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WHAT IS THE IMPACT OF STAKEHOLDER ENGAGEMENT AND POLITICAL CONTEXT ON THE OUTCOME OF SUSTAINABLE URBAN MOBILITY INITIATIVES IN URBAN AREAS?

A COMPARATIVE CASE STUDY OF MALMÖ, SWEDEN, AND COLUMBUS, USA.

BACHELOR THESIS

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Abstract

This bachelor thesis investigates the impact of stakeholder engagement and political context on the outcome of sustainable mobility initiatives in urban areas, using a comparative case study of Malmö, Sweden, and Columbus, USA. The study is guided by the following research question: "What is the impact of stakeholder engagement and political context on the outcome of sustainable mobility initiatives in urban areas? A comparative case study of Malmö, Sweden, and Columbus, USA." The study is based on a qualitative research design and uses interviews and document analysis as data collection methods and qualitative content analysis to interpret the data. By analyzing these two cases, the study aims to provide valuable insights into the factors that influence the implementation of sustainable mobility initiatives in different political contexts. The study has potential relevance in informing policy makers and urban planners about the importance of stakeholder engagement and political context in the effort to create a more sustainable urban mobility system, resulting in more environmentally friendly urban spaces.

Keywords: sustainability, urban mobility, stakeholder engagement, political context

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List of Abbreviations

Advocacy Coalition Framework – ACF Council European Municipalities and Regions - CEMR Electric vehicle – EV Sustainable Urban Mobility Plan – SUMP U.S. Department of Transportation – USDOT

1. INTRODUCTION

With more than half of the world's population now living in urban areas, cities have an important role to play in tackling climate change (Raj et al. 2022). Hereby, mobility has a major impact on urban sustainability, which is why policymakers have increasingly focused on sustainable mobility in cities in recent years. The importance of the issue has also led to a more detailed examination of the topic in the academic literature, with numerous studies highlighting the importance of stakeholder engagement and collaboration in the planning and implementation of sustainable urban mobility projects. It has been claimed that effective stakeholder management in a certain political context can result in improved policy outcomes, increased public acceptance and ultimately in more sustainable mobility solutions. In parallel, new approaches to sustainable transport planning in the EU and US are beginning to involve stakeholders and the public. It must be specified that in the context of public transport, the term "stakeholder" refers to individuals, entire groups or organizations who are affected either positively or negatively by the outcomes of sustainable mobility initiatives. Such stakeholders might include citizens, mobility-related associations, schools, as well as local industry and shop owners. In addition to the involvement of stakeholders, the political context also plays an important role in influencing to the outcome of sustainable mobility initiatives. Research has shown that the organization and interaction of the multiple political levels, including subgovernmental, local, and national level, as well as the ideological distribution of power are determinants of the outcome of such initiatives.

However, a knowledge gap still exists in understanding how the interplay of different political contexts and stakeholder engagement influence the outcome of sustainable mobility initiatives in urban environments. This study seeks to address this knowledge gap by comparing the cases of Malmö, Sweden, and Columbus, US. Both cities have implemented sustainable mobility initiatives, guided by the supranational respectively national level, using varying strategies of stakeholder engagement and in different political settings. This study will identify factors that demonstrate the effectiveness of integrating stakeholders in sustainable initiatives, and compare their implementation and outcome in the case study.

Consequently, this thesis will address the following research question: "What is the impact of stakeholder engagement and political context on the outcome of sustainable mobility initiatives in urban areas? A comparative case study of Malmö, Sweden, and Columbus, USA."

To answer this overarching question, this thesis additionally explores specific aspects of the topic by answering the following sub-questions:

- 1. What does stakeholder engagement mean?
- 2. What are the causal pathways that lead to more sustainable outcomes through stakeholder engagement?
- 3. How was stakeholder engagement implemented in the cases of Malmö and Columbus?

This thesis will begin with an introduction to the theory of sustainability and democracy in order to explain the concept of stakeholder engagement. Secondly, it discusses the political context as a concept with a theoretical underpinning. Then the methods are explained, namely data collection on the one hand and data analysis on the other. Next, the cases of Malmö and Columbus with their respective projects are presented. This is followed by a comparative analysis and a discussion of the limitations of the study. Finally, the results are summarized.

2. STAKEHOLDER ENGAGEMENT

In the following, the theory is discussed and theoretical concepts of democracy and sustainability are introduced, which will later be linked to the empirical findings of the analysis. The theoretical chapter, based on the literature on stakeholder engagement and democracy and sustainability, aims to identify factors that lead to more effective stakeholder engagement. The aim is to causally explain the impact of stakeholder engagement on sustainability initiatives. Hypotheses will be formulated based on the theory. Afterward, in the empirical part of this paper it will be analyzed if these factors were applied in the cases of Malmö and Columbus.

Stakeholder engagement in a project or initiative can be described as an "overall integration of citizens and groups in political decision-making processes and consequently the share of power" (Lindenau and Böhler-Baedeker 2014, p. 3). Political stakeholder theory is a concept that aims to describe the influence and importance of stakeholders on a specific (policy) implementation (Freeman 2010). Taking a closer look at the theory will help to assess the impact of stakeholder engagement on the outcome of sustainability initiatives. Stakeholders are "any group or individual who can affect or is affected by the achievement of an organization's purpose" (Freeman 2010, p. 53). Beck and Storopoli define three attributes that stakeholders need to be more salient in negotiation: power, legitimacy and urgency (Beck and Storopoli 2021, p.2). In other words, "[o]ne who or which does not have power, legitimacy and/or urgency is not a stakeholder" (Beck and Storopoli 2021, p. 2). Hereby, power is needed to "establish [one's] will", whereas legitimacy is a "social organizational perception on what is considered desirable and appropriate" (Beck and Storopoli 2021, p. 2). Lastly, urgency is

dynamic in nature and means that a stakeholder is "claiming something based on the time, ownership, sentiment" (Beck and Storopoli 2021, p. 2). These attributes then influence the prioritization of decision-makers, to what extent stakeholders are involved. Regarding the research question, this theory will help to understand the influence potential of stakeholders in the context of sustainable local initiatives and the impact on its outcome. These theoretical arguments will be demonstrated using the two case studies, Malmö and Columbus.

"Democratic practices [...] hold considerable potential for accelerating sustainability transformations" (Pickering et al. 2022, p. 10). The key features of a democracy, such as freedom of press, freedom of speech and association, equip stakeholders of a democratic society with important rights that allow policymaking to be grounded in a more inclusive way. In a democracy, the citizens can inform themselves about environmental problems, due to the freedom of press and can express their "environmental concerns and demands", due to the freedom of speech (Neumayer 2002, p. 140). Additionally, the freedom of association lets citizens organize themselves to increase the weight of their voice, and lastly the freedom of vote grants citizens to be heard, as elected policymakers in a "competitive political system [need to] respond positively to these demands" (Neumayer 2002, p. 140). Moreover, "accountability mechanisms [of a democracy] and the free flow of information enable citizens to hold governments accountable" (Pickering et al. 2022, p. 4). Despite the positive consequences of democratic elements on potential sustainable policymaking, there are still factors influencing the relation between democracy and sustainability outcomes (Neumayer 2002, p. 145).

Involving a diverse range of stakeholders in a policymaking process increases the number of perspectives as policy-makers can never fully represent all societal currents that exist in an urban environment and thus will be affected by decisions regarding urban sustainability projects (Scolobig and Lilliestam 2016). Stakeholders can provide additional insights into practical policy implications that policymakers may oversee. Therefore, the outcome will be more responsive to many different needs, thus serving more groups in society (Eaton et al. 2021). Another factor that explains why stakeholder engagement leads to more successful sustainability initiatives is an active dialogue and constructive conflict. If multiple stakeholders engage in an active dialogue, contributing perspectives and experiences, the presumptions and biases of participants will be challenged which ensures that the existing state of affairs is being questioned and potentially more inclusive solutions can be found (Eaton et al. 2021). The involvement of stakeholders makes them feel heard and taken seriously. If stakeholders feel that their perspectives and opinions matter and are considered in the policymaking process, they are more likely to accept and trust the outcome of a particular initiative (Sloan 2009). Following, their support increases the legitimacy of the policy, which additionally

facilitates its implementation as opposed to a policy that is tailored only to the economically strongest stakeholder group or the relatively homogeneous group of policy-makers (Sloan 2009).

The inclusion of diverse participants or stakeholders can also have a beneficial effect on resources and time of an initiative. Often policymakers cannot foresee all the consequences of a decision to be taken, a gap that in turn can be filled by the perspectives and knowledge of other stakeholders, thus limiting "`trial and error' approaches" (Eaton et al. 2021, p. 1118). Especially involving stakeholders at an early stage in the decision-making process makes it easier to identify and address potential problems in advance, thus saving time and financial resources that would be needed to reverse or correct policies after their implementation (Eaton et al. 2021). On the other hand, the expertise that stakeholders bring into the process can be seen as a valuable resource, as expertise is a financially significant asset. The acquisition of such knowledge from externally can be expensive, but if stakeholders are willing to contribute their professional insights and skills, it is a considerable benefit. Not only does this input enrich the process, it can also effectively decrease the costs of hiring external experts, thereby increasing the overall efficiency and effectiveness of policymaking (Eaton et al. 2021). An additional benefit of an early-stage involvement of stakeholders is improved risk management. An urban mobility sustainability project will be more successful if engaged stakeholders help to identify and address potential risks at an early stage of the policymaking process. Through understanding the concerns of stakeholders, policymakers can design policies that reduce these risks (Reed 2008). Another factor is the improved communication. When stakeholders are informed about a planned policy through their involvement, they can serve as communication channels to wider groups, helping in ensuring that the policy is correctly understood and implemented (Reed 2008). Additionally, communication can improve a sustainability project in the long term, if stakeholders provide the decision-makers with feedback and evaluation, helping to refine and improve policies even after they have been introduced. (Reed 2008, p. 2425). Where stakeholders are involved in the policymaking process, the sense of shared responsibility and ownership is strengthened. In turn, this can increase commitment to achieving the policy's objectives and help to promote long-term sustainability (Reed 2008, p. 2420). In a sustainability context, policies can affect various groups differently. Stakeholder engagement is one way of ensuring that these impacts are considered and that policies address issues of social equity and justice. Lastly, the factor of trust building argues why stakeholder engagement leads to more successful outcomes in sustainability decision-making. By demonstrating transparency and the willingness to take all perspectives into account. That way, the involvement creates trust between the public,

policymakers, and organizations which is essential for a functioning democracy and successful policy implementation.

The theory presented indicates that stakeholder engagement in the policymaking process of urban sustainable mobility projects in Columbus and Malmö may lead to higher public acceptance of these initiatives. This is due to the fact that stakeholder engagement expands the range of perspectives taken into account by incorporating the individual experiences and insights of the actors which are directly involved in or affected by the urban mobility projects. Stakeholders, including residents, local businesses, mobility organizations, policymakers, and transportation providers can contribute useful insights that make the policy outcomes more responsive to unique local needs and realities, thus increasing acceptance. Based on these theoretical insights, the hypothesis can therefore be formulated as follows:

 H_1 : Stakeholder engagement in urban sustainable mobility projects in Malmö and Columbus creates higher public acceptance of these initiatives.

Developing on the foregoing considerations, another key factor of engaging stakeholders in the policymaking process of the urban sustainable mobility projects in Malmö and Columbus is the potential increase in resource and time efficiency. Stakeholders, such as businesses often have practical knowledge and insights that policymakers may not have access to. Their involvement in the policymaking process can help identify potential challenges and opportunities at an early stage, thereby avoiding costly adjustments after policy implementation. Local stakeholders also hold specific expertise that can decrease the need for, and therefore the cost of, external consultancy. This is especially important in the context of urban sustainable mobility in Malmö and Columbus, where understanding local mobility needs, potential implementation difficulties and the local response to policy changes can be highly valuable. Following, the second hypothesis is constructed:

 H_2 : Stakeholder engagement in sustainable urban mobility projects in Malmö and Columbus enhances the efficiency of sustainability initiatives in terms of resource allocation and time management.

3. POLITICAL CONTEXT

The following section discusses the concept of political context, underpinned by theory, and investigates its essential role in determining the outcome and effectiveness of sustainable urban mobility initiatives.

The concept of political context in this study refers to the political environment in which initiatives, in this case sustainable urban mobility initiatives, take place. It considers the power

position of local authorities within the policy process, as well as the ideological orientation and representation of political parties within the decision-making bodies of a given city. Paul Sabatier and Hank Jenkins-Smith proposed the theory of the Advocacy Coalition Framework (ACF) in 1987 (Sabatier 1987). Their model provides a framework to understand the 'political context' that influences sustainable urban mobility initiatives in Columbus and Malmö. The authors describe policy-making as a process that is dynamic and complex involving multiple stakeholders that come together to form advocacy coalitions aiming at influencing the decisionmaking process (Sabatier and Weible 2019). These advocacy coalitions are based on shared beliefs on policy issues, in the case of this study, these beliefs concern sustainable urban mobility (Sabatier 1987). The actors in an advocacy coalition can be transport providers, local authorities, political parties, environmental organizations, and community groups that actively participate in the policy process and contribute to the design and implementation of sustainable mobility initiatives. In order to gain support for its policy preferences, a coalition will use specific strategies to influence the decision-making process, such as lobbying, public advocacy or the use of scientific research (Sabatier and Weible 2019). Two factors influence the effectiveness of a coalition: First, internal dynamics such as negotiation processes, and second, external factors such as for example technological advances or socio-political changes (Sabatier and Weible 2019). The model by Sabatier and Jenkins-Smith recognizes the potentially significant impact that the political context, such as the majority party in the city council or the structure of the political system, can have on the development of sustainable urban mobility initiatives (Sabatier and Weible 2019). These factors, according to ACF, shape the political subsystem in which sustainable urban mobility initiatives are discussed, designed and developed (Sabatier 1987). To provide an example: the direction, pace and inclusiveness of the policy development or implementation of the initiative, may be influenced by the ideological orientation or electoral mandate of the party holding the majority in the city council, which may prioritize specific elements of the political agenda and thus the mobility initiative. In addition to the ideological orientation of the parties represented in the city council, the structure of the political system can also influence the effectiveness of such initiatives, depending on the distribution of responsibilities and competences different levels of government. For example, in a more centralized political system in which a city or region has only administrative powers and thus no competences regarding financial resources, which are essential for a sustainability initiative, the political arrangement in the national government plays a much greater role in the decision-making process of an initiative. Alternatively, in a more decentralized political system, in which policy competences are in the hands of the city council, the political composition of the council will be more significant. Furthermore, these political factors can also impact the power dynamics between advocacy coalitions, their degree of access to decision-making processes and the extent of their influence on policy results (Weible et al. 2011). Following the

ACF theory, political parties within the city council that share a belief system, would cooperate in order to influence policymaking for example in a situation where the council decides on the funding of the sustainable urban mobility initiative. Following the logic of the Advocacy Coalition Framework, it can be assumed that parties that attach importance to environmental concerns, might tend to form coalitions to promote sustainable urban mobility initiatives. A coalition in this regard could be made up of parties with an environmental focus on the one hand, and actors from other sectors with a common interest in promoting sustainable mobility, such as urban planning or transport actors on the other hand. If there is a coalition in favor of sustainable mobility measures that holds the majority or has significant influence in the decisive body, a policy supporting such measures is more likely to be agreed upon and implemented effectively. According to Kersting, especially councilors of green parties support "more deliberative and direct democratic instruments" which support the engagement of stakeholders in the policymaking process (Kersting 2021, p. 10). On the other hand, more conservative parties could constitute another coalition, promoting more business-friendly or market-oriented approaches to urban mobility. Such coalitions may favor policies that support innovation in the private sector, for example electric vehicle technology or ride-sharing platforms, rather than investing in public transport or cycling infrastructure. Thus, the extent of sustainability initiatives might be limited. More conservative coalitions might be reluctant to spend large amounts of public money on such initiatives and may favor less regulatory interventions. According to the existing literature, conservative parties in the United States and Europe tend to have different attitudes towards environmental policy (Båtstrand 2015). The traditionally conservative and right-leaning Republican Party in the US is often characterized as skeptical of environmental policies (Båtstrand 2015). Whereas European conservative parties partly advocate state intervention in the market economy, the literature suggests that their approach does not strictly align with the left-right political spectrum (Båtstrand 2015). This means that while some conservative parties support market-based climate policies, others oppose carbon trading and are not afraid of policies that limit market forces (Båtstrand 2015; Carter 2013). Following the Advocacy Coalition Framework, the political context is vital to the establishment and functioning of advocacy coalitions, affecting the outcome of sustainable urban mobility initiatives. Hence, the political context, in particular the balance of power between these coalitions, has a direct impact on the policy outcomes.

Therefore, based on these findings derived from the Advocacy Coalition Framework, hypothesis three can be formulated.

 H_3 : The political context, as reflected in the power dynamics of advocacy coalitions in the city council, significantly influence the outcome of sustainable urban mobility initiatives in Malmö and Columbus.

4. METHODS

The purpose of this section is to explain the methodology that was employed to answer the research question "What is the impact of stakeholder engagement and political context on the outcome of sustainable mobility initiatives in urban areas?". Initially, the methods employed for data collection will be examined, followed by a discussion on the data analysis method.

4.1 METHOD OF DATA COLLECTION

In order to be able to answer the broadly defined central question and the sub-questions of the study as objectively as possible, it is necessary to compare the two cases, the city of Malmö and Columbus, using a qualitative case study. The chosen research design of the case study allows for a detailed in-depth analysis by focusing on only two specific cases. The aim of the case study design is to be able to draw on a larger population of cases, in the case of this study, to find out to what extent stakeholder engagement and the political context influence the outcome of a sustainable mobility initiative in order to make the findings usable for other cities (Seawright and Gerring 2008). The detailed insights generated by a small case study can be used to support or inform theories that already exist (Blatter and Haverland 2012). The value is therefore in the detailed, comprehensive insight into the cases rather than in statistical representativeness. The comparative approach aims to identify similarities and differences in the stakeholder engagement and policy context of sustainable mobility initiatives in different contexts, and will thus help to evaluate if the factors, elaborated in the theory section, were applied in the cases of Malmö and Columbus. In addition, a comparison enhances generalizability by providing insights not only into a single phenomenon, a single urban mobility initiative, but also how the factors of stakeholder engagement and policy context operate in different circumstances (Bartlett and Vavrus 2017). By identifying successful strategies in one context, such as a strong stakeholder engagement approach in one city, these can be transferred to benefit other municipalities (Bartlett and Vavrus 2017).

This study adopted a dual approach to data collection. The primary method used was semistructured expert interviews, which was complemented by a second approach discussed below. The interviews were conducted to obtain data that captures the experiences and perspectives of stakeholders in both cities. The results from the interviews are precisely targeted to the research questions and hypotheses posed in this paper and thus provide specific answers and insights. Therefore, 26 potential interviewees from both cities were contacted, of which only six responded, four of whom agreed to be interviewed. The project leaders of the specific mobility initiatives were contacted, as well as the city councils, the municipal mobility department, the urban planning researcher, the automobile club and the bike-sharing provider of each city. Four interviews were then conducted over a period of two weeks: for Malmö, with a researcher from the city's mobility department who had been actively involved in the Malmö SUMP and who had previously been head of the urban planning unit. Secondly, the director of a national public transport research center was interviewed. For the city of Columbus, the executive director of the Smart Columbus project was interviewed, as well as the research lead of the initiative. Each interview lasted between 20 and 45 minutes and was conducted using an online video conferencing tool. The transcription of the interviews is described below, as that is part of the data analysis method.

The choice of expert interviews was based on the benefit of gaining practical insights. The perspectives of experts who have practical experience of stakeholder engagement and the political context of their mobility project, bridge the gap between theory and practice (Bogner et al. 2009). In addition, the experts can complement and validate the findings of the second data source, the policy documents, which strengthens the overall validity of the study (Bogner et al. 2009). In the case of the research question, expert interviews are useful because there is only a limited amount of freely available documentation and literature on the two initiatives mentioned, as it is very specific, and so expert interviews were a good way of gaining additional, deeper insights into the subject of stakeholder engagement and political context.

The semi-structured approach for the interviews consisted of open-ended and close-ended questions, the latter providing the study with consistency in data collection and leading to improved comparability (Segal et al. 2006). Therefore, this type of interview leads to an increased reliability, as standardized questions result in decreased variability (Segal et al. 2006). In addition, the use of open-ended questions increases the flexibility, for example by asking follow-up questions (Newcomer et al. 2015). A set of questions was defined in advance (see appendix), including both closed and open-ended questions, to guide the interviewee but still allow them to provide their perspective. The questions are based on the primary findings from an intensive examination the factors of stakeholder engagement and political context within mobility initiatives. Although these were derived from theory, they still leave room for the perspectives of the interviewees to evolve.

In addition to the interviews, policy documents were analyzed. The use of primary sources was chosen to ensure reliability and objectivity, as the data was collected directly from the policy documents without any secondary interpretation or summarization (Hox and Boeije). The policy documents used were publicly available. In addition, a detailed study of primary sources provided this study with a contextual understanding by providing background information on the mobility initiatives (Hox and Boeije). The existing data from the documents of the city of Malmö and Columbus provide a broad overview to classify the results and findings of the completed sustainable mobility initiatives that were assessed and documented by experts. As

a preparation for the comparative analysis, the following two policy documents of the city of Malmö were analyzed in detail: the Sustainable Urban Mobility Plan by the city of Malmö (document 1 in coding table), the Guidelines for Developing and Implementing a SUMP by the European Commission, Directorate-General for Mobility and Transport (2) (City of Malmö 2016; European Commission 2014; Civitas Initiative 2018). In the case of Columbus, two policy documents were analyzed: Smart Columbus Final Report (3) and the Smart Columbus Acceleration Partner Program – Impact Report (4).

4.2 METHOD OF DATA ANALYSIS

This section presents the approaches and techniques used to analyze the data collected, to gain an understanding of how the research question is addressed and the results are derived.

A qualitative content analysis of the empirical data from the interviews and policy documents is conducted to identify patterns, themes, and relationships between stakeholder engagement, political context, and the outcome of sustainable mobility initiatives. Therefore, the qualitative content analysis method of Mayring is used (Mayring 2000). It introduces techniques to analyze text-based data systematically, aiming to identify patterns or themes which help to comprehend the meaning of the analyzed content (Mayring 2000). The analysis and interpretation of the interviews is divided into individual steps and follows a predetermined procedure, which makes the process clear, comprehensible to others and intersubjectively verifiable (Vogt and Werner 2014). This method of analysis was chosen as it provides the study with a deeper understanding of the factors of stakeholder engagement and political context in relation to sustainable mobility initiatives. The systematic approach of the qualitative content analysis allows for the use of extensive policy documents, that could not otherwise be analyzed given the time constraints of this study. For example, the final report of the Smart Columbus program alone comprises 547 pages (City of Columbus 2021). The method by Mayring allows to screen the data, meaning the interviews and policy documents, for the essential information in order to answer the research question (Vogt and Werner 2014).

The Mayring method consists of several standardized steps, some of which precede the actual analysis, which will now be explained. The first step was an in-depth literature review to get an overview and understand the broader context of sustainable mobility initiatives. This was followed by the definition of the theoretical framework meaning the setting of the frame that includes the concepts and theories necessary for a successful analysis. These can be found in the theoretical part of this study. The next preparatory step in the qualitative content analysis was the development of deductive, theory-driven categories. The detailed review of the literature on sustainable mobility initiatives, stakeholder engagement and the political context led to theoretical assumptions that served as the basis for the deductive categories. These

categories were also used to define the set of questions for the interviews. They are deductive as they are derived from existing theories and studies (Vogt and Werner 2014). Developing the categories also means breaking down the research question "What is the impact of stakeholder engagement and political context on the outcome of sustainable mobility initiatives in urban areas?" into its components to filter out the essential and relevant aspects (Vogt and Werner 2014). In addition, the categories found need to be defined and delimited from each other (Vogt and Werner 2014). Lastly, these categories then specify exactly what to look for in the data material (Flick 2021). The categories and the reasoning of their formation will be the subject of discussion in the analysis.

Once the categories for analysis had been established, the questionnaire for the interviews was developed. Therefore, the two main categories were used as a starting point for the questions and then refined into more specific questions that addressed the issue of either stakeholder engagement or political context. The questionnaire can be found in the appendices. For some interviewees, such as the director of the research center in Sweden, the questions had to be adapted, as he had more general knowledge than specific experience of the particular project in Malmö. For reasons of time, the audio recordings of the interviews were then transcribed using f4's speech recognition software. A simplified content-semantic transcription was used, thus non-verbal sounds and pauses were not taken into account as they were not relevant to the study and improved readability (Dresing and Pehl 2018). The interviews have been anonymized for privacy reasons. The position of the interviewee is visible, but not the name. The transcribed interviews can also be found in the appendices.

The coding for the categories was identified through reading the policy documents and transcribed interviews, as not every paragraph dealing with stakeholder engagement actually contains the exact words. Codes are tags or labels assigned to selected pieces of data that capture a particular category (Flick 2021). The following codes were developed to search for the category 'stakeholder engagement' in the policy documents from both cities: Involving, involve, involvement, companies, cooperate, cooperation, political, politics, council, network, interface, stakeholder, public, community and organization. Council, political, politics and policy were used as codes for 'political context'. For the interviews, the codes were not used as the volume of transcribed interviews was not as large as the policy documents and could therefore be thoroughly read and scanned for categories. This was done using the 'f4Analyse' tool, which facilitates the assignment of sentences to pre-defined categories. To facilitate the analysis, a second table was created, directly opposing the findings of the coding table, which assisted the writing process of the comparative analysis.

The final step is to interpret and systematically analyze the data. Therefore, one of the three techniques of qualitative content analysis must be chosen (Flick 2021). For the purposes of this thesis, the summary type has been chosen. It requires two sequential reductions: the first one means paraphrasing the data material, and removing synonymous and less relevant paragraphs (Flick 2021). Whereas the second reduction consists of bundling similar paraphrases and summarizing them (Flick 2021). Combining the reduction of the material with a generalization leads to a level of abstraction that allows for an improved analysis of the data material.

5. CASE STUDIES

5.1 CASE SELECTION

The process of case selection will be described in this section. There were several criteria for the selection of the two cases. Starting with accessibility, which is important due to practical considerations, such as access to the policy documents and experts for interviews (Blatter and Haverland 2012). In addition, the financial and time related resources of this bachelor's thesis had to be considered, which led to the selection of two cities whose policy documents, used as a data source, were easily accessible online and in English. Malmö, Sweden and Columbus, USA were chosen because they are both popular model cities for sustainable mobility and their projects took place at about the same time. Malmö was one of the partner cities of the EU project Sustainable Urban Mobility Plan (SUMP) which is a part of the EU Urban Mobility Package policy framework (European Commission 2013b). The city implemented a predefined steps within a process predefined by the SUMP concept guidelines, with the aim of applying a long-term urban mobility strategy (European Commission 2013b). Whereas Columbus in the US, became a model city on behalf of the Smart City Challenge, a challenge of the US Department of Transportation aiming to innovatively address sustainable urban development (U.S. Department of Transportation 2016a). Within the means of these programs, both cities developed strategies and applied new measures of sustainable urban mobility, the outcome of which is evaluated and classified in this study, based on the factors of stakeholder engagement and political context mentioned in the theory section.

5.2 CASE ONE - MALMÖ

5.2.1 Starting Point

Malmö has a history of activities aimed at promoting sustainable urban mobility, as evidenced by the implementation of various programs in this matter. The details of these initiatives are discussed in the following sections. Between 2005 and 2009 Malmö was the coordinator of CIVITAS SMILE, a mobility strategy that brings together several European cities in order to create a sustainable and safe traffic system (Civitas Initiative 2006). In 2012, the City of Malmö started working on its first Traffic Environment Program, which aimed to implementing measures to make vehicle transport quieter, cleaner and more efficient (City of Malmö 2016). In addition, the Skåne region, of which Malmö is the capital and largest city, conducts a travel survey every five years to gather information on the use of its infrastructure and monitor changes over time (City of Malmö 2013). Taken together, these efforts demonstrate Malmö's commitment to sustainable transport even before the SUMP project in 2016. They already had traffic monitoring, a functioning public transport system and an awareness of the need for action on sustainability. From a political perspective, at the time of the political adoption of the Malmö SUMP in 2016, Sweden was governed by a coalition of Social Democrats and Greens (The Guardian 2016). While Skåne County, the administrative region with Malmö as its capital, was governed by Margareta Pålsson of the Moderate Party, Sweden's liberal-conservative party (Swedish Election Authority 2012). The mayor, who has been in charge since 2013, is a member of the Social Democratic Party (Svenska Dagbladet 2013). The Swedish political system requires that the SUMP plan proposed below has to be politically accepted by Malmö City Council.

5.2.2 Sustainable Urban Mobility Plan

The so-called SUMP, sustainable urban mobility plan, has an EU policy background. Since 2009, the European Commission has been working to promote sustainable modes of transport in urban areas. The 2009 Action Plan on Urban Mobility was the first attempt to propose various measures to help local and regional authorities take steps towards achieving more sustainable mobility (European Commission 2009). Two years later the transport white paper "Roadmap to a Single European Transport Area" was published, advising European cities to engage in sustainable urban mobility plans (European Commission 2011). Finally, the comprehensive Urban Mobility Package "Together towards competitive and resource-efficient urban mobility" was adopted in 2013 by the Commission (European Commission 2013a). This package proposes non-binding benchmarks and guidelines and was created involving the Council of European Municipalities and Regions (CEMR). In the annex to the package, the Commission introduced the concept of SUMPs, a plan based on the definition of collective objectives and the use of cooperative planning tools to deal with the design, implementation, funding and monitoring of mobility-related activities and projects. It is a strategic mobility planning instrument for local authorities addressing urban mobility issues, by providing step by step guidelines for each phase of the implementation: preparation and analysis, strategy development, measure planning and lastly implementation and monitoring (European Commission 2013a).

Malmö became a SUMP partner city in 2016 for the first time, aiming to be instructed in planning and budgeting by the comprehensive SUMP guidelines (City of Malmö 2016). The project needed to be politically accepted by the city council and the political technical board of the city (City of Malmö 2016). Each year since the launching of the SUMP Award in 2012, the city with the most extraordinary efforts in the field of sustainable mobility wins the award, Malmö won the 4th SUMP award in 2016 (City of Malmö 2016). Funding for the SUMP had to come from within the regular budget of the city, unless there were specific reasons to request increased funding from the city council (City of Malmö 2016). This implies that the project itself was dependent on financial support from the local political body, as well as national support from those responsible under the law. The SUMP by the Commission did not provide the partner cities with financial resources, but helped the local authorities to raise funds from new sources (European Commission 2013a).

5.3 CASE TWO - COLUMBUS

5.3.1 Starting Point

The starting point for sustainable mobility in Columbus is different from Malmö. In the US, the car is a much more popular mode of transport than in Sweden, because the infrastructure was built for individual motorized traffic (Vanderbilt University 2019; Lagrell and Gil Solá 2021). In 2016, the year that Columbus won the Smart City Challenge, there were 1,55 cars pers household in the city, and 9,4% of households did not own a car (Vanderbilt University 2019). Meanwhile, 18% of Swedes were carless at the same time, with 1,06 cars per household (in 2020) (Lagrell and Gil Solá 2021; acea 2022).

However, Columbus completed sustainable mobility projects before Smart Columbus. In 2008, the city released the Bicentennial Bikeways Plan, which promoted an update of the previous bicycle facility inventory and evaluated and recommended future linkages to establish a comprehensive bikeways system in Columbus (City of Columbus 2008). Later, in 2013 the city introduced its own public bicycle-sharing system, operated by a private company but initially subsidized \$2.3 million (Weese 2014).

The political context of Columbus in 2016 was characterized by a combination of Republican and Democratic leadership. At the federal level, Republicans dominated in the House of Representatives and the Senate, nonetheless, the president was a Democrat (US Federal Election Commission 2016). In Ohio the governor was also a Republican, but the mayor was a Democrat (State of Ohio Government 2019; City of Columbus 2016). The Democratic Party's 2016 manifesto states that it will support the transformation of transport by introducing "cleaner fuels" and investing in public transport, demonstrating the party's awareness and the need for

action (US Democratic Party 2016). Meanwhile, the party program of the Republicans only focuses on "safe roads" and emphasizes that the National Environmental Policy Act is "delay[ing]" transportation projects (US Republican Party 2016).

5.3.2 Smart Columbus

The USDOT is one of the executive departments of the federal government in Washington. In 2015, the USDOT published the so-called Beyond Traffic Report, which concluded that current planning and funding mechanisms are inadequate to meet current and future challenges such as climate change and population growth (U.S. Department of Transportation 2015). Thereon, the USDOT launched the Smart City Challenge, a competition for mid-sized cities in the US. The challenge required the cities not only to introduce new technologies in the mobility sector, to envision it as a whole ecosystem that could capture the needs of all city residents but also to bridge the gap between poor and rich and ultimately encountering the digital divide through smart design (U.S. Department of Transportation 2016b). The city with the most innovative ideas around urban mobility would receive the \$40 million in funding (U.S. Department of Transportation 2016a). A total of 78 cities applied, and Columbus came out on top in 2016, winning the Smart City Challenge (U.S. Department of Transportation 2016a). The city proposed to use three self-driving electric shuttles to connect a bus rapid transit center to a commercial district, thereby linking more citizens to their jobs (U.S. Department of Transportation 2016b). In terms of funding, Columbus additionally received \$10 million by Vulcan Inc., a privately held company which added to the \$90 million the city had previously secured from other private partners to implement its plan (U.S. Department of Transportation 2016b). These public-private partnerships were crucial for the Smart City Challenge to succeed.

To conclude, the focus of Smart Columbus was not solely on sustainability, rather on combining targets of increased social justice with sustainable measures. In addition to the vastly different starting points of the cities, this limits the comparability of Smart Columbus with SUMP in Malmö, but both projects were aimed at improving sustainable mobility in the respective cities.

6. COMPARATIVE ANALYSIS

The forthcoming section of this thesis will undertake a comparative analysis of stakeholder engagement and policy context of the sustainable urban mobility initiatives in Malmö, Sweden and Columbus, USA. Based on Mayring's qualitative content analysis framework, this analysis aims to provide in-depth insights into how these factors impact the outcome of sustainable mobility initiatives within the respective urban settings.

The first step is to develop the categories to be used in the analysis. The category 'stakeholder engagement' was identified, as it plays an integral role within the research question of this thesis. Considering the key premise that stakeholder engagement can significantly shape the results of sustainable mobility initiatives, its introduction as a category was both necessary and justified. Deriving the category directly from the theoretical framework, emphasizes its importance in aiding the process of systematically scanning the data sources for relevant information. 'Stakeholder engagement' as a category in the qualitative content analysis facilitates the identification of patterns and relationships between stakeholder engagement and the outcome of sustainable mobility initiatives in both Malmö and Columbus. Specifically, this enables an examination of the mechanisms for involving stakeholders, their level of involvement, the type of contributions they make and the impact of their participation. Secondly, 'political context' was developed as the second category by following the procedure outlined above, which emphasizes the importance within the framework of the research question. In view of the fact that the political context can have a significant impact on the implementation and results of sustainable mobility initiatives, its inclusion as a separate category is of particular importance (Eckersley 1995). 'Political context' can be defined as policy priorities, political atmosphere, and governance framework within which sustainable mobility initiatives are conceptualized and implemented (Eckersley 1995). It may include political support and commitment. The dynamics of the political context are essential, as it either offers opportunities or raises challenges for effective implementation of a sustainable mobility initiative. Introducing 'political context' as a category enables an exploration of how political realities in Malmö and Columbus impact the design, implementation and results of their particular sustainable mobility initiatives.

Starting with the stakeholders involved in the Malmö SUMP, the stakeholders can be divided into three categories according to the data collected. Firstly, there are the government authorities involved in the design, implementation and evaluation of mobility initiatives. These include the City of Malmö's Roads and Parks Department, the Regional Public Transport Agency (Skånetrafiken), the County Administrative Board (Länsstyrelsen), the Swedish Transport Administration (Trafikverket), neighboring cities and municipalities, the city's relevant political committees and the city council (City of Malmö 2016; European Commission 2014). Among the governmental stakeholders, the Smart Columbus project also included the city council and neighboring cities or municipalities, as well as the public agency for transport planning (MORPC) (City of Columbus 2021; Smart Columbus 2020). According to the Smart Columbus research lead, the project involved city, regional, and county government, all of which are in line with the stakeholders of the SUMP project (Interview 1). Columbus additionally involved Drive Ohio, an initiative of the state's Department of Transportation, aiming to

advance smart mobility in Ohio (City of Columbus 2021). When it comes to businesses and operators, Malmö engaged companies or private businesses, their employees and constructors (City of Malmö 2016). Smart Columbus equally involved businesses and their employees, but with a greater focus on these stakeholders (City of Columbus 2021). The Smart Columbus final report emphasized a strategic approach to engage stakeholders, particularly with the local private sector (City of Columbus 2021). This approach aimed to build on the established networks and outreach of these companies, to gain access to their employees and promote their participation in the initiative, such as facilitating the use of electric vehicles for commuting to work by improving electric vehicle infrastructure (City of Columbus 2021). The involvement of businesses as a whole has enabled the project to reach a significant number of people efficiently, rather than the time-consuming and often fruitless efforts of individual approach to residents on the street or other small scale events to promote the initiative (City of Columbus 2021). This methodology proved effective in encouraging broad participation in the Smart Columbus project. The final category of stakeholders, the community stakeholders in both cities, Malmö and Columbus, were residents, local (non-profit) organizations and the media (City of Malmö 2016; European Commission 2014; Interview 4; City of Columbus 2021; Smart Columbus 2020). Malmö additionally involved commuters and property owners, whereas Smart Columbus engaged with the Ohio State University (City of Malmö 2016; City of Columbus 2021). Next on, the analysis compares the ways in which the stakeholders were involved. Both cities carried out street work, dialogue with citizens and other cities and conducted citizen surveys before and after the project (Smart Columbus 2020; Interview 2; Interview 3). In the SUMP, Malmö set up an internet forum, introduced study tours, citizens' panels and breakfast meetings with businesses (European Commission 2014; Interview 2). Smart Columbus, on the other hand, conducted interviews, set up focus groups and high school projects and focused on building partnerships with businesses (City of Columbus 2021; Interview 3). They also introduced Smart Columbus Live, which are interactive educational presentations, and used workforce development, to recruit citizens to be hired as operators of autonomous electric vehicles as part of the project (Smart Columbus 2020; Interview 3). Finally, the goal of stakeholder engagement was analyzed using the data from the interviews and policy documents. Both cities agreed that involving stakeholders increases the efficiency and acceptance of the measures, while at the same time reducing the risk of opposition to the new policies and using the feedback to create custom-fit policies (European Commission 2014; City of Columbus 2021; Interview 1). Despite the concordances, each project has its own reasons for involving stakeholders. The Malmö SUMP aims at strengthening the cooperation with and between stakeholders, as well as developing new partnerships and networks with potential stakeholders (City of Malmö 2016). Furthermore, the involving of stakeholders served as a cost-saving measure, as it saved the cost of hiring external experts (European

Commission 2014). Moreover, this measure minimizes errors in the implementation phase, which reduces the cost of potential corrections or modifications of errors (European Commission 2014). Malmö additionally recognized the gap between urban planners and the actual citizens and aimed at increasing the public legitimacy through participation (City of Malmö 2016; Interview 2). Columbus on the other hand, aimed at gaining knowledge on user needs, generating trust through participation and increasing awareness for the issue (City of Columbus 2021; Interview 1). Smart Columbus engaged stakeholders to improve technology adoption through education and general involvement (City of Columbus 2021). If elderly, for example, are educated on how to call the autonomously driving public shuttle, they are much more likely to use the offer. Finally, by actively engaging stakeholders, Smart Columbus aimed at securing investment commitments for the project from both private and public institutions (City of Columbus 2021). Being involved forms a sense of shared responsibility and mutual benefit which promotes financial support for the initiative.

In the following section the 'political context' factor in both initiatives will be examined. The subsequent section will attempt to compare the influence of the political framework, that is, the structure of the political system in which the initiative is embedded and the balance of power between the governing political parties.

Firstly, political endorsement and recognition of the sustainable mobility initiatives played an important role in Malmö and Columbus. By implementing a successful sustainable urban mobility plan, Malmö won the 4th EU SUMP Award in 2016, demonstrating Malmö's commitment to sustainable mobility. In the case of Columbus, the city won the Smart City Challenge, a nationwide competition by the US Department of Transportation by developing the most innovative plan. This meant that the local decision-making bodies in both cities were already open to the issue. Nevertheless, the initiatives required political approval, which can be a contentious issue in a pluralistic democracy. The initiatives in both cities required a review and approval by the local city council (City of Malmö 2016 p. 9; City of Columbus 2021). The SUMP in Malmö also required approval by the political technical board and regular reporting to the relevant city departments and the political technical board (City of Columbus 2021). Moreover, the European Union's SUMP guidelines and the Malmö project's investigator point out that legislative backing and political support are essential for the success of the mobility initiative (European Commission 2014; Interview 2). In addition, the SUMP initiators acknowledge that political legitimacy is necessary to create accountability and to prevent legal action by a (political) party against the sustainable mobility initiative (European Commission 2014). According to the SUMP investigator and former urban planner of Malmö, the city's political committee supports the 2016 SUMP (Interview 2). The same is true for Smart Columbus, where the project's executive director confirmed that the mayor and the local

government support the project (Interview 3). Ultimately, the SUMP investigator pointed out that politicians in Malmö prioritized saving financial resources and delivering results to engaging stakeholders which can be costly and time-consuming (Interview 2).

Next on, the political parties' stance on the mobility initiatives played a crucial role, as both cities needed the approval of the respective city councils for the project. The Red-Green coalition in Malmö was the main driving force behind support for the implementation of the Sustainable Urban Mobility Plan (Interview 2). However, the Right-wing party and the Liberals, in opposition at the time, did not fully support the SUMP (Interview 2). This shows the importance of the political context, as the project could not have been implemented without the political approval. Nevertheless, Malmö's mobility investigator argued that political parties need to respond to citizens if they want to be re-elected, if the surveys show that residents attach importance to it, even if they are not fully in favor of it (Interview 2). This argues for a reduced influence of the political context. In the case of Columbus, the research lead pointed out that the Democrats are more dominant in the cities, while Republicans dominate in the rural areas (Interview 1). From the projects perspective, this is advantageous, as the project only needed approval of the city council, not the state government, and the Democrats, according to their 2016 manifesto, value a sustainable transformation of mobility (US Democratic Party 2016). Still, Ohio is republican governed and some state policies hinder the comprehensive introduction of sustainable mobility technologies (Interview 3). To give an example, Ohio is one of the states that does not financially incentivize the transition to zero emission electric vehicles, which make it more expensive and thereby less attractive for an Ohioan citizen to buy an electric car than for Coloradoan (Interview 3). The Smart Columbus executive director, even identifies an overall lack of "encouraging state policy" for more sustainable transport (Interview 3). She explained a specific policy that was not only obstructive but "regressive" (Interview 3). Ohio's transportation system is funded by taxes that consumers pay when they fill up at the gas station, but electric vehicles do not fill up, so they do not pay taxes (Interview 3). As a result, Ohio has introduced an annual registration fee for electric vehicle owners (Interview 3). This is a problem in itself, as some US states provide incentives for electric vehicles, and Ohio even charges an additional fee. In addition, hybrid car owners are now charged twice, the annual EV fee and the fee at the gas station, a duplicative tax (Interview 3).

Thirdly, the funding plays an essential role within the political context of both projects. This aspect brings up the major differences of the compared mobility initiatives. While Columbus received a \$40 million grant from the USDOT by winning the Smart City Challenge, the Malmö SUMP had to be funded within the regular budget of the city (City of Columbus 2021; City of Malmö 2016). This means that the city council has to approve any expenditure that exceeds the budget (City of Malmö 2016). As mentioned above, the City Council had to approve both

the project and its expenditure, which made the Malmö SUMP highly dependent on the local political parties' prioritization of sustainable transport and their decision in the City Council. Thus, the power balance of the various political parties has a major influence on the implementation of the SUMP, due to the necessity of funding. Columbus, on the other hand, was awarded with \$40 million from the USDOT and additionally received \$10 million grant from a foundation (City of Columbus 2021). In addition, the Smart Columbus project was focused on establishing private partnerships (City of Columbus 2021). The city acquired an additional \$185 million of their largest private donor to promote de-carbonization and electric grid projects, also aiming to continue mobility projects after the end of the USDOT grant (Namigadde 2019).

To conclude, the comparative analysis showed that while both cities adopted dedicated stakeholder engagement strategies, the specific characteristics of their approaches were influenced by their individual contexts, such as the political system in which the cities were embedded and the specific objectives that defined their framework for action. Malmö took a holistic approach to stakeholder engagement, involving all levels, from government authorities to private sector entities and the wider community. The city's inclusive approach fostered cooperation and gave the SUMP initiative greater public legitimacy while benefiting from cost and resource efficiency. Columbus, on the other hand, had a major focus on building strategic partnerships with the local private sector, which was not only facilitated broad outreach to employees, but also secured crucial essential investment for the project. According to the analysis, Columbus' engagement strategy was particularly focused on technology adoption and user needs. Trust was fostered and awareness of the project increased through the city's active engagement with stakeholders. Their introduction of innovative initiatives such as Smart Columbus Live and partnerships with educational institutions were effective in sharing knowledge and stimulating wider participation.

The main findings regarding the political context of the comparative analysis showed that political support and recognition played an important role in the two projects. In both Malmö and Columbus, the implementation of the sustainable mobility measures required the approval of the city councils, illustrating the importance of political support. In Malmö, the red-green coalition supported the project, while the Liberal and Right-wing opposition showed less political support. Given the need for political support, the political parties' position on sustainable mobility played an important role. However, the responsiveness of political parties to citizens' priorities was recognized in Malmö, as surveys showed their support for the initiative, which weakens the impact of the political context. In the case of Columbus, on the other hand, the Democratic Party's dominance in the city, with its recognition of sustainable mobility as an important issue to address, was beneficial to the project's goals. However, the

Republican administration at the state level in Ohio limited the scope for action, as it was faced with obstructive or even regressive transport policies. In Malmö, the funding aspect greatly influenced the importance of the political context factor, as the SUMP initiative had to be funded within the city's regular budget, making it highly dependent on the will of the city council. In contrast, Smart Columbus received substantial grants from the USDOT and private partnerships, which provided greater independence and flexibility within the political context.

7. DISCUSSION

The discussion section of this thesis seeks to contextualize the above analysis within the framework of the thesis research question and hypotheses.

Taking stakeholder engagement as a starting point, the analysis indicates that both cities adopted stakeholder engagement strategies, yet used different approaches. Malmö took a more holistic approach, aiming to improve collaboration, build partnerships and increase public legitimacy by conducting citizen panels or study tours. In contrast, Columbus placed their focus on strategic partnerships with the local private sector and additionally utilized interactive educational presentations to involve stakeholders. The interviews with all four experts confirmed that increased efficiency and acceptance of measures was a stated aim of the initiatives. The findings of the comparative analysis support hypothesis one, that stakeholder engagement creates higher public acceptance of sustainable urban mobility initiatives in Malmö and Columbus. Nevertheless, the analysis also identifies some challenges. Saving costs, minimizing implementation errors and bridging the gap between urban planners and citizens were the driving factors for Malmö to introduce stakeholder engagement in their project. This shows the importance of practical and financial considerations of the SUMP. Columbus focused on strategic partnerships with the private sector, thereby ensuring financial investments for their project as well as improving technology adoption. This demonstrates the important role of financial backing in stakeholder engagement. The analysis is consistent with expectations of the theory that stakeholder engagement can have a positive impact on the outcome of an initiative, but it also points to the necessity for a nuanced understanding of the underlying rationale behind stakeholder engagement. Given that both cities involved stakeholders to mitigate risk and secure financial support for both projects, hypothesis two can be accepted, that stakeholder involvement leads to more time and resource efficient initiatives.

The third hypothesis concerns the political context and its influence on the outcome of sustainable mobility initiatives. The analysis showed the importance of political support and recognition for the initiatives. In both cities, the city council supported the initiative, which was essential as the projects required political approval for the implementation. In addition, political legitimacy was essential in terms of accountability and preventing of legal action against the

initiative. Within the political context, however, a number of challenges were pointed out. In the Malmö City Council, the political consensus was not fully given, as some political parties in the opposition did not support the SUMP. Hereby, funding played a critical role, as Malmös SUMP had to be funded within the regular budget, requiring the approval of the city council. The analysis shows that political support is not necessarily unanimous, and highlights the necessity of addressing the political dynamics and respond to citizens' priorities. Columbus, on the other hand, was governed by the Democrats which was beneficial for the implementation of Smart Columbus. However, the Republican government on the state level had restrictive consequences for the project. Therefore, the third hypothesis can be approved. The political context significantly influences the outcome of sustainable urban mobility initiatives in Malmö and Columbus.

8. LIMITATIONS

This section will acknowledge the limitations of the study and critically reflect on potential weaknesses that might affect the results and generalizability of the research. Firstly, the comparison of only two cases, Malmö and Columbus, bears risks in terms of generalizability (Seawright and Gerring 2008). Additionally, the case study design cannot claim to provide representative results due to the small number of cases (Seawright and Gerring 2008). Regarding the selection of the cases, it can be criticized that the cities were located within fully different political environments, thus the comparison is not as robust, due to the very different starting points of both cities and projects. It should also be considered that semi-structured interviews leave room for potentially subjective responses, and that open-ended questions make it difficult to compare the responses of the interviewees (Alshenqeeti 2014). Lastly, it needs to be acknowledged that four interviewees is a relatively small number, which is due to limited access to experts, but still reduces the robustness and generalizability of the results.

9. CONCLUSION

This study aimed to investigate the impact of stakeholder engagement and political context on the outcome of sustainable urban mobility initiatives in Malmö, Sweden, and Columbus, USA. A number of key insights emerged from the comparative analysis.

Firstly, Malmö and Columbus recognized the importance of stakeholder involvement to increase the effectiveness and acceptance of their mobility initiatives. Malmö took a more holistic approach, involving a wide range of stakeholders from different political and societal levels. Columbus, on the other hand, focused on building partnerships with the local private sector to secure financial support and cooperation in the implementation process. Second, the political context was found to have a significant impact on the outcome of the initiatives. The

political support of the parties in the city council played a crucial role in both cities. However, this was even more important in Malmö, as the project required funding from the regular municipal budget, which had to be approved by the city council. This created a high level of dependency on the political context. Columbus received the main financial support from the USDOT grant and corporate sponsors, but still depended on the approval of the city council. Previous research has recognized the importance stakeholder engagement and political support. This study contributed to filling the knowledge gap by providing a comparative analysis of two initiatives in different socio-political landscapes. Thereby, the findings allow for a more nuanced understanding of the challenges and dynamics of sustainable urban mobility initiatives, providing valuable insights for policymakers and researchers. The research provides a comprehensive understanding of the complexities of mobility initiatives by analyzing real cases and identifying factors that facilitate or hinder the implementation. Future research could extend the comparative approach by including more cities that have implemented sustainable mobility initiatives. In addition, further studies could conduct longitudinal studies to analyze the process and long-term effects of such initiatives. Furthermore, a wider range of applied methods, such as quantitative approaches, would lead to increased generalizability and robustness.

The practical implications of this study highlight the necessity of involving stakeholders and political support in the design and implementation of sustainable mobility initiatives. Policymakers and those working in the municipal administration should prioritize establishing partnerships with local organizations and businesses, engage key stakeholders and ensure political support to increase the acceptance and efficiency of such projects. Government agencies, the local community and the private sector should collaborate to achieve widespread acceptance and successful outcomes.

10. PUBLICATION BIBLIOGRAPHY

acea (2022): Vehicles in use Europe 2022. Available online at https://www.acea.auto/files/ACEA-report-vehicles-in-use-europe-2022.pdf, checked on 5/30/2023.

Alshenqeeti, Hamza (2014): Interviewing as a Data Collection Method: A Critical Review. In *ELR* 3 (1). DOI: 10.5430/elr.v3n1p39.

Bartlett, Lesley; Vavrus, Frances (2017): Comparative Case Studies: An Innovative Approach. In *NJCIE* 1 (1). DOI: 10.7577/njcie.1929.

Båtstrand, Sondre (2015): More than Markets: A Comparative Study of Nine Conservative Parties on Climate Change. In *Politics and Policy* 43 (4), pp. 538–561. DOI: 10.1111/polp.12122.

Beck, Donizete; Storopoli, Jose (2021): Cities through the lens of Stakeholder Theory: A literature review. In *Cities* 118, p. 103377. DOI: 10.1016/j.cities.2021.103377.

Blatter, Joachim; Haverland, Markus (2012): Designing case studies. Explanatory approaches in small-N research. 1. publ. Basingstoke: Palgrave Macmillan (Research methods series). Available online at http://site.ebrary.com/lib/alltitles/docDetail.action?docID=10568393.

Bogner, Alexander; Littig, Beate; Menz, Wolfgang (2009): Introduction: Expert Interviews — An Introduction to a New Methodological Debate. In : Interviewing Experts: Palgrave Macmillan, London, pp. 1–13. Available online at https://link.springer.com/chapter/10.1057/9780230244276_1.

Carter, Neil (2013): Greening the mainstream: party politics and the environment. In *Environmental Politics* 22 (1), pp. 73–94. DOI: 10.1080/09644016.2013.755391.

City of Columbus (2008): Bicentennial Bikeways Plan. Available online at https://web.archive.org/web/20080703183434/http://www.altaprojects.net/columbus/Columbu sBMPFinalApril2008.pdf, checked on 5/21/2023.

City of Columbus (2016): Mayor City of Columbus Bio. Columbus.

City of Columbus (2021): Final Report for the Smart Columbus Demonstration Program. Edited by US Department of Transportation. Columbus. Available online at https://d2rfd3nxvhnf29.cloudfront.net/2021-06/SCC-J-Program-Final%20Report-Final-V2_0.pdf, updated on 6/11/2023.

City of Malmö (2013): Travel survey. Malmö. Available online at https://malmo.se/Fakta-ochstatistik/Facts-and-statistics-in-english/Travel-habits-of-residents.html, checked on 5/14/2023.

City of Malmö (2016): Sustainable Urban Mobility Plan. Creating a more accessible Malmö. Malmö.

Civitas Initiative (2006): Civitas Smile. Cleaner and better transport in cities. Edited by University of the West of England. Available online at

https://civitas.eu/sites/default/files/civitas20smile20project20description20-20poster.pdf, updated on 4/28/2023.

Civitas Initiative (2018): THE STATUS OF SUMPS IN EU MEMBER STATES. With assistance of Thomas Durlin. Edited by ICLEI - Local Governments for Sustainability European Secretariat, Freiburg, Germany. Freiburg. Available online at https://www.rupprecht-consult.eu/fileadmin/migratedRupprechtAssets/Documents/SUMPs-Up PROSPERITY-SUMP-Status-in-EU-Report.pdf, checked on 5/9/2023.

Dresing, Thorsten; Pehl, Thorsten (2018): Interview, Interview, Transkription & Analyse. Anleitungen und Regelsysteme für qualitativ Forschende. Marburg. Available online at https://www.audiotranskription.de/wp-content/uploads/2020/11/Praxisbuch_08_01_web.pdf, checked on 5/16/2023.

Eaton, Weston M.; Brasier, Kathryn J.; Burbach, Mark E.; Whitmer, Walt; Engle, Elyzabeth W.; Burnham, Morey et al. (2021): A Conceptual Framework for Social, Behavioral, and Environmental Change through Stakeholder Engagement in Water Resource Management. In *Society & Natural Resources* 34 (8), pp. 1111–1132. DOI: 10.1080/08941920.2021.1936717.

Eckersley, Robyn (1995): Liberal democracy and the rights of nature: The struggle for inclusion. In *Environmental Politics* 4 (4), pp. 169–198. DOI: 10.1080/09644019508414232.

European Commission (2009): Action Plan on Urban Mobility. Brussels. Available online at https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0490:FIN:EN:PDF, checked on 5/3/2023.

European Commission (2011): White Paper. Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system. Brussels. Available online at https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0144:FIN:en:PDF, updated on 5/13/2023.

European Commission (2013a): Urban Mobility Package. Together towards competitive and resource-efficient urban mobility. Brussels. Available online at https://eur-lex.europa.eu/resource.html?uri=cellar:82155e82-67ca-11e3-a7e4-01aa75ed71a1.0011.02/DOC_3&format=PDF, checked on 5/29/2023.

European Commission (2013b): Urban Mobility Package - Together towards competitive and resource-efficient urban mobility. Available online at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52013DC0913#document1, checked on 4/2/2023.

European Commission (2014): Guidelines: Developing and Implementing a Sustainable Urban Mobility Plan. With assistance of Frank Wefering, Siegfried Rupprecht, Sebastian Bührmann, Susanne Böhler-Baedeker. Brussels. Available online at http://capacitybuildingunhabitat.org/wp-content/uploads/workshops/2019-sustainabletransportation-in-asian-cities-for-a-greener-globe-and-better-life/Pre-course%20readings/A-1%20sump_guidelines_en.pdf, checked on 6/5/2023.

Flick, Uwe (2021): Qualitative Sozialforschung. Eine Einführung. 10. Auflage, Originalausgabe. Reinbek bei Hamburg: rowohlts enzyklopädie im Rowohlt Taschenbuch Verlag (Rororo Rowohlts Enzyklopädie, 55694).

Freeman, R. Edward (2010): Strategic Management. A stakeholder approach. Digital printing [der Ausg.] 1984. Cambridge: Cambridge Univ. Press.

Hox, Joop; Boeije, Hennie 2005: Data Collection, Primary vs. Secondary. In : Encyclopedia of Social Measurement, Volume 1, pp. 593–599.

Kersting, Norbert (2021): Participatory Democracy and Sustainability. Deliberative Democratic Innovation and Its Acceptance by Citizens and German Local Councilors. In *Sustainability* 13 (13), p. 7214. DOI: 10.3390/su13137214.

Lagrell, Ellen; Gil Solá, Ana (2021): Car Use of the Carless in Sweden: Everyday Life Conditions for Reducing Car Dependence. In *Sustainability* 13 (18), p. 10250. DOI: 10.3390/su131810250.

Lindenau, Miriam; Böhler-Baedeker, Susanne (2014): Citizen and Stakeholder Involvement: A Precondition for Sustainable Urban Mobility. In *Transportation Research Procedia* 4, pp. 347–360. DOI: 10.1016/j.trpro.2014.11.026.

Mayring, Philipp (2000): Qualitative Content Analysis. A companion to qualitative research. In *Forum: Qualitative Social Research* 1 (2), Article 20.

Namigadde, Adora (2019): Smart Columbus On A Mission: Invest In Technology People Aren't Using Yet. In *wosu public media*, 4/22/2019. Available online at https://news.wosu.org/news/2019-04-22/smart-columbus-on-a-mission-invest-in-technologypeople-arent-using-yet, checked on 5/29/2023.

NEUMAYER, ERIC (2002): Do Democracies Exhibit Stronger International Environmental Commitment? A Cross-country Analysis. In *Journal of Peace Research* 39 (2), pp. 139–164. DOI: 10.1177/0022343302039002001.

Newcomer, Kathryn E.; Hatry, Harry P.; Wholey, Joseph S. (Eds.) (2015): Handbook of Practical Program Evaluation. 4. Aufl. s.l.: Jossey-Bass (Essential Texts for Nonprofit and Public Leadership and Management Ser).

Pickering, Jonathan; Hickmann, Thomas; Bäckstrand, Karin; Kalfagianni, Agni; Bloomfield, Michael; Mert, Ayşem et al. (2022): Democratising sustainability transformations: Assessing the transformative potential of democratic practices in environmental governance. In *Earth System Governance* 11, p. 100131. DOI: 10.1016/j.esg.2021.100131.

Raj, E. Fantin Irudaya; Appadurai, M.; Darwin, S.; Rani, E. Francy Irudaya (2022): Internet of Things (IoT) for Sustainable Smart Cities. In Bharat Bhushan, Sudhir Kumar Sharma, Bhuvan Unhelkar, Muhammad Fazal Ijaz, Lamia Karim (Eds.): Internet of things. Frameworks for enabling and emerging technologies. First edition. Boca Raton, London, New York: CRC Press Taylor & Francis Group (Edge AI in future computing), pp. 163–188.

Sabatier, P.; Weible, Christopher (2019): The Advocacy Coalition Framework : Innovations and Clarifications. In : Theories of the Policy Process, Second Edition: Routledge, pp. 189–220. Available online at https://www.taylorfrancis.com/chapters/edit/10.4324/9780367274689-7/advocacy-coalition-framework-paul-sabatier-christopher-weible.

SABATIER, PAUL A. (1987): Knowledge, Policy-Oriented Learning, and Policy Change. In *Knowledge* 8 (4), pp. 649–692. DOI: 10.1177/0164025987008004005.

Scolobig, Anna; Lilliestam, Johan (2016): Comparing Approaches for the Integration of Stakeholder Perspectives in Environmental Decision Making. In *Resources* 5 (4), p. 37. DOI: 10.3390/resources5040037.

Seawright, Jason; Gerring, John (2008): Case Selection Techniques in Case Study Research. In *Political Research Quarterly* 61 (2), pp. 294–308. DOI: 10.1177/1065912907313077.

Segal, Daniel L.; Coolidge, Frederick L.; O'Riley, Alisa; Heinz, Benjamin A. (2006): Structured and Semistructured Interviews. In : Clinician's Handbook of Adult Behavioral Assessment: Elsevier, pp. 121–144.

Sloan, Pamela (2009): Redefining stakeholder engagement: From control to collaboration. In *The Journal of Corporate Citizenship* 36, pp. 25–40. Available online at https://www.jstor.org/stable/pdf/jcorpciti.36.25.pdf.

Smart Columbus (2020): ACCELERATION PARTNER Acceleration Partner Program. Impact Report. With assistance of Alex Slaymaker, Donna Marbury. City of Columbus. Columbus. Available online at https://d2rfd3nxvhnf29.cloudfront.net/2020-

05/Acceleration%20Partner%20Program%20Final%20Report%20_compressed.pdf, checked on 6/1/2023.

State of Ohio Government (2019): Official Elections Results.

Svenska Dagbladet (2013): Ms Stjernfeldt Jammeh replaces Mr Reepalu. In *Svenska Dagbladet*, 3/23/2013. Available online at https://www.svd.se/a/965fd675-8137-3d3b-9862e7dbe1cd53cc/stjernfeldt-jammeh-ersatter-reepalu, checked on 5/10/2023.

Swedish Election Authority (2012): Skane County Election 2012.

The Guardian (2016): Sweden and Denmark crack down on refugees at borders. In *The Guardian*, 1/4/2016. Available online at

https://www.theguardian.com/world/2016/jan/03/sweden-to-impose-id-checks-on-travellers-from-denmark, checked on 6/2/2023.

U.S. Department of Transportation (2015): Draft Beyond Traffic Framework. Available online at

https://www.transportation.gov/sites/dot.gov/files/docs/Draft_Beyond_Traffic_Framework.pdf, checked on 5/16/2023.

U.S. Department of Transportation (2016a): Beyond Traffic: The SMart City Challenge. Available online at https://www.its.dot.gov/factsheets/pdf/SmartCities.pdf, checked on 4/2/2023.

U.S. Department of Transportation (2016b): U.S. Department of Transportation Announces Columbus as Winner of Unprecedented \$40 Million Smart City Challenge. Washington. Available online at https://www.transportation.gov/briefing-room/us-department-transportation-announces-columbus-winner-unprecedented-40-million-smart, checked on 5/1/2023.

US Democratic Party (2016): 2016 Democratic Party Platform (Manifesto). Edited by University of California, Santa Barbara. Available online at https://www.presidency.ucsb.edu/documents/2016-democratic-party-platform, checked on 5/20/2023.

US Federal Election Commission (2016): Election of Senate and House of Representatives.

US Republican Party (2016): Republican Platform 2016. Edited by New York Times. Available online at https://int.nyt.com/data/documenthelper/7019-republican-platform/cc2c15a0e1b432d6964b/optimized/full.pdf, checked on 5/20/2023.

Vanderbilt University (2019): Governing - The States and Localities. Vehicle Ownership in U.S. Cities Data. Nashville. Available online at https://my.vanderbilt.edu/greencities/files/2019/10/Vehicle-Ownership-in-U.S-2016.pdf,

checked on 6/2/2023.

Vogt, Stefanie; Werner, Melanie (2014): Forschen mit Leitfadeninterviews und qualitativer Inhaltsanalyse.

Weese, Evan (2014): CoGo expansion may take bikes toward OSU, Franklinton and Bexley. In *Columbus Business First*, 12/8/2014. Available online at https://www.bizjournals.com/columbus/blog/2014/12/cogo-expansion-may-take-bikes-towardosu.html, checked on 5/13/2023.

Weible, Christopher; Sabatier, P.; Jenkins-Smith; Nohrstedt; deLeon (2011): A Quarter Century of the Advocacy Coalition Framework: An Introduction to the Special Issue. In *Policy Studies Journal* 39 (3), pp. 349–360. DOI: 10.1111/j.1541-0072.2011.00412.x.