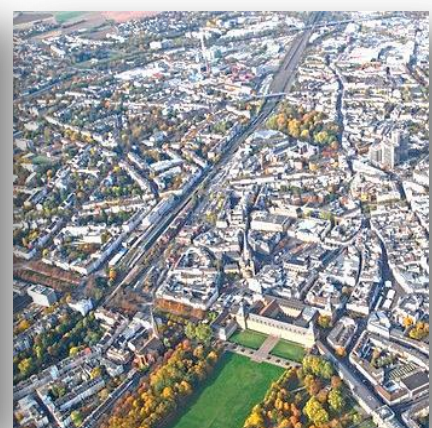
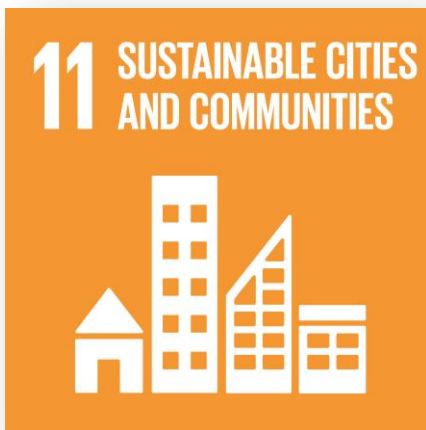


## Successfully developing local sustainability strategies in municipal administrations

### Critical organisational requirements and lessons learnt



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## COLOPHON

This document presents my Master thesis for the completion of the Environment and Society Studies (ESS) programme at the Nijmegen School of Management, Radboud University, Nijmegen, Netherlands.

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*“In many ways, cities are our greatest risk. The challenges presented by climate change, rapid migration, and disasters - both man-made and natural - most acutely affect cities. But cities are also our greatest opportunity. They are the places where innovation happens, where solutions that improve lives are born, where wealth generation is accelerated and where efficiency gains are most achievable.”*

Michael Berkowitz, 2016

President of the *100 Resilient Cities* programme on the question “why cities matter for sustainable development”.



## PREFACE

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Undoubtedly, society is facing tremendous changes in the years to come. Climate change and its various negative consequences will increasingly threaten the livelihood of millions of people and species and forever change the face of our planet. It would be a lie if I claimed that I never lost overview regarding the plethora of recommended actions for climate change spreading the news the past years. Quite the contrary, I often asked myself 'But where to start?'

There is a common German saying which states that for changing something great one should start on the smallest scale. I have been convinced from my early years that this saying rings true and, therefore, in a way, have always been most interested in the role of the local scale for sustainable development. Thus, it has long been clear that the local scale should become the topic of my Master thesis.

Within the course of my internship at the municipality of Arnsberg I came into contact with the field of municipal sustainability strategies for the first time. I was fascinated that small towns such as Arnsberg became determined to set off for sustainable development. At the same time, however, I learned that there was not much research and experience provided in scientific literature. Keen to provide some more insights into this exciting area I eventually decided to carry out a case study comparing the experiences of four German municipalities and to investigate how the development of municipal sustainability strategies can be most successful.

The latter, however, would not have been possible without the support of the following persons: First and foremost I would like to thank my supervisor Prof. Duncan Liefferink for his personal assistance during the planning and writing process and his helpful comments regarding my questions and ideas. Second, many thanks to my colleagues at the municipality of Arnsberg, above all Sebastian Witte and Klaus Fröhlich, who allowed me to accompany them for some time, patiently answered all my questions and made my internship a valuable experience.

Of course, I am also very thankful for all the project participants from the four municipalities who kindly agreed on being interviewed, and thus granted me valuable insights into their daily work and experience. Without their support, this research would not have been possible!

On a personal level, many thanks go to Hannah, with whom I luckily shared both the Bachelor and the Master programme. From the moment I met you in the first semester till now where we finally completed our Master thesis your friendship has been a true enrichment throughout all these years. Studying far away from home or in a foreign country is not always easy, however, thanks to you every place we went to always felt home! Moreover, I am grateful for the continuous support I was given by my family and friends, especially my mother.

The writing process of this thesis has been both a challenging and thrilling experience. At this point, the only thing left to say is that I wish a stimulating read to the reader and much success to all the interviewees with the continuation of their municipal sustainability strategies!

Josephine Kißmer, 14 October 2019

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## LIST OF ABBREVIATIONS

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### Abbreviation

BMI	Bundesministerium des Inneren
ESDN	European Sustainable Development Network
ESRC	Economic and Social Research Council
FFF	Fridays For Future
GNK NRW	Global Nachhaltige Kommune Nordrhein-Westfalen
LAG 21 NRW	Lokale Agenda 21 Nordrhein-Westfalen
MDGs	Millennium Development Goals
MULNV	Ministry for Climate Protection, Environment, Agriculture, Nature and Consumer Protection of the State of North Rhine-Westphalia
NRW	North Rhine-Westphalia
OECD	Organisation for Economic Co-operation and Development
SDGs	Sustainable Development Goals
SKEW	Servicestelle Kommunen in der einen Welt
UN	United Nations
WCED	World Commission on Environment and Development

## ABSTRACT

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Whilst it is generally approved that having a local sustainability strategy is advantageous for cities and municipalities, so far only little emphasis has been placed on such strategy's actual development, e.g. how such processes may evolve and what the persons responsible must consider when aiming to make the development process as fruitful as possible. The present study addresses this gap and aims to provide a better understanding of the strategy development process itself as well as identify organisational requirements that facilitate and positively influence the strategy development process in the municipalities.

The findings ground on existing literature in the area of change management, participant observations as well as analyses of qualitative interviews. The latter were carried out within a case study with 12 administration members from four German municipalities. All respondents recently took part in the development process of a local sustainability strategy within the scope of the German funding programme GNK NRW and kindly agreed to share their experiences.

The study revealed that the four municipalities' strategy development process was generally rewarding in terms of having a tailor-made strategy with concrete measures for the coming years but also challenging due to various obstacles such as lacking staff, time or funding. Further, the research found evidence that most of the organisational requirements mentioned in the change management literature also turned out to be crucial criteria involved in the successful development of local sustainability strategies. They include, for instance, leadership behaviour, coalition building or resource provision. Hereby, it was assumed that the more of these criteria existing, the more likely the overall success of the strategy development process in the municipality. Moreover, this research enabled the identification of additional important organisational requirements that have been unconsidered in the related literature so far, for example, external moderation.

The obtained findings provide relevant insights to all people interested in the development process of local sustainability strategies. Moreover, providing a 3-phase model which explains which organisational requirements should be ensured when and how in the strategy development process the research serves as useful orientation for those municipalities which recently started or are about to start with the development process of such a strategy. The study may also present a basis for further research for scholars engaged in investigating the interplay between change management and sustainability strategy formulation processes.

# 1. INTRODUCTION

---

Cities are not only most vulnerable to the dramatic effects of global warming (e.g. sea level rising or inland floods) but – causing about 70 % of worldwide carbon dioxide emissions – also largely responsible for climate change (United Nations Habitat, 2012). Yet, at the same time, they possess relevant resources such as knowledge, expertise and networks and are thus considered to also have the highest potential for promoting sustainable development. Or, in other words, they simultaneously pose the “greatest risk” and the “greatest opportunity” (Berkowitz, 2016).

Recognizing cities and communities’ crucial role for achieving sustainable development the Agenda 2030 has dedicated one of the Sustainable Development Goals (SDGs) exclusively to the local scale (“*make cities and human settlements inclusive, safe, resilient and sustainable*”) and particularly called upon local authorities worldwide to engage in sustainable municipal development (cf. United Nations, 2015).

One possible contribution to action this request is the German funding programme “*Global Nachhaltige Kommune NRW*” (Global Sustainable Municipality North Rhine-Westphalia (GNK NRW)). The programme was founded by the Landesarbeitsgemeinschaft Agenda 21 NRW e.V. (Sustainability Network North Rhine-Westphalia (LAG21 NRW e.V.)) and the Servicestelle Kommunen in der Einen Welt (Service Agency Communities in One World (SKEW)) in 2016 and assisted 15 model municipalities in the federal state of North Rhine-Westphalia (NRW) with their development of municipal sustainability strategies. Breaking down the SDGs to the local scale, the programme foresaw to develop tailor-made sustainability strategies including concrete targets for sustainable development in the respective municipalities (LAG 21 NRW e.V., n.d.).

Considering that the GNK NRW programme has been gaining substantial positive attention in national and international press (see, for instance, UCLG, 2018; Land NRW, 2019) and recently started another project round with further 15 municipalities (LAG 21 NRW e.V., n.d.) one can assume that increasing numbers of cities and communities around the globe will feel inspired and father comparable initiatives. Thus, it is likely that they will also develop local sustainability strategies in near future.

However, since the GNK NRW’s undertaking has only been realised so recently and was unique in Europe so far (LAG 21 NRW e.V., 2018), studies providing insights into the development process of local sustainability strategies within municipal administrations are scarce. Moreover, on an organisational level, apart from rather few requirements (see Kuhn, Burger & Ulrich, 2018) there hardly exist sufficient scientific advice which particular requirements should be considered within the development process in order to turn the latter as successful as possible.

Yet, since most of the requirements mentioned by Kuhn, Burger and Ulrich (2018) are - to some extent - consistent with certain organisational requirements mentioned within change management processes and embarking on a local sustainability strategy development process arguably requires a particular and strong process of change, it was decided to compare and contrast four GNK municipalities’ experiences with the strategy development process against the background of change management literature.

Using four GNK NRW municipalities' experiences as a case study this research will critically examine the overall development process of local sustainability strategies by taking a closer look on the procedure in terms of achievements and challenges. In a second step, organisational requirements particularly contributing to the strategy development's overall success will be identified. Therefore, findings from change management literature are used as a theoretical framework and subsequently analysed against empirical findings obtained from interviews with the respective GNK NRW municipalities' administration members.

## 1.1 Societal and scientific relevance

Arguing that urban areas will be home to the majority of people in future, the Brundtland report mentioned cities and municipalities' key role for achieving sustainable development already in 1987 and dedicated a whole chapter entitled 'The urban challenge' to this topic (cf. WCED, 1987).

Roughly 30 years later, this claim has not changed – quite the contrary: With meanwhile more than half of the world's population living in urban areas (and two thirds predicted for 2050) (Dähner, Slupina & Klingholz, 2017), in 2015 the Agenda 2030 again emphasised that the realisation of the 17 SDGs can only be achieved if municipalities understand themselves as important political actors and closely cooperate with superordinate policy levels (Hartinger, 2018). The eleventh goal – 'Make cities and human settlements inclusive, safe, resilient and sustainable' – is explicitly dedicated to the local scale and calls for the promotion of sustainable development in and by cities and municipalities (cf. United Nations, 2015).

Similar to many other authors, Woodbridge (2015) states that cities will not only have a big but probably the most important role when it comes to implementing the 17 goals: First, cities are considered the "starting points for global and local transformations" (p. 3, own translation) and can strongly shape overall sustainable development rates due to their behaviour. If cities manage to establish positive municipal developments by creating safe work places, promoting inclusion and cutting emissions, lives of billions of people will be positively influenced at the same time. Second, the achievement of the SDGs requires cooperation of actors from various disciplines and backgrounds such as the public and private sector, civil society and academia. Even though vast collaboration can sometimes be difficult, the local scale has turned particularly suitable in achieving understanding for complex challenges and mutual support. Third, local administrations possess longstanding experiences in finding favourable and innovative solutions to complex problems: With growing levels of responsibility due to ever increasing numbers of people, various local authorities have started successful local programmes and initiatives within pressing areas, such as energy saving, public transport or waste treatment.

Besides possessing just-mentioned relevant capacities to promote sustainable development, cities also have a strong interest in implementing the SDGs due to their dual role, especially regarding climate change: Cities are not only most vulnerable to the dramatic effects of global warming (e.g. sea level rising and inland floods) but – causing about 70 % of worldwide carbon dioxide emissions – are also largely responsible for climate change (United Nations Habitat, 2012). Consequently, they must therefore be included in finding ways towards a more sustainable development (Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung, 2017). It has even been suggested that "the battle for the SDGs will be won or lost in cities" (Poon, 2015).

Despite cities and municipalities' particular importance for contributing to the SDGS, local sustainability strategies fostering sustainable urban development still seem to be the exception rather than the rule: According to the LAG 21 NRW e.V. (2018) the 15 GNK NRW municipalities count among the first European municipalities which have successfully worked out such extensive strategies.

Subsequent to this development information on this particular topic is scarce - both regarding specialised literature or more practical guidelines. Moreover, the few positive exceptions existing tend to concentrate on the structure and content of the strategies and only scarcely enlarge upon the actual development process within the administrations (see, for instance, Kuhn, Burger & Ulrich, 2018). As a consequence to this gap, local authorities may feel unprepared or overstrained regarding the development of a local sustainability strategy and therefore possibly refrain from launching one.

In face of the imminent dangers of climate change and the Agenda 2030's explicit call for sustainable urban development (see above) it appears, however, crucial - particularly for local community leaders but also for politicians and scientists - to gain a better understanding for the development process of such strategies. This refers to both in terms of what they can expect from the process regarding positive and negative effects as well as organisational requirements that should be paid attention to in order to make the strategy development process as successful as possible.

Contrasting four GNK NRW municipalities' experiences with the strategy development process the study at hand aims to contribute to the above-mentioned gap and allows conclusions on how such processes might unfold. Moreover, linking the municipalities' experiences with insights on relevant organisational requirements needed within change processes, the research does not only provide valuable scientific contributions into the hitherto under-represented field of change management in association with public sector organisations (Coram & Burnes, 2001; Kickert, 2014) but also identifies those organisational requirements from change management literature that turned out to be crucial when it comes to the successful development of municipal sustainability strategies.

This study aims to serve as helpful inspiration for municipalities which have just started or are about to start the development of local sustainability strategies - either within the second edition of the GNK programme or comparable initiatives - as well as all people interested in the phenomenon of local sustainability strategies. The results hopefully provide them with a better understanding of what to expect from such strategy development process as well as what critical organisational requirements one should pay attention to and when in order to make the development procedure a success. Thus, they may feel better prepared from the very beginning and the number of municipalities embarking on such intent might grow. This, in turn, would then ultimately contribute to the fulfilment of the Agenda 2030, namely ensuring more and comprehensive sustainable urban development.

## 1.2 Research objective

As already mentioned above, this research concentrates on the phenomenon of municipal sustainability strategies and their successful development whereby four municipalities' experiences taking part in the GNK NRW programme will serve as a case study. The investigation grounds on insights obtained from interviews with 12 GNK NRW project members who generously shared their personal insights.

The overall goal of this research is as follows: Initially, the study seeks to contribute to a better understanding of the development process of local sustainability strategies. Further, organisational requirements involved in the successful development of such strategies should be identified.

## 1.3 Research model

Aiming to answer just-mentioned research questions, the following phases (A-G) displayed hereafter will be accomplished:

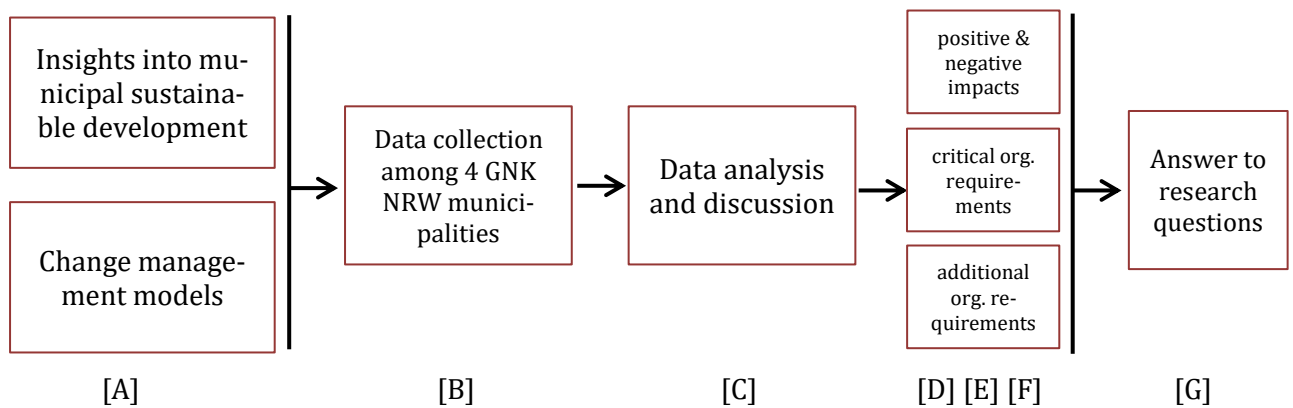


Figure 1: Research model (own representation)

Existing insights into municipal sustainable development and different change management models [A] will be used as a framework for the data collection [B] among 4 German municipalities which recently developed and introduced a local sustainability strategy within the context of the GNK NRW programme. Afterwards, the data will be analysed and discussed [C] in terms of the positive and negative impacts of the strategy development [D], critical organisational requirements contributing to the overall success of the strategy development mentioned in the change management literature [E] and additional critical requirements unconsidered in the literature so far [F]. All three types of findings will then, together, provide an answer to the two research questions (see below) [G].

## 1.4 Research questions

---

Drawing on the research objective outlined in subsection 1.2, the research questions for this study are as follows:

- Using the experiences of four German municipalities as a case study how can the overall strategy development process be evaluated concerning positive and negative impacts for the administrations?
- What are the recommendations for further municipal administrations aiming to successfully<sup>1</sup> develop such strategy in terms of organisational requirements?

In order to answer the two questions in a systematic way, it has been decided to carry out three successive steps, each guided by one sub-question. A short explanation on their respective purpose is provided below:

### Step I: Comparing the strategy development process in the four municipalities

- *Sub-question 1: Comparing the respective experiences with the strategy development process in the four municipalities, what can be stated regarding achievements and challenges?*

Answering this question aims to provide the reader with a general overview on the project course in the investigated municipalities, hopefully enabling him/her to get a better understanding of the possible range of challenges and achievements within the development process of local sustainability strategies.

### Step II: Contrasting the municipalities' experiences against insights from change management literature

- *Sub-question 2: Discussing the respective experiences against organisational requirements mentioned in the change management literature, what conclusions can be drawn?*

The purpose of this question is to reveal which of the requirements mentioned in the literature have proven to be relevant criteria also for the successful development process of municipal sustainability strategies.

### Step III: Identifying further relevant requirements unconsidered in literature so far

- *Sub-question 3: Grounding on an inductive analysis of the strategy development process in the four municipalities, which other additional organisational requirements not mentioned in the change management literature also positively contributed to a successful strategy development process?*

Answering this last question seeks to disclose new and so far disregarded organisational requirements.

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<sup>1</sup> see explanatory note on page 7.

## EXPLANATORY NOTE

### What makes a strategy development process '*successful*'?

The concepts of success (and failure) are hard to “define and measure as they mean different things to different people” (Thomas & Fernández, 2008, p. 733). For decades literature has attempted to determine “*evaluation criteria*” (own translation) (Greif, Runde & Seeberg, 2004, p. 32) for measuring the degree of success within a wide variety of applications, such as success in project management, innovation management and change management (see, for instance, Thomas & Fernández, 2008, Rese & Baier, 2011 and Kotter, 1995).

Yet, it seems as if for the majority of cases there are only very few generally accepted evaluation criteria, respectively only little agreement on what ‘successful’ means: Within the field of project management, for instance, Pinto and Slevin (1988, p. 67) state that “there are few topics [...] that are so frequently discussed and yet so rarely agreed upon as the notion of project success”.

When it comes to the explicit context of change management processes Greif, Runde and Seeberg (2004, p. 31) found that so far there do not exist uniform “standard criteria” (own translation) which can be used to determine whether the change was successful or not. Yet, there are certain evaluation criteria that have been frequently mentioned by various authors and therefore became somehow common. These include, for instance, change in customer satisfaction, change in revenue or change in customer complaints.

The authors (2004) state that the selection for or against a certain evaluation criterion should always depend on the peculiarities of the respective case. As for the purpose of the present study there was no evaluation criteria mentioned in the literature which particularly dealt with measuring the successfulness of the development process of municipal sustainability strategies, own criteria had to be established: Thus, a '*successful*' strategy development process was considered to be both satisfying in terms of the overall result (whether the strategy was completely developed and politically adopted) as well as the procedure itself (whether there was enough time and money, high employee motivation, broad participation and the absence of internal conflicts, etc.).

Figure 2: Explanatory note: “What makes a strategy development process '*successful*'?”

## 2. LITERATURE REVIEW & THEORETICAL FRAMEWORK

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This section consists of two pieces: The first part, the literature review, deals with the concept of sustainability, sustainability strategies as well as the development of sustainability strategies for the local scale. The reader is initially introduced to the topics of sustainability and sustainable development, whereby the concepts' origins, definitions and latest additions are discussed. Afterwards follows an introduction of sustainability strategies, whereby their origin as well as important principles regarding their content and development are presented. Afterwards, by briefly enlarging upon different sustainability strategies ranging from the global to the local level, an overview of the current German sustainability context is given. In a last step, some information on organisational requirements needed for the successful development of local sustainability strategies is provided.

The second part of this section, the theoretical framework, enlarges upon relevant theories and concepts as well as existing empirical findings within the context of change management. Similar to the part on sustainability, the reader will again first be introduced to the topic by elaborating upon the origin and definition of the change management concept. In a second step, the role of change management for public sector organisations will be explained, particularly enlarging upon local administrations. Subsequently, an overview on various change management frameworks existing in literature is given, followed by a detailed discussion of the one by John P. Kotter (1995) and two other authors. The section concludes with a brief explanation of the conceptual model, in which relevant theoretical insights from the two concepts of Sustainability and Change Management are combined, providing the theoretical foundation for the subsequent data analysis.

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### 2.1 Sustainability

#### 2.1.1 Introduction

Whilst 20 years ago the significance of the concept of *sustainability* was only known to certain scientists, the past couple of years have witnessed an incredible hype around the term. The expression is commonly in use now in a variety of contexts and thereby has become "a synonym for everything that is positive" (Károly, 2011).

The roots of the term originate from the year 1713 and arise from professional German forestry vocabulary: The German aristocrat Hanns Carlo von Carlowitz in face of a forecasted shortage of timber, claimed in his book *Sylvicultura oeconomica* that there should be "continuirliche beständige und *nachhaltende* Nutzung" ('a continuous, steady and *sustained* use') of this important resource. The English expression 'sustained yield' was used from the 1850s onwards and was simply a "fairly literal translation of the German word 'nachhaltig' (Grober, 2007, p. 7). Arguably, within the forestry sector, it meant that one should only harvest as many trees as one can reforest. Carlowitz therefore laid the foundation for sustainable consumption of natural resources (Grober, 2007).

Within the context of sustainability it is also commonly referred to another terminology, namely *sustainable development*. According to Robinson (2004) government and private sector organisations mostly used the term sustainable development, academia and NGOs, in turn, rather adopted the term sustainability. He argues that the divide grounds on a concern on behalf of NGOs and environmentalists, who consider *development* as synonym for *growth*, meaning that

sustainable development is “ameliorating, but not challenging, continued economic growth”. *Sustainability*, in their eyes, is deemed more suitable as it focuses upon humans’ capability “to continue to live within environmental constraints” (p. 370). Since I myself consider the terms identical, the two expressions will be used interchangeably within the course of this study.

Already in 1980 the International Union for the Conservation of Nature entitled their ‘World Conservation Strategy’ ‘Living resource conservation for *sustainable development*’ (Grober, 2007) and argued that humanity must not go beyond ecological limits (Robinson, 2004). Yet, it was only with the publication of the Brundtland report (*Our Common Future*) in 1987 that the concept of sustainable development finally got tangible and popular (Hopwood, Meller & O’Brien, 2005, Pufé, 2017): Contrarily to the hitherto common belief that resources can simply be exploited, the Brundtland Commission clearly underlined the importance of nature for humanity’s well-being (ibid., 2005) and claimed that concerns of environmental damage and human development and poverty can only be solved “simultaneously and in a mutually reinforcing way” (Robinson, 2004, p. 372). In order to do so, a new kind of development should emerge, namely *sustainable* development. In their nowadays well-known definition, the latter is described as a development which “meets the needs of the current generations without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development (WCED), 1987, p. 23).

In the course of the years various other definitions and concepts of sustainability or sustainable development emerged and – depending on the author’s view – complemented or contradicted each other. These include, for instance, the “Three Pillar Model” as well as the “Triple Bottom Line Model” (see Stopper, Kossik, Gastermann, 2016 for a discussion of different models). The debate has further been fuelled by the two views of *strong* and *weak* sustainability (cf. Hedinger, 1999; Neumayer, 2003). Generally, weak sustainability argues that any natural capital can be substituted by artificial capital (Ott, 2003). Strong sustainability, in turn, disagrees with that view, stating that “human-made capital cannot replace a multitude of processes vital to human existence such as the ozone layer, photosynthesis or the water cycle” (Hopwood, Mellor & O’Brien, 2005, p. 40, referring to Rees, 1998 and Roseland, 1998).

In recent times, two new integrated concepts have gained importance in the sustainability debate. The first, the *Planetary Boundary Framework* was developed by an international group of scientists (Röckström et al., 2009), who delineated nine crucial “ecological subsystems” which must absolutely be kept in balance to assure the ecosystem’s long-term existence (Stopper, Kossik & Gastermann, 2016, p. 4). The group of authors revised the framework in 2015 and also published updated results, indicating that within four domains (climate change, biosphere integrity, biogeochemical flows and land system change) the planetary boundaries have already been exceeded, posing a high risk to societal development (Steffen et al., 2015). The second, most recent, concept was presented by Kate Raworth (2012) and became popular as *Doughnut Economics* (see figure 2). The model grounds on the Planetary Boundary Framework and provides the conditions for a sustainably running economy (Stopper, Kossik & Gastermann, 2016). Raworth (2012) argues that for an economy being truly sustainable the economic system must not surpass two critical boundaries: Neither Röckström’s et al. (2009) nine ecological subsystems (referred to as “environmental ceiling”, p. 12 ) nor eleven social dimensions critical for dignified living (referred to as “social foundation”, p. 9). Only if the inner and outer margin is respected, humanity can live a “safe and just” (p. 15) live within the planet’s boundaries.

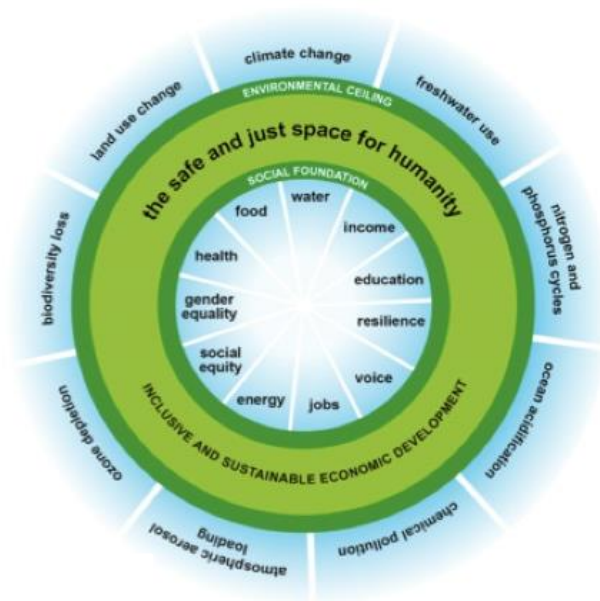


Figure 3: A safe and just space for humanity to thrive in: a first illustration (Raworth, 2012, p. 7)

### 2.1.2 Sustainability strategies

The adoption of the *Agenda 21* within the World Summit on Environment and Development in 1992 marked the first occasion that countries were explicitly requested to develop and implement national *sustainability strategies* (Bertelsmann Stiftung, 2014). The latter should aim to “ensure socially responsible economic development while protecting the resource base and the environment for the benefit of future generations”. The strategies should be developed in a broad participatory process and ground on a systematic evaluation of the contemporary situation (United Nations Conference on Environment and Development, 1992, § 8.7).

Recognizing that “so many of the problems and solutions being addressed by the Agenda 21 have their roots in local activities” the Agenda 21 has underlined the important role of municipalities in achieving sustainable development already in 1992 (cf. United Nations Conference on Environment and Development, 1992, § 28.1).

A concrete definition of a sustainability strategy was provided only ten years later in a United Nations’ document for Economic and Social Affairs (Bertelsmann Stiftung, 2014)

As stated here,

*“a national sustainable development strategy is a coordinated, participatory and iterative process of thoughts and actions to achieve economic, environmental and social objectives in a balanced and integrated manner. The process encompasses situation analysis, formulation of policies and action plans, implementation, monitoring and regular review. It is a cyclical and interactive process of planning, participation and action in which the emphasis is on managing progress towards sustainability goals rather than producing a ›plan‹ as an end product.”*

(United Nations Department of Economic and Social Affairs, 2002, p. 1)

According to the Organisation for Economic Co-operation and Development's (OECD) Sustainable Development Strategies Resource Book (2002, p. 29), sustainability strategies outweigh "a fixed plan", which risks fast obsolescence shortly after introduction, as their character is based on continuous adaptations and improvements, as the following quotation indicates:

*Being strategic is about developing an underlying vision through a consensual, effective and iterative process; and going on to set objectives, identify the means of achieving them, and then monitor that achievement as a guide to the next round of this learning process. [...] More important than trying unsuccessfully to do everything at once, is to ensure that incremental steps in policy making and action are moving towards sustainability – rather than away from it, which is too frequently the case. (p. 29)*

Since the start of the Agenda 21 process various sustainability strategies have been developed and adopted worldwide. By now, strategies for various political levels have been existing, ranging from the global to the national up to the regional and local scale. There are, partly however, great differences, inter alia concerning their content or effectiveness (Bertelsmann Stiftung, 2014).

Synthesizing various guidelines on sustainability strategies by the UN and OECD as well as own findings, the European Sustainable Development Network (ESDN, n.d.) has established seven principles that should be considered within sustainability strategies:

(1) Common vision and strategic objectives

Sustainability strategies should contain a long-term vision for sustainable development as well as strategic objectives. The latter should be formulated according to the SMART criteria (see sub-section 4.1.2).

(2) High-level commitment

Sustainability strategies should be supported by high commitment on all political levels.

(3) Horizontal integration

Sustainability strategies should take "the integration of economic, environmental and social issues [...] into account", both in the document itself as well as in the strategy's governance.

(4) Vertical integration

Sustainability strategies should align with those plans and programmes existing on other political levels.

(5) Participation

Sustainability strategies' development should involve various different stakeholders

(6) Implementation, mechanisms and capacity building

In order to meet sustainability strategies' objectives, sufficient resources should be allocated and implementation mechanisms (budgeting, work plans) should be installed.

(7) Monitoring, evaluation and strategy renewal

Sustainability strategies should be regularly monitored and reviewed, whereby the obtained findings should be taken into account when reworking the strategy, allowing for continuous improvement.

### 2.1.3 Sustainability Strategies in the German context

As this research draws upon experiences gained within a German programme the following sub-sections will briefly enlarge upon the sustainability strategy architecture relevant for the German context – starting from the global and concluding with the local level.

#### 2.1.3.1 Global level: The Agenda 2030

The *Agenda 2030* was adopted in New York on 25 September 2015 by heads of state and government and represents a milestone of international sustainable development efforts (Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, 2018). The document arguably serves as a basis for all younger sustainability strategies worldwide.

Core piece of the Agenda is a catalogue comprising a total of 17 sustainable development goals (see figure 3) and 169 sub-goals which should “stimulate action over the next fifteen years in areas of critical importance for humanity and the planet” (United Nations, 2015, p. 1). The goals build upon the former *Millennium Development Goals* (MDGs) adopted in 2000, yet go far beyond their content and intention: Whilst the MDGs de facto only applied to countries of the global South, the SDGs were developed within the understanding that sustainable development can only be achieved by joint global efforts and therefore marked the first time in history that “world leaders pledged common action and endeavour across such a broad and universal policy agenda” applying to all countries (p. 6).

The Agenda 2030 aims for global sustainable development on a social, ecological and economic scale and strives for decent living conditions for present and future generations (cf. United Nations, 2015). The document heralds “a new global understanding of prosperity which is no longer linked to per capita income but focuses upon the transformation of economic systems towards sustainable development through responsible consumption and production patterns and renewable energies” (Pufé, 2017, p. 56, own translation).



Figure 4: The Sustainable Development Goals (United Nations Communications materials, n.d.)

### 2.1.3.2 National level: The German sustainability strategy

Germany adopted its first sustainability strategy entitled “Perspektiven für Deutschland” (‘Perspectives for Germany’) shortly before the Johannesburg Summit in 2002. The strategy focused on four key topics – ‘intergenerational justice’, ‘quality of live’, ‘social cohesion’ and ‘international responsibility’ – and formulated concrete measures and goals to be achieved within these areas (Bertelsmann Stiftung, 2014, p. 53, own translation). The document was updated on a regular basis in the coming years. In view of the adoption of the Agenda 2030 targets in 2015, the German Government decided to fundamentally revise its strategy in 2016, now aligning its goals to the 17 SDGs. As a consequence, the overall orientation became significantly more international and new topics were added (The Federal Government, 2018).

The most recent version of the German sustainability strategy was released in 2018 and shall be updated again in 2020. The structure is as follows: Each of the 17 SDGs is related to at least one area of sustainable development, for instance ‘gender equality’ which, in turn, is assigned to different indicators, such as ‘Gender pay gap’ (see figure 4). In total, Germany’s overall sustainability performance is measured within 38 areas with help of 67 indicators (cf. The Federal Government, 2018).

SDG 5. Achieve gender equality and empower all women and girls			
5.1.a	Equal opportunities <i>Promoting equal opportunities in society</i>	Gender pay gap	To be reduced to 10% by 2020, maintained until 2030
5.1.b		Women in management positions in business	30% women in supervisory boards of listed and fully co-determined companies by 2030
5.1.c	<i>Strengthening the economic participation of women globally</i>	Vocational qualification of women and girls through German development cooperation	To be successively increased by a third by 2030 compared to 2015 as the base year

Figure 5: Exemplary extract of the German sustainability strategy (Strategy, 2018, p. 53)

Whilst the strategy’s implementation is formally carried out by the ministries, it is clearly emphasized that sustainable development can only be achieved with the support of numerous stakeholders at different policy levels, above all by the ‘Länder’ (‘federal states’) (see below) (cf. The Federal Government, 2018).

### 2.1.3.3 Provincial level: The North Rhine-Westphalian sustainability strategy

Within the German federal policy system, the ‘Länder’ (federal states) possess “legislative and administrative powers in important areas of sustainable development” (Federal Government, 2018, p. 24), such as school education or transportation (Kerkow, 2016, referring to bpb, 2009). It has therefore frequently been argued that Germany can only fulfil its international responsibility concerning the Agenda 2030 targets as well as national sustainability goals when closely collaborating with the federal states (cf. Fischer & Scholz, 2015; The Federal Government, 2018).

Whilst the German national sustainability strategy was only adopted in 2002, both the federal states of Bavaria and Rhineland Palatinate had worked out own strategies already in 1997 and 2001. Until 2016 all remaining 14 federal states had also presented own sustainability strategies (Kerkow, 2016). In 2017 the Federal Council passed a resolution in which all federal states for-

mally declared to support the Government with the development and implementation of the national sustainability strategy as well as the Agenda 2030 (cf. The Federal Government, 2018).

A close comparison of all federal states' sustainability strategies reveals that they have different thematic foci, but nevertheless all include the three topics of 'climate and energy', 'education' as well as 'sustainable business'. The strategies partly significantly differ regarding their goals, monitoring, evaluation as well as participating actors and administration levels (Kerkow, 2017). Since this research's case study is located in the federal state of NRW, it will briefly be enlarged upon the latter's sustainability strategy hereafter:

NRW's sustainability strategy was adopted by the provincial government in June 2016 and accompanied by a broad participation process from various non-state actors (Teichert & Buchholz, 2016). The strategy grounds on the following mission statement:

*"NRW preserves and develops the well-being of all people and social prosperity in a healthy and intact environment. Global responsibility for the ecological boundaries of our planet will serve as a framework for action."*

(Ministry for Climate Protection, Environment, Agriculture, Nature and Consumer Protection of the State of North Rhine-Westphalia (MULNV), 2016, p. 6)

The strategy tracks the overall sustainable development performance of North Rhine-Westphalia within 19 fields of action (see below) by using about 60 indicators. The goals and indicators are largely pursuant to the ones mentioned within German national sustainability strategy and, for those goals applicable to the Federal State level, also address the SDGs. Additionally, there are also certain goals and indicators included that directly relate to the municipal level. For instance, the indicator "Kommunale Klimaschutzkonzepte" (Municipal Climate Protection Concepts) should encourage the development of integrated climate protection concepts for towns and cities (Teichert & Buchholz, 2016).

### 19 fields of action

1. Climate protection and energy transition
2. Sustainable economy
3. Natural resource protection
4. Demographic change
5. Social cohesion and participation
6. Decent work—fair work
7. Integration
8. Sustainable financial policy
9. Sustainable urban development
10. Sustainable mobility
11. Sustainable consumption/sustainable lifestyles
12. Land cultivation
13. Health
14. One-world policy / European and international dimension
15. Gender equality
16. Inclusion
17. Sustainable municipalities (local agenda)
18. Civic involvement/participation
19. Education and science

Table 1: 19 fields of action for sustainable development in NRW (own representation based on NRW Sustainability Strategy, 2016)

#### 2.1.3.4 Local level: Municipal sustainability strategies

The Bavarian municipality of Ingolstadt is arguably the first German municipality which developed a local sustainability strategy in 2002 (cf. SP Group, n.d.). This is, however, to be considered the exception rather than the rule: A comprehensive literature research carried out within the scope of this study indicates that municipal sustainability strategies arguably still exist only very rarely in Germany so far. Nonetheless, there are various initiatives and programmes promoting sustainable development on a local level, e.g. the dialogue format “*Chefsache Nachhaltigkeit*” (‘Management issue Sustainability’) launched by the NRW Government where municipal representatives discussed as to how the NRW Government can support the municipalities in fostering municipal sustainable development (cf. *Nachhaltigkeit.nrw* (n.d.)).

A recent format which explicitly supports municipalities to develop a municipal sustainability strategy is the GNK NRW programme (see sub-section 4.1). Next to NRW the GNK project has also been carried out in the Federal State of Thuringia. From 2016 onwards seven municipalities started with the development of own sustainability strategies (Zukunftsfähiges Thüringen e.V., n.d.).

### 2.1.4 Developing a local sustainability strategy

As already mentioned earlier, due to the fact that local sustainability strategies are not yet widely used, there exists only very limited literature explicitly focusing upon that particular topic. One of the few valuable contributions existing in this field was written by Kuhn, Burger and Ulrich (2018) and published by the Bertelsmann Stiftung in form of a practical guideline on sustainability management in municipalities. The authors do not only provide information on such strategies' possible structure and content (e.g. they present potential indicators) but also briefly enlarge upon certain organisational requirements (although not specifically named like this) needed for a successful development process. These include:

- Having a common tale or story convincingly explaining why the municipality embarks on that journey
- Good planning and good coordination among the departments involved
- Clearly defined responsibilities
- Meaningful participation of external stakeholders including local politicians, administration employees, interested members of society, external experts and (possibly) other private and public organisations
- Having a vision
- Priority setting within the planning and implementation of measures
  - Select measures that enable quick achievements in order to ensure that the project participants remain or become motivated
  - Select measures that allow for synergies
  - Be realistic when it comes to assessing the feasibility of the measures
  - Select measures that possibly turn former sceptics into close allies

(Kuhn, Burger & Ulrich, 2018, own translations)

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## 2.2 Change management

### 2.2.1 Introduction

Early approaches of organisational development advocated that organisations could not be successful when regularly changing. In contrast, employees would need routines and established patterns in order to continually improve (Todnem By, 2005, referring to Rieley & Clarkson, 2001, Luecke, 2003). Over the course of the years, however, new perceptions emerged and nowadays it is a common belief that organisations need to constantly adapt and change in order to remain successfully and competitive (cf. Todnem By, 2005; Kotter & Schlesinger, 2008; Biedenbach & Söderholm, 2008).

*Change management* was initially developed for the private sector (Bundesministerium des Inneren (BMI), 2009) and has been described as “the process of continually renewing an organization’s direction, structure, and capabilities to serve the ever-changing needs of external and internal customers” (Todnem By, 2005, p. 1). Or, in other words, change management is a tool which allows for organized planning and monitoring of change processes (BMI, 2009).

Todnem By (2005, pp. 371-378) provides an extensive review on existing types of organisational change management described in scientific literature and concludes that change can differ regarding its “*rate of occurrence*” (e.g. discontinuous vs. continuous change), “*how it comes about*” (e.g. planned vs. emergent) and “*scale*” (fine-tuning vs. corporate transformation). BMI (2009)

states that a change may, for instance, comprise 'small' modifications such as the introduction of new IT systems but also substantial organisational transformations such as the resolution of business units.

Humans count as the most essential and critical factor within successful change management: It is argued that "organisations can only change their structures and processes if employees are capable and willing to support and implement the changes" (Grolmann, 2014, p. 6, own translation). Or, in other words, "the change effort is dependent of the ability of the organisation to change the individual behavior of individual employees" (Elving, 2005, p.130, referring to Robertson et al., 1993). At the same time, being able to manage a change management process is considered equally necessary and challenging (Todnem By, 2005): Literature indicates failure rates of change management processes of about 70 % (Balogun & Hailey, 2008). As Kotter and Schlesinger (2008, p. 2) state "few organisational change efforts tend to be complete failures, but few tend to be entirely successful either. Most efforts encounter problems; they often tend longer than expected and desired, [...] and they often cost a great deal in terms of managerial time or emotional upheaval".

Nonetheless, change management's popularity is unbroken: A literature research conducted for this study proofs an ever-growing amount of articles and books on current insights into change management being published in the last ten years. Change management's broad approval can also be seen in practice: In a 2016 study among German managers and employees from twelve different industries, one third of respondents stated that their companies had conducted more than ten change processes in 2016, whereby the numbers were believed to further rise about 30 % for 2017 (cf. Mutaree, 2016).

### 2.2.2 Change management in public service organisations

Since a municipal administration presents a form of public service organisation the following paragraphs will provide an overview of insights on change management processes in this kind of organisations. It will both be enlarged upon the need for using change management tools as well as certain peculiarities of change management processes in the public sector.

Public service organisations have been in transition for several years now due to increasingly fast changes within the social, political and technological system (Karp & Helgo, 2008). In the case of public administrations their scope of action is nowadays influenced by altered political guidelines, budget cuts, privatization, new technologies (e.g. *E-Government*) and changed public expectations (Müller, Straatmann, Hörning & Müller, 2011). As a consequence, the governance of administrations "has become increasingly based on quasi-market mechanisms" (Karp & Helgo, 2008, p. 86), making administrations experience an urgent need for change (Müller et al., 2011). Searching for instruments and tools to support organisational change, public organisations have orientated along common practices from the private sector and started to introduce change management processes (Brown, Waterhouse & Flynn, 2003; Karp & Helgo, 2008). One example for such change process might be, for instance, the decision to no longer treat sustainability as a niche topic but instead develop a comprehensive and integrated municipal sustainability strategy.

Even though change management now seems to be widely established in the public sector – especially when compared with findings from the private sector – there are still only rather few studies available explicitly focusing on change management in this field (Coram & Burnes, 2001;

Kickert, 2014). A review on 150 articles written between 2000 and 2010 revealed that the majority of the studies “focused on the content and context of change, rather than the change process itself”. Moreover, many of them originated from the United States or Great Britain, thus representing a certain risk for bias (Kickert, 2014, p. 694, referring to a review by Kuipers et al., 2014). Within the German context, the only positive exceptions are provided by works of Schäfer and Raumann (2009) and Müller, Straatmann, Hörning and Müller (2011). More practical findings on change management in public sector organisations are additionally presented in a guideline published by the BMI.

There is general consensus that the conditions of the public and private sector vary substantially. It is thus concluded that change management in public organisations will not be feasible the way it is carried out in private organisations but needs to consider the special peculiarities of the public service domain (Schäfer & Raumann, 2009; Müller et al., 2011). Whilst private organisations are largely profit-orientated, public administrations fulfil legal and political mandates and align their targets with common weal (BMI, 2009). With respect to change management, this can raise certain difficulties:

First, while private sector organisations mainly cover one core functional area, public administrations fulfil a broad range of functions and tasks, serve different stakeholders and therefore also pursue various goals – both political and administrative ones. The latter can strongly differ, leading to considerable trade-offs. As a consequence of administrations’ complex tasks, interest groups and goals, it can be hard to create collective awareness and understanding for holistic change processes. Müller et al. (2011) therefore suggest to define and communicate concrete and specific change targets and allow for broad participation in the change process. Second, public organisations are largely dominated by strict hierarchical structures and formal regulations. Since central change processes will only be fruitful if all relevant actors take part, organisational change in the public sector needs to establish cross-hierarchical communication channels and regular exchange (Müller et al., 2011). Third, the absence of competitive pressure in public service organisations can make it hard for employees to understand the necessity of change (Schäfer & Raumann, 2009, Müller et al., 2011). Moreover, employees of the public sector are on average older (Müller et al., 2011) and often work in the same position for years (Schäfer & Raumann, 2009).

Despite the just-mentioned disparities between the public and the private sector, Schäfer and Raumann (2009) and Müller et al. (2011) contend that change management processes can indeed be promising for public organisations. Nevertheless, due to the required additional efforts regarding goal formulation, cross-hierarchical communication and broad participation (Müller et al., 2011) they may take considerably longer (Schäfer & Raumann, 2009).

### 2.2.3 Relevant change management frameworks

Over the course of the last 25 years, numerous authors such as Kotter (1995), Mento, Jones and Dirndorfer (2002), Luecke (2003) or Fernandez & Rainey (2006) have provided change management frameworks instructing managers how to successfully implement organisational change processes – both within public and private organisations. Whilst some scholars remain quite vague, others developed extensive models thoroughly explaining which organisational requirements should be present during change processes (see Mento, Jones & Dirndorfer, 2002; Todnem By, 2005 and Fernandez & Rainey, 2006 for an overview of models). The models differ

in complexity and stress, yet, the requirements presented are arguably quite similar (cf. Todnem By, 2005).

In the following it will be enlarged upon the model by John P. Kotter, which, arguably, can be regarded as the 'root' of many change management frameworks and guidelines existing in literature. The model appears an especially useful foundation for this study's research as it offers a wide range of organisational requirements relevant for successful change processes. Additionally, it partly overlaps with the requirements for successful strategy development mentioned by Kuhn, Burger and Ulrich (2018) as can be seen in figure 6 (see below).

It seems thus conceivable that a comparison of the requirements mentioned by Kotter (1995) with the strategy development process in the four case study municipalities will be particularly helpful in contributing to this study's overall goal, namely to identify organisational requirements involved in the successful development of local sustainability strategies.

### 2.2.3.1 Kotter's change management model

John P. Kotter's change management model counts among the most eminent concepts of change management (Appelbaum, Habashy, Malo & Shafiq, 2012). It provides managers with a list of "eight steps needed to transforming your organization" (Kotter, 1995, p. 61) and was initially introduced within an article in the Harvard Business Review in 1995. Shortly later it was also published in his famous book *Leading Change*. Even though the model was merely based upon Kotter's very own business and research experiences and did not refer to any other scientific work, the book became one of the most sold bestsellers of change management literature and is still prominent in today's academic textbooks (Appelbaum et al., 2012). In July 2019 the 2012 edition of the book has been quoted almost 15,000 times in Google Scholar.

According to Kotter (1995), the following eight organisational requirements are required for successful change processes:

#### Establishing a Sense of Urgency

Change processes in the private sector are usually initiated when some people or groups start to analyse the company's situation (e.g. current market position, competitor behaviour, financial performance) and hereby identify an urgent need for change which, if unaddressed, will potentially lead to a certain crisis (revenue losses, competitive drawbacks) or loss of opportunities. It is then of utmost importance for a successful change process that all relevant employees understand the pressing need for change and support the transformation. As Kotter states "without motivation, people won't help and the effort goes nowhere" (p. 60). Therefore, change managers in phase one need to extensively communicate the need for change and convince people of its necessity and urgency. The latter is hard and should not be underestimated: In more than half of the cases analysed by Kotter, companies did not manage to convince people for the transformation process, which, in turn, made the whole change process fail.

#### Forming a Powerful Guiding Coalition

Even though change processes mostly start with only few people, there soon needs to be some "minimum mass" (p. 60) supporting the change which then grows bigger. While it is generally believed that change will only have a chance once the organisation's head is convinced, Kotter argues that for successful change processes additional supporters of the top-management as

well as people from lower ranks are essentially required. In order to form a powerful guiding coalition, there must be communication and levels of trust between each other. He therefore suggests regular meetings and “off-site retreats” prior and during the change process. Successful leadership within the coalition is vital to the process’s success: As Kotter notes irrelevant “how capable or dedicated the staff head, groups without strong line leadership never achieve the power that is required” (p. 62).

#### Creating a Vision

If change processes should be successful the guiding coalition needs to develop a vision of the future which is easy to communicate and shows the direction where the organisation wants to be after the change. The vision must not be highly precise from the start but should then evolve into a clear picture over time. If a true vision is lacking all plans and projects will not add up in the end since no one knows where they are finally leading to. As a rule of thumb Kotter concludes that visions should be explainable in less than five minutes.

#### Communicating the Vision

Once the vision is developed, communication about it is mostly very poor: Many organisations have spent months on the vision but only mention it in one newsletter or speech, using only a minuscule amount of the total annual communication. As a consequence, people do not understand or believe in the change, undermining its overall success. More successful organisations, however, use all communication channels possible to inform about the vision and regularly refer to it within the course of regular meetings, e.g. explaining how the suggested solutions for a certain business problem will fit with the overall vision. Additionally, successful organisations “walk the talk” (p. 64) meaning that people of the guiding coalition start acting according to the new desired behaviour and become role models for the change, hereby increasing the latter’s overall credibility.

#### Empowering Others to Act on the Vision

In a way the guiding coalition motivates and inspires others for the change merely by successfully communicating about the new course. Yet, this alone is insufficient. If organisations want to successfully renew they also need to get rid of obstacles undermining the vision. Obstacles can come in various forms and may include “narrow job categories” challenging productivity efforts as well as managers who formally agree to renewal but actually are not convinced and thus continuously stop change efforts. If the obstacles undermining the vision cannot be overcome, renewal will be impossible.

#### Planning for and Creating Short-Term Wins

Change processes normally take time. If there are no short-term wins to meet and praise along the way people may give up or start refusing to change, making “the renewal efforts risk losing momentum” (p. 65). Therefore, in successful change processes change managers actively include possibilities for short-term wins within the change agenda. For instance, they may support the launch of a new product complying with the new direction about one year after the renewal commitments were formally adopted. As a result, employees’ motivation and credibility for the change will be kept up high.

Consolidating Improvements and Producing Still More Change

Following Kotter weak guiding coalitions or unclear visions significantly hinder renewal success, yet, it is “the premature victory celebration that kills momentum” (p. 66). He argues that if gains are celebrated too soon, change resisters may run down change initiators arguing that “the war has been won and the troops should be sent home” (p. 66). They then use the victory as a legitimation to take over and slowly but surely stop the change. In more successful cases, however, change managers use the credibility of short-term wins to legitimate even bigger change efforts and do not let them overtake by resisters. Instead, they keep changing structures and systems that have not been transformed yet and understand that change efforts can take years.

Institutionalizing New Approaches

In order to institutionalize changes in the culture of an organisation, two things are important: On the one hand, people must understand how and why the renewal has helped to improve the organisation’s performance. It is important that they are thoroughly informed about the actual reasons and links for positive development and not let alone guessing whether it was the new boss or their own better productivity impacting the change. One good tool supporting employees’ understanding may be a company newspaper which constantly provides background information on the latest renewal improvements. On the other hand, one should take enough time to ensure that new top managers also “personify the new approach” (p. 67) as otherwise change efforts will seldom last.

<b>Organisational requirements mentioned by Kotter (1995)</b>	<b>Organisational requirements mentioned by Kuhn, Burger and Ulrich (2018)</b>
Establishing a Sense of Urgency	Having a common story convincingly explaining why the municipality embarks on that journey
Forming a Powerful and Guiding Coalition	Meaningful participation of external stakeholders including local politicians, administration employees, interested members of society etc.
Identify the Leadership	Clearly defined responsibilities
Creating a Vision	Having a vision
Planning for and Creating Short-Term Wins	Select measures that enable quick achievements in order to ensure that the project participants become motivated

Table 2: Overview of overlapping organisational requirements mentioned by Kotter (1995) as well as Kuhn, Burger and Ulrich (2018).

Aiming to verify whether the model's success proves right, Appelbaum et al. (2012) reinvestigated Kotter's framework in 2011 and critically compared the suggested requirements with experiences gained from change management processes of the past 15 years. The authors find general support for the majority of the criteria; however, there seem to be "no formal studies [...] covering the entire spectrum and structure of the model" (p. 764). Moreover, they reveal certain shortcomings related to the model: First, findings from newer change management literature suggest that the eight organisational requirements may not need to be followed in sequence but can also be introduced in different order. Second, there is doubt whether all requirements are really relevant for all contexts or can possibly be skipped. Lastly, the model turned out to be "not detailed enough to provide help in all scenarios" (p. 775) as Kotter omits to enlarge upon possible issues arising during the change process, e.g. employee resistance. As a consequence, Appelbaum and his colleagues (2012) conclude that the model "remains a recommendable reference" (p. 764), yet suggest that managers seeking for guidance within change processes should nevertheless also consult and rely upon further complementary models.

This study follows Appelbaum's et al. (2012) advice: In order to increase the chances to find as many organisational requirements involved in the successful development of local sustainability strategies as possible, experiences of the change process in the municipalities are primarily contrasted against the criteria developed by Kotter (1995), but, additionally, also against relevant other requirements introduced by two other authors, namely Fernandez & Rainey (2006) and Luecke (2003) (see below). The two models were found the most useful addition for the following reasons: As one of the few exceptional cases in change management literature the model by Fernandez & Rainey (2006) especially addresses renewal processes in the public sector. It appears thus conceivable that the organisational requirements mentioned in there are relevant for the development process of local sustainability strategies. The model by Luecke (2003), however, was used as - compared with the one by Kotter - it lays particular focus upon leadership behaviour within change processes. Since there were indications in corporate literature that leadership and especially the manager's "personal attitudes and values" concerning sustainability have a vital impact on the overall corporate sustainability strategy development (cf. Engert & Baumgartner, 2015, p. 829), this organisational requirement was deemed to be probably relevant also for municipal strategy development processes and thus added to Kotter's framework.

### 2.2.3.2 Additional change management models from other authors

Fernandez and Rainey (2006)'s framework is clearly inspired by the one by Kotter (1995), yet only comprises eight organisational requirements. The biggest difference arguably is that Fernandez and Rainey (2006) - with particular regard to the public service - identified two additional requirements which were omitted by Kotter. These are:

#### Build External Support

The success of organisational change in the public sector is heavily dependent on the extent of support from "political overseers" (p. 171) and other important external actors. These may be government agencies, influential politicians, sovereigns or interest groups. Including and convincing the latter in and for the change process is essential since they can "impose statutory changes and control the flow of vital resources to public organisations" (p. 171). Even though receiving support can be hard due to public agencies' various different political decision-makers with contradicting goals not including them will accelerate the change process but finally lead to frustration and criticism.

### Provide Resources

Change processes are usually expensive and require substantial efforts. If they shall be successful they require sufficient resources supporting the renewal. If there is resource scarcity change processes remain weak or fail and employees experience “higher levels of interpersonal stress” (p. 172). Referring to Boyne (2003) the authors state that for public service organisations resources are one of the most crucial requirements either facilitating or hindering change.

Luecke (2003) created a framework consisting of seven organisational requirements needed for changing organisations. Whilst his model also strongly overlaps with Kotter’s, his considerations of leadership are more thorough and precise regarding the required abilities of the change leader: Whilst Kotter only argues for “strong leadership” (p.62) without specifying the latter, Luecke (2003) states the following:

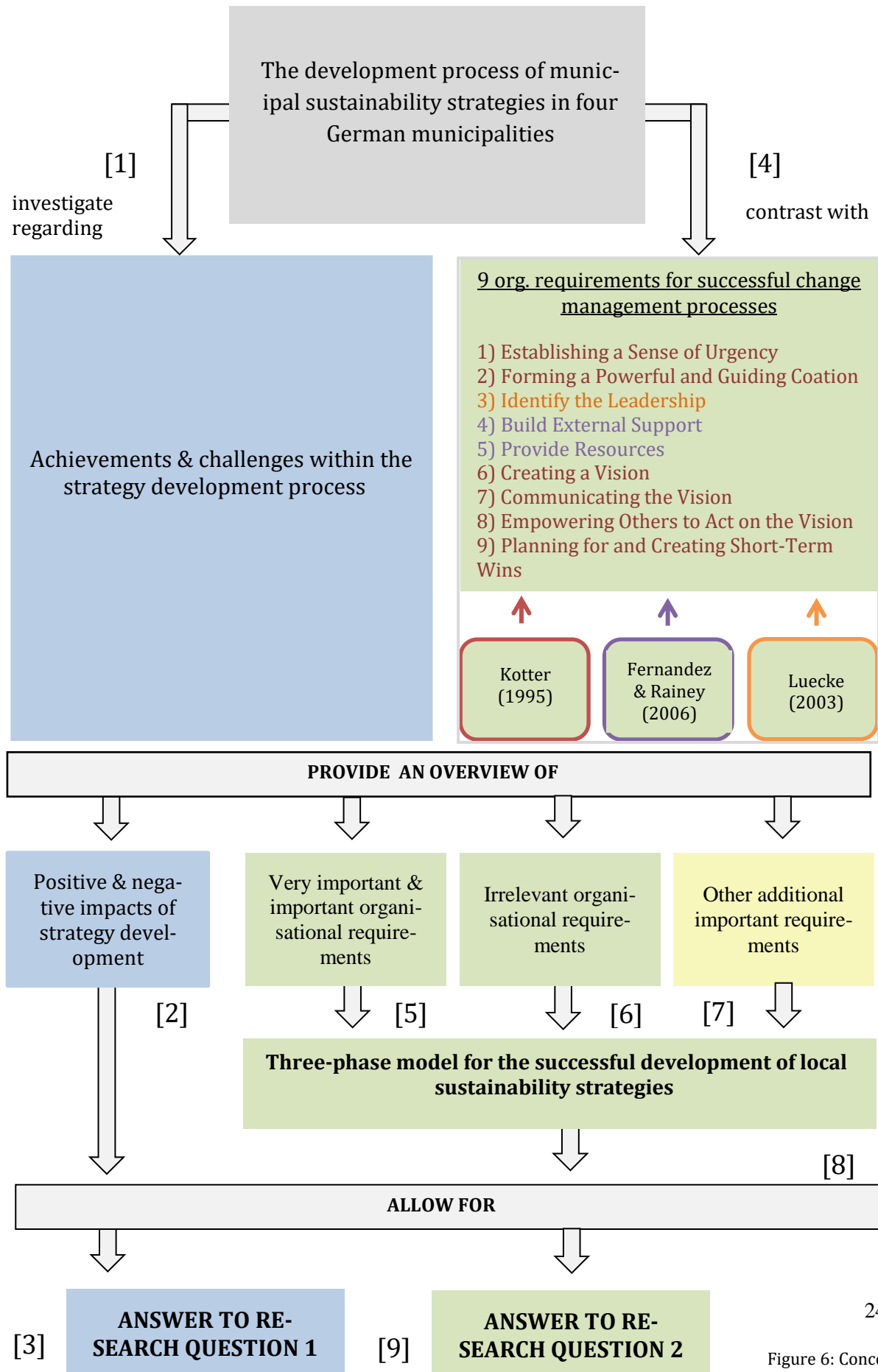
### Identify the Leadership

Successful change operations need a “visible leader” (p. 38) who acts as a role model, allocates the necessary resources and shows responsibility for success and failures. Luecke (2003) explicitly underlines that leadership should not be carried out by a person from the Human Resources department: “HR may be respected for its know-how in areas of personnel and benefits, but it is often seen as clueless about operations. [...] Control and responsibility must be situated in the units undergoing change, and handled by the unit leaders” (p. 38).

Aiming for a model whose suitability has been proven in literature and at the same time considers the peculiarities of public sector organisations and leadership qualifications, a new amended framework consisting of eleven requirements seems a legitimate theoretical foundation for this study. Yet, since the last two of Kotter’s requirements exclusively relate to the point of time after that the change effort has already taken place and the present study concentrates on finding those organisational requirements which turned out important for enabling a successful change process in the first place, these two requirements were found irrelevant for answering the researching question. They were thus not queried in the interviews. Consequently, the framework used for the purpose of this research comprises nine requirements. If all these nine really turn out to be relevant (see Appelbaum’s (2012) et al. critique above) for any change process will be seen in the course of the study. Moreover, based on an inductive analysis of the experiences of the four municipalities, it will also be investigated whether other additional organisational requirements (apart from these nine) relevant for successful strategy development processes can be found.

## 2.3 Conceptual model

This study's research goal and questions translate into the following conceptual model:



[1]: In a first step, four municipalities' experiences with the development process of a local municipal sustainability strategy are investigated regarding challenges and achievements.

[2] This leads to an overview of the positive and negative impacts which may arise during a strategy development process...

[3] ...and therefore provides an answer to the first research question.

[4] In a second step, the four municipalities' experiences are again analysed, yet, this time compared and contrasted against an amended theoretical framework which was built for the purpose of this study and grounds on different organisational requirements mentioned within change management literature.

[5] The comparison allows for an identification of those organisational requirements that turned out very important or important also for strategy development processes...

[6]...and those that turned out irrelevant.

[7] Additionally, the analysis reveals other organisational requirements which also turned out very important for successful strategy development processes but were neglected in the relevant literature so far.

[8] Finally, the findings obtained from step 5, 6 and 7 enable the creation of a new three-phase model that contains all organisational requirements relevant for a successful strategy development.

[9] A further explanation regarding when and how the requirements mentioned in the model should be considered within the development process finally provides an answer to the second research question.

### 3. METHODOLOGY

In their textbook “*Research methods for business students*” Saunders, Lewis and Thornhill (2009) make use of the “*Research Onion*” (figure 6) – a graphical depiction containing the different elements (or layers) of research - to guide scientists to design a comprehensive research methodology. The model has been found very useful and thus served as some kind of orientation when developing this thesis’ research method.

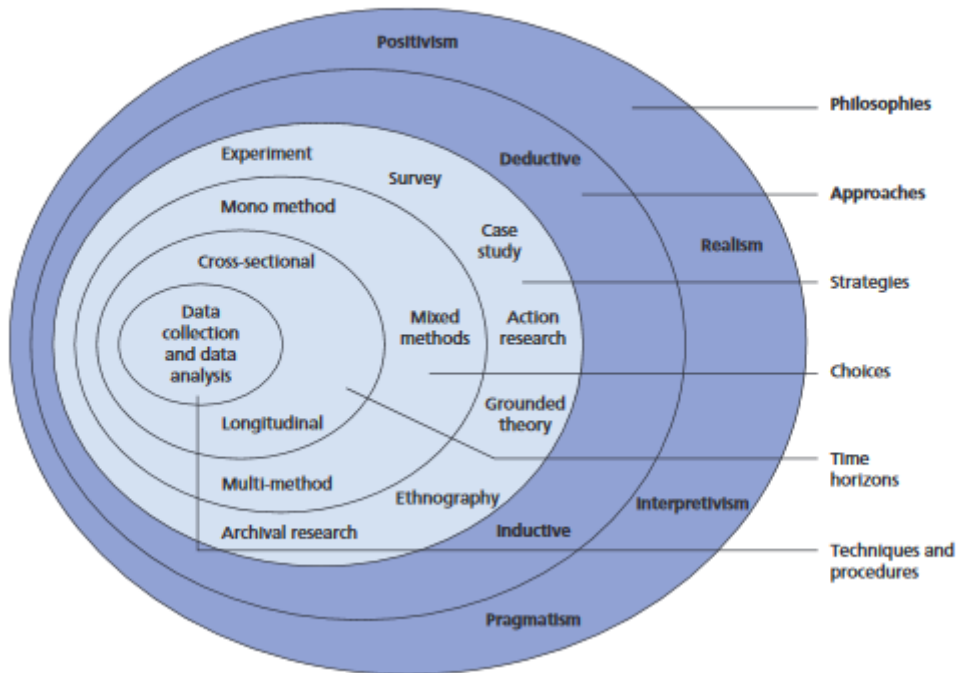


Figure 7: The “Research Onion” (Saunders, Lewis & Thornhill, 2009, p. 108)

In the proceeding sections detailed information on the selected methodology will be given. Starting with the onion’s two outside layers it will first be enlarged upon the research philosophy and approach. Afterwards, the onion’s first two inside layers, namely research’s strategy and research choice, will be presented, whereby both the reason for doing a case study and the use of a multi-method approach will be given. In the next step the collection and analysis of data will be explained, followed by a discussion of the findings’ validity and reliability. The chapter concludes with a discussion of ethical concerns considered within the scope of this research.

#### 3.1 Research philosophy

According to Saunders, Lewis and Thornhill (2009, p. 107) the *research philosophy* describes an “over-arching term [that] relates to the development of knowledge and the nature of that knowledge”. More specifically, the adoption of a particular philosophy reveals key assumptions from what particular angle or perspective the researcher sees the world. These assumptions, in turn, directly reinforce and influence the research strategy and are typically linked with certain data collection techniques (Saunders, Lewis & Thornhill, 2009). When it comes to research philosophies<sup>2</sup>, there exist several different interpretative positions including, for instance, *Positiv-*

<sup>2</sup> also referred to as “paradigm”, “worldview” or “philosophical assumption” (cf. Creswell, 2007, p. 19).

*ism, Postpositivism, Realism, Interpretivism, Pragmatism, Transformativism* (cf. Mackenzie & Knipe, 2006; Creswell, 2007; Saunders, Lewis & Thornhill, 2009). None is superior to the other, but the decision for or against a certain philosophy (or even philosophies<sup>3</sup>) depends on both the respective research questions the researcher wants to address to as well as the researcher's *ontological, epistemological* and *axiological* beliefs (Saunders, Lewis & Thornhill, 2009).

While *ontology* refers to the “nature of reality and its characteristics” (Creswell, 2007, p.16) and is concerned with the “researcher’s view of the nature of reality or being” (Saunders, Lewis & Thornhill, 2009, p. 119), *epistemology* relates to the question what the researcher “constitutes acceptable knowledge in a field of study”. Finally, *axiology* refers to the researcher’s position regarding the “role of values in research” (p.112). Every research philosophy holds an own standpoint towards ontological, epistemological and axiological questions. For instance, while Positivists consider reality to be “external and independent of social actors”, Interpretivists argue that reality is “socially constructed” and “subjective” (p. 119).

Since this study investigates certain “social phenomena in their natural environment”, namely the development process of a municipal sustainability strategy in 4 German municipalities by trying to “understand ‘the world of human experience’” (Mackenzie & Knipe, 2006, p. 3, quoting Cohen & Manion, 1994) – in this case the respective interviewees’ experiences with the strategy development process – this research most likely reflects the *interpretivist* paradigm.

Interpretivism origins from phenomenology and symbolic interactionism (Saunders, Lewis & Thornhill, 2009). Epistemologically, the approach considers reality as being “a human construction which can only be understood subjectively” and therefore represents the opposite of natural driven science philosophies such as Positivism, where reality is studied “objectively” (Mora, Gelman, Steenkamp, Raisinghani, 2012, p. 47). Interpretivist research examines “meanings and motive behind people’s actions” in society and culture (Chowdhury, 2014, p. 433 referring to Whitley, 1984) and aims to understand the world from the research subjects’ perspective (Saunders, Lewis & Thornhill, 2009). The researcher therefore needs to both adopt an “empathetic stance” and at the same time pay attention to the specific research context. Since the interpretivist searcher forms inseparable part of the research, any obtained data can never be without value (ibid., 2009, p. 119). In other words, the researched is considered a “function of a particular set of circumstances and individuals at a specific time”. Interpretivist research therefore typically uses a qualitative approach with “in-depth investigations” and “small samples”, making the case study a typical research strategy within this paradigm (Saunders & Tosey, pp. 58- 59).

### 3.2 Research approach

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According to Saunders, Lewis & Thornhill (2019) the *research approach* can be *deductive, inductive* or *abductive*. The selection for or against a certain approach depends on the research emphasis, research paradigm and research topic. Within deductive research, the researcher “mov[es] from theory to data” (p. 155) meaning that he or she develops hypotheses from a certain theory, tests them and afterwards uses the findings to confirm or modify the initial theory. This kind of approach is suitable for investigating and explaining “causal relationships between

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<sup>3</sup> Both Saunders, Lewis & Thornhill (2009) as well as Creswell (2007) note that researchers may also apply various paradigms in their research, for instance a *constructionist* and *participatory* one.

concepts and variables” (p. 154) and is strongly used within natural science. The inductive approach, in turn, is associated with “moving from data to theory” (p. 155) and thus follows the opposite direction. Here, the researcher works from the “bottom up” (Creswell, 2007, p. 38), meaning that he or she will start with general observations of a certain phenomenon, then collects data e.g. by interviewing people experiencing this phenomenon, arranges and clusters the data through an analysis and afterwards formulates a theory emerging from the findings (Saunders, Lewis & Thornhill, 2009, pp. 125-127).

When deductive and inductive reasoning is combined one speaks of abductive research. Here, the researcher “moves back and forth” between theory and data (Saunders, Lewis & Thornhill, 2019, p. 155, referring to Suddaby, 2006). Within this approach data collection “is used to explore a phenomenon, identify themes and patterns, locate these in a conceptual framework and test this through subsequent data collection and so forth”. Abductive research aims to create new theory or adjust existing theory by “incorporating existing theory where appropriate” (Saunders, Lewis & Thornhill, 2019, p. 153).

The present study can be assigned both to the inductive as well as abductive approach: In connection with step I (see sub-section 1.3) experiences gained from the interviews are used to describe a certain phenomenon (in this case the positive and negative impacts of developing a municipal sustainability strategy). Since there was no prior literature available, one can speak of the inductive approach here. Within step II (see sub-section 1.3), however, existing theories on change management processes are first used as a theoretical framework and - after the analysis of the strategy development process - complemented by new theoretical insights, finally leading to the creation of a new theoretical framework. This procedure, however, is clearly abductive.

### 3.3 Research strategy

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According to Verschuren and Doorewaard (2010, p. 155) a *research strategy* is as “the coherent body of decisions concerning the way in which the researcher is going to carry out the research”. The selection for or against a certain strategy depends on several factors, inter alia the research question(s) and goal, the availability of data and theories and the study’s underlying philosophical assumptions (Saunders, Lewis & Thornhill, 2009). There exist various different research strategies, including *survey, experiment, case study, action research, grounded theory, desk research, ethnography or archival research* (cf. Saunders, Lewis & Thornhill, 2009, Verschuren & Doorewaard, 2010). Researchers must not limit themselves to only one strategy; instead, they may apply the survey strategy within a case study research (Saunders, Lewis & Thornhill, 2009).

#### 3.3.1 Justification of case study

For the scope of this study, I particularly decided to make use of a case study. Providing a “rich understanding of the context of the research and the process being enacted” (Morris & Wood, 1991 as cited by Saunders, Lewis & Thornhill, 2009, p. 146) and concentrating on “a contemporary phenomenon within some real-life context” (Yin, 1984, p.1), here the development of a municipal sustainability strategy in 4 German municipalities, this strategy perfectly reflects the intentions of interpretivist research (see sub-section 3.1). According to Creswell (2013, p. 97) a case study is “a qualitative approach in which the investigator explores a real-life, contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information (e.g., observations, interviews, audiovisual material, and documents and reports), and reports a case description and case

themes". Yin (2014 ) differentiates among four different case study approaches, divided into two categories, namely "single-case design" or "multiple-case design", respectively "holistic" or "embedded" case study" (see figure 7). Whilst the first distinction refers to the amount of investigated cases (one in the case of a single case study, two or more in the case of multiple case studies), the second distinction deals with the unit of analyses. Within a holistic case study, the research context (e.g. a certain organisation) is considered as one case. In the case of an embedded case study, however, the researcher splits the case into several "units of analysis", enabling him to also investigate certain "sub-units" within a case (Saunders, Lewis & Thornhill, 2009, pp. 147-147). Generally, analysing several cases instead of only one takes more time, however, the findings are considered as being "robust and reliable" (Baxter & Jack, 2008, p. 550) and allow the researcher to draw conclusions whether the obtained results can be generalized (Saunders, Lewis & Thornhill, 2009).

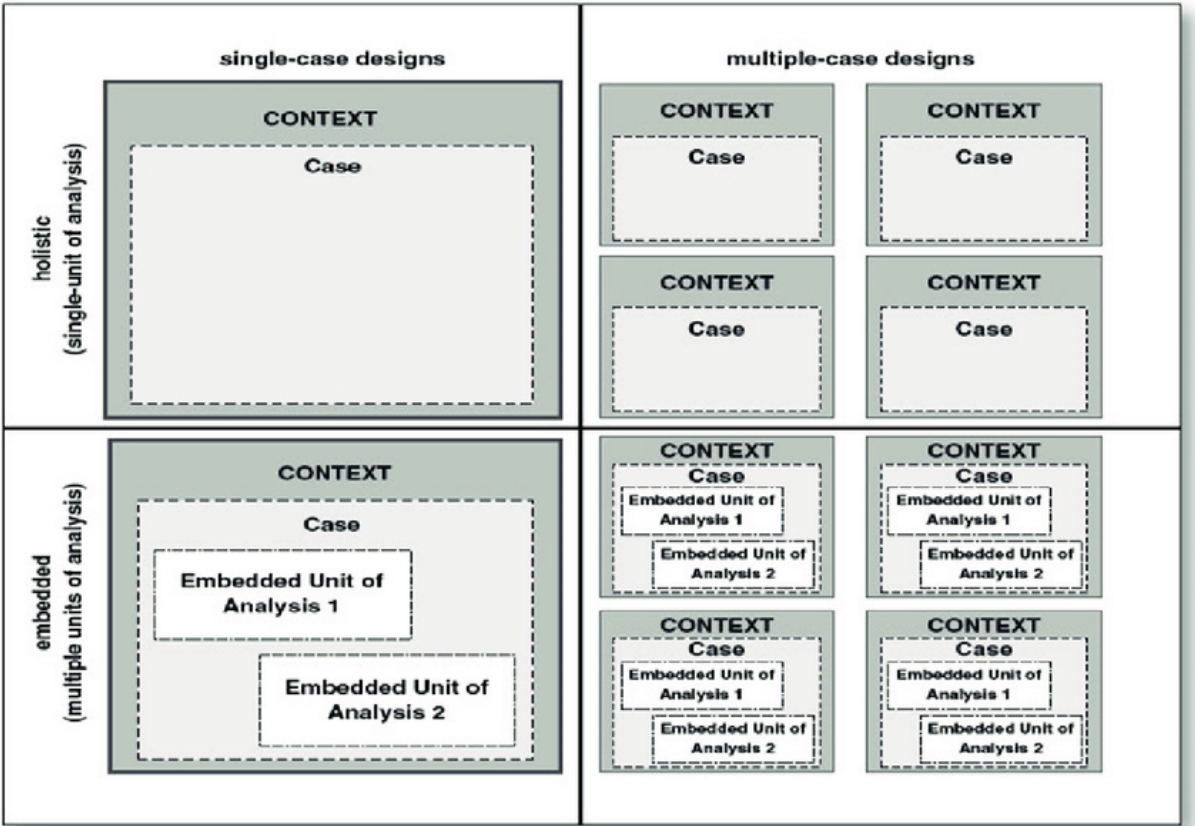


Figure 8: Types of case study designs (Yin, 2014)

As within the present study the goal was to obtain reliable and more general findings by analysing not only one but four municipalities' experiences regarding the development of a sustainability strategy within the context of the GNK programme, I decided to conduct a multiple case study. The investigated municipalities were considered as one case without considering any sub-units, making the case study design what has been referred to as a "multiple" and "holistic" case study (Ellinger, Watkins & Marsick, 2005, p. 337, referring to Yin, 2003) Due to the fact that the findings from each municipality were compared and contrasted against each other, one might also speak of a so-called *comparative case study* (cf. Vannoni, 2015).

### 3.3.2 Selection of case study

Prior to the actual data collection, I gained a first overview of all existing GNK projects by an internet research on the LAG's website (<https://www.lag21.de/projekte/details/global-nachhaltige-kommune/>). Hereby it was found that besides Arnsberg another 11 German municipalities and 2 districts have been engaged in the programme. When selecting the research sample, the following considerations were made: First, due to reasons of time and scope of this Master thesis, it was decided to not compare the experiences of all but only of four municipalities. It was clear from the very beginning that Arnsberg would be one of the four case studies since being an intern at the municipality made it relatively easy for me to accompany and 'observe' the project managers and project members and take part in one steering committee meeting. Second, aiming to achieve maximum comparability with Arnsberg, it was further envisaged to examine municipalities of comparable size, thus middle-sized towns. At the same time, however, it was found interesting to contrast the experiences of the middle-sized towns with the experiences of bigger cities. Following these considerations, only 8 out of 12 possible municipalities came into question for a case study. After contacting all of them (see sub-section 3.5.2 for more details) the following four municipalities have been selected: Arnsberg, Bonn, Dinslaken and Willich.

### 3.3.3 Limitations of strategy

Even though the case study has been found to be the most appropriate research strategy within the scope of the present study, the method contains some weaknesses the researcher needs to pay attention to: According to Verschuren and Doorewaard (2010, p. 179) a case study requires "triangulation of methods" and "triangulation of sources" in order to achieve a certain depth, respectively reliable findings (Saunders, Lewis & Thornhill, 2009). This means that researchers should make sure to use various methods and sources within data collection, such as group interviews, documents or observations (Verschuren & Doorewaard, 2010).

While interviewing several GNK project members ensured a triangulation of sources, triangulation of methods turned out to be more challenging: Whilst the published sustainability strategies, local newspaper articles or the LAG's website all provided some information on the respective municipalities' project development, this data was mostly found too general and thus did not cover the information needed to answer the research questions. In consequence, the data gained from the interviews contributed by far with the greatest share to this study. In my eyes this flaw seems nevertheless acceptable when considering that the case study was still supposed to be the most suitable strategy for answering this research's questions.

### 3.4 Research Choice

According to Saunders, Lewis & Thornhill (2009) the *research choice* can either be *mono method* or *multiple methods*, whereby the latter splits into further sub-categories (see figure 8).

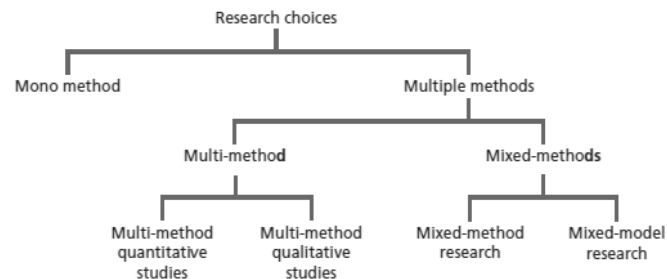


Figure 9: Research choices (Saunders, Lewis & Thornhill, 2009, p.152)

Within the present study, the selected research choice is a *multi-method qualitative study*. ‘Multi-method’ is associated with “those combinations where more than one data collection technique is used with associated analysis techniques but this is restricted within either a quantitative or qualitative world view” (Tashakkori & Teddlie, 2003, as cited by Saunders, Lewis & Thornhill, 2009, p. 152). The selection for this particular research choice has been made due to the following considerations: First of all, choosing a qualitative instead of a quantitative approach grounds on the simple fact that besides minor positive exceptions only very little scientific research on municipal sustainability strategies and especially on the GNK programme has been conducted up to now (see sub-section 2.1.3. 4). As stated by Creswell (2007, p. 40) this requests qualitative rather than quantitative research, as the latter would clearly demand the existence of sound theories and models related to the research subject. Second, using various (or *multiple*) methods for data collection rather than only one is considered advantageous since they will probably lead to more reliable results by enabling the researcher to “better evaluate the extent to which [...] the findings can be trusted and inferences made from them” (Tashakkori & Teddlie, 2003, as cited by Saunders, Lewis & Thornhill, 2009, p. 153). Within the scope of this study the following two data collection techniques have been applied: *semi-structured expert interviews* and *observations* (for more information see sub-section 3.5).

### 3.5 Data collection

As stated in the preceding section, this research used *semi-structured expert interviews* and *observations* as data collection techniques. In the following paragraphs the rationale for choosing these two techniques as well as their data collection process will be explained, starting with the observations. Additionally, it will be enlarged upon possible issues of bias.

#### 3.5.1 Participant Observations

Kawulich (2005, n.p.), referring to the work by DeWalt & DeWalt (2002) describes *participant observation* as a “process enabling researchers to learn about the activities of the people under study in the natural setting through observing and participating in those activities”. DeWalt and DeWalt (2002, p. 92) state that researchers may apply this method to “develop a holistic understanding of the phenomena under study that is as objective and accurate as possible [...]” and use the findings for developing interview guidelines or sample preparation. It has been argued that there does not exist a specific “template” as to how participant observation should be carried out so that different ways of data collection may apply, for instance, taking field notes or recording videos of the phenomenon (Laurier, 2010, p. 117).

For the purpose of this study participant observations at the municipality of Arnsberg were used to gain first insights into the GNK project ‘in practice’ and later served as some kind of inspiration and basis for the subsequent interviews (see below). Typical occasions for observations were, for instance, formal and informal meetings of the GNK core team, conferences with representatives of the LAG21, steering committee meetings or simply ‘corridor chats’. The observed was captured by taking field notes, if possible already “on the spot” (Saunders, Lewis & Thornhill, 2009, p. 296) or shortly later making sure to not “forget valuable data” (p. 297). Typical notes included information on the meeting’s date and purpose, its content, names and job positions of people attending as well as personal comments on people’s behaviour and statements, interesting discoveries or questions and comments arising in that specific situation. Since all of the observed persons were aware of the observations one could, arguably, assign this research to the category of “participant-as-observer” (cf. Gold, 1958, p. 220). Since the observations were only carried out in Arnsberg I was well aware of the fact that the observed merely reflected the situation in that particular municipality and might thus be too one-sided. However, considering the high effort required for further observations in other municipalities and time constraints within this research, further observations in other municipalities could not be organised.

### 3.5.2 Semi-structured expert interviews

Aiming to fully understand the phenomenon of developing municipal sustainability strategies and answering the research questions, I decided to complement the findings from the observations by conducting *semi-structured expert interviews*. Since the GNK project leadership or core team membership as well as the size of one’s municipality were the decisive factors for being an eligible interview partner (see also sub-section 3.3.2) the selected sample technique was non-random (also non-probability) but *purposive*, meaning that I used a sample which was thought to “best enable [me] to answer [the] research questions [...] and objectives” (Saunders, Lewis & Thornhill, 2009, p. 237).

#### 3.5.2.1 Procedure

In a first attempt, all project coordinators of those municipalities coming into question (see sub-section 3.3.2) have been approached by email, asking whether they and two additional GNK core team members would be available for an interview. In order to increase the chances to “gain access” into the administrations, I made sure to write the email in a formal language style and at the same time informed the interviewees about “possible benefits” when taking part in the study, for instance, the provision of a summary report (cf. Saunders, Lewis & Thornhill, 2009, p. 173).

As the initial response rate was nevertheless low, nearly all project coordinators have been contacted by phone for a second time, hereby achieving an overall response rate of 100 %. Hereof, 6 agreed to be interviewed and at the same time promised to forward my interview request to the remaining members of the core team or provided me with their contact details. In the latter case, the interview request was again sent via email. This way, 10 more persons agreed to be interviewed, leading to a total of 16 potential interviewees. However, as one of the project managers unfortunately turned out to be the only person who agreed to share her experiences, there was a high risk that the overall impression from that municipality’s project process was too one-sided. Consequently, it was decided to not consider this municipality within the case study. Thus, there was a remaining number of five possible municipalities, whereof four were middle-sized towns and one a city. Consequently, after carefully weighing-up the individual municipalities’ charac-

teristics, Arnsberg, Dinslaken and Willich were selected as representatives of a middle-sized towns and Bonn served as an example for a city.

From May 15 2019 till June 25 2015 a total of twelve interviews with four GNK project managers and eight core team members was held, whereof eight were male and four female. All respondents have been involved in the project from its very start and therefore have ample experiences regarding the development of a municipal sustainability strategy. The members of the core team covered a broad range of different job backgrounds, for instance Environmental Planners, Education Officers or Equal Opportunities Representatives.

The average length of an interview was 48 minutes, with 28 minutes being the shortest and 96 minutes the longest one. Those project managers who disagreed being interviewed either stated that they had too little time or did not carry out the project the way required by the LAG21 NRW. An overview of the investigated GNK NRW projects is shown in sub-section 4.2. Considering that the data was collected during a just-mentioned short particular time span, the research's time horizon may be described as *cross-sectional* rather than *longitudinal* (cf. Saunders & Tosey, 2012).

Whilst the interviews with the project members from Arnsberg and Willich were 'live' interviews, the remaining ones were conducted via telephone. The reason for the latter was that these interviewees were both located far away and not available on the same day, meaning that time and travel expenses would have been disproportionately high. In spite of the obvious missing 'face-to-face interaction' the data obtained from the telephone interviews was deemed equally valid as the ones from the live interviews: A study on qualitative interviews carried out by Sturges and Hanrahan (2004) clearly revealed that the results from telephone interviews indicated no substantial differences compared to traditional live interviews.

In order to ensure the capture of all relevant data and to guarantee that data could be gone through at a later stage, all interviewees were asked for permission to record the conversation before the interview started. Moreover, every interviewee was offered the chance to read the transcriptions generated from the respective interview, enabling them to send back the transcript with remarks or further information. While the majority declined this offer for reasons of time, two interviewees made use of this option.

### 3.5.2.2 Methodological reflections

I particularly decided to conduct *semi-structured* interviews. As stated by Longhurst (2003, p. 112) they are considered useful for "investigating complex behaviours, opinions and emotions and for collecting a diversity of experiences". This technique was found beneficial as all interviewees were queried about the same key themes, but still enjoyed "a fair degree of freedom in what to talk about, how much to say, and how to express it" (Drever, 1995, p.1). Making sure that no important question was forgotten every interview was held with the help of an interview guide. The guide initially encompassed 18 questions, dealing with the three key topics a) background information on interviewee and municipality as well as current status of project realisation, b) experiences with the GNK project and c) critical reflection of the project process (see Appendix B). After carrying out the first two interviews, it has been extended by four more questions, resulting in an overall of 22 questions to be asked to the remaining ten interviewees.

### 3.5.3 Concerns of bias

It needs to be critically noted here that both during the data collection process for the participant observations as well as the interviews the existence of certain types of bias cannot be excluded: On the one hand, it is likely that there have been signs of *observer bias* during the observations, meaning that I interpreted observed behaviours according to my own beliefs and opinions on what is correct or incorrect. Saunders, Lewis and Thornhill (2009) advocate that observer bias can never be prevented, yet, it clearly impedes overall reliability of findings. On the other hand, within the context of the interviews, there were high chances of *interviewer bias* or *interviewee bias* and *sample bias*. For the first case it needs to be assumed that my own behaviour during the interview, non-verbal and verbal, has somehow influenced the interviewees' answers. They may have felt that I expected them to answer in a certain way, e.g. in accordance with my own beliefs, and therefore modified their responses. Moreover, it might have been possible that they indeed wanted to take part in the interview but refrained from sharing certain secret or unpleasant information which may have shed a negative light on their team members or employer, again diminishing the validity and reliability of obtained data. Lastly, reflecting upon sample bias there were clear signs that certain eligible interviewees did not accept my interview request as the process was considered too time-consuming. Even though I reassured every person that the interviews would only take between 30 and 60 minutes, their rejection could sometimes not be prevented. As a consequence, not every desired interview candidate made actually part of the research sample. It is likely that these circumstances have impacted the generalisability of results.

## 3.6 Data analysis

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Similar to the preceding section, the process of data analysis will also be explained individually for each applied technique, again starting with the observations:

### 3.6.1 Participant Observations

Regarding the analysis of the data gained from the observations all field notes were first reread over and over again and compared to each other. In a second step, the findings were distinguished into different categories, namely 'scientifically relevant information', 'valuable background information' and 'irrelevant information'. Finally, the data from the first two categories were used as an inspirational groundwork for developing the interview questions.

### 3.6.2 Semi-structured expert interviews

For the analysis of the interviews all audio records were initially transcribed verbatim and then put together in one single word file. Subsequently, the data were analysed by making use of *constant comparison* – a method in which each finding is compared and contrasted with already existing findings “aiming to discover “new topological dimension as well as new relationships” (Goetz & LeCompte, p. 58). According to Boije (2002, pp. 392-393) quoting Tesch (1990), “forming categories, establishing the boundaries of the categories, assigning the segments to categories, summarizing the content of each category, finding negative evidence, etc.” will enable the researcher to find patterns in the data. Within the present study I read every interview several times and followed the steps suggested by Tesch (1990). This process was done repeatedly until no new insights or patterns from the data emerged anymore.

Since the interviews were initially carried out in German language, every literal quotation which formed part of the thesis was translated into English. In those minor cases where a word by word translation was not possible due to linguistic peculiarities I tried to render their content as well as possible.

### 3.7 Credibility of research findings

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There is general consensus in scientific literature that researchers should consider concerns of *reliability* and *validity* in order to demonstrate the overall credibility of their findings (cf. Creswell, 2007; Saunders, Lewis & Thornhill, 2009, Noble & Smith, 2015). Reliability relates to the degree “to which the [...] data collection techniques or analysis procedures will yield consistent findings” (Saunders, Lewis & Thornhill, 2009, pp. 156-157), respectively if the measures will lead to the same findings when repeated at a different point in time or when carried out by another researcher (ibid., p. 156, referring to Easterby-Smith et al., 2008).

Validity, in turn, refers to “the appropriateness of the measures used, accuracy of the analysis of results and generalisability of findings” (Saunders, Lewis & Thornhill, 2016, p. 202). One further distinguishes between *internal validity* and *external validity*. Whilst the former is attained when one can prove that there is “a causal relationship between two variables” (e.g. when a certain “intervention can be shown statistically to lead to an outcome”) (p. 203), the latter refers to the overall generalisability of the obtained findings, or, in other words, whether the results gained can be applied to other contexts (p. 204).

Quantitative research usually undertakes certain tests and measures to prove reliability and (internal and external) validity of findings. For qualitative research, however, established criteria as to how researchers should ensure overall trustworthiness of their work are still missing (Noble & Smith, 2015, referring to Rolfe, 2006). In response to this issue, Noble and Smith (2015) compiled a comprehensive list including various strategies qualitative researchers should consider when aiming for reliable and valid results. Recommendations are, inter alia, to enlarge upon possible biases which might impact the results, ask interviewees to remark the interview transcripts and ensure data triangulation to provide a deeper understanding of the context due to broader data basis.

Within the present study all of the above-mentioned requirements have been met: While concerns of bias as well as the possibility to review the interview transcripts have been discussed in sub-sections 3.5.3 and 3.5.2.1, data triangulation was achieved by relying both upon participant observations as well as semi-structured interviews as data collection techniques.

Moreover, reflecting upon external validity it can be assumed that four well-chosen cases which are somehow representative for a larger group – namely German mid-sized municipalities – and a carefully selected and amended theoretical model generally enable the derivation of theoretical generalisations. Yet, since the experiences of only a relatively small number of project coordinators and core team members from only one German region have been taken into consideration (see sub-section 3.5.2) the obtained findings may above all be applicable to comparable cases, thus mid-sized cities from NRW planning to also embark on a sustainability strategy in future. To conclude, external validity has been established in this study, yet, could have been further strengthened by improving the sample: One could have, for instance, taken other GNK municipalities’ experiences (e.g. those from Thuringia) with the strategy development into con-

sideration. Further, since this study's interviews were exclusively held with GNK project participants from the administration in order to reduce bias it might have been rewarding to also include the perspectives of non-administrative members involved in the project.

With regard to this research's reliability it needs to be critically noted that if the same interviews were conducted at another time, different results may likely have emerged: The interviews only "reflect reality at the time they were collected" (Saunders, Lewis & Thornhill, 2009, pp. 327-328, referring to Marshall & Rossman, 1999). One can expect that in some months from now all interviewees will have gained further experiences with the strategies –positive or negative – which would, of course, influence their overall perceptions of the GNK process and thus probably lead to different answers, clearly contradicting the principles of reliability. However, Lincoln and Guba (1985) argue that within interpretivist research the degree of reliability should not be related to the extent to which the same results can be obtained by different researchers at different time, but rather whether the data collection and analysis procedure can be understood and followed. Following their suggestion it was paid attention to provide detailed descriptions for all steps of data collection and data analysis which have been conducted within this study.

### 3.8 Ethics

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According to Cooper and Schindler (2008, p. 34) ethics are "the norms or standards of behaviour that guide moral choices about behaviour and our relationship with others". Consequently, *research ethics* deals with questions as to how the overall research process can be carried out in a "moral and responsible way", making sure that a study is not only methodologically firm but also pursuant to moral principles (Saunders, Lewis & Thornhill, 2009, p. 184). Ethical issues can occur at various stages of research, i.e. during the designing of the research, data collection or data processing and storage. Aiming to conduct this study according to moral and ethical standards, it has been paid attention to work in compliance with the ethical guidelines provided by the *Economic and Social Research Council's (ESRC) Research Ethics Framework*. According to Saunders, Lewis and Thornhill (2009, p. 184) referring to a certain "code of ethics" will make sure that the researcher does not "transgress the behavioural norms" ascertained by a professional organisation.

As stated by the ESRC (2019) the following six ethical core principles should be considered within the research process:

- "research should aim to maximise benefit for individuals and society and minimise risk and harm
- the rights and dignity of individuals and groups should be respected
- wherever possible, participation should be voluntary and appropriately informed
- research should be conducted with integrity and transparency
- lines of responsibility and accountability should be clearly defined
- independence of research should be maintained and where conflicts of interest cannot be avoided they should be made explicit"

In the context of this study, it was paid attention to comply with each of the six principles stated above. Additionally, I particularly ensured that all participants in the study knew what the research was for, which university the researcher belonged to and what would happen with the gathered data, respectively who would grade and receive the final thesis in the end. Additionally,

both regarding the observations as well as the interviews the following ethical considerations have been taken into account:

Within the scope of the observations I intentionally decided to opt for the ‘participant as observer’ stance (see sub-section 3.5.1), which is considered “the most ethical approach to observation” (Kawulich, 2005, n.p.) and particularly informed all concerned persons about my internship and the research tasks involved.

Concerning the interviews, every interviewee was asked for written permission to record the interview prior to the interview’s start. Moreover, he or she was informed that they could interrupt or abort the interview at any time and not need to answer questions if they do not want to. Finally, each interview participant was assured that their names would remain anonymous and transcripts would not be made publicly available. In order to avoid that interviewees may possibly be retraced, for instance due to disclosure of their job description at the municipalities, neither the latter information nor data on gender or age has been released.

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## 4. CASE STUDY INTRODUCTION

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In the sub-sections hereafter it will first be enlarged upon the GNK NRW programme, whereby detailed information regarding the participating municipalities as well as the strategy's development, implementation and evaluation will be given. Afterwards, the four selected case study municipalities will be introduced.

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### 4.1 Global Nachhaltige Kommune NRW

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As already briefly outlined in the introduction the German model project *GNK NRW* was initiated in early 2016 and founded by the LAG 21 NRW and the SKEW in view of the adoption of the Agenda 2030 in 2015. Breaking down the global SDGs to the local scale the project aimed to develop integrated municipal sustainability strategies for 15 model municipalities in NRW including concrete local targets for a sustainable development (LAG 21 NRW e.V., n.d.). According to the project founders the strategy development pursued two objectives, namely:

*“Considering local challenges and an urban development that links ecological, social and economic concerns regarding the global boundaries [and] promoting the One World perspective and the associated responsibility towards people in other parts of the world, especially those in the Global South” (ibid., n.d., p. 2)*

GNK NRW was funded by the Federal Ministry for Economic Cooperation and Development (LAG 21 NRW e.V. 2018). On 24 May 2019 it has been announced that the project will be extended. From June onwards another 15 municipalities will be supported with the development of their sustainability strategies (Engagement Global, 2019). The following descriptions, however, do only apply to the project process of the first round.

#### 4.1.1 Participating municipalities

The participating model municipalities were selected within an application process, whereby prior experiences with municipal sustainability activities and the municipalities' motivation to take part in the project played a pivotal role for the selection. They partly differ substantially in population figure and socio-demographic development and are spread over the whole federal state of North Rhine-Westphalia (see figure below). To be precise, Unna and Steinfurt are associations of several municipalities, so-called districts (German: 'Kreis') (LAG 21 NRW e.v., 2018).

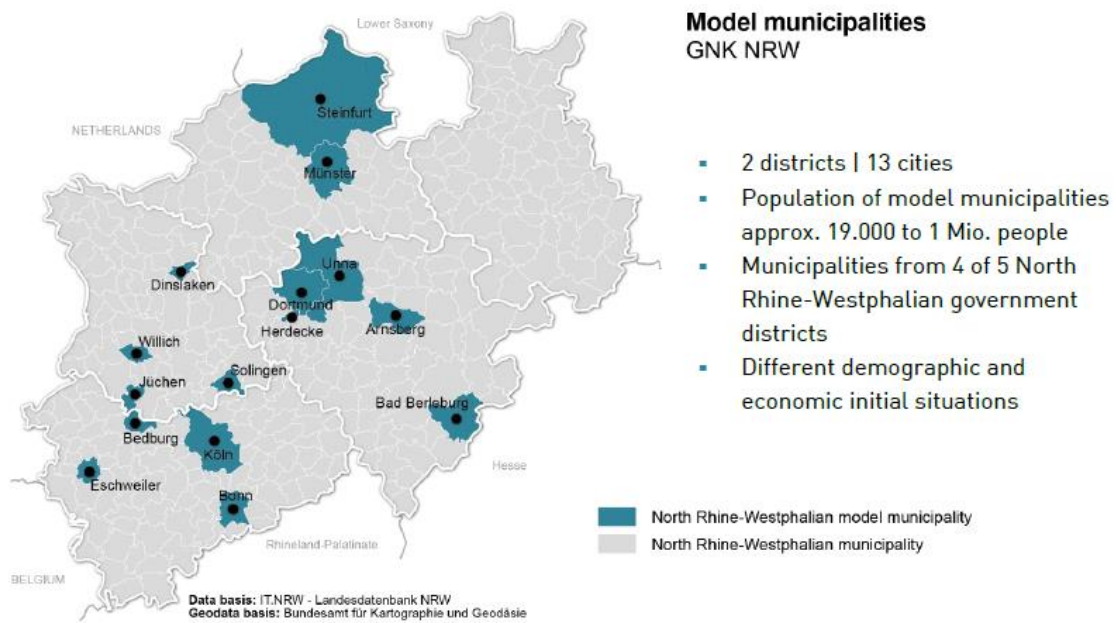


Figure 10: Model municipalities GNK NRW (Landesarbeitsgemeinschaft 21 NRW e.V., 2018, n.d., p. 2)

#### 4.1.2 The strategy development process

The strategy development process took 2.5 years and was characterized by broad participation: Supported by the LAG21 NRW and the Service Agency Communities in One World administration members, politicians, industry representatives and members of civil society jointly elaborated their visions for sustainable development in their respective communities until 2030. In order to successfully develop the strategies the LAG 21 NRW created a particular model for the project’s structural organisation. As can be seen in figure 10, three different groups of actors are responsible for different tasks within the strategy development process (LAG 21 NRW e.V., 2018.)

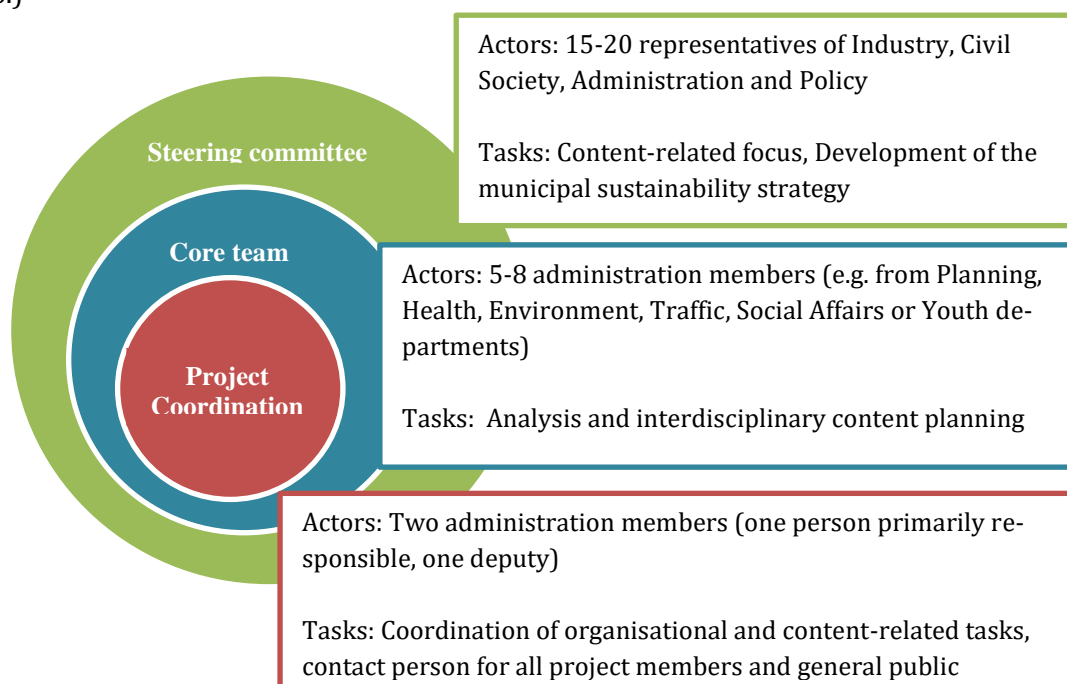


Figure 11: Structural organisation pursuant to LAG 21 NRW model (own representation adapted and translated from LAG 21 NRW e.V., 2018, p. 10)

The formal course of the strategy development consisted of six main stages, each accompanied by a preceding networking conference ('Netzwerktagung') where the project participants of the municipalities could meet with others, exchange experiences and were informed about the next stage's steps (see figure 11). In the following, each stage will briefly be explained<sup>4</sup>:



Figure 12: Project schedule of the GNK NRW model project (adapted from Landesarbeitsgemeinschaft 21 NRW e.V., 2018, p. 9)

### Stage 1: Aufbauorganisation ('Structural Organisation')

In this first phase, the three different work groups (project coordination, core team and steering committee) are formed. They will work closely together for the coming 2.5 years. Usually, the project coordinators appoint the members for the core team. These two groups together then appoint the steering committee members.

### Stage 2: Bestandsaufnahme/SWOT- Analyse ('Inventory / SWOT Analysis')

In the second stage, the steering committee members analyse the municipality's status quo in terms of sustainable development by backing upon relevant data such as statistical figures or existing strategies, resolutions or programmes. Building on those findings, a SWOT Analysis is carried out, demonstrating the city's strong and weak areas within the context of sustainable municipal development.

### Stage 3: Leitlinien und Strategische Ziele ('Guidelines and Strategic Goals')

Within the third phase, the steering committee members choose six out of 12 thematic fields they particularly want to concentrate on within the later strategy development. The 12 fields are as follows:

I: Labour and Economy  
 II: Education  
 III: Demography  
 IV: Finance

VII: Global Responsibility and One World  
 VIII: Consume and Lifestyle  
 IX: Climate and Energy  
 X: Mobility

<sup>4</sup> Since a more detailed description of the overall project schedule would be beyond the scope of this study, the preceding sub-section only enlarged upon the most relevant steps. For a more thorough description of the programme's procedure please contact the LAG21's website and reports.

V: Societal Participation and Gender  
VI: Health and Nutrition

XI: Natural Resources and Environment  
XII: Safety

Moreover, they elaborate guidelines and strategic goals. The latter “broadly state what should be achieved when in the municipalities within the context of sustainable development” (p. 14) for the next 10-15 years.

#### Stage 4: Operative Ziele ('Operative Goals')

In the fourth stage, the steering committee members develop operative goals which are formulated pursuant to the 'SMART' criteria (specific, measurable, attractive, reasonable and time-bound). One operative goal is, for instance, “to create 100 social housings per year until 2020”.

#### Stage 5: Maßnahmen – und Ressourcenplanung ('Action and Resource Planning')

Grounding on the operative goals established in stage four, in stage five the steering committee elaborates concrete measures which are to be taken in order to fulfil the operative goals. Moreover, they also assign the required resources (time and money) to each measure.

#### Stage 6: Verabschiedung ('Adoption')

In the last stage the developed strategy including all its goals and measures will be formally adopted by the city council.

(whole sub-section 4.1.2: LAG 21 NRW e.V., 2018)

### **4.1.3 Monitoring and evaluation of the sustainability strategies**

In order to monitor the implementation process of the strategies both the measures' degree of realisation as well as their impact is regularly recorded by the cities. Moreover, with particular regard to the second term of the project, the LAG 21 NRW will keep improving the project on the basis of continuous evaluations (LAG 21 NRW e.V., 2018).

## 4.2 Overview of investigated municipalities

In the following the four municipalities which have served as a case study for this research will be presented. In a first step, I provide general information on the respective municipalities. Afterwards, it will be enlarged upon more specific background information regarding the overall strategy development process.



Figure 13: Alt - Arnsberg Altstadt (old town of Alt- Arnsberg) (Hempel, n.d.).

### 4.2.1 Arnsberg

Arnsberg is located between the conurbation of the Ruhr area and the rural region Sauerland. It is currently home to approximately 76.000 inhabitants and counts as the biggest town in the Hochsauerlandkreis (Higher Sauerland District). Due to incorporations of the two neighbouring towns of Neheim and Hüsten as well as 12 other municipalities in 1975, Arnsberg nowadays consists of 15 city districts. Thanks to its motorway connection (A45 and A46) and various federal roads Arnsberg is well connected to the big traffic axes (A44 Dortmund - Kassel, A2 Oberhausen - Hannover, A1 Köln - Bremen) as well as regional surroundings. Arnsberg is considered as an economically attractive location regarding production, innovation and service. Manufacturing industry (e.g. metal, electro technologies, wood and paper), is the most active sector, providing about 50 % of all jobs. Arnsberg is rich in nature and offers a lot of local recreation areas including a vast cycle and trekking path network along the river Ruhr (Stadt Arnsberg, 2018).

From the 1990s onwards the topics of climate protection and sustainability have increasingly gained importance within Arnsberg's municipal administration. Due to the recruitment of a publicly founded climate protection manager in 2012, the town has been active in various different

sustainability projects. The scope ranges from flood plain renaturations along the river Ruhr to the realisation of a “climate protection week” or the development of the “klima-netzwerk.südwestfalen” (climate network South Westphalia). Moreover, Arnsberg has been honoured as ‘Klimaaktive Kommune’ (climate active municipality) in 2016 and was granted the European Energy Award. Aiming to combine these different individual activities within a coherent sustainability strategy, Arnsberg decided to take part in GNK NRW (Stadt Arnsberg, 2018).

In Arnsberg, a total of six core team members and 35 steering committee members have successfully developed the sustainability strategy within the framework of five steering committee meetings between May 31 2016 and December 04 2017. The strategy focuses on the realisation of measures within the following six thematic fields:

- I: Social participation and Gender
- II: Natural Resources and Environment
- III: Climate and Energy
- IV: Health and Nutrition
- V: Consume and Lifestyle
- VI: Global Responsibility and One World

The project group particularly selected these topics as they were considered to have been treated insufficiently within Arnsberg’s sustainability efforts so far (Stadt Arnsberg, 2018). On 25 September 2018 – worldwide SDG action day - the strategy was finally adopted by the city council (Stadt Arnsberg, n.d.).

#### 4.2.2 Bonn

The city of Bonn is located in the south of NRW and counts about 325.000 inhabitants with rising tendency: According to prognoses, Bonn will count about 349.000 citizens in 2040. The past 25 years have witnessed a systematic structural transformation: The city has gained its political importance as former German capital and at the same time gradually expanded its industrial and cultural locations. Bonn nowadays forms part of the leading economic centres in NRW and is home to numerous organisations of the United Nations. In 2018, 28.5 % of all employees in Bonn held an academic degree (Bundesstadt Bonn, 2018 a). Yet, the attractiveness of the city also has its downside, inter alia an extremely tense housing market as well as large car density including high CO<sub>2</sub> emissions (LAG 21 NRW e.V., 2018).

Being Germany’s United Nations location, the city has a long tradition of sustainable municipal development. Bonn has been active in numerous local, regional and international programmes and campaigns related to sustainability or the SDGs (LAG 21 NRW e.V., 2018). The city is entitled ‘FairTrade Town’ and many of Bonn’s 150 NGOs are working in the sustainability sector (Bundesstadt Bonn, 2019 b). Similar to Arnsberg, the city decided to take part in the GNK NRW project with the aim to convert their broad sustainability engagement in various fields into one coherent strategy (LAG 21 NRW e.V., 2018).

Bonn followed a slightly different structural organisation when developing the municipal sustainability strategy: Due to the large size of the city, the steering committee solely formed part of administration members, whereby it was paid attention to include representatives of all 12 departments. In order to also include non-administration members, every department enumerated further external partners from their respective sectors, which then formed the ‘project work

group'. The latter consisted of about 25 persons and, apart from the different name, fulfilled the same role as the steering committee members in the remaining municipalities. The selected thematic fields are as follows:

- I: Mobility
- II: Climate and Energy
- III: Natural Resources and Environment
- IV: Labour and Economy
- V: Social Participation and Gender
- VI: Global Responsibility and One World

(LAG 21 NRW e.V., 2018)

The strategy was adopted by the city council in February 2019 (Bundesstadt Bonn, 2019 c).

### 4.2.3 Dinslaken

Dinslaken counts about 70.000 inhabitants and is located between the rurally characterized Niederrhein (lower Rhine) region and the metropolitan Ruhr area. Citizens particularly value the excellent traffic connections: Various metropolises such as Cologne or Düsseldorf can be reached within short time. Moreover, the Dutch border is only 50 kilometres away. Dinslaken is considered as an attractive business location and - being a middle centre for the surrounding area - hosts various education centres as well as cultural offerings. There are plans which foresee that Dinslaken becomes a university location in future (Stadt Dinslaken, 2018).

The city currently faces two major issues: On the one hand, similar to many other towns at the border of the Ruhr area, Dinslaken suffers from the negative economic and architectural consequences after the shutdown of the 'Lohberg' mine in 2005. On the other hand, the town centre which was built between the years 1950-1980 is considered outdated and struggles with a declining retail sector. The town has reacted upon these challenges: Whilst the city centre is continuously being renovated, the former mine area was converted into a 'creative quarter' and now forms the biggest CO<sub>2</sub> neutral coherent settlement area in Germany (Stadt Dinslaken, 2018).

Dinslaken is entitled 'Fair Trade Town' and 'BNE.Kommune' (Education for Sustainable Development Municipality). Moreover, a Local Agenda 21 group has been in existence since 1998. Aiming to combine and structure the sustainability activities so far, the latter has also suggested taking part in the GNK NRW programme. Eight core team members and 25 steering committee members jointly developed the municipal sustainability strategy for Dinslaken within five steering committee meetings between July 2016 and January 2018. It was adopted by the city council in May 2018. Within the strategy development, the following thematic fields have been chosen:

- I: Education
- II: Demography
- III: Societal Participation and Gender
- IV: Climate and Energy
- V: Mobility
- VI: Global Responsibility and One World

(Stadt Dinslaken, 2018)

#### 4.2.4 Willich

Willich was founded in 1970 after the former four independent municipalities Neersen, Anrath, Schiefbahn and Willich had merged. The town is home to about 50.000 inhabitants and is located between Düsseldorf, Krefeld and Mönchengladbach. In 1980 the town established a large industry zone on surrounding fields, which is nowadays home to more than 750 companies providing 7000 jobs. Willich is rich in cultural offerings, whereby the ‘Neerser Schlossspiele’ (Castle Games of Neers) are probably most known. Additionally, citizens can choose between a wide range of sport and leisure activities: There are a sport and leisure bath, various trekking paths and golf clubs. Willich is considered as family-friendly municipality and provides a broad range of child-care facilities and schools as well as special offers for young families.

In terms of sustainability performances, Willich can look back on three successful placements (two times gold, once silver) within their participation in the ‘Green Energy Award’ since 2007. In 2015 Willich decided to further extend its sustainability activities and engaged in the GNK NRW project. Nine core team members and 30 steering committee members developed the sustainability strategy within the course of 5 steering committee sessions between 1 September 2016 and 10 July 2018. It was adopted by the city council in July 2019 and focuses upon the following six thematic fields:

I: Societal Participation and Gender including Education

II: Demography

III: Natural Resources and Environment

IV: Climate and Energy

V: Mobility

VI: Global Responsibility and One World

(Stadt Willich, 2018)

#### 4.2.5 At a glance

The following table shows key similarities and differences of the four investigated municipalities at a glance:

	<b>Arnsberg</b>	<b>Bonn</b>	<b>Dinslaken</b>	<b>Willich</b>
<b>Population size</b>	75.000	325.000	70.000	50.000
<b>Number of core team members<sup>5</sup></b>	6	Not known	8	9
<b>Number of steering committee<sup>6</sup> members</b>	35	25	25	30
<b>Status of strategy development</b>	adopted in September 2018	adopted in February 2019	adopted in May 2018	adopted in July 2019

Table 3: The four investigated municipalities at a glance (own representation based on LAG 21 NRW e.V., 2018)

<sup>5</sup> In case of Bonn: steering committee members

<sup>6</sup> In case of Bonn: project working group members

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## 5. RESULTS

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Aiming to find an answer to the research question this section will present relevant findings obtained from the interviews and, where applicable, discuss them against insights from the previously described literature. In line with the three steps used for answering the main research questions (see sub-section 1.4), it will initially briefly be enlarged upon the four municipalities' experiences with the strategy development process in terms of achievements and challenges. Subsequently, within step II, the municipalities' experiences will be contrasted against insights from change management literature. Lastly, within step III, it will be enlarged upon other additional requirements which turned out relevant in contributing to the successful development of local sustainability strategies but have been unconsidered in the relevant literature so far.

### 5.1 Step I: Comparing the strategy development process in the four municipalities

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#### 5.1.1 Achievements and Challenges

The first sub-question of this research is “*Comparing the respective experiences with the strategy development process in the four municipalities, what can be stated regarding achievements and challenges?*”. The municipalities' experiences will be discussed one after another, starting with the situation in Arnsberg. It will always first be elaborated upon the achievements followed by a discussion of the challenges. At the end of this section, the respective achievements and challenges will additionally be presented in a table for a better overview.

Please note: In order to ensure the guaranteed anonymity (see sub-section 3.8) the following sub-sections exclusively use the male form (he) when referring to the interviewees - even though the person might have been female.

##### 5.1.1.1 Arnsberg

Generally, it can be stated that the overall project process in Arnsberg was characterized by various positive achievements: First and foremost, the GNK NRW project group managed to bring together all existing plans and initiatives already existing in various different fields of municipality and therefrom developed a local and tailor-made sustainability strategy. Moreover, they also got the political mandate to implement this strategy's measures in the coming years. All interviewees reported a very smooth and respectful collaboration – both within the steering committee as well as the core team - and gladly announced that the latter will be maintained also for the strategy's future implementation phase. Moreover, two project members stated that the intensive occupation with the topic of sustainability resulted in greater levels of sustainability consciousness – both among the GNK NRW members as well as politicians. One of the interviewees explicitly underlined that (most) politicians had finally started to realize the importance and urgency of municipal sustainability due to the GNK NRW project. Thus, he was positive that also funds would be made available for the implementation of the strategy's measures. Additionally, all interviewees reported that the project participation and political approval resulted in greater legitimacy of their daily work. Another interviewee was confident that the strategy's development will contribute to Arnsberg's positive public image and eventually become a part of the municipality's trademark, showing people that “*one can live, work and fulfil oneself here*”. Moreo-

ver, the recent strategy development was used as an occasion to inform administration employees about the topic of sustainability within the course of an employee day.

Besides above-mentioned positive achievements there have also been some challenges which decelerated or negatively impacted the overall strategy development process: First, two interviewees stated that the overall work load of the project has been very high and required a lot of preparation and extra work. They both felt that additional personnel would have made the process easier (and also much faster) since tasks could have been spread *“onto several shoulders”*. Second, the composition of the steering committee was considered *“too homogenous”* as the group did not represent the existing interest groups equally: Whilst church representatives had simply been forgotten within the process and were only invited at later stage, the number of local business representatives decreased from meeting to meeting. As a consequence one project member felt that the latter’s opinions and possible contributions regarding sustainable municipal development were almost completely neglected in the strategy. Third, one interviewee critically mentioned that the steering committee clearly missed relevant expertise in certain thematic fields, for instance ‘Climate and Energy’ or ‘Health and Nutrition’, and therefore experienced difficulties when formulating the goals in a ‘SMART’ way. He argued that for the goals to make sense one would have needed *“facts and figures to critically investigate whether what we want to achieve is feasible”* and at the same time was afraid that the lacking scientific soundness will negatively impact the goals’ implementation. Finally, one interviewee also critically noted that since Arnsberg is a *‘Nothaushaltskommune’* (municipality on an emergency budget) many planned measures will probably not be financially feasible in the end – or, at least not in a short-term or medium-term.

#### 5.1.1.2 Bonn

Similar to Arnsberg the city of Bonn has also achieved the GNK NRW’s project overall goal and managed to both develop and politically adopt a local sustainability strategy. The interviews revealed that the whole process was considered mainly positive and fruitful and accompanied by various achievements: All interviewees reported that the cooperation among the two GNK NRW project groups was exemplary and – even though in the case of the core team all people knew each other already quite well – the intense and month-long collaboration in a common project led to even better relationships between the different societal groups and departments. Moreover, the interviewees claimed that the sustainability consciousness among the project members significantly rose over the course of the project participation. One of the interviewees stated that the city started to publish sustainability reports already in 2005, yet so far there has never been *“a strategy explicitly related to sustainability which considers and contrasts all the different areas and at the same time allows for detecting interdependencies and conflicts”*. Combining all components has – in his eyes - enabled the project members to ‘see the bigger picture’ and to *“think more cohesively”*. Additionally, having some sort of *“timetable”*, some interviewees felt better prepared for the effects of climate change. Generally, all interviewees in Bonn were positive that (most of) the strategy’s measures could be realised. This might be as at the time of the interviews Bonn had already successfully hired a person specifically focusing on the goals’ realisation and decided that the structures created (core team and steering committee) would be maintained. Moreover, Bonn was the only city which had already started a certain offer on sustainability for those administration employees who were not active in the GNK project: Within the

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<sup>7</sup> Nothaushaltskommunen’ can no longer decide on their expenses alone but are subject to strict budget supervisions by regulatory authorities for a specified period (cf. Bahadori, 2016).

scope of a seminar series entitled *'Us and the 17 goals'* all employees were invited to inform themselves about the SDGs during their lunchtime.

Reflecting on challenges it can be noted that the strategy development process in Bonn was mainly hampered by three problems: First, all interviewees reported issues related to the collaboration with local politicians: Even though the latter were considered very important for the overall project success some did only rarely attend the steering committee sessions and, as a consequence, were not fully informed about the strategy's development process. Moreover, even if they attended they did not always inform the remaining members of their parties about the project. As a consequence, it appeared that certain politicians felt disregarded or simply did not fully grasp the project's scope and importance. Only shortly before the resolution draft was presented they suddenly became interested and, as a consequence, all steps taken so far needed to be explained again. Being asked for a possible solution to overcome this drawback one project coordinator suggested to inform the politicians more regularly about the current status of the project development or to establish a policy advisory committee.

Second, another problem somehow demotivating the participants in Bonn was that according to two of the interviewees the strategy's goals and measures could have been formulated much more courageously. Yet, since their political verification would have been very time-consuming and the project members worried that they may *"raise expectations they cannot fulfil afterwards"*, only those measures for which funding was already provided in the current budget were included in the strategy. Finally, again similar to the situation in Arnsberg, the project members stated that the overall process was accompanied by time constraints and lacking financial and personnel resources. As a result certain plans and intentions – such as carrying out a huge public forum on the subject of local sustainability – could not be realised.

#### 5.1.1.3 Dinslaken

Same as Arnsberg and Bonn Dinslaken also succeeded in combining all existing plans and initiatives in the context of municipal sustainability into one extensive and politically approved strategy. Being asked for achievements within the development process two interviewees stated that working on the strategy has led to more sustainability consciousness among some of the project members. They were positive that the project has helped to release sustainability out of its *"niche status"* and gradually made the project members realise that it is an *"interdisciplinary topic"* instead. It can be assumed that the strategy became widely accepted throughout the administration as one interviewee reported that he was frequently asked by colleagues if they could quote and use the document for resolution proposals. Additionally, the interviewee explicitly underlined that the relationship between the steering committee members had significantly improved: *'Sitting at one table'* in the steering committee sessions they suddenly had to work close together for one common goal (the strategy) and thereby progressively understood the other's perspectives and realised their expertise.

*"What happened in these moderated steering committee sessions is that the politicians and agenda representatives got a completely different access to the administration members. [...] Our administration members realised that what they are told by their colleague from the agenda work is professionally sound and allows for good discussions - even though opinions might be different."*

Nonetheless, the strategy development process in Dinslaken has been characterized by various, sometimes quite difficult, challenges: Next to 'typical' problems already known from experiences in Bonn and Arnsberg – e.g. time constraints and lacking personnel – the biggest challenge might have been that the project manager turned sick shortly after the project's start and only returned six months later. During that time one member of the core team had to take on the coordinator's tasks and from that on became the main person responsible for the project. Whilst some interviewees considered the changed structures as not too problematic, another interviewee concluded that this situation had caused certain issues: On the one hand, the sudden "break" in the process required a lot of reorganisation and therefore led to certain temporal deferral. On the other hand, since the new coordinator got the project lead including all tasks as a simple 'add-on' to his usual duties, he felt that the project was "put together somewhat hastily" at the expense of initial enthusiasm and motivation.

Furthermore, one original positive achievement – the installation of a new vacancy supporting the strategy's implementation – was quickly lost as the working contract has not been extended after the trial period. Since the hiring process can take extremely long in administrations no new person could be employed quickly and there was still a lack of staff for the strategy's implementation at the moment of the interview. Another problem mentioned by one person was that – similar to Arnsberg – the steering committee was found too homogenous and only included the "usual suspects". As a result the interviewee felt that the project did not lead to new thought-provoking impulses but simply became a mere repetition of already existing strategies.

Lastly, all three interviewees stated that they experienced the project requirements too difficult for some people of the steering committee, above all for some voluntary workers. Complex formulations used by the moderators of the LAG 21 NRW were found challenging for people who do not work with these terms every day. As a consequence one interviewee felt that during the session's two worlds – the scientifically orientated one of the LAG 21 NRW and the daily life one of the steering committee members "clashed". This did not only lead to shrinking motivation levels but one interviewee even felt that some people did not even understand what the whole project really was about. One respondent suggested that for the overall project success it would have been better to "fetch the persons from where they are standing" and relate the SDGs to their everyday realities: Instead of thinking about the global goals on an abstract level it might have been better to simply ask "in how far does what I do here [in the municipality] impact on the world?".

#### 5.1.1.4 Willich

Same as all the other three municipalities Willich also developed and politically adopted a local sustainability strategy. Here again - when being asked for concrete achievements - all interviewees reported higher levels of sustainability consciousness among some team members due to their participation in the project. One person stated that he felt that some people also gained a more profound understanding of the concept as the following statement clearly underlines:

*"While the concept of sustainability has before strongly been linked with forestry, the Agenda 2030 and the global sustainability targets have shown that sustainability is present within all dimensions and that it is not a 'green' issue but an issue which concerns to all employees in the administration."*

At the same time, however, the interviewee also asserted that an increase in sustainability consciousness does not concern everyone. Knowing that dealing with municipal sustainability will always reveal conflicting interests he found that people – particularly those of higher job position – tend to behave rather neutrally. Furthermore, it was reported that ‘sitting at one table’ also helped the core team members to get an overview who is currently doing what in the context of sustainability in the administration. The exchange with colleagues from different departments led to a better relationship among the persons involved, allowed new ideas to emerge and was also considered as a helpful feedback for one’s own work as the following statement given by one interviewee confirms:

*“The decisive point was that administration members from all disciplines came together and jointly reflected upon the administration’s goals. [...] That one received a certain feedback whether what one thinks is really the right thing [...] that one got the confirmation that one’s goals and measures are steps in the right direction.”*

Speaking of challenges in Willich one big impediment was – comparable to the situation in Dinslaken – also the drop out of the project coordinator due to retirement. Here again it was a member of the core team who took his position. However, in this case the change was planned long time ahead and – at least initially- did not cause that many difficulties. The smooth project course got only impaired when another very important person responsible for sustainability within the administration became sick for several months and thus could not be available either. As a consequence the overall project became delayed already in the beginning and various reorganisations had to be made. Another, probably the biggest, difficulty was that internal discrepancies from the past suddenly negatively affected the strategy development process: Although the concrete issues were not further specified within the interviews it became clear that the relationship between people in the administration was very tense and characterized by feelings of mistrust and paternalism, making collaboration very hard. The project coordinator knew about these internal conflicts and therefore decided to run a big survey among all administration members. Thus, he aimed to make sure that everyone was informed about the GNK NRW project and could indicate what he found important regarding the municipality’s sustainable development. Nonetheless, there were still conflicts coming up when it surprisingly turned out that within the strategy development the project team defined goals for topics (such as Demographic Development) that are usually under the leadership of another team in the administration. The conflict got that heated up that at some point the project was stopped for some months. In the end the misunderstanding and quarrel could be solved through many discussions, yet at the expense of huge time losses. Consequently, Willich - similar to all other municipalities - also concluded that much more time would have been needed for the project.

## 5.1.2 Discussion

When compiling the above-mentioned achievements in a tabular overview, the following picture emerges:

Achievements of strategy development process	mentioned by interviewees from:
Development of a tailor-made sustainability strategy	A, B, D, W
Political adoption of sustainability strategy	A, B, D, W
Greater levels of sustainability consciousness among project members, better understanding of the concept	A, B, D, W
Good cooperation and relationship among department members due to month-long collaboration	A, B, D, W
Positive decision for the further maintenance of core team and steering committee structure	A, B
Offers on sustainability education for administration employees	A, B
Interviewees feeling greater legitimacy of their daily work	A
Strengthening of a positive public image	A
Establishment of a vacancy which explicitly focuses upon the further implementation of the strategy	B
Interviewees feeling better prepared for effects of climate change	B

Table 4: Overview of achievements within strategy development process

- Achievements mentioned by 3 or 4 municipalities
- Achievements mentioned by 2 municipalities
- Achievements mentioned by 1 municipality

First of all it can be seen that the overall strategy development process was accompanied by various positive aspects in all four municipalities: All of them were able to first develop and afterwards politically adopt a tailor-made local sustainability strategy and therefore reached the GNK NRW programme's overall goal. Moreover, they all reported considerably higher levels of sustainability consciousness among many of the project members due to the intensive discussion of the topic during the strategy development and a good and respectful working atmosphere within the different departments involved. Counting among the first European municipalities which have successfully worked out such extensive strategies (LAG 21 NRW e.V., 2018) one can assume that all four municipalities are in a good position to start contributing their share in promoting global sustainable development and achieving the SDGs.

Apart from these four 'collective' achievements the table also reveals various other accomplishments which only arose in one or two municipalities. This may allow the cautious assumption that while the development of a local sustainability strategy will probably lead to increased levels of sustainability consciousness and better relationships among the project team also in other municipalities, further achievements are likely but may differ from case to case.

Nonetheless, the analysis of the situations in the four municipalities also showed that the positive aspects were accompanied by several different challenges which hindered the strategy development process. Taking a look at table 5 (see below) it can be seen that there were – similar to the achievements – challenges which affected all (or nearly all) municipalities (time constraints and lacking staff) and others which pertained only to some. It can thus be concluded that developing a municipal sustainability strategy will probably always evolve certain difficulties, which are most likely related to shortages of time and personnel.

<b>Challenges of strategy development process</b>	<b>mentioned by interviewees from:</b>
Too high workload / lacking time	A, B, D, W
Lacking personnel	A, B, D
Lacking financial means	A, B
Change in project coordinator (and other important persons)	D, W
Too homogenous composition of steering committee	A, D
Shrinking motivation among project participants (or even drop out of steering committee members)	A, D
Low attendance numbers of local politicians in steering committee sessions	B
Communication problems among local politicians regarding information disclosure	B
Mere inclusion of goals already budgeted due financial means	B
Lacking expertise during goal formulation phase	A
Loss of vacancy	D
Tense relationship among administration members due to unresolved conflicts from the past	W

- Challenges mentioned by 3 or 4 municipalities
- Challenges mentioned by 2 municipalities
- Challenges mentioned by 1 municipality

Table 5: Overview of challenges within strategy development process

A comparison of the situations in the four municipalities revealed that the challenges mentioned did not equally negatively influence the overall strategy development process but can rather be assigned to an either low, medium or high degree of negative impact (based on a relative assessment) (see table 4, right column). Taking these different degrees of challenges into consideration one can see that Bonn and Arnsberg experienced significantly fewer ‘existential’ problems than Dinslaken and Willich. Whereas the formers’ worst challenges were only of a medium degree, the latter both experienced at least one difficulty that severely (or ‘highly’) jeopardized the overall project success (see table 6). In face of these obvious differences one might thus consider the overall strategy development process in Arnsberg and Bonn much more smooth and successful than in Dinslaken and Willich.

<b>Challenges of strategy development process</b>	<b>mentioned by interviewees from:</b>	<b>Degree of neg. impact on successful strategy development</b>
Too high workload / lacking time	A, B, D, W	Medium (A, B, D, W)
Lacking personnel	A, B, D	Medium (A, B, D)
Lacking financial means	A, B	Medium (A, B)
Change of project coordinator (and other important persons)	D, W	High (D), Medium (W)
Too homogenous composition of steering committee	A, D	Low (A, D)
Shrinking motivation among project participants (or even drop out of steering committee members)	A, D	Low (A, D)
Low attendance numbers of local politicians in steering committee sessions	B	Low (B)
Communication problems among local politicians regarding information disclosure	B	Medium (B)
Mere inclusion of goals already budgeted due financial means	B	Low (B)
Lacking expertise during goal formulation phase	A	Low (A)
Loss of vacancy	D	Medium (D)
Tense relationship among administration members due to unsolved conflicts from the past	W	High (W)

- Challenges mentioned by 3 or 4 municipalities
- Challenges mentioned by 2 municipalities
- Challenges mentioned by 1 municipality

Table 6: Overview of challenges within strategy development process including their degree of negative impact

<b>Overview of most negatively impacting challenges in the four municipalities</b>			
<b>Arnsberg</b>	<b>Bonn</b>	<b>Dinslaken</b>	<b>Willich</b>
Too high workload / lacking time	Too high workload / lacking time	Change of project coordinator	Tense relationship among administration members
Lacking personnel	Lacking personnel	Too high workload / lacking time	Change of project coordinator
Lacking financial means	Lacking financial means	Lacking personnel	Too high workload / lacking time
	Communication problems among local politicians	Loss of vacancy	

- Challenges with high negative impact
- Challenges with medium negative impact

Table 7: Overview of most negatively impacting challenges in the four municipalities

### 5.1.3 Summary

Briefly summarizing above-mentioned findings it can be stated that the strategy development process in the four municipalities was accompanied by various achievements and challenges, whereby in both cases some were experienced by all municipalities and some only appeared in one or two placed. Moreover, it was shown that the challenges were not equally hindering the overall project success but mostly had a low or medium negative impact and only a high one in two cases. Additionally, the analysis revealed that the strategy development process was much smoother in Arnsberg and Bonn compared to the one in Dinslaken and Willich.

## 5.2 Step II: Contrasting the municipalities' experiences against insights from change management literature

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The sub-question related to step II is "*Discussing the respective experiences against organisational requirements mentioned in the change management literature, what conclusions can be drawn?*" All requirements will be discussed one after another, starting with the ones by Kotter. Please note: An overview of each requirement's relative importance for the strategy development will be given at later stage in sub-section 5.3.2.

### 5.2.1 Organisational requirements mentioned by Kotter

#### Establishing a Sense of Urgency

According to Kotter (1995, p. 60) understanding the urgent necessity for change and motivating people for the latter is of particular importance for each change process as "without motivation people won't help" and the whole transformation process is endangered. Reflecting upon the strategy development process in the four municipalities it can be stated that all of them managed to successfully fulfil this first organisational requirement: Each of them were able to convince the people required for participating in the project, ensuring that core team and steering committee could be set up and start work.

Nonetheless it needs to be noted that the imperative need for developing a municipal sustainability strategy was – at least for some project members - only realised during the process itself. The interviews revealed that a number of people were initially unmotivated to take part in the programme as they feared extra work or simply "*did not see how the project was linked to their daily work*". This may be considered hardly surprising as organisational change initiatives "often run into some form of human resistance" (Kotter & Schlesinger, 2008, p. 3). It can be assumed that if those persons were not initially instructed by their supervisors to take part in the sessions they would have refrained from participating, meaning that the programme could not have been developed in the planned form. Thus, it seems as if for successful strategy development processes in municipal administrations it is particularly important to rise the urgency level within members of the top-level management: Having a certain authority they can exert 'pressure to act and contribute' on their team, preventing that a planned project cannot start due to participants' initial low levels of motivation and urgency.

Moreover, the analysis showed that 'exploiting' a current societal movement can be helpful to create a sense of urgency also among former 'sceptics': Referring to the global phenomenon of the 'Fridays For Future' (FFF) movement some interviewees delightedly noticed that attention for sustainability and climate protection has hugely increased in their administrations in the

recent past and, in the case of Willich, even stimulated the political adoption of the sustainability strategy. One could argue that the FFF movement presented a so-called “policy window” or “opportunity for action” which suddenly “focus[ed] attention on particular issues and generat[ed] public demands for action that public officials find impossible to ignore” (Keeler, 1993, p. 229-230, referring to Kingdon, 1984).

To conclude, it can be stated that establishing high urgency levels – above all among persons of the top-management - has turned out very important for the strategy development process since otherwise not enough people contributing to the project could have been found, making the whole process impossible. Furthermore, it was found that current trends in society can be used as a favourable opportunity to generate or reinforce urgency levels among administration members.

#### Forming a Powerful and Guiding Coalition

All four municipalities managed to assemble about 30-40 people who supported (and participated) in the strategy development process. Thus, the critical “minimum mass” as Kotter (1995, p. 62) puts it was clearly achieved. Those interviewees who reflected on the core team and steering committee’s size all reported that the number of people was “*just right*”. It can thus be concluded that a “guiding coalition” (p. 62) of a total of 30-40 persons is beneficial for municipal strategy development processes. Additionally, the analysis confirmed Kotter’s finding that both the head of an organisation as well as other high-ranking representatives need to be convinced of the planned change or programme in order to make it happen: For instance, interviewees from Arnsberg reported that the GNK NRW project hugely gained significance within the administration since the mayor and department heads had clearly shown their approval, e.g. by attending the steering committee sessions or making municipal sustainability one of the political goals referred to in the election campaign. Thus, not only the project members became more motivated but also the politicians considered the topic more important.

Many interviewees were convinced that the mixed composition of the steering committee and here above all the inclusion of non-administration members in the process stimulated broad discussions on municipal sustainability from various viewpoints and allowed for the arise of new ideas (which of course positively influenced the strategy’s content). This somehow confirms Kotter’s claim that in order to create a strong coalition the group should encompass a huge variety of “titles, information and expertise, reputations and relationships” (p. 62) – or, in this case, a huge variety of societal groups, e.g. non-administration members. The latter’s inclusion will probably also pay off when it comes to the implementation phase: Having been part of the development process some respondents expected the citizens and politicians to be less critical but more supportive regarding future measures and projects. As a consequence, it should then be possible to execute the latter way faster than usual.

To conclude, it can be argued that the second organisational requirement – the existence of a strong guiding coalition of about 30-40 people – has been very important for the overall strategy development process. Whilst the support of the top-management strengthened the topic’s overall importance in the administration, the inclusion of non-administrative members led to a multi-perspectival consideration of the topic and possibly increases the likelihood of the measures’ implementation.

### Creating a Vision

The interviews reported fundamentally different opinions on the question whether the strategy development process was accompanied by a concrete vision. It occurred that one interviewee of one municipality stated that *“a vision has definitely been there”* and another respondent of the very same municipality strongly negated the question. One rationale for this ambiguity might be that there were different interpretations about what a vision is. Whereas those who denied the existence of a vision rather understood the latter as ‘knowing from the very beginning how the strategy should look like in the end’, interviewees confirming the existence of a vision more generally referred to it as having a certain project goal, namely *“somehow contributing to the SDGs”*.

When taking a closer look at the four municipalities’ strategies it can be seen that each municipality indeed developed a “sensible” (Kotter, 1995, p. 63) mission statement (comparable to a vision) already during the second steering committee session (see sub-section 4.1.2). It precisely states the “desired long-term development” of the municipality within the context of sustainability (LAG 21 NRW e.V., 2018, p. 13). Being developed that early in the process it can be assumed that the mission statement served as valuable orientation when formulating the goals and measures and at the same time made sure that everyone clearly knew “the direction in which the (...) [municipality] needs to move” (Kotter, 1995, p. 63). Consequently, one can conclude that having a vision has as well been important for the overall strategy development process.

### Communicating the Vision

Even though the vision had been developed early within the strategy development process (see above), the interviews revealed that overall communication about it – at least to administration or civil society members uninvolved in the project – was limited. For instance, one interviewee from Willich stated the following:

Interviewer: *“And what about internal communication? Do people you meet in the hallway know that you are currently working on that project?”*

Interviewee: *“Well, those from my department will know about it but the others won’t. [...] Actually the exciting part of the project comes only now that we start going external. Apart from the moment when we were searching members for the steering committee nobody knows what we have been working on for three years now and how extensive that was.”*

Another interviewee from Dinslaken even stated that the core team deliberately decided to keep communication and participation possibility in the beginning of the project very low since they feared negative reactions by opponents which may have discouraged the project members from the strategy development. Instead, the interviewee found it *“important to do effective preliminary work and [...] once the results are achieved make sure to broadly communicate about it”*.

In the remaining three municipalities, however, most of the respondents stated that they would indeed have liked to stronger communicate the topic internally and externally, but, simply did not have the time or were afraid of presenting the programme unless it was politically approved. In Bonn and Arnsberg the project team tried to increase internal communication over the past months - either by offering seminar series for administration employees on the topic (Bonn) or presenting the strategy to the administration employees at special occasions such as the em-

ployee day (Arnsberg). Information on the strategy development to the public, however, was found very poor in all four municipalities so far. All in all, these findings confirm Kotter's (1995) observations who claimed that in most change processes communication about the vision is heavily neglected.

Nevertheless, there were no indications in the interviews that the limited information had somehow negatively impacted the overall strategy development process. It can thus be concluded that this organisational requirement is less important for successful strategy development. When it comes to the future implementation of the strategy, however, many people will be needed. Adequately informing them about the planned measures and goals should, arguably, become a top priority of each municipality then.

#### Empowering Others to Act on the Vision

Although there were various challenges occurring within the strategy development processes in the four municipalities, the biggest impediments were arguably the internal conflicts in the administration of Willich which jeopardized the GNK NRW project for several months (see sub-section 5.1.1). One of the interviewees reported that the alleged non-inclusion of certain colleagues as well as the unintended takeover of another administration team's tasks during the strategy development process finally resulted in some form of employee resistance. The respondent assumed that if the issues could not have been solved by intensive (and month-long!) talks, the completion of the strategy development would have been very difficult or even impossible. This tallies not only with findings by Kotter's (1995, p. 65) stating that as long as great obstacles seriously undermining the vision are not "confronted and removed" all change efforts are extremely hard, but also with those by Kotter and Schlesinger (2008) and Elving (2005): The latter underline that if employee resistance cannot be resolved (or at least reduced to a minimum) change processes are hardly successful.

To sum up, it can be stated that successfully removing obstacles in form of employee resistance and internal conflicts has prevented Willich from ceasing the overall project. Therefore, it can be argued that fulfilling this organisational requirement is very important when developing municipal sustainability strategies.

#### Planning for and Creating Short-Term Wins

Kotter (1995, p. 65) argues that in order to keep motivation levels within a change process up change managers should allow for the achievement of "short-term wins" along the way. The structure of the strategy development process set up by the LAG 21 NRW (see sub-section 4.1.2) included various occasions for celebrating interim goals. These were, for instance, the completion of the quantitative and qualitative analysis, the successful selection of the thematic fields, the formulation of the strategic and operative goals, and, finally, the political approval of the strategy. Whilst some interviewees only implicitly revealed that these small successes have helped the project members to remain motivated throughout the entire project course, one interviewee from Dinslaken particularly underlined that completing a certain 'milestone' also prevented the continuous rise of renewed debates:

*"[The interim goals were] important for the whole process and avoided that one goes back into discussions on a certain measure and then says: "Oh this goal is not that*

*good, let's change it again". The worst what can happen is entering in fundamental debates and then throw away anything that has been achieved in the past 1.5 years."*

It can thus be concluded that – consistent with findings by Kotter (1995) - the inclusion of moments of short-term wins has positively influenced the strategy development process and therefore turned out an important organisational requirement.

### 5.2.2 Organisational requirements mentioned by other authors

#### Provide Resources

Reflecting on resources interviewees from all municipalities critically remarked that they underestimated the effort required for developing a sustainability strategy. There was widespread agreement that the LAG 21 NRW's initial time schedule of only one year was far too little for such an extensive project. Many respondents underlined that without the extra time granted the process would not have been realisable. Being asked for the ideal time needed one project coordinator stated the following:

*"In order to carry out a political process one needs more time. For us it took almost three years and I think this is also what one needs to plan for".*

It can be assumed that the whole process would have been less time-consuming and easier if another resource – staff – had been sufficiently available. However, unfortunately, interviewees from Arnsberg and Dinslaken particularly mentioned that they both missed additional support – albeit for different reasons: Whilst the former simply lacked the required financial resources, the latter experienced troubles with finding suitable staff.

There is legitimate reason to believe that the existing resource problems will play an even bigger role when it comes to the strategy's future implementation: More than half of the interviewees were doubtful whether the measures indicated could actually be carried out in face of the municipalities' lacking financial means. Since *"sustainability is nowhere mentioned as a compulsory task"* municipalities do not explicitly receive money from the government for promoting the topic and, as a consequence, some of the measures in the strategy will probably never be carried out. Thus, the situation in the municipalities seems to confirm the finding that "resource scarcity can hinder organizational changes" (Fernandez & Rainey, 2006, p. 172). Moreover, a further complication in the case of Arnsberg is that it is currently a 'Nothaushaltskommune'. It appears therefore highly questionable whether spending money on measures of a *"luxury project"* such as the GNK NRW programme will be permitted.

Summarising the above it can be stated that the strategy development process was heavily characterized by lacking time and, in some municipalities, also lacking staff. With regard to the coming implementation phase, it is mainly financial resources that will be lacking and thereby jeopardize the realisation of certain measures mentioned in the strategy. Consequently, it can be concluded that providing sufficient resources seems to be a very important organisational requirement when aiming to develop (as well as implement) a municipal sustainability strategy.

#### Identify the Leadership

There was widespread agreement among almost all interviewees that for the strategy development to be successful one needs at least one person who is mainly responsible for the whole

project and keeps track of tasks, meetings and deadlines. Moreover, an analysis of the situation in Dinslaken and Willich underlines that it is additionally important that this person's leader role should also be known to everyone as a comparison of the situation in the two municipalities underlines: Whilst both experienced a change of project coordinator the one in Willich was planned long-ahead and thus did only cause minor problems. Quite the contrary, one of the former core team members officially took the lead and from there on became mainly responsible for the project. The project members knew where to address to in case of questions and problems. For Dinslaken, however, the change came totally unexpected (see also sub-section 5.1.1). Whereas two of the interviewees here were all in all satisfied that the strategy could have been developed despite the fact that the former project leader was sick for several months, another respondent considered the "break" in the project more problematic. Since the new coordinator had to take over the project lead aside his usual duties there was less time for the project's organisation. Moreover, since there was still uncertainty when the former project coordinator would come back he noted that some project members were no longer aware who was mainly responsible for the project – the old or the new coordinator? – and consequently became uncertain regarding the further project development. This can also be seen as a confirmation of the finding by Luecke (2003), stating that within change processes the leader should indeed be clear to anyone involved or, in Luecke's words "visible" (p. 38).

Further, one respondent particularly underlined that the project leader should also be intrinsically motivated for the project. He stated:

*Interviewer: "Would you say that it is crucial [for the strategy development] that there is someone who is passionate about the job?"*

*Interviewee: "Yes, definitely! This is very crucial for all projects, particularly for such a topic which is hard to grasp, where it is a lot about emotions. You need people who are engaged and put their hearts and souls into that project, otherwise it will not work."*

This supports findings by Engert and Baumgartner (2015, p. 829) who - in a research on conditions facilitating the development of a corporate sustainability strategy - found that „personal attitudes and values of managers regarding issues of sustainability are of central importance“.

Moreover, reflecting on an advantageous institutional structure in terms of leadership, one interviewee from Dinslaken suggested that the recent establishment of a sustainability staff position directly subordinated to the mayor turned out beneficial for the strategy development (and implementation) process. He reported that the project coordinator consequently gained much more authority among the project members and was therefore able to strengthen his position of a 'leader' throughout the process.

All in all, the obtained findings allow the conclusion that leadership is central within municipal sustainability strategy development process. It was shown that the project process did not only positively benefit from the leader's personal behaviour and attitudes ('visible' and personally dedicated to the topic) but also from the institutional structure (the establishment of a staff position) that was created. Leadership is thus a very important organisational requirement.

### Build External Support

None of the interviewees indicated that the support of certain “political overseers” or other crucial stakeholders such as governmental authorities or interest groups – as suggested by Fernandez and Rainey (2006, p. 171) – would have been crucial for the development process of the strategy.

When being asked if there is a need for external support some of the respondents asserted that they feel indeed somehow “*left alone by the government*” which demands the promotion of sustainable development but at the same time does not punish those municipalities which do nothing. One interviewee, in this context, suggested that municipalities should only receive public funding once they can prove their engagement in sustainable development. Nevertheless, apart from financial support none of the interviewees indicated that he missed further assistance from governmental authorities or other important stakeholders such as interest groups. Quite the contrary, there was general consensus among almost all interviewees that the broad-based participation of so many different actors and groups in the steering committee was clearly beneficial, yet, for organisational reasons should not be expanded much further in terms of numbers of persons.

To conclude, whilst (financial) governmental support during the strategy development process would arguably be very much appreciated (see paragraphs on lacking resources above), other forms of support were not implicitly missed. Considering that the necessity of financial support can be assigned to the organisational requirement of ‘Provide Resources’ (see above) it can be concluded that the organisational requirement of ‘Build External Support’ was irrelevant for the overall strategy development process. Nonetheless, if restricted to a certain number, it appears conceivable that the additional support of interest groups would not have harmed the strategy development procedure either.

### 5.2.3 Summary

The preceding interview analysis has confirmed that five out of Kotter’s (1995, p. 61) six organisational requirements investigated for the purpose of this study also turned out to be relevant criteria for the successful development of municipal sustainability strategies. They include:

- Establishing a Sense of Urgency
- Forming a Powerful and Guiding Coalition
- Creating a Vision
- Empowering Others to Act on the Vision
- Planning for and Creating Short-Term Wins

One organisational requirement (‘Communicating the Vision’), however, was found to be less important and thus not more than ‘nice to have’. Thus, one could argue here that the critique by Appelbaum et al. (2012) who doubted whether all requirements are really necessary for any change process (see sub-section 2.2.3.1) was justified.

Moreover, the interviews revealed that two out of the three criteria by other authors additionally investigated for this research proved too to be crucial for a fruitful development of sustainability strategies.

These are:

- Provide Resources
- Identify the Leadership

The alleged importance of 'External Support' within change processes, however, could not be confirmed. Similar to 'Communicating the Vision' this requirement merely seems to be a nice supplement.

### 5.3 Step III: Identifying further relevant requirements unconsidered in literature so far

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Within the third step the sub-question is "*Grounding on an inductive analysis of the strategy development process in the four municipalities, which other additional organisational requirements not mentioned in the change management literature also positively contributed to a successful strategy development process?*". This section will initially enlarge upon the additional requirements found. Afterwards, the following paragraphs will link the results of step II and III, enabling the joint presentation of all organisational requirements found relevant for the development of municipal sustainability strategies. Moreover each requirement's relative importance for the strategy development will be discussed.

#### 5.3.1 Organisational requirements found within an inductive analysis

The inductive analysis revealed that there are two additional organisational requirements that turned out relevant for the successful development of a municipal sustainability strategy. These are 'External Moderation' and 'Early Involvement of Local Politicians'. They have been selected as in contrast to some other requirements that have been brought up by one or two interviewees only these two were positively mentioned by nearly all interviewees from all four municipalities. There was thus legitimate reason to believe that they are probably also applicable to a wider range of cases and do not only pertain to a specific situation in one place. This was especially important since one aim of this study is to give recommendations also for other municipalities.

##### External Moderation

Various interviewees explicitly underlined that the external moderation by LAG 21 employees along the whole course of the strategy development process influenced the project very positively – for different reasons: On the one hand, it was stated that the mere presence of an external person helped the overall project to gain in importance and urgency. One respondent, in this context, reported that he made the experience that "a prophet has no honour in his own country", meaning that even though there are people in the administration who again and again tried to raise awareness for the topic of sustainability, an external person doing the same will be taken more seriously. On the other hand, the moderation was found very beneficial in successfully bringing the different interests of the various project participant groups (politicians, administration members, civil society representatives, etc.) down to one common denominator. This tallies with findings by Schäfer (2009, p. 161) who in a study on the effects of external moderation within spatial planning processes finds that moderators are mostly consulted in cases "when clients are confronted with complex requirements generating new forms of work with new group constellations and no clear hierarchical structure". She further states that a moderator can

turn the whole working process more effectively since they are independent and neutral and can therefore “ask the right questions” to address possible conflicts and clarify on tasks and steps from the very beginning (own translations). Additionally, for Dinslaken, one interviewee stated that the moderation did not only resolve conflicts but – despite considerable initial reluctance – was also successful in convincing the project participants for the usage of common but effective workshop formats and techniques such as a ‘world café’. The results of these techniques were that satisfying that project participants were even surprised by themselves. One interviewee stated that he was often told by other project members:

*“We would not have believed that ourselves that we will achieve concrete results here – and, above all, that we elaborated them together in a mutually respectful way. And that we have been sitting here for 3.5 hours now – the time flashed past!”*

Although external moderation has been found very rewarding, one respondent warned that even though the moderators provide a certain structure it is important in a group orientated process to remain open to new and unconventional ideas and not give the impression that everything is already planned. Otherwise, people could feel patronised and consider the whole discussion a mere “alibi”.

To conclude, it can be stated that having an external moderator has turned out a very beneficial and important organisational requirement for the strategy development process in terms of providing guidance, solving conflicts and encouraging the usage of different workshop methods.

#### Early Involvement of Local Politicians

Since the adoption of a sustainability strategy by the city council requires political backing, the strategy development process was explicitly open to all interested politicians in all four municipalities. Whereas the participation rates of the politicians in the steering committee sessions were mainly reported to be quite satisfying in all four cases, one municipality - Bonn - experienced issues related to the further communication flow into the fractions. One interviewee stated that those politicians who participated in the sessions forgot or simply omitted to inform those party members who had been absent. This meant that the decisions made within these meetings were not spread to certain political decision makers. When the strategy was finally presented to the political boards in the resolution phase, those politicians suddenly felt uninformed and left out, some even claiming that they never had heard about the project before. Consequently, the discussions about the strategy’s content had to be started all over again – at the expense of huge time losses. Even though one interviewee of Bonn reported that he had experienced similar situations very often also in other projects and was therefore somehow used to the politicians’ behaviour, another respondent announced that in future all politicians in Bonn should receive regular reports on the strategy’s current status. Thus, he hoped that their involvement would become even bigger and potential conflicts or issues with its content or implementation might arise earlier.

Another issue related to the behaviour of the politicians was reported in the interviews with project members from Willich. One respondent stated that even though local politicians had constantly been involved in the project and took part in the steering committee sessions, they suddenly raised doubts shortly before the planned political adoption: Since an extensive description of each individual measure presented in the strategy would have required an extensive and

time-consuming research on behalf of the project members followed by a lengthy political review there was uncertainty regarding the actual efforts and costs involved. The politicians assumed that some would turn out too expensive in the end and as a consequence initially refrained from adopting the strategy as a whole. They only did so after a considerable amount of further meetings and discussions, which again took a lot of time.

In Bonn a similar situation was expected from the very beginning and could only be prevented since the project members early decided to only include those measures in the strategy which were already budgeted (see sub-section 5.1.1), meaning that the politicians were fully aware of the anticipated costs. Nonetheless, one interviewee suggested another possible solution to improve the situation in future, namely to rely on a method frequently used in urban development planning:

Preventing that politicians refrain from adopting a certain measure (or even the whole strategy) because they fear that expenses are too high as they simply lack concrete information, project members could initially present the city council a certain measure only in a very general way, without directly asking for adoption. The councilmen, in turn, could then decide whether this sounds generally promising and, if so, instruct project members to dive deeper into details and discussions and finally present an overview of concrete costs at a later time.

Thus, a win-win situation for both parties evolves: The politicians would have a much better basis for deciding whether to adopt a certain measure and must not be afraid of hidden costs. The project members, however, would have more time to think about a measure more thoroughly or – in case that the idea is rejected by the city council in the first round – save considerable time as they do not work on a pointless or unrealistic matter.

Concluding the above, it can be stated that the early involvement of local politicians would have been rewarding for the GNK project in order to avoid repeated discussions and save time. It therefore seems to be an important organisational requirement within strategy development processes. Additionally, in order to prevent that measures are long-time worked out but never adopted a measure proven from urban development planning might be applied.

It can be stated that the involvement of local politicians contains some contextual overlapping with the demands of another requirement, namely 'Building a Strong and Guiding Coalition' (see above) where it is suggested to form a project group with a "variety of titles, [...] expertise, reputations" (Kotter, 1995, p. 62), which, arguably, in this case would also mean the inclusion of local politicians. Consequently, one may argue that this requirement should not be presented as an additional requirement but simply paid attention to within the coalition building process. Nevertheless, given the fact that this requirement was deemed that important by numerous interviewees it appears reasonable to present it individually. This way it is made sure that it receives sufficient attention and is not 'overlooked' within the other conditions that should also be considered within the coalition building process.

### 5.3.2 Discussion

Adding the two new requirements to the nine ones already found within step II, it can be concluded that a total of eleven organisational requirements are important to consider within strategy development processes in municipal administrations. Moreover, it seems to hold true here

that the more of these organisational requirements fulfilled (or present) within a strategy development process, the more likely the latter’s overall success.

Whilst Kotter has not specified which of his criteria are most important, providing an exact gradation of the nine requirements found seems to be difficult here as well. Nonetheless, when reflecting upon the experiences made by the four municipalities certain organisational requirements appear to be more crucial for the overall success than others: The interviews have shown that the absence of a *sense of urgency*, a *powerful and guiding coalition*, a *visible leader* and *sufficient resources* or *not empowering others to act on the vision* can seriously jeopardize the development and adoption of the strategy and - in the worst case – may bring the overall project to an early end. The interviewees from Willich, for instance, clearly underlined that the internal conflicts (which can be assigned to ‘not empowering others to act on the vision’) became such an obstacle to the strategy development that the further development the project was doubted more than once. Requirements such as *creating a vision*, *communicating the vision*, *celebrating short-term wins*, *getting support by external moderators* and *early involving politicians* turned indeed out beneficial in terms of providing guidance, enhancing participant motivation or enabling time savings, yet, were not existentially important for the strategy development. *Communicating the vision* and *build external support*, however, even turned out to be merely ‘nice to have’ (see also figure 14 below)

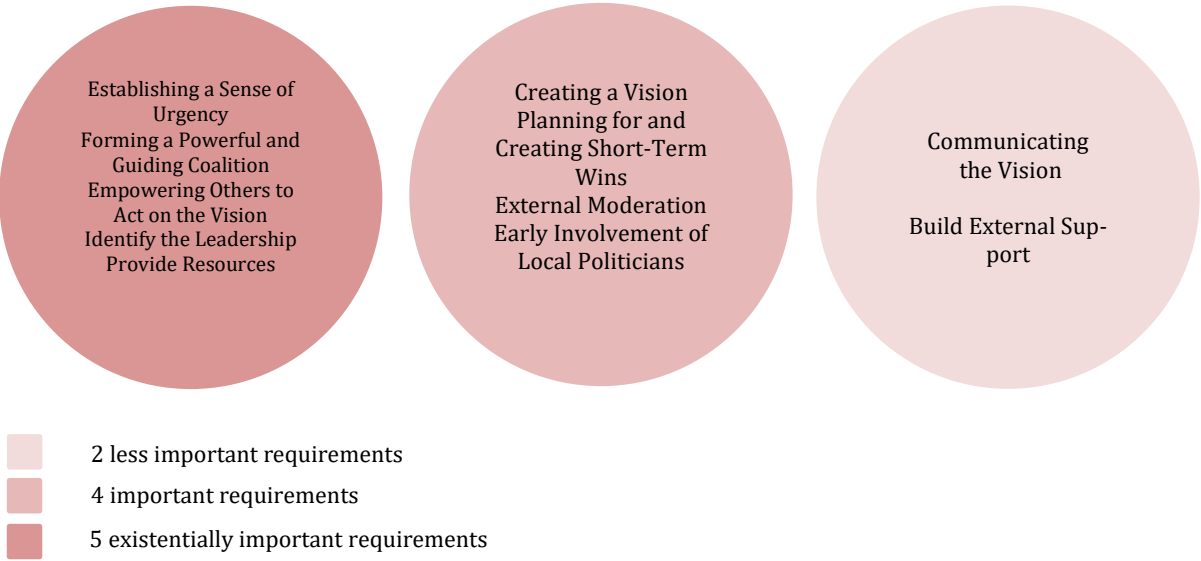


Figure 14: Different degrees of importance of the eleven requirements found

### 5.3.3 Summary

To conclude above-mentioned findings it can be stated that an inductive analysis of the experiences of the four municipalities additionally revealed another two organisational requirements that turned additionally relevant for the successful development of local sustainability strategies, namely:

- External Moderation
- Early Involvement of Local Politicians

Reflecting upon the relative importance of the eleven requirements it was found that five are existentially relevant for the overall project success, four are at least important and two are only ‘nice to have’.

## 6. CONCLUSION

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Since all sub-questions have been answered within the previous sections, the following paragraph will now ultimately give an answer to the study's two main questions, which are "*Using the experiences of four German municipalities as a case study how can the overall strategy development process be evaluated concerning positive and negative impacts for the administrations?*" and "*What are the recommendations for further municipal administrations aiming to successfully develop such strategy in terms of organisational requirements?*"

Referring to the first research question, the analysis of the interviews revealed that the strategy development process was accompanied by various different achievements, whereby four of them were commonly experienced by all four municipalities (*successfully developing a tailor-made sustainability strategy, politically adopting the strategy, increasing sustainability consciousness among project participants and establishing better levels of cooperation among the departments involved*). Since the first two were the main purpose of the GNK NRW project, it can be stated that they also all met the funding programme's primary goal. Besides these 'collective' achievements various other positive aspects related to the strategy development process could be found, yet, they only concerned one or two municipalities. For instance, in Bonn the administration successfully set up a job position after the strategy was developed which exclusively deals with its further implementation.

Besides these positive aspects the analysis also showed that all municipalities experienced challenges which negatively hindered the strategy development process. Similar to the achievements there were again challenges which affected all municipalities (*time constraints and lacking staff*) as well as those which related to only one or two municipality (e.g. *internal communication problems among the politicians* in Bonn). Moreover, it was found that the challenges did not equally affect the project process. Whilst the majority was considered to only have a low or medium negative impact, only two of the challenges existing had a high negative influence (*change of coordinator and unsolved internal conflicts from the past*). Since one or even two of these obstacles arose only in Dinslaken and Willich it was concluded that the overall strategy development process was less smooth here compared to Arnsberg and Bonn.

Taking the distribution of achievements and challenges into consideration it can be asserted that the strategy development was a generally rewarding but also challenging (or in two cases even very challenging) experience for all four municipalities.

Within the context of the second research question, this study further revealed that nine specific requirements are particularly relevant for the successful development of a municipal sustainability strategy. They include: *Establishing a Sense of Urgency, Forming a Powerful and Guiding Coalition, Empowering Others to Act on the Vision, Identify the Leadership, Provide Resources, Creating a Vision, Planning for and Creating Short-Term Wins, External Moderation and Early Involvement of Local Politicians*. It was assumed that the more of these requirements met in the strategy development process, the more likely the latter's overall success.

Considering the facts that newer works on change management assert that that Kotter's requirements must not necessarily be applied one after another (see Appelbaum et al., 2012) and it appears reasonable to ensure that those requirements that were found existentially important

(see figure 14) are met in a first step, municipalities planning to successfully develop a local sustainability strategy should orientate along the following three-phase sequence:

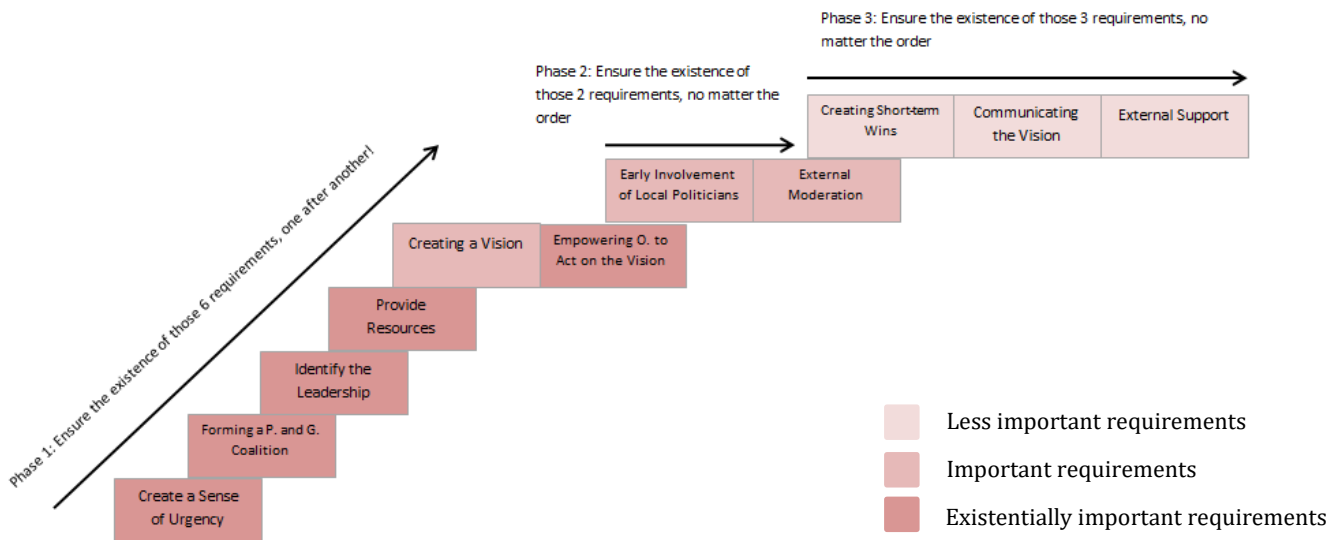


Figure 15: Three phases for the successful development of local sustainability strategies

Hereby, grounding on insights from the analysis of step I, II and III, they should consider the following peculiarities within the context of certain requirements:

Establishing a Sense of Urgency:

- Make in any case sure that department heads are convinced that they can exert ‘pressure to act and contribute’ on their team, preventing that the planned strategy development cannot start due to participants’ possible initially low levels of motivation and urgency.

Forming a Powerful and Guiding Coalition:

- Assemble around 30-40 people who actively support the strategy development process.
- Include mayor, department heads, local politicians as well as non-administrative members

Identify the Leadership:

- Make sure that the leader is ‘visible’ to everyone involved in the process and personally dedicated to the topic of sustainability
- Establish supporting institutional structures strengthening the leader’s authority, e.g. by setting up a staff position

Provide Resources:

- Be prepared that the complete strategy development process takes several years and probably longer than expected in the beginning
- Ensure the sufficient availability of personnel and funding

Early Involvement of Local Politicians:

- Regularly inform all politicians in written form about recent development of the strategy development process making sure even those who did not attend the steering committee sessions are up to date
- Inform the city council about the strategy's planned measures (costs, details, etc.) some months prior to the actual adoption to ensure that they do not refrain from adopting them due to lacking information on required funding.

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## 7. REFLECTION

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In order to complete this thesis, the following section will initially reflect upon the research's limitations including a critical consideration on the data collection technique as well as the overall generalisability of findings. Subsequently, recommendations for further research deriving from this study's results will be given.

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### 7.1 Limitations

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Although the selected research method has turned out to be beneficial in answering this study's research question, there have been some obstacles along the way:

#### 7.1.1 Concerning the data collection techniques

First, as already mentioned in chapter 3 the participant observations were carried out in only one place, namely Arnsberg. As already expected beforehand, this did indeed somehow negatively impact the research findings: When analysing the interviews from Arnsberg I noticed that I was able to 'better' interpret certain things mentioned by the interviewees as I had been somehow involved in the process. One respondent, for example, underlined that the mayor's support of the project was very important and positively influenced the strategy development process but did not provide any further details (see sub-section 5.2.1). Having been in the municipality myself for various weeks, however, I personally witnessed how much influence the mayor's approval has had on the employees: It occurred several times during my internship that persons (both involved and uninvolved in the GNK project) met the project coordinator in the corridor and immediately asked for any updates, mostly with the positive remark that he or she had heard that the mayor had recently talked to some important (external) persons about the project. Thus, I personally felt how important the mayor's approval was and therefore could better imagine and interpret what the interviewees meant when merely telling me that his support has positively impacted the project's development. Yet, since I never observed any situation in the other three municipalities it consequently needs to be assumed here that the picture of Bonn, Dinslaken and Willich 'drawn' within this study is probably a bit less accurate than the one from Arnsberg.

Second, in connection with the interviews, it sometimes happened that interviewees revealed new information or insights that may also have been interesting to discuss with the other candidates. It was possible to do so with the interviews to follow, yet, not for the ones already held at that time. As a consequence, the interview guide got more extensive from time to time and not all questions could be asked to everyone. Nonetheless, in one particular case where the newly gained information was considered especially interesting to compare with other project members' experiences, the respective persons have been approached a second time. The interview guide displayed in the appendix presents the most current version which was lastly updated after the penultimate interview.

#### 7.1.2 Concerning the generalisability of findings

As already indicated in sub-section 3.5.2 this study grounds on a relatively small sample size and took only four NRW mid-sized municipalities' experiences with the development of a sustainability strategy into consideration. It has therefore been concluded that the results obtained are probably most applicable to comparable cases – thus other German mid-sized municipalities aiming to develop a municipal sustainability strategy. It can be assumed here that the more simi-

lar the case, the better the generalisability of findings. Or, in other words, the results obtained in this study will probably be most applicable to those municipalities that have a comparable size and also develop the strategy within the scope and conditions of the GNK NRW programme (and thus support from the LAG 21 NRW). For other municipalities, however, which considerably differ in size, form part of another country or rely upon a different funding programme (or none at all), the transferability of results remains unclear. Nevertheless, considering that at least nine of the eleven organisational requirements identified in this study were found relevant for a huge variety of change processes described in literature and also turned out important for the strategy development processes in this study it still appears relatively probable that these requirements will also be crucial for the strategy development process of just-mentioned 'non-comparable' municipalities.

## 7.2 Recommendations for further research

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Deriving from this study's theoretical background as well as just-outlined limitations the following paragraphs contain some recommendations for further research<sup>8</sup>.

First and foremost, the literature research conducted prior to this study revealed that so far an only limited amount of literature regarding change management in the administrative context exists. This is also true for findings linking sustainability and administrations. Research comprising all three fields is even scarcer. Hence, studies contributing to fill these substantial gaps seem particularly worthwhile. They will hopefully lead to a better understanding how insights from change management can be used to promote sustainability in public administrations.

Second, in terms of more practical suggestions, it appears advisable to carry out a similar study once again, yet, this time based on interview data and participant observations gained from more municipalities and grounding on interviews with more respondents and also with non-administrative project members. This way, the obtained results reliability and generalizability would even increase. Moreover, considering that there is uncertainty whether the gained findings can also be applied to (foreign) municipalities of different size or those that pursue a different approach (see above) it appears worthwhile in this context to conduct further studies that contribute to this gap.

Third, considering that sustainability strategies are relevant (or will become so) not only for German administrations but all those countries worldwide which undersigned the Agenda 2030 resolution, it might be appealing to investigate the experiences of other countries' municipalities with developing municipal sustainability strategies.

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<sup>8</sup> Recommendations for practice can be found in the conclusion (see sub-section 6).

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## A - Interview Leitfaden (German)

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Liebe Teilnehmende,

herzlichen Dank, dass Sie sich dazu bereit erklärt haben, sich als Interviewpartner zur Verfügung zu stellen. Sie leisten damit einen wichtigen Beitrag zum Gelingen meiner Masterarbeit im Studiengang „Environment & Society Studies“.

Das Interview umfasst **20 Fragen** und dauert etwa **45 Minuten**. Inhaltlich beschäftigt es sich mit Ihren **Erfahrungen bzgl. Kommunalen Nachhaltigkeit im Kontext der Teilnahme am GNK Projekt und der damit verbundenen Entwicklung einer kommunalen Nachhaltigkeitsstrategie**.

Sollten Sie vor oder während des Interviews Fragen haben, gewisse Frage nicht beantworten wollen oder können, weisen Sie mich bitte darauf hin. Sofern Sie damit einverstanden sein sollten, nehme ich das Interview auf. Das ermöglicht mir, das Gesagte später transkribieren zu können und führt zu einer besseren Analyse. Falls Sie keine Aufnahme wünschen, teilen Sie mir dieses bitte vor Interviewstart mit.

Bei weiteren Fragen stehe ich Ihnen gerne zur Verfügung.

Vielen Dank für Ihre Unterstützung!

Josephine Kißmer

### I. Einführung, Generelles

1. In welcher Rolle haben Sie am Projekt teilgenommen und welche konkreten Aufgaben haben Sie hierbei erfüllt?
2. Welche Erfahrungen oder Projekte bezüglich Nachhaltigkeit gab es in Ihrer Kommune vor der Teilnahme am Projekt? Sind diese Aktivitäten bereits im Rahmen einer Strategie zusammengefasst worden?
3. Was war die Hauptmotivation Ihrer Kommune am GNK Projekt teilzunehmen?
4. Was ist der aktuelle Stand des Projektes? Haben Sie bereits mit der Umsetzung der Nachhaltigkeitsstrategie begonnen?

### I. Erfahrungen mit dem GNK Prozess

5. Wie hoch war das Interesse/ die Motivation der Projektbeteiligten, eine Nachhaltigkeitsstrategie zu entwickeln? Wieso?

6. Haben Sie den Eindruck, dass dem Kernteam sowie der Verwaltungsspitze die Notwendigkeit bzw. Wichtigkeit von kommunaler Nachhaltigkeit im Zuge der Projektteilnahme bewusst geworden ist, bzw. sich noch gesteigert hat?
7. Wie wurden die Mitglieder für das Kernteam und die Steuerungsgruppe ausgewählt?
8. Wer hatte die oberste Verantwortung für das Projekt und wieso?
9. Waren Sie mit der personellen Besetzung des Kernteams zufrieden oder glauben Sie, dass eine andere Besetzung (Kompetenz oder Teamgröße) vorteilhafter für den Strategieentwicklungsprozess gewesen wäre? Wieso?
10. Wie würden Sie die Zusammenarbeit im Kernteam beschreiben? Wie die Zusammenarbeit innerhalb der Steuerungsgruppe?
11. Gab es im Rahmen der Strategieentwicklung im Vorfeld eine klar definierte Vision, die als Basis für die Strategieentwicklung diente? Ist es Ihnen gelungen, diese allen Projektbeteiligten verständlich zu machen?
12. Wie und über welche Kanäle sind das Projekt und die Vision kommuniziert worden? Kennen alle für die Umsetzung der Strategie relevanten Mitarbeiter das Projekt und dessen Ziele?
13. Wurde die Kommunikation hauptsächlich genutzt, um über das Projekt zu informieren oder auch um unbeteiligte Mitarbeiter für Nachhaltigkeit zu begeistern, motivieren?
14. Welche Hindernisse gab es bei der Entwicklung der Strategie und warum? Konnten diese überwunden werden? Falls ja, wie? Falls nein, warum nicht? Wo hätten Sie sich ggf. welche Unterstützung gewünscht?
15. Konnten Sie im Rahmen der Strategieentwicklung definierte Zwischenziele erfolgreich abschließen, um damit für zusätzliche Motivation der Projektbeteiligten zu sorgen?
16. Wie stellen Sie sicher, dass die entwickelte Nachhaltigkeitsstrategie nun auf allen Ebenen umgesetzt wird? Werden neue Ressourcen (Budget, Personal, etc. bereitgestellt)?

### **III. Kritische Reflexion, Ausblick**

17. Sind Sie optimistisch, dass die vereinbarten Ziele im definierten Umfang und Zeitrahmen umgesetzt werden oder erwarten Sie Schwierigkeiten?
18. Welche Voraussetzungen würden Sie als besonders wichtig für den Strategieentwicklungsprozess erachten? (z.B. Unterstützung des Bürgermeisters,...)
19. Worin denken Sie, liegt für Ihre Kommune der größte Nutzen der Projektteilnahme?

20. Was würden Sie aus heutiger Sicht im Zuge der Strategieentwicklung anders machen, wenn Sie noch einmal am Projekt teilnehmen könnten?

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## B - Interview Guide (English)

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### I. Introduction, General information

1. What was your role in the project and which concrete tasks did you fulfil?
2. What kind of experiences with municipal sustainability did your municipality have prior to participating in the project? Were these activities already merged in a strategy?
3. What was your municipality's main motivation to take part in the project?
4. What is the current status of the project? Have you already started with the implementation of the strategy?

### II. Experiences with the GNK process

5. How high was the interest / motivation of the project members to develop a sustainability strategy? For what reason?
6. Do you think that participating in the project made the project members realize the necessity / urgency of municipal sustainability? Has this attitude even increased?
7. How did you choose the core team and steering committee members?
8. Who was primarily responsible for the project? Why was this person chosen?
9. Were you satisfied regarding the selected personnel in the core team or do you think that another cast (competences or group size) would have been better for the strategy development process? Why?
10. How would you describe the collaboration within the core team? How the collaboration within the steering committee?
11. Was there a concrete vision prior to the project which served as a basis for the strategy development? If so, did you manage to make the project members understand that vision?
12. How and through which canals did you communicate about the project and the vision? Do all people required for the strategy implementation know the project and its goals?
13. Was communication mainly used to inform about the project or also to motivate and inspire uninvolved employees for the topic of sustainability?

14. What kind of challenges did occur during the development of the strategy and why? Could they be overcome? If so, how? If not, why not? Where and how would you have liked to be supported?
15. Were you able to successfully accomplish defined short-term goals within the strategy development process in order to enable additional motivation among the project participants?
16. How do you ensure that the developed sustainability strategy will be implemented on all levels? Are resources (fundings, staff) provided?

### **III. Critical reflection, forecast**

17. Are you optimistic that the strategy's goals can be realised in the defined scope and time or do you expect difficulties?
18. Which requirements would you consider especially important for the strategy development process? (e.g. support from the mayor...)
19. What do you think is the biggest benefit for your municipality from taking part in the project?
20. Is there something you would do differently today if you could participate in the project once again? If so, what?