municipalities, in his experience, have changed for the better and have been strengthened by the work that they have contributed to together. With this it can be assumed that Schønfeldt [2024] have experienced a *framing of co-benefits* between the region and the municipalities. This may not be the same experience that the municipalities have had. As mentioned in section 6.3 a pilot municipality as Vejle Municipality may already have a lot of *information power* themselves and thereby do not have the same need for the region as other municipalities have, which results in the collaboration remaining the same. According to the respondent, they now seem to be at eye level which has improved the field for them to benefit from in the future.

The respondent also points to another aspect of DK2020 that have improved their abilities to collaborate.

"*We got a common methodology and a common language. Before [DK2020, ed], it was the municipalities themselves that had sort of invented a context and say: 'We want to do something with the climate.' 'What does this mean?' 'Well, climate goals, we must be climate neutral.', but we did not have a fixed definition of climate neutrality.*" [Schønfeldt, 2024].

A standardized methodology and a common definition about e.g. what it means to be climate neutral, has, according to Schønfeldt [2024], been established as a result of their participation in the DK2020 collaboration and can be seen as a *framing of co-benefits*. The municipalities were the ones deciding on the definition of the objectives they were setting for their own municipality making it difficult for them to compare efforts. Schønfeldt [2024] elaborated on this.

"*For one municipality, it was the organization that had to be climate neutral, for another it was the geography that had to be it, and for some, it was only certain sectors. Today, we have a common language for it, and that means that we can talk together about both initiatives, solutions and challenges, (...) and help each other in a completely different way. I think that, this was probably the most important [result of the DK2020 collaboration, ed].*" [Schønfeldt, 2024].

The most important outcome of the DK2020 experience, was according to the respondent, that the stakeholders now are able to discuss climate change adaptation in a new way since they now have a clear frame of what the different objectives contain and imply for their individual work. When all municipalities are working towards the same goal it becomes easier for them to compare themselves to others and seek or give out advice amongst their peers. This can be an important ability to have in projects brought forward by collaboration and knowledge sharing such as DK2020. The *framing of co-benefits* there have been made in the form of common goal have thereby been important for collaboration between the municipalities and therefore the *co-production of knowledge*.

7.3.3 Municipalities fulfilling the full CAPF requirements

A last takeaway from the DK2020 collaboration touched upon by Schønfeldt [2024] is how the full task of the CAPF was a difficult task for the municipalities to grasp.

"*In DK2020, it is a requirement that we must try to say: 'We have both climate change adaptation and prevention, and we should have some synergy between them, and then we must work with them within the [CAP, ed.] framework with these and these goals.' It has been difficult regardless of whether you have actually worked with climate change adaptation before or not (...) [The municipalities, ed.] have had their focus and took starting point in the prevention track and then the framework. And that means this adaptation*

> *track, it has not been integrated to the necessary extent in relation to what*
> *the framework tool calls for, and which the challenge suggests that we should.*
> [Schønfeldt, 2024].

The synergistic approach that the CAPF creates the opportunity for, has, according to the respondent, not been involved to the extent that it could have been. Schønfeldt [2024] points to a reason why a greater extent of synergy has not been included as much as it could have been. "*This combination, it is difficult to comprehend (...) The competences needed to carry the effort is not necessarily present. And that, I think is a challenge. I have experienced it as a challenge myself.*" [Schønfeldt, 2024]. According to the respondent, it was experienced how the municipalities are lacking in competencies to grasp the task that is DK2020. In section 6.4 it was mentioned how the educational background of the administrative employees within the municipalities varied. This could mean that their competencies most likely were to vary to the same extent creating different points of departures as well as results across municipalities. With this it can be said that there have been a lack of *provision of capacity* when is comes to the right amount of knowledge resources need for the municipalities to grasp a task like DK2020.

7.4 Municipalities

In this section the municipalities' experiences with the DK2020 collaboration will be illustrated. Vejle and Varde Municipality's experiences will be looked into separately With the a continues theoretical perspective of power theory and MLG on the municipalities experiences and what similarities and differences there are between the two municipality's experiences.

7.4.1 Vejle Municipality

Throughout this part, Vejle Municipality's experiences will be illustrated. The focus will be on Vejle's experiences on the collaboration with the other municipalities, the resources they have used, the structural barriers they have found and lastly Vejle's experiences on the collaboration with CONCITO and Region of Southern Denmark.

Sparing with other municipalities

Søren Peschardt from Vejle city council talks about his experiences with the collaborative aspect of the DK2020 collaboration. "*We did not use it [the collaboration with the other municipalities, ed.] actively politically.*" [Peschardt, 2024]. The respondent explains that as a politician, they did not consult with other municipalities while dealing with city council business. The same seemed to be the case for the municipal employees, as Jette Vindum from Vejle Municipality says: "*We have not spared much with the other municipalities (...)*" [Vindum, 2024], but the respondent adds, when reviewing the quotes, that they to some extent spared with the other pilot municipalities in the Region of Southern Denmark - Fredericia, Assens and Sønderborg - during DK2020, as these municipalities were as far in the process as Vejle was [Vindum, 2024].

When asked about if the collaborative aspect of the DK2020 project had made a difference to their work with climate change adaptation, Vindum [2024] elaborates on their contact with the other municipalities: "*No (..) It has been once a year or something, that we have been together with all the pilot municipalities or all the municipalities in the Region of Southern Denmark (...) It hasn't been very often.*" [Vindum, 2024]. According to the respondent, there were only a few meetings a year where the municipalities were put together specifically by the other stakeholders of the DK2020, such as CONCITO or their region but that this have not made a difference to their work. This reduced approach to the collaboration with the points to a lack of *framing of co-benefits* of what they as a municipality could gain from the other municipalities. It can, however, also be due to the amount of *expertise power* that their municipality contains from being a pilot municipality meaning that they therefore to the same extent cannot seek knowledge within most other municipalities because they probably would not yet have reached the same issues.

Vindum [2024] points to a reason as to why Vejle in their work with climate change adaptation in DK2020 were not as engaged with the other municipalities during the collaboration:

"*(...) just the fact that there are more people [in Vejle Municipality, ed.] who can spare with each other [internally, ed.], we really have to go far out in our problems before we reach quicker in Varde because there you are more alone with it.*" [Vindum, 2024].

Since Vejle is one of the larger municipalities, as also highlighted by the respondent, they have multiple employees working with this topic, providing the opportunity for them to spare internally. As mentioned in the quote, the need for sparing across municipal borders might depend on the amount of employees to lift the task of climate change adaptation within the individual municipality. This could be a reason for them not seeking out more *co-production of knowledge* amongst other municipalities. Vejle Municipality has the needed *provision of capacity* in terms of knowledge and competencies available internally and does of this reason not need to reach out to others for it. Their large amount of *information power* can therefore be an explanatory reason.

Lisbet Wolters from Vejle Municipality elaborates on her experiences on sparing: "*My experience is, that because we kind of are a frontrunner municipality, we then had to constantly tell others how to do it (...)*" [Wolters, 2024]. The respondent therefore gained a role similar to that of consultants where they had to educate other municipalities. This role also had its negative aspects. Wolters [2024] elaborates: "*(...) at one point we also felt like, 'how many resources do we really need to spend on it?' We think that DK2020 perhaps could do that themselves.*" [Wolters, 2024]. Helping other municipalities is, according to the respondent, followed a cost of resources in terms of e.g. time, making them reflect on whether it actually is their job to spend resources on. They were thereby withholding the *co-production of knowledge* horizontally due to a lack of *provision of capacity*. As the respondent also mentioned, this task should perhaps be located somewhere within the DK2020 structure.

Wolters [2024] ultimately sums up their collaborative experience: "*It's been nice to be in a network, but it's not like (…) it's really been something that added a lot to us. That is how we experienced it (…) The level of knowledge [of the other municipalities, ed.] (…) we can get that elsewhere.*" [Wolters, 2024]. The fact that they to some extent disregarded the process of guiding other municipalities and participating further in the collaboration, points to a lack of *framing of co-benefits* within both the municipality themselves as well as from the *sanctioning and coordinating authority* whose task is to keep the involved stakeholders engaged. If co-benefits were framed, then there might have been more incentive for them to see to consult to a larger degree.

The statements above points towards Vejle Municipality not being in need of the cross-municipal collaboration that the DK2020 project is based on and is supposed to be driven forward by. If CONCITO, Realdania, or the Region of Southern Denmark wish to continue with sparing having a main role in the Climate Alliance, this point of view should be addressed, especially if this is supported by other municipalities. The root to learning is someone having more knowledge than others, meaning that if Vejle Municipality and similar municipalities, who are well experienced within climate change adaptation, at some point are not willing to participate in knowledge sharing with other less experienced municipalities, then the collective knowledge of the collaboration would be reduced significantly, and other stakeholders would instead have to contribute with this lacking knowledge, in order to drive forward the development of the stakeholders. There could therefore be a need to investigate if this opinion of and lack of need for knowledge sharing is shared by other municipalities in order to ensure the continuation of the project organisation.

Use of municipality resources

During the DK2020 collaboration it was experienced how municipality resources were spent and on different tasks throughout the collaboration. Wolters [2024] mention how them being a pilot municipality caused them to redo tasks.

> "*(…) We got some people to do our climate accounts and other [municipalities, ed.] got others to do it and some [other municipalities, ed.] they used a third [methodology, ed.]. When it was time for the next phase [phase one, ed.], we suddenly all had to do it in the same way. Then we had spent a lot of money on something that couldn't be used for anything anyway, and then we had to change it. So in that way, a lot of it has been a bit where you have thought: 'Damn, couldn't this have been thought through a little more rigorously from the start?'*" [Wolters, 2024].

Wolters [2024] had experienced, how they had to change their climate accounting when they within the region decided to standardize the methodology across municipalities. As Vejle Municipality already had finished their climate accounting together with several other municipalities they had to adapt to the methodology decided upon by the decision-makers, resulting in an extra spending of municipality resources. They had to make changes due to a request from a *sanctioning and coordinating authority* looking to create standards to be used either across the region or the entire country depending if it was regarding climate

accounts or the phrasing used in their documents. The fact that such decisions were not made before the tasks were handed over to the municipalities points towards a *sanctioning and coordinating authority* having not thought the process as well as the outcomes through.

In section 7.1 the process the collaboration was described by the phrase "*laying the tracks while moving*" meaning that it was a constant learning process and there were no long term plan. A reason for why the municipality has experienced having to redo or change tasks could be that if they had refused to make these changes, the deciding authority could have chosen to use its *coercion power* that both Realdania, CONCITO, and the Region of Southern Denmark holds over the municipalities to sanction them for not living up to the CAPF. This could therefore be a reason for them implementing these needed changes. The fact that the respondent highlights it as a negative aspect could also point towards her missing the *framing of co-benefits* of the process where the it has not been made clear what advantages they would gain from the process.

The respondent also mention another use of municipal resources that could have been spent elsewhere.

> "*(...) this CAP-Framework which is a tool of 35 pages, where there is densely written etc. all kinds of documentation [that we need to do, ed]. We have done that solely to get this [the CAP, ed.] through. We haven't looked into it since. (...) It's a bit like they have to control what we do, and why should they do that? Why should we spend energy on sending [it to them, ed.]?*" [Wolters, 2024].

Wolters [2024] explains how the municipalities had to report a large amount of data to the partners of the DK2020 collaboration, which has not been of use to Vejle Municipality, and thereby, to them, seems like a waste of energy. The respondent mention, how it to some extent felt as though the partners were surveying them. Also Vindum [2024] comments on this aspect:

> "*It does not solve any problems for us that we have to spend a lot of energy on reporting to some monitoring tool that they want to make, so they then can keep an overview of how things are going in all municipalities (...) It does not provide any value to us. It is valuable to us if they can help remove some of the barriers that exist for us to actually be able to move forward in climate work. In that way, you can say then there is a value in them knowing what these problems are.*" [Vindum, 2024].

As explained in the quote, an authority having an overview does not make sense for the municipality to collect as they seem to not be able to benefit from it. The respondent, however, points to a potential benefit, which is for the stakeholders to put their focus to some of the general or structural barriers within climate change adaptation experienced by the municipalities. *Framing of co-benefits* of them spending time on documentation for monitoring tool seems to be necessary. This should have come from a *sanctioning and*

coordinating authority such as Realdania or CONCITO, since these were the stakeholders to have such roles in the DK2020 collaboration.

Structural barriers within climate change adaptation

Different issues that might hinder climate change adaptation are mentioned during our interviews. One of these hindrances are the amount of resources given to the municipalities:

> "*The municipalities, they are constantly being cut in their budgets. We just experienced it recently. We have rounds of layoffs and all sorts of things (...) So there is a financing challenge, which we are also trying to solve by applying for external funds (...) which we have also succeeded really well, so we are lucky with that, but (...) it is just an extra workload on top. We have to solve it [the money problem by applying for funds, ed.], and then we also have to do it [apply for funding, ed.].*" [Wolters, 2024].

The quote points to the fact that the municipalities does not have sufficient money according to the respondent and that the municipalities are having rounds of layoffs. Thereby, they are forced to look for money elsewhere and are applying for resources from different funds with *reward power*. Even though this process, according to the respondent, is going well, it takes time and resources for them to do so. More *provision of capacity* is therefore needed for the municipality to grasp the scope of the task ahead. This could be resources both in terms of money or by adding competencies amongst the municipalities. Such a change should come from a *sanctioning and coordinating authority* with the power to implement it.

Wolters [2024] also mentions how the priority of the topic of climate change adaptation changes from time to time: "*(...) this thing with climate change adaptation, it is just so far out in the future and it is so intangible that only just when we have had a rainwater event is it relevant. Otherwise, it's not.*" [Wolters, 2024]. The respondent explains how both within the municipality but also in society the perception of the need for climate change adaptation varies and is most often only brought up when a flooding or storm event has just taken place. This shows how dependent the topic of climate change is on experiences, as these are what keep people aware of the need to continuously change and adapt. In order for the effort to not stagnate in time periods without whether events, a *sanctioning and coordinating authority* is needed to take charge and keep the decision-makers engaged through *framing of co-benefits* in order to secure a steady amount of *provision of capacity* being moved towards their efforts.

One aspect mentioned by both Vindum [2024] and Wolters [2024] is the issues they have experienced when trying to gain use of agriculture land that could be useful in the planning and implementation of climate change adaptation.

> "*(...) then there may be something problematic with the subsidy schemes in relation to agriculture, because there is no incentive for them to take land out of operation and instead raise forest, because then something is wrong with the subsidy schemes (...)*" [Vindum, 2024].

The respondent points to the fact that the current way of subsidising the agricultural industry does not create the necessary incentive for them to change from farming to e.g. planting forest, which could help the process of climate change adaptation. Wolters [2024] also comments on the regulation of agricultural land.

> "(...) if we are to find [agricultural, ed.] areas for [rain water, ed.] detention in the catchment area, it must be done on a voluntary basis. This means that if there is a person who owns a field that is located in a depression where we might as well could store rainwater but [the owner, ed.] does not want to [use his/her areas as catchment area, ed.], then it will not happen." [Wolters, 2024].

As mentioned in the quote, the only possibility a municipality has for using agricultural land for temporary rain water retention, is through voluntary agreements on the the land owner. And as mentioned by the respondent, if the land owner does not want to have this kind of use on their fields, then the municipality has no way of implementing it. This is an experience that the respondent has had when working with climate change adaptation, where broader and common barriers are experienced to prevent the municipality to plan or implement within areas that could be considered optimal assets in the planning and implementing of climate change adaptation.

Another common barrier is pointed out by the respondent:

> "(...) the municipalities are governed by a cap of construction. There is a limit on how much money we can use to build things. And even though we have the money - which we have - we are not allowed to use it, and that means that we cannot build all the storm surge protection that we would like [to build, ed.]. It is such a structural limitation where - and I think Søren [Peschardt, ed.] and I agree on this - that you should simply change the law, so that if you do climate change adaptation work, then the construction cap should not apply." [Wolters, 2024]

Wolters [2024] points to the structural limitation they as a municipality are governed by preventing them from implementing as much climate change adaptation initiatives as they see necessary to protect their valuables. The respondent thereby sees the need for a change in legislation that does not prevent the individual municipalities protecting themselves from e.g. storm surges or cloud bursts. These structural barriers mentioned in this section are current for all municipalities and decided upon from a higher *sanctioning and coordinating authority* such as the parliament and upheld by legislation. Like previously mentioned, such change will take a similar authority to improve these societal structures. If the Vejle or other municipalities would prefer to see these barriers changed, they could try *engagement of civil society* to motivate the government or try to increase the use of *framing of co-benefits* to the involved stakeholders to persuade them to implement their preferred changes.

Experiences from collaboration with CONCITO

Even though Vejle Municipality did not receive much knowledge from the other municipalities, both Lisbet Wolters from Vejle Municipality and Vindum [2024] had great experiences with knowledge sharing with CONCITO.

> "(...) [CONCITO, ed.] did an excellent job. (...) there was always a pretty high standard on the presentations and such. That was what made you want to participate, because you knew you received knowledge that you could use. We didn't get much from the other municipalities, but at least we got something there." [Wolters, 2024].

The respondent praises the work that CONCITO were responsible for and highlights also the presentations they held during the project. Even though Vejle Municipality were ahead of the other municipalities in terms of finishing their CAP, and were therefore not able to learn from these other municipalities, the respondent, did receive some knowledge from CONCITO who contributed with their *information* and *expertise power*. She further elaborates on the significance having CONCITO as a partner:

> "(...) getting some valid and recognized knowledge you can pass on to the politicians, really has some value. Sitting around a table and hearing something about how things are going and things like that, that's of course also fine, but (...) I can't prioritize time for that." [Wolters, 2024].

The knowledge that they within Vejle Municipality was, according to the respondent, passed on to e.g. the city council members of the municipality for them to use when making decisions about climate change adaptation. This part of the knowledge sharing was therefore more important considering the regular meetings with the other municipalities as Vejle Municipality got the most output from their meetings with CONCITO. CONCITO therefore contributed to the municipal employees' being able to use *framing of co-benefits* internally when communicating about climate topics to the city council members. This aspect of *co-production of knowledge* of the DK2020 collaboration was therefore considered to be of great value for Wolters [2024].

Vindum [2024] also comments on the help of CONCITO: "*It [getting help from CONCITO, ed] was very good in the process of getting the CAP done, so it helped us to make a good CAP. [But, ed.] We haven't used them since.*" [Vindum, 2024]. This respondent thereby also agrees with Wolters [2024] that CONCITO was a great help to the process of making their CAP. On structure and content of the CAP's, CONCITO took on the role of a *sanctioning and coordinating authority*, but the respondent also adds that they have not had the need for their help ever since finishing their CAP. This points to CONCITO losing some *expertise* and *information power* over Vejle Municipality as the collaboration progressed.

Vindum [2024] adds "*We have not entered DK2020 because we wanted [to be a part of, ed.] DK2020. We entered it because we wanted to make a CAP, and we needed help with that.*" [Vindum, 2024]. The fact that Vejle Municipality entered the DK2020 collaboration primarily to receive help with their plans and not as much to contribute to the collaboration. This would help explain why they have not reached out to the other municipalities to the degree that they could have done. The fact that Vejle Municipality felt a lack of value in the collaboration as a whole could point towards how a *sanctioning and coordinating authority* has been unable to construct the collaboration so that each participant gained value from it. The *framing of co-benefits* were furthermore lacking, as it was unclear to respondents in Vejle Municipality, the reason of their participation.

Experiences from collaboration with the Region of Southern Denmark

Vejle Municipality has, as mentioned in section 6.3, had very little communication and understanding of the Region of Southern Denmark's participation in the DK2020 collaboration. There are, however, experiences to draw from some of the respondents from Vejle Municipality. Vindum [2024] explains:

> "*So in terms of data, it has been great that there has been an authority to say: 'Okay, we can see that there is a need to collect the same kind of data across all municipalities. We want to be in charge of that.' (...) And it may very well make sense there, because there may be some benefits in terms of economies of scale.*" [Vindum, 2024].

Even though the respondent, in section 6.3, mentioned that they had not communicated much with the region, she still praises their participation in the project specifically in terms of taking charge of gathering data across municipal borders and thereby attempting to take on a role of *sanctioning and coordinating authority*. By having a larger authority in charge, [Vindum, 2024] sees the opportunity of saving time and resources with the *provision of capacity* that the region can add. This points to the region having succeeded in *framing of co-benefits* of their contributions in the DK2020 collaboration.

The respondent, however, also mention an aspect where the region could take on this role as *sanctioning and coordinating authority more*: "*We have some projects that we would like to do across municipalities, and where we actually imagined that (...) [they, ed.] would be responsible for being the project manager on something like this. But they have not thought so.*" [Vindum, 2024]. Vindum [2024] explains, how there is an opportunity for having the region as project manager for larger cross-municipal projects within the Region of Southern Denmark. But, as said by the respondent, this offer was turned down by the region. There is therefore a need to increase the *framing of co-benefits* on this topic. It is not known, whether this particular reason is due to lack of *provision of capacity* in terms of money or knowledge internally, whether they presumed it outside their scope of authority and thereby lacked *legitimacy power*, or if there was a third option is the reason for them not wanting to take on such a task.

7.4.2   Varde Municipality

In this section, Varde Municipality's experiences will be illustrated. The focus will be on Varde's experiences with entering DK2020, their collaboration with the other municipalities, CONCITO, and the Region of Southern Denmark as well as their takeaways from the collaboration.

Entering the DK2020 collaboration

Varde Municipality entered the DK2020 collaboration in 2020 during phase one as also mentioned in section 6.4. Christine Schoop Gärtner from Varde Municipality talks about her experience of entering the collaboration.

> "(...) it was a bit of a bare field when DK2020 came, because you had all sorts of legislative plans, sector plans, environmental plans and water plans and whatever else (...) But you didn't have an umbrella that kind of brought together all this that was about sustainability, so it was a lot of actually reinventing the wheel for a start and figuring out what it might look like for a municipality like Varde." [Gärtner, 2024].

The respondent explains how various ways of thinking legislation had to be grouped and combined in order for them to be able to include the sustainability term. And even more important they had to consider the CAPF in a Varde context and how that might apply to their municipality. Communication became an important tool for Gärtner [2024] during this beginning process.

> "It was very much about having this dialogue and using the relationships I had [both within and outside the municipality, ed.] (...) And then it was also very much about having such an enormously steep learning curve (...) it was so unmanageable. It really was a big new task for a municipality." [Gärtner, 2024].

The process of entering DK2020 required, according to the respondent, a lot of work which to some aspects could become overwhelming due to the amount of new details and concepts they had to acquaint themselves with. The *information power* of the individual employee and its ability to approach *co-production of knowledge* therefore became of great importance. She then elaborates:

> "(...) It has taken everyone by surprise how extensive this was. I think in the network group we sat in at first, I think we were 11 or 12 municipalities, and four climate coordinators went down with stress. I also have graced it a little bit, myself, I'd also say, but I'm also relatively a no bullshit type, so I'm also like: 'Okay, it can only be as good as I think it can be.'" [Gärtner, 2024].

The process of entering DK2020 was, as mentioned by the respondent, a trying task to the extent that people had to take breaks to deal with stress symptoms. This states how much was demanded of the municipal employees for entering this collaboration.

It seems that there have been a difference of experience between Vejle and Varde Municipality, where Vejle Municipality perhaps due to their previous experience within climate change adaptation and large department seemed to have plenty of time during the collaboration compared to Varde Municipality. This points to a fact that the *provision of capacity* in terms of knowledge, personnel, and time to some extent were not adjusted to fit the needs of the individual municipality. A *sanctioning and coordinating authority* of the DK2020 collaboration such as Realdania or CONCITO should have been more aware of this issue as the collaboration progressed. If this had been the case, then there could have been an opportunity to reduce the personal and professional costs that, according to Gärtner [2024] was experienced by several municipal employees. The fact that this was not handled could be the result of the collaboration being planned in bits and with a lack of time as mentioned by Bournonville [2024] in section 7.1, meaning that the general overview was lost. Furthermore, chapter 6 reveled, that there were little to no communicative connection between Realdania and the daily work of the municipalities, and it can therefore be argued that the project lacked a *sanctioning and coordinating authority* to look over the municipalities.

Gärtner [2024] further explains: "*There have been a lot of challenges along the way. The schedule, processes, and understanding of these comments [during meetings, ed.] with CONCITO, where afterwards you have just thought: 'Okay, we will never get to the finish line with this' (...)*" [Gärtner, 2024]. The respondent highlights a couple of the issues she has experienced during the DK2020 collaboration and points to the scheduling as well as trying to understand the wishes of CONCITO, during the draft meetings. Again, the response points towards that it could have been beneficial to have a *sanctioning and coordinating authority* in communication of the municipalities who would also have the *expertise power* to help create an overview of their challenges as well as attempt to solve them.

Preben Friis-Hauge from Varde City Council also talks about the process of participating in the DK2020 collaboration:

> "*(...) At one point, they asked us to change some formulations, some phrases in our action plans in our objectives, so that they followed some system, and it was easier to compare on a national scale (...) that is very normal, I thought, when you choose to be part of a larger collaboration, larger community, then you also have to adapt to the fact that you have to use the terms that are to be used*" [Friis-Hauge, 2024].

Just as Wolters [2024] mentioned in section 7.4.1 how they by a *sanctioning and coordinating authority* had to redo their climate accounts, Friis-Hauge [2024] also explains that this has happened at Varde Municipality even though they entered at a later phase than Vejle. The opinion of this change is, however, different from that of Wolters [2024] and was considered a natural part of the participation. Tough, the change described by

the respondent can be argued to be on a smaller scale but making the necessary changes would still have take up a use of their resources. This could be a reason why they were more obliging, but it could also be due to the fact that the *framing of co-benefits* of the collaboration have been more evident in the case of Varde whereas Vejle to some extends did not get much out of their participation.

Friis-Hauge [2024] also talks about their entrance to the DK2020 collaboration: "*I experienced it as a good process when we entered the DK2020 collaboration and got some structure [on the climate work, ed.], so that we are comparable to the work of other municipalities.*" [Friis-Hauge, 2024]. The respondents experience is somewhat different from that of Gärtner [2024]. Here, entering the collaboration was seen as a "good process" where the statements of Gärtner [2024] seem to point in an opposite direction due to the amount of pressure the administrative employees were under. Such varying responses underpins the gap that there is between the daily work of a municipal employee and the city council members.

Friis-Hauge [2024] further elaborates on the reason for entering the collaboration:

> "*(...) we saw that by joining [DK2020, ed.], we could get some common benefits together with other municipalities, and we could get some knowledge sharing via our employees, who are out there talking to the other municipalities, and we could get some sparring with those who manage and lead these things [the DK2020 collaboration, ed.], so that we are getting in the right direction.*" [Friis-Hauge, 2024].

Varde Municipality joined, according to the respondent, DK2020 in order for them to receive guidance on their work with climate in general as well as climate change adaptation. By entering DK2020, they could furthermore gain knowledge through collaboration with the other municipalities and thereby benefit from the process. The *co-production of knowledge* of the collaboration therefore had great influence. He later adds: "*And of course, it also means something that when so many municipalities have joined, then there becomes a pressure to join, so to say.*" [Friis-Hauge, 2024]. The respondent explains that as more and more municipalities entered the DK2020 collaboration, a pressure was put on Varde Municipality to also join the project, which can be a reason for why most municipalities ended up entering the collaboration. At least for Varde this factor had a significance. Even though the joining the project is considered voluntary, the opinions of other stakeholders and not wanting to be the odd man out meant something to their willingness of joining. The scope of the collaboration thereby reduced their *legitimacy power* over the other stakeholders, as participation become less voluntary. This can also be assumed to affect their willingness of continuing with the Climate Alliance.

Sparing with other municipalities

When talking to the respondents from Varde Municipality is became clear that the collaborative aspect of the DK2020 project was an important aspect. Friis-Hauge [2024] explains: "*The collaboration aspect and the knowledge sharing [in DK2020, ed.] has meant a lot.*" [Friis-Hauge, 2024]. A similar opinion is shared by Gärtner [2024]: "*I*

think one of the best things about the DK2020 collaboration has been that they have forced the municipalities to cooperate. I think that has been really good, because otherwise you would have sat 98 times and reinvented the wheel (...)" [Gärtner, 2024]. Both respondents highlight the partnership and knowledge sharing with the other participating municipalities as an important factor of the process. Having a *sanctioning and coordinating authority* requiring them participating in *co-production of knowledge*, has according to the respondent contributed greatly to their experience.

Varde Municipality joined during phase one of the collaboration together with most of the municipalities in the Region of Southern Denmark, as mentioned earlier. This was, according to Gärtner [2024], of great importance:

> "*(...) We have been very lucky that we weren't a pilot municipality, because we have gained so much knowledge by reading their CAP's and by calling their climate coordinator (...) we were really privileged to be phase one, even though it was hard, because the vast majority of municipalities were in phase one, so there were a lot of resources, and there were a lot of neighboring municipalities (...) who were just as far as us in the process.*" [Gärtner, 2024].

The respondent points out how them entering DK2020 during phase one helped their process significantly as they as a municipality were able to seek help with the pilot municipalities as well as mirror their efforts and issues in other nearby municipalities, as they joined during the same phase as Varde. It points in the direction, that Varde Municipality did not have the *expertise power* as well as the *provision of capacity* to have been able to manage. They were, according to Gärtner [2024], greatly dependent on the *information power* and the *co-production of knowledge* of the pilot municipalities such as Vejle as well as the *provision of capacity* that was generated for phase one.

Gärtner [2024] further adds:

> "*We would not have succeeded if we had not been able to both read the pilot municipalities' CAP's as well as exchange our drafts of different sections [of the plans, ed.] with each other (...) we have had full transparency, especially with Vejen Municipality (...) We sent sections to each other. 'Take what you can use.' [we said to each other, ed.] because we were under so much pressure.*"
> [Gärtner, 2024]

Working with other municipalities and learning from the ones from the pilot phase was, according to the respondent, a huge part of them finishing their CAP's. Gärtner [2024] also mention that how they were helped by the pilot municipalities: "Vejle, Middelfart, and Sønderborg Municipality, they are really good, and they are really nice to share their knowledge (...) " [Gärtner, 2024]. The pilot municipalities were providing Varde Municipality with knowledge during the collaboration. The fact that Varde to a greater extent sought out guidance amongst other municipalities as well as at the region could also be a sign that they had a need for *co-production of knowledge*. The *framing of co-benefits* in term of collaborating the other municipalities were therefore more clear to

Varde Municipality compared to Vejle Municipality. Varde was however not able to help the municipalities in phase two to the same extent:

> "*Tønder Municipality was a phase two municipality (...) and they asked us: 'Can you help us forward [in the DK2020 process, ed.]?', but [we would reply that, ed.] 'We actually can't because now we are moving on. Of course, we would like to, but we can't sit down with you for a whole day, because we are actually moving on.' So in that way, it was the right phase for us to join at least. But you can say that Tønder Municipality, they had 60 CAP's to orient themselves in (...) so they probably thought it was cool, but for us it was really cool that there were so many in the same phase with us.*" [Gärtner, 2024]

The respondent explains how e.g. Tønder Municipality, a phase two municipality, tried to reach out to them for guidance the same way that Varde has reached out to the pilot municipalities. Varde Municipality did, however, according to the respondent, not experience that they had the time to do so. It is mentioned earlier in this section, that Varde Municipality was under a lot of pressure during the DK2020 process and struggled to reach the requirements in time. It therefore makes sense that they would have limited time for consulting another stakeholder and passing on information. They were therefore similar to Vejle withholding the *co-production of knowledge* horizontally due to a lack of *provision of capacity* in terms of time and available resources and using their gained *information power* to avoid sharing knowledge with Tønder municipality. Varde Municipality therefore seemed to have been understaffed during the DK2020 collaboration, as they to this degree have been unable to participate in the core activity of DK2020, knowledge sharing. Similar to Vejle Municipality, *framing of co-benefits* from knowledge sharing have been missing.

If this was the general tone of the phase one municipalities then the key aspect of the DK2020 collaboration, being collaboration, can be argued to have been reduced. Even though phase two municipalities such as Tønder could learn from the climate plans of both the pilot municipalities and the phase one municipality, they did - at least from Varde - not experience the same willingness to help as Varde Municipality had experienced from the pilot municipalities. It can be that the pilot municipalities such as Vejle Municipality also helped the phase two municipalities just as much as they helped e.g. Varde. Tønder would thereby have had the same conditions to succeed as Varde had. The extent to which the pilot municipalities were involved with the municipalities from phase two is, however, not known. But being a part of the DK2020 collaboration means that help is received from other stakeholders such as CONCITO or the region. The phase two municipalities would therefore not have been alone in the process.

Experiences from collaboration with CONCITO

CONCITO was during the DK2020 collaboration involved as a knowledge partner to guide and inform the municipalities, as also mentioned in section 6.2. [Friis-Hauge, 2024] talks about his opinion on having CONCITO onboard the project:

> "(...) when they [the municipalities, ed.] made their CAP's, I think everyone experienced that you maybe didn't hit 100% within the target, but maybe more 95%, and then CONCITO and other good people helped you get the last part of the way. And I think that's the advantage of entering into a larger collaboration." [Friis-Hauge, 2024].

The respondent expresses, how the guidance of stakeholders such as CONCITO helped the municipalities reach the goal of the collaboration, being the fulfillment of the CAPF. Similar to the experience of Vejle Municipality, CONCITO were also here a type of *sanctioning and coordinating authority* in terms of keeping track of their progress and making sure that they would fulfill the requirements by nudging them in the right direction.

Gärtner [2024] also comment on the collaboration with CONCITO:

> "CONCITO has been really skilled and really annoying (...) [They, ed.] have passed on a lot of knowledge to us, but [they were also expressing, ed] a lot: 'We are located in Copenhagen' in relation to the fact that it has really been far from us sometimes [what they have suggested, ed.] (...) but they are insanely skilled and especially their climate change adaptation employees are really skilled and have helped us a lot." [Gärtner, 2024].

According to the respondent, the collaboration with CONCITO has been of mixed experiences. The competencies of the think tank is praised, but it is also mentioned how CONCITO sometimes were not able to see the municipality in a realistic context with them begin in the opposite side of the country. The stakeholder therefore seemed to have been lacking *provision of capacity* in terms of localized knowledge which thereby reduced their *expertise power*. Within the topic of climate change adaptation, the qualifications of the employees were however pointed out as being competent which lead to them helping Varde Municipality with finishing their plan. Here there was no negative experience of the *expertise power* of CONCITO.

Experiences from collaboration with the Region of Southern Denmark

The Region of Southern Denmark has also contributed to the DK2020 collaboration, as they took over consulting role from CONCITO, as mentioned in section 6.3. Gärtner [2024] talks about her experience in collaboration with the region:

> "It has worked very well [collaborating with the Region of Southern Denmark, ed.] and we have had the best regional coordinator, I think, in all of Denmark (...) I often hear from my colleagues (...) that the collaboration with the region, is really bad. It's just to say that I don't think it has been bad at all. It really has been good." [Gärtner, 2024].

According to the respondent, there have been various opinions on collaborating with the region. Some have had bad experiences, but as described in the quote, Varde Municipality has overall experienced that the region has done well in taking on a role of *sanctioning*

and coordinating authority. The experience of Gärtner [2024] is different to that expressed by the respondents from Vejle Municipality, where close to no communication had been passed back and forth and they seemed to have a more indifferent role. Here the variation of the perception of the regions' *legitimacy power* is seen. From the comments of the respondents of Vejle Municipality in both this chapter as well as chapter 6, the *legitimacy power* of the region had almost no influence on their work and was not experienced, whereas Varde Municipality saw great influence from the stakeholder. This difference of perception could be caused by the amount of *co-production of knowledge* that took place between the stakeholders. Furthermore, the regional DGO's were, as mentioned previously, first introduced with the appointment of the phase one municipalities, and therefore Vejle Municipality might not have had the change to detect the power of the Region of Southern Denmark.

Reflections on the outcome of the DK2020 collaboration

During the interviews, the respondents commented on the outcomes and reflections of the DK2020 collaboration. Here, the respondent comments on the involvement of climate change adaptation in the DK2020 collaboration: "*DK2020, I think, was weak on the climate change adaptation part (…) because there was a lack of knowledge about it (…)*". As mentioned in section 7.2, climate change adaptation was a relatively new task for CONCITO to take on, which could explain why Gärtner [2024] experienced a lack of competencies on this topic. It is, however, not known which stakeholder did not prioritize climate change adaptation. The *expertise* and *information power* of the collaboration in terms of climate change adaptation. As mentioned in section 7.2, Damsø [2024] also tried to increase the *provision of capacity* of the collaboration by hiring a climate change adaptation expert.

Friis-Hauge [2024] comments on the outcomes they as a municipality have had:

> "*I think that we have gained a structure over the efforts we will make for both climate change adaptation, but also the climate in general (…) Although, it is of course not everywhere in the municipal administration that it [climate and climate change adaptation, ed.] takes up the same amount of space, yet it has still received some focus, and I think that this is both healthy and sensible. It is incorporated when we make the agenda [as a fixed point during city council meetings, ed.]*" [Friis-Hauge, 2024]

The respondent mentions, how the participation of DK2020 changed the internal structure of how to view climate change adaptation as well as the climate theme in general. It has changed to the point that they now during each city council meeting assess all decisions against how the decisions will affect the climate or their need for climate change adaptation. The collaboration has therefore through *framing of co-benefits* created changes internally within Varde Municipality to the point where climate is not embedded in daily practice. The topic of climate has therefore gained some *coercion* and *reward power* as it now can contribute to and affect municipal decision-making.

Gärtner [2024] has also noticed a development within the municipalities:

> "*I think that we have taken a quantum leap that we would not have taken otherwise in relation to this work with climate and sustainability. I don't think it would have happened so quickly. Normally, the municipalities sit a bit on their hands (…) It has really moved the work of the municipalities quickly, because they have chosen to say from KL's side and Danish Regions' side: 'Now is the time.'*" [Gärtner, 2024]

A huge development has happened within the municipalities, according to the respondent, and the fact that large *sanctioning and coordinating authorities* with *legitimacy power* have pushed the municipalities to begin the process have made a difference. And the push can be necessary when dealing with municipal structures, as they, as mentioned in the quote, can be passive when it comes to change.

The outcome of the collaboration can also depend on the amount of effort and resources put into it. Friis-Hauge [2024] explains his opinion on the outcome and their efforts from the DK2020 collaboration:

> "*(…) I've been pretty much satisfied with what we've gotten out of it [the DK2020 collaboration, ed.] (…) I recognize that of course you can achieve more if you set aside more [money and resources, ed.], but it must be seen in a balance with the municipality's other tasks and expenses.*" [Friis-Hauge, 2024]

As the respondent is a city council member, and is thereby in charge of handling the municipal budgets, it is only natural to assess the costs going into climate change adaptation compared to other municipal posts such as elderly care, school repairs and kindergarten opening hours. The respondent points to the fact that they as a municipality probably could have gotten more out of the DK2020 collaboration, if they had spent more money on it, however, a municipality only has a certain amount of money to spend. It therefore has to be prioritized internally over other topics if more *provision of capacity* is to be added. They can, however, also keep joining projects such as DK2020, where a stakeholder with *reward power* such as Realdania in the case of DK2020 is involved and is willing to fund their projects.

7.5 Sub-conclusion

In this chapter the experiences that the identified stakeholders have had in DK2020 were investigates and set in the context of MLG as well as power theory conclusions from sub-question one.

Realdania's experiences with the DK2020 collaboration have been generally positive although their experiences to a great extent rely on the results of evaluations, as this can be said to be their way of measuring the success of the project due to them being the *sanctioning and coordinating authority*. Realdania to some extents failed to secure *engagement of civil society* because they did not engage politicians in the way they

could have been, and they also experienced how some municipalities lacked *provision of capacity* making the process more difficult for some than others. The collaboration and *co-production of knowledge* between the municipalities has gone well, which, according to the stakeholder, has lead to them improving their way of communicating and also contributed to the success of the collaboration. In terms of collaboration between the regions and the municipalities, it was experienced that their relationship hindered them taking up regionalized planning efforts. There is therefore a need for a state level *sanctioning and coordinating authority* to assure that the goals are meet. Generally the collaboration has created the opportunity for Realdania to increase their influence amongst state stakeholders.

In regards to CONCITO's experience with DK2020, it was found that the collaboration resulted in a need for increased *provision of capacity* in competencies and *co-production of knowledge* within both the organization of CONCITO as well as within the municipalities due to the scope of the project. According to the stakeholder, the municipalities were overall satisfied with the collaboration, and through continuous feedback from the municipalities, CONCITO have become aware of how digesting national and international climate data to smaller contextualized bits enables the municipalities to easily implement the knowledge in their local context.

During the interview with the Region of Southern Denmark it was found that there have been an experience of decision making and changes taking a longer time then necessary because of the size of the DK2020 organisation. However, DK2020 as a whole still stands as a success, although it was deemed necessary for leaders to accommodate the need for change if the implementation is to succeed. It was also seen that the relationship between the region and the municipalities have benefited from getting a common language and the stakeholders have therefore been able to increase *co-production of knowledge*. Lastly, it was experienced how the municipalities were lacking the competencies to fully be able to grasp the work required in the DK2020 collaboration. With this it was found that there have been a lack of *provision of capacity*.

Looking at the municipalities it was found that there was a lack of *co-production of knowledge* between some of the municipalities if they were not in the same phase of the project. Vejle Municipality were generally not collaborating much with the other municipalities because with their previous experience and capabilities they did not think it necessary, whereas the opposite was the case for Varde Municipality. This lack of *provision of capacity* within Varde lead to the increased *co-production of knowledge* from collaboration with other municipalities. Varde Municipality thereby experienced gaining more from the DK2020 collaboration compared to Vejle. Vejle Municipality mentioned the structural challenges that affect all municipalities due to legislation from a *sanctioning and coordinating authority*. Some of these structural issues could be changed with the *engagement of civil society* to motivate state actors.

Stakeholder relationships in the Climate Alliance

8

In 2023 the DK2020 collaboration ended and the Climate Alliance was formed and took over from DK2020 [Realdania, 2024]. In this section the organisational similarities and differences between DK2020 and the climate Alliance will be illustrated along with how the relationship between the stakeholders may have changed from the DK2020 collaboration. The section will be structured as in chapter 6 with each stakeholder having a separate section. Lastly, it will also be looked into how the power relations between the stakeholders have changes or stayed the same in the Climate Alliance and how MLG plays a part in this as well.

8.1   Realdania

In section 6.1 Realdania's role in the DK2020 collaboration was illustrated. Here, it was found that Realdania had the chairmanship on two steering group levels and was very involved in the collaboration. This has however changed. Pelle Lind Bournonville from Realdania elaborates:

> "*In DK2020, since it was our project, we had the chairmanship at both steering group levels, however, we no longer have this role. In the climate alliance, the chairmanship and secretariat tasks have now been handed over to the regions and KL.*" [Bournonville, 2024].

Bournonville [2024] explains that both the chairmanship and secretariat tasks have been taken over by the regions and KL and continues by describing Realdania as now having more of a member role in the Climate Alliance [Bournonville, 2024]. Realdania will thereby lose most of their *legitimacy power* because they have given up their chairmanship and secretariat tasks after moving on to the Climate Alliance. Their role as a *sanctioning and coordinating authority* will thereby be reduced. It can therefore also be assumed that they will no longer be in change of planning webinars and events to the same degree as it was seen in the DK2020 collaboration since they are no longer the coordinating stakeholder. Due to this, Realdania will lose some of their *information power*. This will most likely be passed on to the regions, as the regions now have taken over the coordinating role of the Climate Alliance.

Bournonville [2024] goes on to say that Realdania will continue to be a financial contributor to the project.

> "*We are contributing to the funding of CONCITO and C40 for the next five years, ensuring their continued involvement in projects as knowledge partners and as key developers of implementation tools. The other half of our contribution is directed towards more development oriented tasks, which are defined along the way. We call them climate development tracks, and it's a mechanism we've set up because we didn't necessarily know in advance what the challenges we might face in the implementation phase would be. So we've created a setup where you can apply for funds if you are somehow associated with the [Climate, ed.] Alliance, and then you can activate those funds and some internal resources to address whatever issues [that, ed.] might arise.*" [Bournonville, 2024].

Bournonville [2024] describes how Realdania will continue to fund the work of CONCITO and C40 for the next five years. Realdania are thereby using their *expertise power* to deem it important that CONCITO and C40 continue to participate in the upcoming partnership. They will hereby also continue to have their *coercion power* and *reward power* as they will continue be a financial contributor to the project as they will secure the *provision of capacity*. They should still be able to affect stakeholders and with this keep parts of their role as the *sanctioning and coordinating authority*.

However this role becomes more prominent looking at the development tracks, which the respondent mentioned will be eligible for municipalities or other involved stakeholders to apply for when implementing their CAP's. As these climate development tracks will be funded by Realdania, the stakeholder will gain more direct *coercion power* and *reward power* since Realdania will be the ones who decide upon who will get help from the funds of the climate development tracks. They will therefore to a large extent through *provision of capacity* gain power to affect the implementation progress of the involved stakeholders. Realdania will also continue to have *expertise power* as their level of expertise will remain the same or even get improved upon based on the expertise they now have gained from the DK2020 collaboration.

Realdania's power over the other involved stakeholders in the climate Alliance will therefore change to the following:
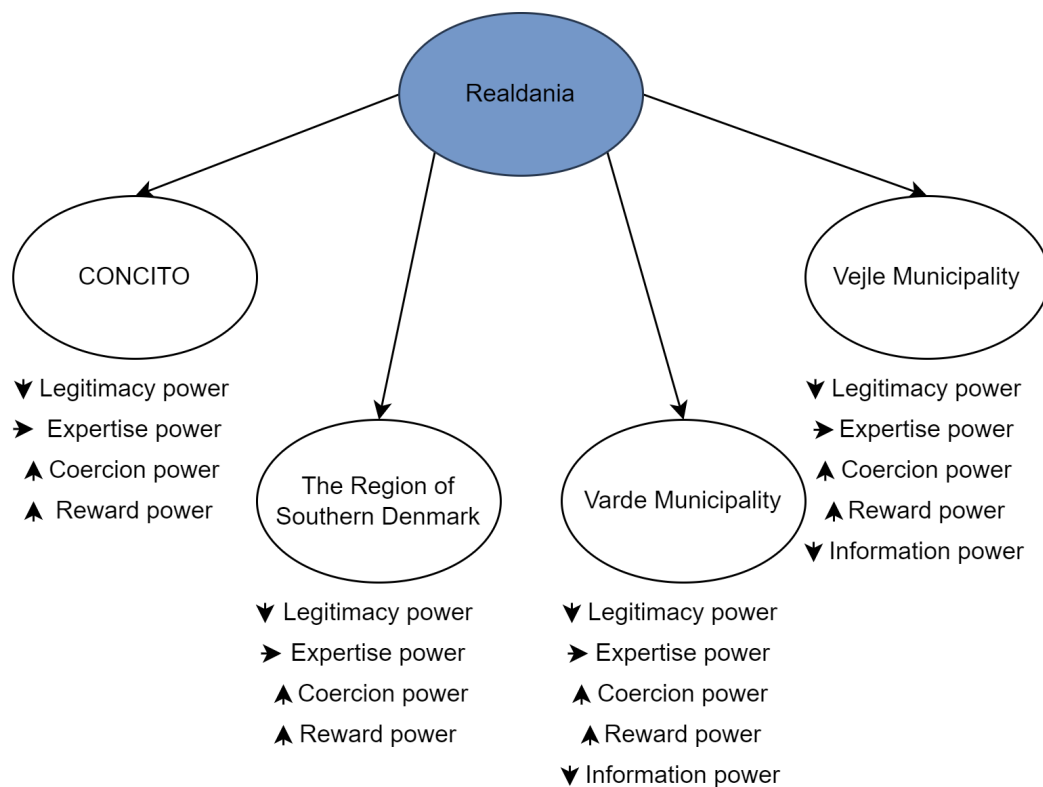

Figure 8.1. Illustration of Realdania's power relations in the Climate Alliance. The arrows indicate if their power over the given stakeholder either increases ($\uparrow$), decreases ($\downarrow$) or remain the same ($\rightarrow$).

8.2 CONCITO

In section 6.2 it was found that CONCITO had a very close relationship with the municipalities and that part of their role was to help them make sure the CAP's lived up to the Paris Agreement. This is a role that CONCITO will continue to have as the CAP's needs to be revised. Tue Damsø from CONCITO explains: "*We in CONCITO are also very involved in the review process but that is because it resides with us.*" [Damsø, 2024]. The respondent continues by saying that going into the Climate Alliance the CAP's will need to be certified again.

> "*The idea is that they [the municipalities, ed.] will be re-certified based on C40's new standard [after 4-5 years, ed.], and it is up to us to adapt it to Danish conditions and help the municipalities implement it without it becoming as resource intensive as it was the first time.*" [Damsø, 2024].

Here, Damsø [2024] explains that when the municipalities join the Climate Alliance their CAP's will have to be re-certified after 4-5 years but this time based on a new C40 standard. It has been mentioned previously by several respondents, how the process of getting certified the first time was very resource demanding especially on municipalities such as Varde Municipality. CONCITO's focus on creating an easier process for the re-certification should thereby allow for the municipalities to maybe have a better experience with the Climate Alliance. It is also relevant to point out that for most municipalities years will have to pass before they would have to take up this process again, as they just recently finished their CAP and the re-certification process is done every four or five years.

As mentioned in the quotes above, CONCITO will still be the "gate keeper" in term of them translating the re-certification tool for the municipalities, they will also continue to have *coercion power* and *reward power* as they in the translation process will have possibilities of deciding upon the wording of various definitions or phrasings. Creating an easier process is also a way for them to be *framing co-benefits*, as it to a higher degree will encourage the municipalities to strive towards the re-certification. They will, furthermore, continue to have *expertise power* as their knowledge of the collaboration process will remain the same or even be increased both with their experiences from the DK2020 collaboration as well as the knowledge they gain from the Climate Alliance.

Damsø [2024] also mentions that: "*We at CONCITO are also very involved in the revision process, but that's because it resides with us.*" [Damsø, 2024]. With this quote it can be seen that because CONCITO is in charge of the revision process of the CAP's of the municipalities, then CONCITO will continue to have a close relationship with the municipalities in the coming years when their CAP's need to be revised. The revising of the CAP's entails an ongoing monitoring and evaluation of the plan that will be the bases of an revision of the CAP every five years [C40 Cities Climate Leadership Group, 2020]. The role and power of CONCITO in the revision process will be similar to that of which they had in the DK2020 collaboration where they e.g. will keep their *coercion* and *reward power* when deciding if the revised plans live up to the requirements.

When asked about the Climate Alliance more generally, Damsø [2024] said that the sparing process of the partnership will mostly stay the same with a few minor adjustments, but mention that the setup within the municipalities will have to change as the implementation process will become more expensive. The respondent explains more in detail their purpose in the Climate Alliance:

> "(...) it's about implementation support and creating a common monitoring system that can provide feedback on the progress and having funds set aside for development tracks, so we can continuously address some of the areas where it proves to be challenging. It involves maintaining a fairly large staff in these geographic organizations specifically to guide, advise, and help implement these plans." [Damsø, 2024].

The respondent explains that their tasks in the Climate Alliance will revolve around supporting the municipalities in their implementation of their CAP's and setting up a system that can monitor their progress. Such monitoring system will add to the *co-production of knowledge* both horizontally and vertically where it will be possible for leading stakeholders such as CONCITO to be aware of the progress of all municipalities and thereby be able to identify if some need more help than others. CONCITO's *information power* will thereby be increased with this monitoring system, but they will also keep the *information power* they had from the DK2020 collaboration, because they will continue their work with the municipalities' CAP's as a knowledge partner guiding the stakeholders. This also means that CONCITO in their relationship with these stakeholders will be able to keep their *model power* and maybe even better it further if they do their new tasks to the liking of the stakeholders. With this responsibility still on CONCITO it can be said that their role in the Climate Alliance will not be much different from their role in the DK2020 collaboration and they will thereby continue to be a *sanctioning and coordinating authority*.

As was seen in the interview with Realdania, Damsø [2024] also mentions that there will be some financial support available if any challenges arise. The respondent continues by saying that the Climate Alliance will be financed with 80 mil. DKK over a five year period with 22 mil. DKK financed by Realdania [Damsø, 2024]. Most of this money will go to financing the involvement of the DGO's in the partnership. CONCITO will, however, still receive a part of this funding from Realdania and this thereby still makes them vulnerable to the *coercion and reward power* of Realdania.

Damsø [2024], furthermore, points out that because the organisation of the Climate Alliance will be more complicated compared to DK2020, it is important for them to make sure that it will go as smoothly as possible so that the majority of the allocated time set for the project will be used on helping the municipalities instead of coordinating internally. A stable *provision of capacity* is therefore needed to keep the involved stakeholders spend their time on the task ahead instead of searching for resources elsewhere.

Lastly, it was pointed out by Damsø [2024] when reviewing the quotes, that that the general role of CONCITO will change significantly since the executive secretariat will be passed on from CONCITO to the regions and KL [Damsø, 2024]. CONCITO will thereby

lose some of their *legitimacy power* going into the Climate Alliance, in terms of being able to affect the structure of the collaboration.

CONCITO's power over the other involved stakeholders in the climate Alliance will therefore change to the following::
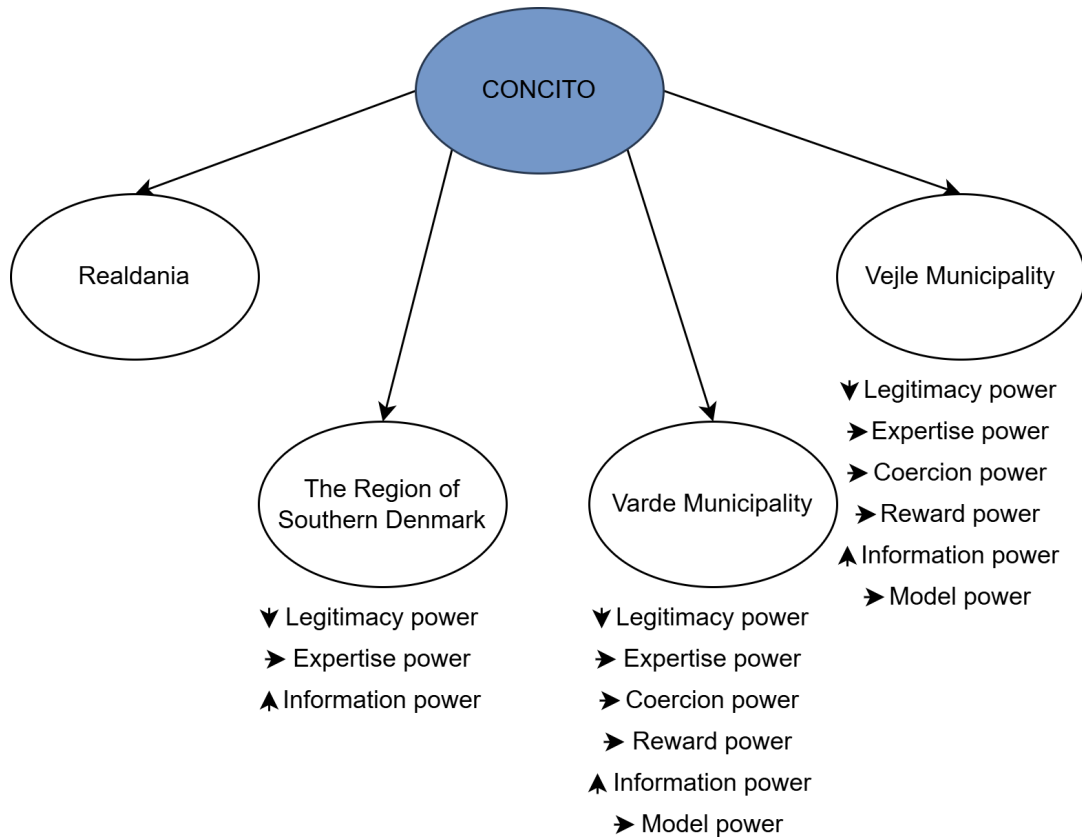

Figure 8.2. Illustration of CONCITO's power relations in the Climate Alliance. The arrows indicate if their power over the given stakeholder either increases (↑), decreases (↓) or remain the same (→).

8.3   The Region of Southern Denmark

As Realdania and CONCITO both have given over the chairmanship and secretariat tasks to KL and the regions, the Region of Southern Denmark will thereby have a larger role in the Climate Alliance compared to the one they had in the DK2020 collaboration. This was also something that Boris Schønfeldt from The Region of Southern Denmark touched upon in his interview.

> "(...) [it will, ed.] hopefully evolve in relation to what I feel we have started. I hope that we can actually preserve this good space for talk, where we hopefully can help play the role that we now believe we can play, where we can help and support and produce data and facilitate to an even greater degree (...) it is somewhat the regional role to try to support and also be accepted as if it is actually being done with the best of intentions (...)" [Schønfeldt, 2024].

Here, Schønfeldt [2024] explains that the role of the region will evolve with their new responsibilities. The respondent sees the potential of the region to take on more tasks and assist their municipalities further in their upcoming work with the Climate Alliance. These new responsibilities mean that their *legitimacy power* power will grow as their role as a more dominant *sanctioning and coordinating authority* is taken on with the Climate Alliance. The *expertise and information power* of the region is presumed to also grow with them both having gained more knowledge and experience from the now terminated DK2020 collaboration. As they would like to continue their data collection and distribution, they still have the opportunity to keep or grow the *coercion and reward power* over the municipalities that they have gained with the DK2020 collaboration.

In the quote it was also mentioned that the hope is that the municipalities will understand their intentions behind it and accept their support. Schønfeldt [2024] further elaborates on his hopes for the work of the Climate Alliance:

> "*(...) [I hope that we can, ed.] continue and build on, so that we can play the regional role that we can play with the means and the framework we have to support progress in this field of sustainability and climate, which we all want. Instead of making it into some kind of battle arena, we can gather our strength and move on (...)*" [Schønfeldt, 2024].

As mentioned in chapter 6, there can be some tension between the region and its municipalities, and this is something that the respondent points to as an aspect they would like to better going into the Climate Alliance. According to the respondent, this is necessary for them to make advances within the large fields of sustainability and climate. With the region seeking to better the communication with the municipalities it can be said that they also seek to increase their *model power* with the municipalities further with the Climate Alliance. Communication across stakeholders is also a necessary aspect of governance in terms of creating *co-production of knowledge* as well as when *framing of co-benefits*.

The types of power that the Region of Southern Denmark holds have thereby not changed but they all have the possibility of growing when stepping into the Climate Alliance. The Region of Southern Denmark's power over the stakeholders in the climate Alliance will therefore change to the following:
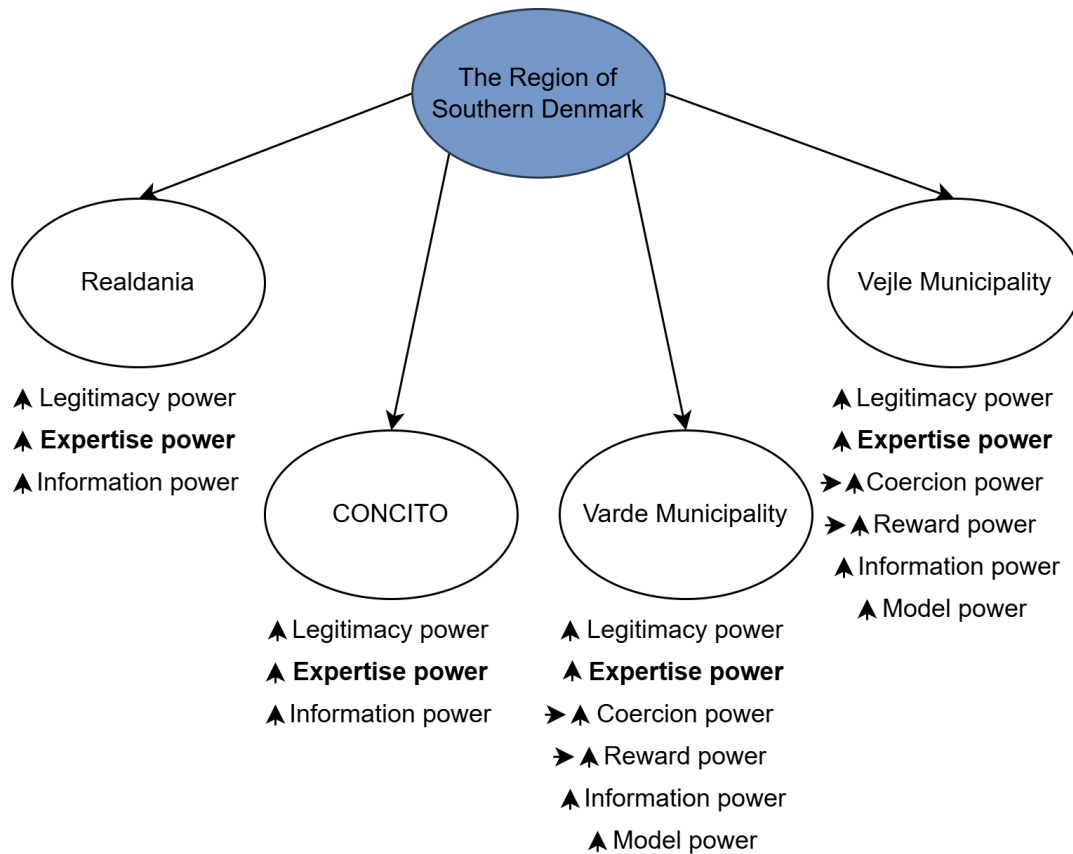
Figure 8.3. Illustration of the Region of Southern Denmark's power relations in the Climate Alliance. The arrows indicate if their power over the given stakeholder either increases (↑), decreases (↓) or remain the same (→). Bold font indicate the arrival of a new type of power.

8.4 Municipalities

In this section the role of the municipalities in the Climate Alliance will be analysed. The role of Vejle and Varde Municipality will be looked at separately with the theoretical perspectives describing the types of power they will have in the Climate Alliance compared to that of the DK2020 collaboration and how MLG plays a part in this.

8.4.1 Vejle Municipality

In the interviews with Vejle Municipality, when asked about the Climate Alliance and how it was going to work, there was a lot of uncertainty. Søren Peschardt from Vejle City Council explains that politically it does not make much of a differences for him whether it is called DK2020 or the Climate Alliance [Peschardt, 2024], and Lisbet Wolters from Vejle Municipality says that she is not aware of how the Climate Alliance will be organized [Wolters, 2024]. With this, it can be said that the interest in the Climate Alliance is not that big within Vejle Municipality. It can also be seen in the interview with Jette Vindum from Vejle Municipality that they do not see much use for the Climate Alliance:

"(...) couldn't we just continue without it [the Climate Alliance, ed.] now?
I really think we could to a large extent, but it was as if the fact that all
municipalities were involved in this [the Climate Alliance, ed.], meant that we
should be too. We are not trying to be so demonstrative. There is some signal
value in participating." [Vindum, 2024].

Vindum [2024] explains that a big part of the reason that Vejle Municipality is part of
the Climate Alliance it due to the fact that all other municipalities are participating, as it
could send a wrong signal if they as the only municipality were not involved. The Climate
Alliance is - just like DK2020 - still a voluntary effort and therefore Vejle Municipality
still have their *legitimacy power*. However, because Vejle's participation in the Climate
Alliance is based on not wanting to be the odd man out, they do lose some of their
legitimacy power as it more so becomes a question of having to be involved instead of
wanting to be involved. It thereby seems that there will be a need for *framing of co-benefits*
of their participation of in the Climate Alliance, both internally and perhaps also with a
sanctioning and coordinating authority. The internal power relations of the municipality,
is expected to remain the same as such dynamics are decided upon through legislation that
the Climate Alliance will not be affecting.

In section 6.4 it was also mentioned that since Vejle Municipality is a pilot municipality,
they have not used the other municipalities as much for knowledge sharing. This is not
something Vindum [2024] sees changing when going into the Climate Alliance: "*We haven't
really spared with the other municipalities. I don't know how much we're going to do it
now either.*" [Vindum, 2024]. The respondent continues by saying that since they are
are pilot municipality, they are naturally ahead of most other municipalities making it
difficult to be able to learn from the them. Therefore, the respondent does not think that
Vejle Municipality will begin to increase their use of knowledge sharing with the other
municipalities with the climate Alliance. Vindum [2024] does, however, add when revising
the quotes, that all of the municipalities in the Region of Southern Denmark located
in Jutland have since fall 2023 created an experience group with meetings quarterly to
exchange experience. For these meetings the Region of Southern Denmark as well as
an employee from the local DGO from the Climate Alliance is also participating. Vejle
municipality will therefore participate in some amount of knowledge sharing which means
that they will depending on their contributions at the meetings be involved with *co-
production of knowledge* in the Climate Alliance.

When it comes to *information power*, Vejle Municipality's role have not changed since they
will continue to have the extra experiences from being a pilot municipality and from their
previous work with climate change adaptation. This means that their *expertise power* will
remain the same whereas their *model power* have the to possibility to either grow or shrink
depending on how their willingness to collaborate with the other municipalities and thereby
contribute to *co-production of knowledge*. They are lastly expected to have a large amount
of *coercion* and *reward power* in the Climate Alliance similar to that experienced in the
DK2020 collaboration, where they also should be able to chose the amount of knowledge
that they will be willing to share with the other municipalities.

Vejle Municipality's power over the stakeholders in the climate Alliance will therefore change to the following:
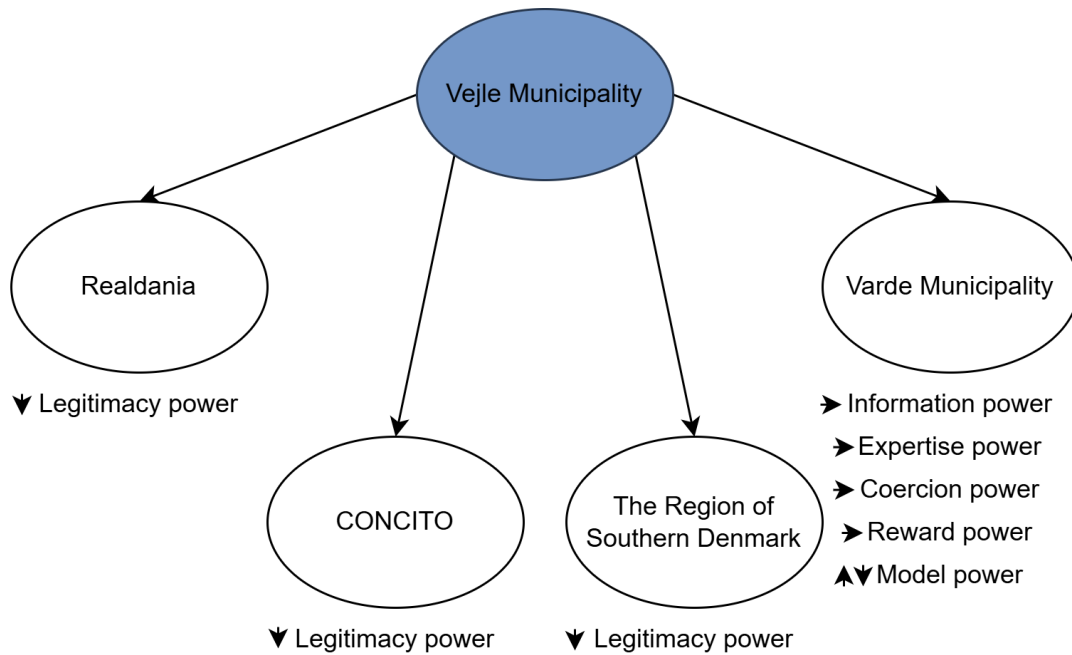

Figure 8.4. Illustration of Vejle Municipality's power relations in the Climate Alliance. The arrows indicate if their power over the given stakeholder either increases (↑), decreases (↓) or remain the same (→).

8.4.2   Varde Municipality

Unlike Vejle Municipality, it was, according to Christine Schoop Gärtner from Varde Municipality, quite natural for Varde Municipality to continue the partnership in the form of the Climate Alliance [Gärtner, 2024]. It was also seen in 6.4 that Varde Municipality got a lot more out of the partnership compared to Vejle Municipality. However, Gärtner [2024] also mentions that making this decision was not without problems, and that there was a question of whether they even wanted to become re-certified as this would require them to familiarize themselves with a new framework:

> "(...) now that you have transitioned from DK2020 to the Climate Alliance, you have also changed the underlying documentation from the CAPF to the Cities Climate Transition Framework (CCTF). And the purpose of this change is to make it easier for the municipalities to grasp, which I think it is, but it is a new way of working." [Gärtner, 2024].

The respondent explains that because the C40 standards have been changed in the new framework - the CCTF -, there have been some doubts as to weather or not they should continue with the re-certification process even though it might be easier to work with. Similar to Vejle, Varde Municipality is able to chose for themselves through their continued *legitimacy power* if they would like to continue participation in the ongoing partnership, however, it can be assumed that they also are affected by the amounts of participants, as they were in the DK2020, and this causes their *legitimacy power* to shrink.

Gärtner [2024] also comments on a specific reason for them to stick with the Climate Alliance:

"*We simply need more help with these solutions that must be implemented, so they have created these climate development tracks in the Climate Alliance, where they have set aside some money and then several municipalities can work together on solutions within energy, agriculture, or whatever it might be, and I think that is positive.*" [Gärtner, 2024].

Gärtner [2024] sees that Varde Municipality could make good use out of these climate development tracks that have been introduced with the Climate Alliance. In order for them to implement their CAP, they are in need of *provision of capacity*, which they stand to gain from the new collaboration. The respondent also mentions that the climate development tracks will promote collaboration between the municipalities and thereby Varde Municipality could continue their good partnership with the other municipalities in the Climate Alliance. Varde Municipality will therefore keep their *information power* as they plan on continuing to share knowledge with their neighbouring municipalities. *Co-production of knowledge* is an important factor for Varde Municipality as this is a way for them to save time and resources. Looking at this municipality there seem to be less need for *framing of co-benefits* of the Climate Alliance compared to what can be considered needed for Varde Municipality, where the outcome of the DK2020 collaboration was smaller.

In the interview it was also mentioned how Varde Municipality were to participate in the development of the before mentioned monitoring system CONCITO would like to create:

"*Next week, I have a meeting with CONCITO about a monitoring system they would like us to test. We have agreed to test it for them, because then we can be a municipalities that can influence what changes they are to implement. I actually think that if a municipality is willing to spend a little time on it, they will also gain quite a bit of influence.*" [Gärtner, 2024].

As Varde Municipality have been chosen to test out the monitoring system that will be used in the Climate Alliance, they will have the opportunity to influence system. The *co-production of knowledge* is thereby increased as more local experience will be communicated higher up in the organizational levels. The fact that they have been appointed to such task adds *legitimacy power* to their feedback. They also gain some amount of *coercion and reward power* over CONCITO as they through their feedback will be able to dismiss or approve suggestions from CONCITO. Even though they, as mentioned by the respondent, will have to spend time on the task, they have internally tried *framing of co-benefits*, and as it says in the quote, the amount of influence gained is outweighs the amount of time spent. Lastly, *information* and *expertise power* will be gathered as well due to the fact that they will become "experts" for other municipalities on how this monitoring system to be approached and taken into use.

Varde Municipality's power over the stakeholders in the climate Alliance will therefore change to the following:
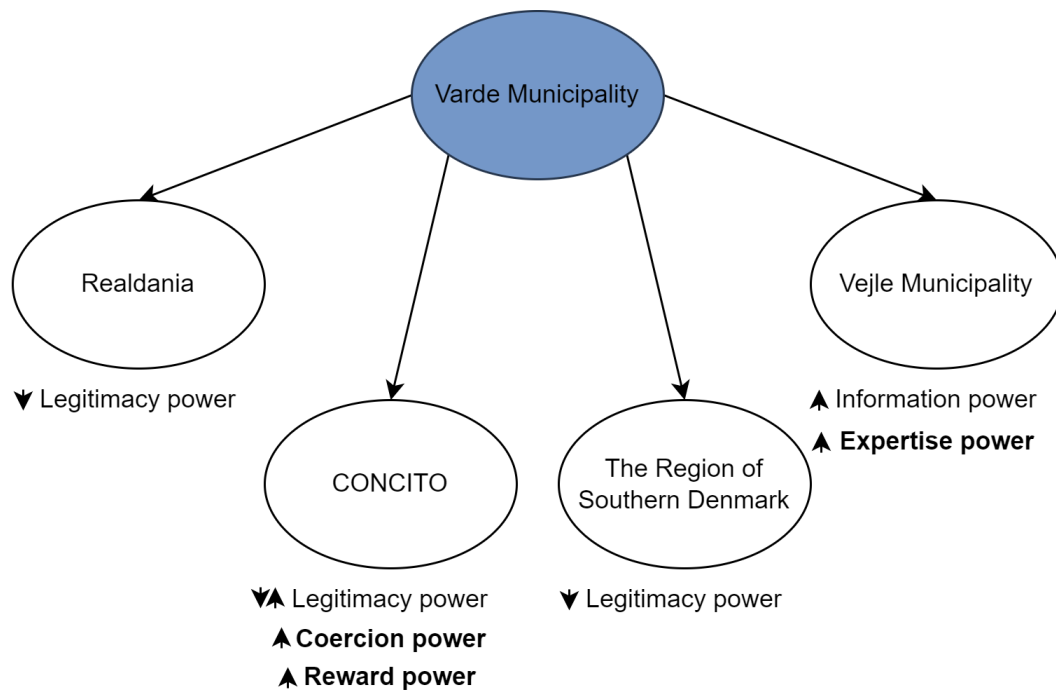

Figure 8.5. Illustration of Varde Municipality's power relations in the Climate Alliance. The arrows indicate if their power over the given stakeholder either increases (↑), decreases (↓) or remain the same (→). Bold font indicate the arrival of a new type of power.

8.5 Sub-conclusion

In this chapter it was found that Realdania is giving up their chairmanship and secretariat tasks to the regions and KL and therefore are giving them some of their *legitimacy power*. This then in turn means that the Region of Southern Denmark will be getting more *legitimacy power* when going into the Climate Alliance. In the Climate Alliance, Realdania will continue to be a financial contributor, in the form of the climate development tracks fund, and will thereby increase their *coercion* and *reward power* while still considered to be a *sanctioning and coordinating authority*.

CONCITO is trying to have the municipalities re-certify their revised CAP's within the next couple of years through *framing of co-benefits* by presenting an easier process compared to that which have been experienced in DK2020. If this is also experienced by the other stakeholders, they will have the opportunity to increase their *model power*. They will also in the new collaboration create a monitoring system which will increase *co-production of knowledge* as well as their *information power* while keep being an important part of the project as a *sanctioning and coordinating authority*. CONCITO will, however lose, some of their *legitimacy power* when the main responsibility of the Climate Alliance is passed on to the region and KL.

The region of Southern Denmark will experience a grow in *legitimacy power* through their

new role as a more *sanctioning and coordinating authority* given to them by Realdania and CONCITO. With this their *expertise* and *information power* is expected to grow which can also be the case for their *coercion* and *reward power* if the region will increase their data collection. Their *model power* will, however, have to be increased through e.g. *framing of co-benefits* for the problems ahead to be solved in the best possible way.

Lastly, both of the municipalities will have their *legitimacy power* of selecting whether or not to be involved the Climate Alliance, although it is reduced due to not wanting to be the only municipality not participating. Vejle Municipality will keep their *information, expertise, coercion*, and *reward power* in the Climate Alliance due to their experience in the field, but their *model power* can shrink or grow depending on their willingness to participate in *co-production of knowledge* with the other municipalities. Varde Municipality is in need of *provision of capacity* for the implementation of their CAP, adding to their need for *co-production of knowledge* with the other stakeholders. Varde Municipality stands to gain various types of power - *legitimacy, coercion, reward, information*, and *expert power* - as they participate in testing of CONCITO's monitoring system.

Discussion of initiatives to better the outcome of the Climate Alliance

9

In this chapter suggested initiatives for improving the Climate Alliance will be discussed in terms of how they can be implemented considering the power and governance dynamics of the stakeholders. Here, issues experienced by the stakeholders from previous chapters will be taken up. Power and MLG will be used to discuss the possibilities of implementing changes to minimize issues in the Climate Alliance.

9.1 More focus on value creation for all stakeholders

A first theme touched upon by the stakeholders in previous chapters 6 and 7 is the value that the organisation of the project generates for the participants. Here, it was concluded that Varde Municipality saw greater value of the collaboration compared to Vejle Municipality. In section 7.4 it was mentioned by both Jette Vindum and Lisbet Wolters from Vejle Municipality how they thought that they had spent too many unnecessary resources on filling out documentation and attending meetings which essentially did not provide them with any kind of value for their work. The municipality did, however, express satisfaction with the help they received from CONCITO, as mentioned by Wolters [2024] in section 7.4. In the Climate Alliance there can be a need to focus on how to bring value into the collaboration for all municipalities in order to ensure their continued contribution.

One way to generate more value to the collaboration could be through an increased *framing of co-benefits* for especially the pilot municipalities such as Vejle Municipality. According to Klimatilpasning på Tværs [nd.] mentioned in section 1.3, taking into account the incentive of each task and process is important in cross-municipal adaptation projects. This boost of incentive could come from a *sanctioning and coordinating authority* who should be in charge of keeping the involved stakeholders engaged. From section 1.3 it was also concluded by Esbjørn et al. [2021], that a project or theme has to be prioritized by the municipal leaders in order for the project or the theme to be prioritized internally. Wolters [2024] did mention earlier how their city council members and internal leaders seemed to have lost some interest in the project which also affected the employees. It can be argued that there therefore also lies some responsibility on the steering members of the municipality. city council members or other municipal leaders should therefore attempt to keep their employees engaged in the work of the Climate Alliance. This could be done by communicating more clearly the positive outcomes and *framing the co-benefits* that the municipality has gained from the Climate Alliance to their employees or from requesting updates on their work and thereby showing interest of their progress. Such efforts will largely depend on internal communication and change of culture, and would require for the municipal stakeholders to spend more time and thereby resources on communication which will be removed from other municipal tasks.

It can therefore be argued that this should not be a responsibility to only be passed on to the individual municipalities. Needing a *sanctioning and coordinating authority* for the task of *framing of co-benefits* can also apply to a more general authority in the Climate Alliance. In this new partnership, the Region of Southern Denmark as well as KL has taken over this coordinating role from both Realdania and CONCITO, and it can therefore be argued that they should be the ones in charge of motivating the participation of the municipalities due to the amount of *legitimacy power* they now possess. It can, however, be argued that the region does not yet have the amount of *model* and *information power* needed. It has

several times been expressed by respondents from Vejle Municipality that they are unsure of what the region can contribute with, which could be due to them not yet having had the chance to work with their local DGO's at the region. The region therefore needs to build relationships as well as develop the necessary role of authority, if they are to take on this role. Their new role in the Climate Alliance might be able to contribute to this

Otherwise, CONCITO could also be an option of authority to implement this change, as Vejle Municipality seem to have enjoyed the collaboration with this stakeholder more than they have with the region. CONCITO should to some extent be able to affect the value in the collaboration by requiring increasing or lessening the burden of *co-production of knowledge* in terms of documentation from the municipalities, which they have also tried to do. CONCITO will as mentioned in section 8.2 keep both their *expertise, model* and *information power* in the Climate Alliance, but as they are not in charge of actually coordinating the project, they might lack the *legitimacy power*, and it can therefore be assumed that their ability to implement a noticeable change would be limited.

The region should therefore seek to structure and accommodate the tasks so that they can fit to each municipality and their preferences. Specifically for Vejle Municipality, as they highlighted that the documentation requirements as well as attending meetings only focused on status of the participants and did not contribute with value to their work, there might be a need for minimizing or avoiding similar tasks in the Climate Alliance. Some documentation will be required in the Climate Alliance when the municipality is to have their updated CAP's re-certified, but the region should through its *legitimacy power* attempt to minimize unnecessary documentation. Vejle Municipality did, according to Wolters [2024], however, have great experiences sparing with CONCITO because it contributed to new knowledge. This aspect might be where the Region of Southern Denmark should put their focus in terms of generating value to participants such as Vejle who could not gain knowledge from other municipalities to the same extent as they have been farther ahead in the process. The region could here ensure that Vejle and similar municipalities experiencing the same to a higher degree are receiving information from knowledge stakeholders such as universities and CONCITO, for them to use in their work with climate change adaptation. Though, one aspect to consider, is the fact that the purpose of the Climate Alliance is different from DK2020. Now the focus is put on implementation, which Vejle also has a lot of experience within, but it can be argued that they to a higher degree should be able to draw value from seeing what initiatives the other municipalities implement. A certain level of innovation will be taking place at this stage, and the change of more municipalities contributing with new initiatives which will be useful for Vejle Municipality.

A last subject that might also be necessary in order to improve the value of the Climate Alliance, is for the *sanctioning and coordinating authority* to clarify the path of the next five years of the collaboration. As described earlier, the path of DK2020 was build while driving, which could create an uncertainty amongst the stakeholders in the very front in terms of where the collaboration is heading. It was, furthermore, mentioned by Wolters [2024] how Vejle Municipality during DK2020 from an early phase had their CAP and then afterwards had to wait for the next phase to begin. On one hand it can be argued, that generally such wait at an ending phase is a natural part of being the amongst the

first as they naturally also will be the first to reach the finish line. Solving this problem can therefore be difficult as it can be considered a natural aspect of working in phases as some will always be ahead and others behind. On the other hand, if this is a problem that removes value of the project of certain participants this problem should be considered.

The region, having the most *legitimacy power*, could therefore try to plan further ahead than what have been done during DK2020 and thereby make sure that all municipalities have a clear view of the task ahead though clear communication of these tasks. This would keep municipalities such as Vejle Municipality continuously occupied. If incentive is not created by leading stakeholders, it could with time lead to Vejle Municipality using their *legitimacy power* to exit the Climate Alliance, as participation is voluntary. Lastly, it was also mentioned in section 1.3, how Ørsted Nielsen og Wejs [2023] concluded that mandatory involvement could be a solution to ensure a prioritization of the collaboration. As the conditions of the Climate Alliance have already been agreed upon, this solution would have to be taken into use in a potential third collaboration project, as no stakeholder has the needed *legitimacy power* to enforce such a change at this point.

9.2 More focus on common barriers

A second theme touched upon in previous chapters, is the need to address the general national barriers that municipalities face in their daily work with climate change adaptation. Such issues were touched upon in section 7.4 where e.g. the cap of construction budgets or the theme of agricultural land was highlighted by Wolters [2024] and Vindum [2024]. This is, according to Damsø [2024] also something that the Climate Alliance will seek to look into by gathering data on their problems and then afterwards, if possible, try to solve them [Damsø, 2024].

If the Climate Alliance is to influence issues on a larger scope, gaining both *information* and *expertise power* as well as some amount of *coercion* or *reward power* could be necessary. As mentioned by Damsø [2024], CONCITO needs to gather information about the general issues that surrounds the municipalities for them to be able to grasp where the organization should begin breaking down barriers. In order for the organization to generally approach some of these barriers, a *sanctioning and coordinating authority* to coordinate such effort is needed. Similar conclusions were also drawn by Fryd et al. [2021], Wiborg et al. [2014], and Nielsen og Pedersen [2023] in section 1.3, who all pointed towards the difficulty of making larger impacts if there is no appointed leader to make the decisions. A vertical *co-production of knowledge* is therefore required in the Climate Alliance to implement such a change. Here CONCITO could be the needed leader, as they have the great overview, but it can also be argued to be more relevant for the regions or KL to take on this role, as they are in closer communication with the municipalities, and still should be able to have the necessary overview.

Whether the partnership of the Climate Alliance will be able to make such changes can be discussed. Generally trying to solve general barriers will require *provision of capacity* since a stakeholder will have to put resources of either time or personnel and thereby money into the effort. Realdania, who already is an economical force in the project could therefore be a stakeholder to approach when gathering resources. Some of these general

barriers such as the theme of agriculture does, however, collide with political opinions, which Vindum [2024] also pointed out during the interview. This means that a benefactor would contribute to pushing political opinions and the stakeholder will therefore have to be comfortable taking on such a role. If this is not something Realdania would be interested in doing, then another *provision of capacity* would have to be found elsewhere. *Engagement of civil society* is according to the respondent a necessary factor to them reaching their goals meaning that a *sanctioning and coordinating authority* in some form bringing in *provision of capacity* needs to be appointed in order for them to make the necessary changes.

The regions or KL could also be fitting authorities to approach for resources, as these organizations already are politically steered and they are thereby already familiar with the political debate. These stakeholders can therefore be assumed to have the necessary *information* and *expertise power* to grasp the task ahead. As they also are the steering members of the Climate Alliance their *legitimacy power* should also contribute to them being able to make larger changes. Assuming that they have the needed resources, the regions should seek to gather information on which barriers affect the which municipalities. This could be done in collaboration with CONCITO, who already have begun the process. From here the municipalities could be grouped based on the barriers that affect them, and through discussion in these groups, a plan of action could be produced. The stakeholders should firstly seek to solve barriers, that they can affect and change amongst themselves.

If the changes necessary turn out to be larger than what can be solved just with the stakeholders of the Climate Alliance, different stakeholders with more power needs to be involved. This could e.g. be if they seek to lift the cap of construction which would require a change of legislation and thereby the support of the parliament. On one hand, it can be argued that it would take more power than the Climate Alliance possesses, as such changes would have to be made on a national level through the parliament, where the Climate Alliance have no *legitimacy power*. On the other hand, if all of the municipalities and regions come together and begin *framing of co-benefits* of making the changes, as well as begin *engagement of civil society* to affect the opinions of the voters and larger companies, the Climate Alliance will gain an amount of *coercion and reward power* through the voices of the voters. Affecting the structures on a higher level is therefore considered possible but will require coordination and effort from a stakeholder being a *sanctioning and coordinating authority* of this effort as well as a large amount of *provision of capacity*. Of this reason, the stakeholders should strive towards solving smaller common barriers before moving directly towards implementing changes in legislation.

9.3 More resources for implementation

A third theme mentioned by the respondents in previous chapters, is how the lack of time and resources affected their experience in the DK2020 collaboration. In chapter 7 it was mentioned how the task of DK2020 was a large task. This was e.g. mentioned by e.g. Christine Schoop Gärtner from Varde Municipality in section 7.4.2 as well as by Damsø [2024] in section 7.2. Damsø [2024] also mentioned during the interview, how the greatest challenge of the Climate Alliance is gathering the necessary amount of resources to secure the implementation of the CAP's. This is even though, more resources have already been introduced with the Climate Alliance in the form of development tracks as

they were described in chapter 8. These are meant to provide additional resources for the municipalities and aid them in their road to fulfill the requirements of the Climate Alliance.

There is therefore a need for more *provision of capacity* for the municipalities in order for them to be able to implement their plans. In section 1.3 [DKNK, 2022] concluded that nature-based solutions should be prioritized in climate change adaptation, but, as found by Hoffmann [2020], such newer adaptation solutions can result in higher costs. Municipalities therefore have to find a way to prioritize their limited resources and chose the most fitting resources for the specific issue, they are trying to solve or prevent. The development tracks should be able to assist in this matter, but if more *provision of capacity* is needed, the involved stakeholders will need to define an incentive for a benefactor such to increase their funding of the project. The most approachable would be to contact already funding stakeholders such as Realdania, and ask for more resources, as the stakeholders already are familiar with each other.

Funding could also come from external stakeholders, which already is the case for Vejle Municipality as mentioned by Wolters [2024] in section 7.4. The money could come from both companies as well as local, national or supranational stakeholders such as the EU. By involving another stakeholder, another *sanctioning and coordinating authority* within the Climate Alliance will be introduced who would, like Realdania, gain a large amount of *coercion* and *reward power* to affect the project and the outcome. There is therefore a risk by receiving resources from other stakeholders. However, if expectations are matched beforehand receiving the money such issue can be avoided. This could be a solution to strive for if already participating benefactors are not able to support the project further.

There is also the possibility for the regions or the municipalities themselves to internally prioritize more resources to the subject. This will have to be politically decided upon as both of these institutions' economies are lead by people who are politically elected. Changing regional or municipal budgets would therefore require a lot of work and dedication to the task. If they are to avoid spending resources in the search of more resources, it can be argued that the first way the region and the municipalities should look is within their own budgets. As the politicians within each institution respectively has the necessary *legitimacy power* to actually make budget changes here, they should investigate if more resources can be allocated to the subject internally. *Framing of co-benefits* could therefore be necessary for them to do in order for them to see the benefits of spending extra money on these issues. Especially since the money will have to be taken away to spend on other topics.

Co-production of knowledge can also be an easy way for the municipalities to save resources in the Climate Alliance as they through collaboration will be able to draw on experience from other municipalities. In order to do this they need to increase their *information power*. In section 6.4 it was mentioned how Varde Municipality to great extends had spared with other municipalities, which had contributed to them saving resources, as they did not need to reinvent the wheel each time. The same could be done during the implementation, where different solutions could be tested out. Lind og Hansen [2023] concluded in section 1.3, that experimentation of adaptation solutions is a vital part of the process, due to the changing capabilities of the climate. And also in section 1.3 it was concluded by Wiborg

et al. [2014] how municipal borders provide a limitation in finding the optimal solutions in climate change adaptation. The use of collaboration is therefore vital in the process of saving resources. Especially when considering resources in terms of time and knowledge.

In order for the cross-municipal collaboration to be increased this way in the Climate Alliance, a *sanctioning and coordinating authority* would have to look into the obstacles of the different municipalities and create forums for them to talk in. A stakeholder with an amount of *information power* of local issues can therefore necessary. Such stakeholder could either be the regions as they are aware of the problems of their individual municipalities or it could be CONCITO who are en the process of gathering data and thereby enhancing their *information power*. This data could thereby be used to group municipalities who are experiencing the the same climate issues or have the same difficulties similar to the peer-groups that they already have. If the peer-groups from the DK2020 collaboration will continue in the Climate Alliance, then the first point of action, would be to investigate if these groups already touch upon these topics or if they should be changes to better accommodate the issues of implementation. If changing the groups or creating new groups, the value creation of the groups should be kept in mind in order to keep the municipalities invested and keep some of them from loosing interest as Vejle Municipality has experienced.

Another way for the municipalities to better their use of resources could, according to Klimatilpasning på Tværs [nd.] mentioned in section 1.3, be to keep away from implementing a grand holistic adaptation measure from the very beginning. According to the author, implementing more simple solutions that later on can be expanded upon is a way to save resources both in terms of money but also regarding their need for competencies. Municipalities should therefore strive to have this focus, as it can be argued that this would lessen their need for *expertise* and *information power* and thereby the *provision of capacity* as they do not have to hire new personnel.

A last measure to reduce the unnecessary use of resources is to implement technology to a larger extent, which was also touched upon in section 1.3. This will however require the opposite needs of using simple solutions, as technological solutions can be argued to require the presence of more specific competencies within the resources within the municipalities. If such remedies were to be used, the *expertise power* of the handling stakeholder would have to be considered and perhaps be increased depending on the stakeholder. Optimally, the regions would overtake the production of larger technological analyses as they did with the climate accounting. It can be assumed that most municipalities would benefit from having analyses done on e.g. their vulnerability of certain climate risks, so instead of having each municipality spend time and resources on doing the same analyses, a central authority should be put in charge of such task.

9.4 More responsibility to the Region of Southern Denmark

A last theme touched upon by the respondents, which will be discussed in this section, is role of the Region of Southern Denmark. In the previous chapters respondents have had various opinions on their involvement in the DK2020 collaboration and climate change adaptation in general. Some respondents does, however, see the potential of giving the region more responsibility in the Climate Alliance. Gärtner [2024] mentioned in the

interview how having a stakeholder with a helicopter perspective can provide great value. Especially when it comes to the topic of climate, municipality limits does not matter as weather events are unhindered of such borders. Currently the municipalities are the ones in charge of handling water within their appointed area, but there may be a need for greater coordination between the municipalities which could be taken on by the region.

Firstly, there should be no legal boundaries for the Region of Southern Denmark to become more involved in the coordination of climate change adaptation for both water and drought. If the region does not overtake the role as the decisive authority, but sticks to the same role as the *sanctioning and coordinating authority* and the *information power* that they have gained going into the Climate Alliance there should be no problems in jurisdiction. In section 1.3 it was also concluded by DKNK [2022] and Ørsted Nielsen og Wejs [2023], that an "official secretariat" such as the region to a higher degree should promote learning and knowledge sharing amongst the municipalities. The Region of Southern Denmark should therefore work in this direction which could end up saving the municipalities resources, as more cross-municipal and thereby more effective measures can be implemented. By adding this additional role to the region, it can be argued to result in them gaining more *legitimacy power*, but this would only be the case, if all of the municipalities would approve on this addition of power. The municipalities therefore have the overall *legitimacy power* to make the decision on whether or not they would be willing to pass some of this power over to the Region of Southern Denmark. In term of implementing the best possible solutions, this is something that the municipalities should strive towards doing.

However, as mentioned in chapter 6 and 7, there can be some tension between the municipalities and the region, which to some extent was seen between Vejle Municipality and the Region of Southern Denmark, where the need for the region seemed to be close to none compared to that of Varde Municipality. Also Friis-Hauge [2024] mentioned during the interview, how he thinks that the region could be more involved on some topics regarding climate action planning, but that some decisions should be kept at a municipal level. If the region therefore were to coordinate broad efforts regarding e.g. flooding or drought, it would require a certain level of *co-production of knowledge* vertically meaning that an amount of trust of intentions amongst the stakeholders would have to be increased, which according to Bournonville [2024] can lack. This building of trust can, according to the Klimatilpasning på Tværs [nd.] mentioned in section 1.3, be a process that takes time, which then should be considered by the stakeholders. This is therefore something that the region should continue to work on to improve in the Climate Alliance.

Framing of co-benefits could be argued to be a way to ensure the approval of all municipalities. If some municipalities should fear that the *legitimacy power* given to the region, should grow beyond what they initially had thought of the task, the drafting of a written agreement such as the one made for the Climate Alliance can be made. Here the amount of *legitimacy power* the region would gain in terms of the tasks passed on to the stakeholder, should be clearly written down and signed by all stakeholders. The municipalities can in this case be argued to also have the most *coercion and reward power* in deciding what *provision of capacity* in terms of resources and tasks are and are not given to the region. A general requirement for such a task to be passed on would generally depend on the regions' ability to handle it looking at their internal *provision of capacity* in

terms of time and personnel, thereby also leaning on their amount of *information power*. Since such as change of responsibility was also brought on by Schønfeldt [2024], it can be argued that the region would oblige in taking on the needed task and responsibility.

The other task that a respondent see the region taking on is of similar characteristics; them being able to coordinate cross-municipal projects more directly. In section 7.4, Vindum [2024] explained how she saw a need for the region becoming a project manager in larger projects affecting multiple municipalities. For the Region of Southern Denmark to take on the responsibility of becoming the *sanctioning and coordinating authority* in larger, cross-municipal projects, the municipalities would similarly have to present this responsibility to the region. The power dynamics can therefore be argued to be the same as mentioned above. Here, however, the a somewhat similar proposal have been requested of the region, which ultimately was rejected, as mentioned by Vindum [2024] due to unknown reasons. Such a task could, depending on what responsibility the region would gain, also require a change in legislative authority especially if the region is to take on the role that in projects normally is held by the municipalities. However, if what Vindum [2024] imagined were only in the scope of the region being a coordinating authority where it were to ensure communication between the involved municipalities, such role should be possible for the region to take on without any larger changes. The region would, however as mentioned, have to approve of this extra responsibility, which currently is not happening. *Framing of co-benefits* of such a role could be a way for the municipalities to persuade the region. Therefore if this is something that multiple municipalities in the Region of Southern Denmark would like to have implemented and is a common barrier that prevents them from implementing the most optimal solutions, then the time to take up the subject should be now, as the focus of the Climate Alliance is on implementation. The municipalities should therefore assess the scope of the problem and then if decided upon, bring this to the attention of the Region of Southern Denmark or KL as these now are the *coordinating and sanctioning authorities* in the Climate Alliance.

9.5 Sub-conclusion

In this chapter initiatives suggested by both the respondents as well as conclusion from the state of the art were discussed taking into account conclusions of both opinions and theoretical perspectives from previous chapters. The respondents pointed towards four issues that they would like to see enhanced or implemented in the newly begun work with the Climate Alliance. Their requests were, more focus on value creation for all stakeholders, more focus on common barriers, more resources for implementation, and more responsibility to the Region of Southern Denmark.

First, in order to generate more value for all stakeholders, it can be necessary for a leading and trusted authority such as the Region of Southern Denmark or CONCITO to plan further ahead than what was experienced in DK2020 to thereby keep municipalities already familiar with climate change adaptation attached to the project. Another way could be for the deciding authority to lessen the time the municipalities are to spend on tasks such as documentation that does not add value. If value is not secured, some municipalities will lack incentive to contribute and have the possibility of leaving the collaboration.

Secondly, if the Climate Alliance is to break down general barriers hindering the municipalities' work with climate change adaptation, a coordinating, leading stakeholder will have to take charge. It is, however, necessary for the authority to first gather information on where to start. Such efforts does furthermore require additional resources added to the project, but if the focus is put on common barriers that most municipality otherwise would have to grasp individually, resources can be saved. Some barriers can be decided upon and influenced by politics which can affect the amount of stakeholders willing to try to solve them. The stakeholders of the Climate Alliance can therefore either build alliances with other powerful stakeholders to change the barriers or the stakeholders can use their own power to influence the public as well as politicians.

Thirdly, it is concluded that there is a need for more resources in order for the municipalities to implement their CAP's. It is possible to draw from external funds, but this could affect the power and influence amongst the involved stakeholders. If the regions or the municipalities are to gather the resources themselves, climate change adaptation will have to be prioritized politically within these institutions. Resources can also be gained if the ones currently given are spend more efficiently. This can be done by more effectively communicating across municipal and regional borders through the help of a coordinating stakeholder, by implementing smaller solutions later to be developed upon, or through technology which initially would require more resources, but in the end could make their efforts more effective. Avoiding larger changes within the upper layers of organization can also be a way to maintain the usability of previous learned knowledge.

Lastly, it is concluded that the the Region of Southern Denmark should take on a larger amount of responsibility in order for climate change adaptation to be most efficiently implemented within municipalities, as such tasks often require a leading authority. Furthermore, both the municipalities as well as the region are obliged to approve such as change of authority, and it can be necessary to increase the trust and communication amongst the stakeholders in order for such change to be implemented.

This thesis seeks to answer the following research question:

How can identified stakeholders use experience from their collaboration with climate change adaptation in DK2020 to determine what initiatives can be implemented for them to better the outcome of the Climate Alliance collaboration?

To answer this research question, interviews with respondents from Realdania, CONCITO and the Region of Southern Denmark as well as both municipal employees and city council members from both Vejle and Varde Municipality are held. Power theory and multilevel governance (MLG) is used to describe the current power dynamics between the stakeholders that surrounds both the DK2020 collaboration and the Climate Alliance, and contributes to understanding the experiences of the stakeholders in the DK2020 as well as points towards improvements to be implemented in the Climate Alliance.

Firstly, it can be concluded that most interviewed stakeholders had more than one role in the DK2020. It was found that Realdania held a lot of power as an initiating, financial contributing, and coordinating stakeholder of the project. CONCITO was included in the collaboration to add knowledge and mentor the region, when they became involved, and the municipalities towards certification of the climate action plans (CAP's). To help support the journey of the municipalities, the Region of Southern Denmark was included during phase one of the DK2020 collaboration to guide the municipalities, and contribute in the production of climate accounting. Both Vejle and Varde Municipality entered the collaboration through a somewhat voluntary decision made by their individual city councils which created the incentive for the complex topics of climate change and adaptation to be taken seriously within the city councils. As DK2020 is built on collaboration and learning across municipal borders, the pilot municipalities were to contribute with knowledge and experience to those of phase one and two whereas Vejle would receive their knowledge from stakeholders such as CONCITO.

Secondly, it can be concluded that the experiences of the stakeholders have varied throughout the DK2020 collaboration but the general goal of creating the CAP was fulfilled. Generally Realdania experienced the project as an success with smaller problems in terms of the time allowed for planning as well as the coordination of larger adaptation projects across municipal borders. From CONCITO's point of view, the management and knowledge resources needed for the project internally could have been better, whereas stakeholders such as the municipalities had great use of their contributions and guidance. In terms of the Region of Southern Denmark, it was experienced that even though the DK2020 organisation was huge and the task was difficult, the collaboration did improve the relationships between the region and its municipalities, that otherwise was affected by friction from time to time. The experience of Vejle and Varde municipality was different partly due to their available resources and previous experience of climate change adaptation but also due to the phase of the project which they entered. Varde seems to have gotten the most out of the collaboration compared to Vejle, however, they also experienced the process more stressful even though they received help from other stakeholders and municipalities. Common structural barriers affecting most municipalities were highlighted by Vejle Municipality, as they have experienced these as a barrier while working with adaptation.

Thirdly, it can be concluded that several changes in terms of the roles and relationships of the stakeholders are seen in the switch to the Climate Alliance. Realdania and CONCITO will hand over their coordinating roles to more local stakeholders such as the Region of Southern Denmark, but the two stakeholders will still contribute financially and intellectually respectively. CONCITO will furthermore be in charge of the upcoming re-certification process of the municipalities' CAP's as well as implementing a monitoring system to keep track of their progress. The Region of Southern Denmark will gain this coordinating role but also have potential to increase its influence further through increased data collection. Both municipalities are still able to participate in the Climate Alliance on a voluntary basis, but in order to avoid becoming the odd man out there is some outside pressure for them to continue even though e.g. Vejle Municipality might be able to take on the task themselves. Going into the Climate Alliance, Varde Municipality is aware that they will be in need of additional resources to secure the implementation which could come from either the funds created by Realdania or the guidance from experienced municipalities such as Vejle, if they should choose to continue with their consulting role.

Lastly, the discussion presents advice on how to approach four topics that, based on the responses from the stakeholders, should be improved upon with the Climate Alliance. The first piece of advice is to secure value generation for all involved stakeholders, to secure the involvement of experienced parties such as Vejle Municipality. This could be done by continuously creating tasks for the municipalities farthest ahead and reduce the amount of e.g. documentation tasks that removes participation incentive. The internal framing of the project should also be improved upon to secure engagement. The second piece of advice is for the Climate Alliance to look into common barriers that block the municipalities in their work with climate change adaptation. Here, they should start solving the most approachable barriers that does not require vast amounts of resources or parliamentary legislative changes. If larger barriers are to be addressed the alliance should seek to increase their influence through collaborative alliances or through outreach to the public. Thirdly, in order to secure resources for the upcoming implementation of climate change adaptation, the stakeholders could either keep applying for external funding or find the resources internally through political prioritization of the topic. Otherwise they should seek to invest in optimizing their use of resources by increased coordination, reduced sizing of adaptation measures to be implemented, or increase the use of technology. The last piece of advice for the Climate Alliance in the Region of Southern Denmark is for the region to take on more responsibility in coordinating measures in topics regarding climate to ensure more efficient implementation of adaptation measures. For this redistribution of responsibility to work optimally, more trust and communication between the region and all its municipalities should be a point of focus in the upcoming collaboration.

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