Internship Report

CYKELVÆKSTHUSET

Researching transportation Patterns Among Greve Municipality Employees

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1. Introduction

I have had the exciting opportunity to complete my internship at Cyklistforbundet, in the second semester of my master study in Nordic Urban Planning Studies. My work has primarily been associated with Cykelvæksthuset, a department dedicated to advising companies on promoting cycling as a sustainable mode of transportation.

My internship has taken place at Cyklistforbundet's office, where I have had the opportunity to become involved in the organization's activities and objectives. As part of my responsibilities, I have had the pleasure of certifying companies as bicycle-friendly workplaces. Additionally, I have conducted transport habit surveys and analyzed the results to present them in a way that helps companies improve their bicycle-friendly initiatives.

In this report, I delve into a specific task we were given, which was to conduct a transport habit survey for employees of Greve Municipality. This task allowed me to apply my skills and knowledge in urban planning in a practical context and examine the transportation habits of Greve Municipality's employees to identify areas where cycling can be promoted as a sustainable mode of transportation.

In addition to certification and the transport habit survey, I have also been involved in planning and executing various events, including the Cycling Conference at Christiansborg and the semi-annual meeting of the Municipal Cycling Advisory Board. These tasks have provided me with valuable insights into event planning and execution to promote cycling and sustainable transportation. I have also had the opportunity to contribute to other tasks within the organization, including the planning of Cyklistforbundet's major campaign "Vi Cykler Til Arbejde" This has expanded my understanding of how an organization like Cyklistforbundet works across various projects and initiatives to promote cycling as an essential element of modern urban infrastructure.

My internship has been an enriching and educational experience, and I look forward to sharing my experiences and results in this report. I hope that this will contribute to a better understanding of how we can create more bicycle-friendly communities and make it more attractive to choose sustainable transportation.

Problem area

There are significant societal benefits to be reaped from more Danes choosing the bicycle as their daily mode of transportation and utilizing bicycles for business tasks. If a much larger number of trips are taken by bicycle instead of by car, it will bolster public health, reduce congestion in and around major cities, and, most importantly, contribute to meeting environmental and climate policy ambitions for a green transition (Cykelvæksthuset, n.d.).

Changing habits doesn't happen automatically, and it can be challenging to find the energy to test and incorporate new transportation routines. Concurrently, workplaces provide the framework for a substantial portion of daily transportation - both in terms of employees' commuting to and from work and businesses' commercial transportation of individuals and goods from one location to another (*Ibid.*). Therefore, workplaces are a pivotal actor in the effort towards greener and more sustainable transportation – not to mention the potential for reduced sick days, increased well-being, and productivity among employees.

Cykelvæksthuset (translates to The Bicycle Growth Hub) is an advisory center under Cyklistforbundet (translates to The Cyclist Federation), designed to inspire and support both private and public businesses across the country in promoting the use of bicycles. Cykelvæksthuset is funded through a government grant spanning four years from 2020 to 2023 in connection with a political agreement on the improvement of public transportation (Cykelvæksthuset, n.d.).

Cyklistforbundet works towards ensuring that everyone can cycle safely and securely (Cyklistforbundet n.d.). They strive to make cycling the obvious and safe choice for everyday transportation, and to create a healthier and more sustainable world with the bicycle as a catalyst (*Ibid.*). Through their campaigns and initiatives, the Cyclist Association encourages both children and adults to get on their bikes. They support others, such as municipalities and businesses, in promoting everyday cycling. They also engage in political advocacy to improve and make cycling conditions safer.

Cykelvæksthuset offers individual counseling, inspiration, and collaboration to a number of companies each year - completely free of charge. Based on the company's needs,

Cykelvæksthuset supports making it easy and attractive for employees to choose the bicycle

for their commute to and from work - and assists the company in determining whether cargo

bikes or regular bicycles can play a (larger) role in their task execution (Cykelvæksthuset

n.d.). Cykelvæksthuset structures all counseling based on a non-binding inspirational

conversation and with a focus on the company's specific framework, needs, and potentials.

The following elements, for example, can be included in a counseling process:

• Transportation habit survey

• Counseling on physical facilities

• Certification as a Bike-Friendly Workplace

• "We Cycle to Work" mini-campaign

• Electric bicycle lending

• Counseling on communication and integration within the organization

• Counseling on the selection of solutions and providers

The bicycle has the potential to address key societal challenges

Globally, cycling supports 11 out of the UN's 17 Sustainable Development Goals, according

to the European Cyclists' Federation. On March 16, 2022, the UN General Assembly

unanimously passed a resolution endorsing cycling as a tool to combat climate change.

Member states are encouraged to promote cycling across public, private, and academic

sectors in alignment with the UN's sustainability goals for 2030. In Denmark, cycling

particularly contributes to the following Sustainable Development Goals:

No3: Ensure healthy lives and promote well-being for all at all ages

No9: Build resilient infrastructure, promote inclusive and sustainable industrialization, and

foster innovation

No11: Make cities and human settlements inclusive, safe, resilient, and sustainable

No12: Ensure sustainable consumption and production patterns

No13: Take urgent action to combat climate change and its impacts

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No17: Strengthen the global partnership for sustainable development and mobilize resources to achieve the goals

Transport habits reveal that approximately 63% or around 2/3 of all trips in Denmark are less than 20 kilometers, as per the DTU's Transport Habit Survey. Regular bicycles are suitable for these shorter trips, and e-bikes offer an option for longer journeys.

Joint Declaration at the 2022 Cycling Summit

In light of the Cykling Summit on June 30, 2022, hosted by Denmark during the Tour de France and the declaration of 2022 as the Year of the Bicycle, 34 public and private organizations (incl. Cyklistforbundet) have united to promote cycling in Denmark (RegionH, 2022).

While cycling is ingrained in Danish culture, there has been a decline in cycling since 2014, with almost a 20% drop in total kilometers cycled and a 20% decrease in the share of cycling in all journeys from 2014 to 2019¹ (*Ibid.*). This declaration aims to reverse this trend. The declaration includes a shared commitment to boost cycling and concrete recommendations from five working groups at the 2022 Cycling Summit, contributing to a new national cycling strategy for the Year of the Bicycle (*Ibid.*).

The goal is to increase cycling in Denmark, aligning with the Danish Climate Act, reducing greenhouse gas emissions by 70% in 2030 compared to 1990 (Region H). The Minister of Transport will negotiate ambitious goals for increased cycling. Cycling can address societal challenges such as congestion, safety, pollution, and health issues. It can boost tourism, revitalize urban centers, and improve overall well-being (*Ibid.*).

The signatory parties recognize the importance of promoting cycling and acknowledge that it is a collective responsibility, requiring strengthened cooperation at all levels (*Ibid.*).

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¹ The data from 2019 was used in this report as data from 2020 and 2021 may not be representative due to the impact of COVID-19. Furthermore, the figures from these later years are significantly lower.

Case Study: Survey on Cycling in Greve

Greve Municipality has reached out to the Bike Growth Center to seek expertise and guidance on promoting cycling among their employees and gaining insights into their transportation habits. As a result of this collaboration, the Bike Growth Center and Greve Municipality have decided to conduct a comprehensive transportation habit survey. The goal of this survey is to provide Greve Municipality with insights into their employees' transportation habits, including distances, motivation, and any barriers to cycling. Furthermore, the survey will shed light on the CO2 emissions associated with employee transportation and collect specific input and desires from employees on how to make choosing the bicycle as the primary means of transportation to work more attractive.

Greve Municipality encompasses a variety of different workplaces, but they have chosen to target the survey at employees working at locations such as Rådhuset (Town Hall), Mølle plejecenter (Nursing Home), Holmeagerskolen (School), Strandcentret Plejecenter (Nursing Home), Tune Hjemmepleje (Home Care), Karlslunde skole (School), Skattekisten (Daycare), and other similar workplaces.

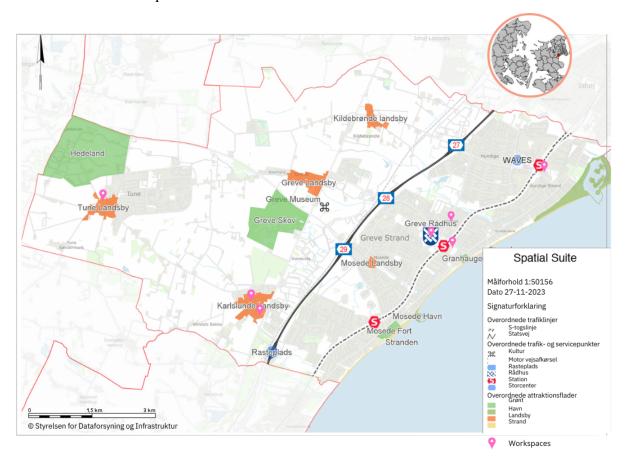


Figure 1: Map of Greve Municipality (Styrelsen for Dataforsyning og Infrastruktur) Edith by Author.

All the workplaces are situated within the borders of Greve Municipality. Greve is a city located in Storkøbenhavn, adjacent to Køge Bay. The city is well-connected to the rest of the country through various pathways, including pedestrian/bike pathways, roads, a highway, bus lines, and an S-train connection. The train stops at three stations within the municipality's boundaries, making it even more convenient.

Problem formulation

How can Greve Municipality employers effectively promote cycling as a mode of transportation and make it an attractive choice for their employees, considering their everyday mobility patterns and habits?

This will be examined by utilizing a questionnaire to analyze their current transportation habits, identify any barriers to cycling, and pinpoint potential incentives and advantages of choosing the bicycle as a means of transportation. The results of this study will provide insights into how best to promote cycling as a sustainable mode of transportation among Greve Municipality's employees

Theory

This section explores strategies to promote cycling as an attractive means of transportation among employees in Greve, drawing on theoretical concepts from Malene Freudendal-Pedersen's "Making Mobilities Matter" (2022) and Vincent Kaufmann's mobility framework. I investigate how everyday mobilities and emotional aspects of life influence transportation habits, analyzing structural narratives that shape mode choices. Additionally, I present strategies based on an analysis from Operate focusing on behavior change stages to enhance cycling popularity.

Mobilities

In my pursuit to understand how Greve's employers can effectively encourage cycling among their employees, I delve into the realm of everyday mobilities, drawing insights from Malene Freudendal-Pedersen's exploration in "Making Mobilities Matter" (2022). Freudendal-Pedersen sheds light on the prevailing autologic of private cars in contemporary civil society, a notion echoed by sociologist John Urry, suggesting that many societies can be viewed through the lens of 'car-drivers' and 'car-passengers' (Freudendal-Pedersen, 2022: 11). The dominance of automobility, coupled with the challenges of climate change, has given rise to a "mobile risk society," as articulated by sustainable mobility professor Sven Kesselring (*Ibid.*). Individuals now navigate ambivalences and grapple with making choices that align with a desirable life while addressing the complexities posed by modern institutions (*Ibid.*).

The heart of the matter lies in recognizing the significance of understanding everyday mobilities as a precursor to fostering sustainable forms of mobility (*Ibid*.. While Freudendal-Pedersen's focus is primarily empirical, examining physical mobilities involving cars, trains, and bicycles, the link between everyday mobilities and policy and planning cannot be overlooked (*Ibid*.).

Enter Vincent Kaufmann's framework of mobility conditions, a theoretical approach that holds promise for our exploration. Kaufmann's concepts of access, competence, and

appropriation provide a nuanced lens to evaluate how Greve's employers can successfully promote cycling.

Access: To entice employees to choose cycling, there must be accessible and well-designed cycling infrastructure in Greve, including bike paths, financial support for bike acquisition, and convenient bike parking at workplaces (Kaufmann et al. 2004: 750). Competence: Fostering cycling competence involves not just the physical aspects but also imparting knowledge on safe cycling and organizational skills for planning trips. Employers can consider offering cycling training, safety information, and incentives for skill enhancement (*Ibid.*). Appropriation: Understanding employees' attitudes and needs is vital. Employers can facilitate cycling by engaging in dialogue and adapting incentives and facilities to align with individual habits, values, and needs (*Ibid.*). Kaufmann's framework reminds us that these elements are deeply rooted in broader societal contexts. To truly make cycling an attractive mobility choice, strategies should not only address access and competence but also respect the unique appropriation of cycling within the broader socio-cultural, economic, and political landscape.

Structural stories

The concept of structural stories, as presented in the book Mobilies Matter, refers to narratives developed in projects that explore everyday practices related to cars and public transportation. Developed by Freudendal-Pedersen, these structural stories serve as illustrations of the rationalizations people construct to explain their practices. They take the form of stories that are presented as universal truths, such as the example: "When one has kids, one needs a car." While some structural stories are specific to certain contexts, others, like the association between kids and cars, are relatively universal (Freudendal-Pedersen, 2022: 27).

The text emphasizes how narratives, or structural stories, contribute to the dominance of certain transportation modes in policy and planning. In the context of Greve, where the objective is to encourage cycling, understanding and addressing the prevailing structural stories related to transportation choices becomes crucial.

For example, if there exists a structural story that having a car is essential for certain aspects of daily life, such as the mentioned narrative "When one has kids, one needs a car," it may influence the transportation choices of employees in Greve. To effectively promote cycling, employers may need to challenge or reshape these narratives and offer alternative perspectives that align with the goal of making cycling an attractive choice.

Similarly, the narrative that "one gets more freedom when one has a car" may impact the perceived benefits associated with car usage (*Ibid.*). To encourage cycling, efforts could be directed towards debunking or reshaping this narrative by highlighting the benefits of cycling, such as health, environmental sustainability, and cost savings.

Understanding the structural stories prevalent in the community, particularly those related to transportation, can guide employers in developing strategies that resonate with the everyday mobility patterns and habits of employees. By actively engaging with and reshaping these narratives, employers in Greve can contribute to making cycling a more appealing and accepted mode of transportation among their workforce.

Transport Habits, and Changes

The year 2022 in Denmark is designated as the "Bicycle Year" with the goal of encouraging more people to embrace cycling. To achieve this, Operate has conducted an analysis that centers on the question: How can the Danish Road Directorate employ behavioral strategies and messages in their campaigns throughout 2022 to boost cycling in the country (Vejdirektoratet, 2021)? It's important to note that this analysis is intended for the development of these campaigns and does not delve into factors such as infrastructure or legal aspects, as they fall outside the scope of this study.

Operate has suggested categorizing behavior change into three distinct stages. The first stage aims to entice individuals who don't typically cycle to give it a try as an alternative means of transport (Vejdirektoratet, 2021: 5). This initial step involves gaining practical experience and overcoming the hesitation of change. The second stage focuses on those who have begun to experiment with cycling, encouraging them to increase their level of cycling (*Ibid.*). This phase is marked by gradually incorporating cycling into their daily routines. The third stage

aims at individuals who already cycle regularly and seeks to establish cycling as their natural, preferred mode of transportation(*Ibid.*). This is where the potential for a significant increase in the overall number of bicycle trips lies.

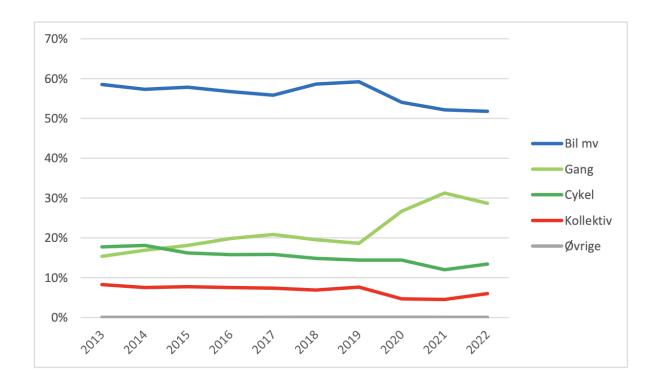


Figure 2: Time series, share of trips by mode of transportation chains (Transportvaneundersøgelsens årsrapport for Danmark 2022)

Translation: Blue = Car

Light Green = Walk

Green = Bike

Red = Public Transportation

Grey = Other.

Data from the DTU Transport Habit Survey of 2022 provides clear evidence of the dominance of car usage in Denmark.

Data from the 2022 DTU Transport Habit Survey reveals that cars account for almost 52% of all trips. Cycling accounts for less than 14% of all trips. The share of cycling has been on the decline for the past decade.

Data from 2020 reveals that Cycling is found to be more prevalent for medium-distance journeys. For trips under 2 km, walking is the preferred mode for 4 out of 5 journeys. Beyond 10 km, cars become the primary choice for half of the trips (Vejdirektoratet, 2021: 10). The 2-8 km range witnesses approximately 25% of trips being made by bike, demonstrating cycling's effectiveness as a replacement for both walking and car travel (*Ibid.*).

The prevalence of car usage increases with age. Over a quarter of trips are made by bicycle for children and young individuals up to the age of 17 (*Ibid.*). This figure drops to 12% for individuals aged 31-50, indicating that cycling tends to decrease with age. A slight increase in cycling is observed among those aged 51-65, suggesting that life changes may rekindle the interest in cycling (*Ibid.*).

The analysis offers valuable insights from export interviews into five strategies:

Transport Habits Are Deeply Ingrained: Once people integrate a mode of transport into their daily routines, it becomes a significant part of their lives. This presents a considerable barrier to behavioral change, as individuals often provide reasons to defend their existing choices, which may actually conceal a resistance to change (Vejdirektoratet, 2021: 11).

Both Commuting and Leisure Can Drive Change: Campaigns can focus on both commuting and leisure transportation to influence adults. The potential for behavioral change exists in both scenarios, but different strategies and tools are necessary for each. The analysis highlights the prevalence of short errands and leisure trips by car, which presents a significant opportunity to increase the number of cycling trips and yield benefits like improved health (*Ibid.*).

Comprehensive Efforts Are Effective: Achieving behavioral change requires a comprehensive, sustained approach. Several municipalities, such as Odense and Aarhus, have demonstrated that substantial shifts in transport behavior result from a series of connected efforts over an extended period. There are no quick fixes, making it essential to concentrate on the achievements possible within a single campaign's framework, focusing on behavior, involving stakeholders, and identifying synergies (*Ibid.*).

Cycling is More Than Transportation: There is a substantial potential in promoting cycling beyond its practical use for transportation. This includes recognizing its value for leisure trips

and the broader benefits it brings, such as improved health, mental well-being, and physical activity, regardless of the reason for cycling (*Ibid.*).

Experiences Drive Behavioral Change: The most effective way to influence behavioral change is by encouraging people to try cycling and gain personal experiences. These experiences evoke emotions and create lasting memories. There is no one-size-fits-all approach, and campaigns should allow room for experimentation. E-bikes are considered to have the potential to provide new experiences that challenge preconceived notions about cycling (*Ibid.*).

A project from the National Cycling Promotion Knowledge Center, published in 2023, presents detailed geographic information about the transportation and cycling behavior of the Danish population, including distances to workplaces and other destinations. The project utilizes data from the research project 'Denmark in Motion' and incorporates a GIS map for easy access to the information. The purpose is to assist municipalities and other stakeholders in cycling promotion in maximizing the utilization of this knowledge (Det Nationale Videnscenter for Cykelfremme and Syddansk Universitet, 2023).

The project serves as a valuable tool for mapping effective cycling promotion initiatives in specific areas, with the GIS map allowing for a detailed analysis of transportation habits and barriers to cycling. The obtained insights into citizens' distances to work and their motivations for transportation choices enhance municipalities' ability to prioritize areas for improving cycling conditions (*Ibid.*).

The project is particularly relevant for assessing the potential for increased cycling to and from work or education. The assumption is that an individual has a significant potential to cycle more if they live within 5 km of their workplace or education (*Ibid.*). Even if the distance is 5-15 km, there is still assumed to be potential, which increases with the prevalence of electric bicycles (*Ibid.*).

I will also leverage this assumption in my investigation into how employees of Greve Municipality can promote cycling to and from work.

In summary, in this theory section, I have explored fundamental concepts within mobility, including Malene Freudendal-Pedersen's considerations on everyday mobilities and Vincent Kaufmann's framework for mobility conditions. I have delved into structural narratives and emotional aspects of daily life that influence transportation habits, presenting strategies from Operate to support our overarching goal of making cycling an attractive mode of transportation in Greve.

This synthesis of theoretical insights and practical approaches underscores the importance of understanding both societal structures and individual emotional connections in efforts to promote sustainable mobility choices. By acknowledging the complexity of structural narratives and incorporating strategies that appeal to both the realities of everyday life and emotional dimensions, employers in Greve can contribute to creating a transport culture where cycling thrives as an essential and desirable element in employees' daily lives. Thus, the theory section lays the foundation for the ongoing analysis and exploration of how these concepts can be practically implemented to promote bikes in Greve.

Method

In this section, I will introduce the approach I have employed in this report.

Handling Data

The foundation for my empirical data collection is a transport habit survey sent to the employees of Greve Municipality. The questionnaire was developed by Cyklistforbundet and features a structured format with standardized questions that are consistently included in surveys of this nature. Cyklistforbundet also customizes the questionnaire in collaboration with partner organizations to include any additional questions relevant to the specific employees' transportation habits. The survey is digital and will be distributed to employees through their work email. The questionnaire is administered using a program called Enelyzer, ensuring that responses remain anonymous.

The transport habit survey primarily consists of multiple-choice questions and also includes various open-ended questions, allowing respondents to provide elaborative responses. For most of the multiple-choice questions, there is also an 'other' option that opens a text box, enabling respondents to specify or further elucidate their answers. This survey follows a quantitative and qualitative approach, aiming to gather statistical data for a more comprehensive analysis.

Thematic-Centered Methodological Approach to Transport Habit Survey in Greve Municipality

My methodological approach to the transport habit survey among employees in Greve Municipality follows a thematic analysis where I systematically identify, analyze, and organize patterns within the collected responses (Thagaard 2017: 159). By focusing on recurring themes and patterns in the data, I aim to derive valuable insights. Each participant's response is carefully reviewed and coded according to its thematic relevance, allowing for the emergence of key categories (Ibid.). This approach not only facilitates a deeper understanding of the underlying transport habits but also provides a structured foundation for subsequent analysis.

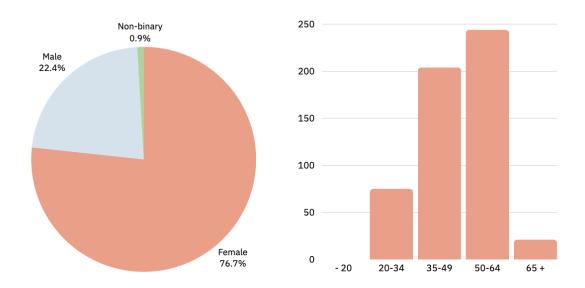
However, it is essential to maintain a holistic perspective. When comparing responses from different employees, I will be mindful that these responses are detached from their original context (Ibid.). Therefore, I will ensure that information about transport habits is placed back into the context in which it was collected to preserve the integrity of the derived insights and accurately reflect the broader narrative of transport habits in Greve Municipality.

Demographic

In the following section, I will present overarching findings derived from the questionnaire. This encompasses an analysis of demographic aspects such as gender distribution, age distribution, workplace conditions, distance to the workplace, and prevailing transportation

habits. The aim is to initiate a deeper understanding of the respondents' profiles and the overarching patterns evident in the questionnaire data.

Gender, age and workspace:



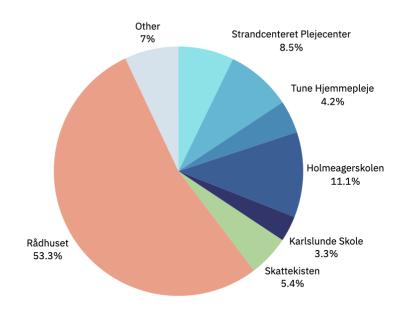


Figure 3: Gender, age and workplace (Appendix 3).

The gender distribution based on 416 observations indicates that respondents are distributed as 75.5% female, 23.8% male, and 0.7% non-binary (defined as individuals who do not

identify exclusively as either male or female). This distribution reflects an overrepresentation of women. When presenting these results to our contacts in Greve Municipality, it was noted that while there is a clear majority of women, they perceive the distribution as being about 30%-70%.

The age distribution reveals a mature staff, with 45.5% of employees falling within the 50-64 age range. This aspect was acknowledged by our contacts.

Regarding the distribution of primary workplaces, our contacts in Greve Municipality assessed it as reflective of a representative distribution. However, they expressed a desire for more responses from employees in the two schools.

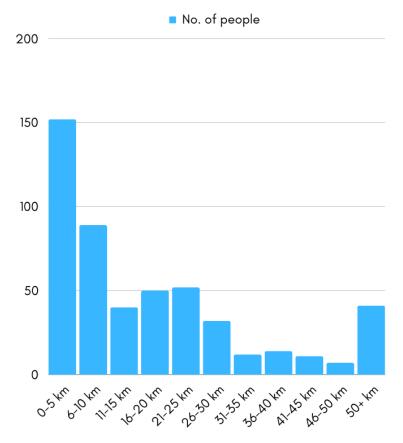


Figure 4: Amount of kilometers to work (Appendix 2).

The average distance that employees travel to work is 18 km. This is close to both the national average of 22 km and the local average in Greve of 24 km. The analysis of the distribution of distances, as illustrated in the graph, reveals a significant variation with a spread of 113 km, exhibiting a right-skewed tendency.

Transport Habits:

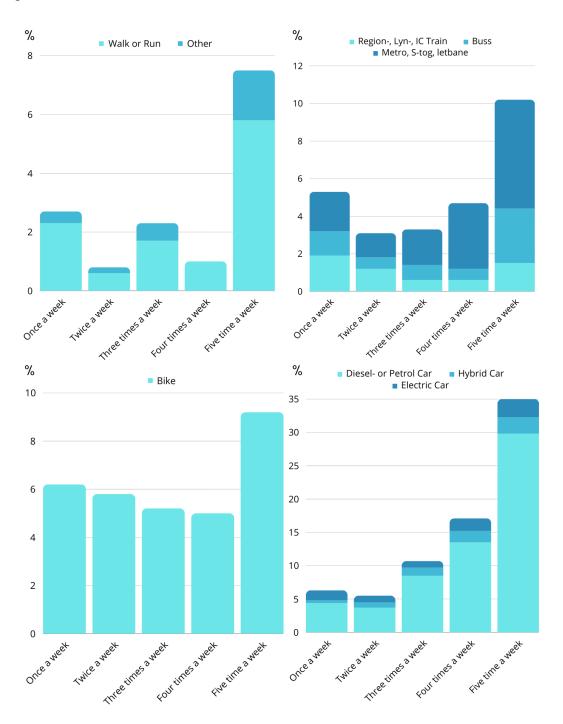


Figure 5: Transport Habits (Appendix 4)

The above bar charts depict respondents employed by Greve Municipality and their Transport habits, segmented by the number of days they typically use each mode of transportation over the past 3 months (August, September, and October 2023). The graphs reveal a prevalence of car usage, with 60% of respondents regularly commuting to work by car. Additionally, the data indicates that two-thirds of employees never use a bicycle for commuting to and from work.

Analysis

In this section, based on the theoretical framework, I will conduct an analysis of some of the various statements provided by the employees of Greve Municipality in the questionnaire.

The information from the National Cycling Promotion Knowledge Center underscores the importance of assessing the potential for increased cycling to and from work or education. The project is based on the assumption that an individual has significant potential to increase cycling, especially if they reside within 5 km of their workplace or educational institution. Even when the distance extends between 5-15 km, there is still perceived potential, particularly in light of the widespread use of electric bicycles.

Results from the survey indicate that 30% of employees have a distance under 5 km to work, while 28% have a distance between 6-15 km. This suggests that a significant proportion of employees fall within the range where there could be potential for increased cycling. This constitutes a relevant target audience for initiatives aimed at promoting cycling, especially for those with shorter distances.

0-5 km 30.4% 43.8%

Figure 6: Employees distance to work (Appendix 2)

Additionally, it is noteworthy that the results indicate there is already a relatively

high percentage of employees with shorter distances. This further underscores the potential for increasing cycling among this group and potentially motivating those who already have short distances to use bicycles even more, especially if facilities such as electric bicycles are introduced.

6-15 km

25.8%

Why employees choose not to cycle to work

The graph below presents different statements from the questionnaire regarding the reasons why employees choose not to cycle to work.

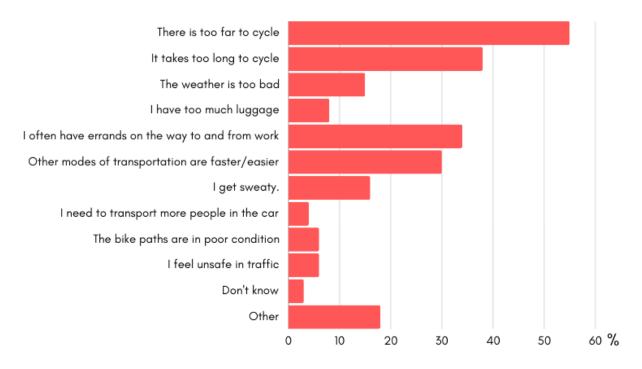


Figure 7: Why employees choose not to cycle to work (Appendix 5)

The statements "It is too far to cycle" and "It takes too long to cycle", which are the most frequent responses, align with the structural narrative asserting that cars are necessary in certain aspects of daily life. If employers in Greve Municipality wish to challenge this narrative, it may be appropriate to highlight the benefits of cycling, not only as a means of transportation but also as a healthy and environmentally friendly activity.

When employees indicate that it takes too long to cycle or that the distance is too long, the solution requires more than just improvements to physical infrastructure. Employees experience a limitation in their access to cycling, as time consumption and distance pose barriers.

The statement "the weather is too bad" implies that unfavorable weather might discourage people from cycling. Malene Freudendal-Pedersen's study on everyday mobilities underscores the importance of grasping the factors influencing transportation choices.

Weather conditions can significantly shape how individuals move around. If employees see bad weather as a barrier to cycling, it aligns with the challenges individuals face in navigating uncertainties and making choices that match their desired lifestyle.

Structural stories, as discussed in the theory, are narratives people create to explain their practices. If there's a common belief that bad weather makes cycling impractical, employers should address and reshape this narrative. Strategies could involve sharing stories of individuals successfully cycling in different weather conditions, highlighting the benefits even in bad weather, and challenging the idea that weather should deter cycling.

Kaufmann's framework on mobility conditions underscores the importance of access, competence, and appropriation in promoting cycling. Regarding weather, providing accessible and well-designed cycling infrastructure (such as shelters and covered bike parking) can alleviate concerns related to bad weather. Efforts to build competence may include offering information on safe cycling in various weather conditions and promoting the use of appropriate gear (such as rain gear). Appropriation involves understanding employees' attitudes, and if bad weather is a significant concern, employers can customize incentives and facilities to address this.

The theoretical insights suggest that weather conditions can indeed significantly influence cycling habits. Employers in Greve can leverage this understanding to develop specific strategies and initiatives that tackle employees' worries about bad weather, making cycling a more feasible and appealing mode of transportation, regardless of external conditions.

The structural story that "I often have errands on the way to or from work" seems to play a significant role in shaping transportation choices. The prevalence of errands may contribute to the preference for using cars, perceived as more convenient for multiple stops. In Greve, employers have an opportunity to challenge this narrative to encourage more cycling among their employees. They can emphasize the advantages of cycling for short errands, highlighting the time efficiency and convenience, especially in densely populated urban areas with limited parking spaces.

To address this challenge, it becomes crucial for employers to actively promote cycling for errands. Encouraging employees to try cycling for short trips can be a game-changer. This approach aligns with the understanding that personal experiences play a vital role in shaping

behavior. Employers can introduce initiatives that allow employees to experiment with cycling for errands, providing positive experiences that challenge existing perceptions and promote a shift towards sustainable transportation choices.

The statement "I get sweaty" has been emphasized by a portion of employees in Greve Municipality as a crucial factor in their decision not to choose the bicycle as a means of transportation to and from work. The existing structural narrative associating cycling with physical exertion and perspiration has the potential to influence employees' perception of cycling as a viable transportation option. In this context, employers should consider challenging this established narrative by highlighting the positive aspects of cycling, including the benefits of fresh air, improved health, and environmental benefits.

Concerns about perspiration can directly impact the accessibility of bicycle transportation for employees. To make cycling more attractive, it may be necessary to implement facilities such as attractive changing rooms and showers in the workplace. Additionally, employers can address concerns about perspiration by providing relevant information on cycling without experiencing excessive sweating. This may include guidance on attire, route selection, and the use of appropriate cycling techniques.

In light of these concerns, the integration of e-bikes can also be considered as a potential solution. E-bikes, highlighted as a source of new and less strenuous cycling experiences, can be introduced or supported by employers. This initiative has the potential to alleviate concerns about perspiration, as e-bikes offer a less physically demanding cycling experience. In summary, by exploring these strategies, employers in Greve Municipality can contribute to changing the perception of cycling as a mode of transportation while addressing the specific challenges associated with concerns about perspiration.

Statement "The bike paths are in poor condition" can be related to Kaufmann's concept of access. If the bike paths are in poor condition, it can act as a barrier for employees in Greve considering cycling to work. To promote cycling among employees, it may be necessary to invest in improvements to the cycling infrastructure, such as repairing paths and creating new, well-equipped bike lanes. This will make it more attractive and convenient for employees to choose cycling as a mode of transportation.

The statement "I feel unsafe in traffic" can be related to Kaufmann's competence concept. If employees feel unsafe in traffic, it may be a matter of lacking competence in bicycle safety and traffic understanding but can also involve insecurity when being a cyclist on roads where there are both large and small motorized vehicles. Employers in Greve may consider offering bicycle training, information on traffic safety. This can help increase employees' confidence and competence in cycling, thus reducing the feeling of insecurity.

Kaufmann's concept of appropriation emphasizes the importance of understanding employees' attitudes and needs. If employees feel they cannot use the bike due to poor paths or traffic insecurity, employers can adapt incentives and facilities to accommodate individual habits and needs. This may include dialogue with employees to understand their concerns and offer solutions that make cycling more suitable and appealing to them.

The conceptual framework of structural stories can be used to understand how perceptions and norms about cycling are shaped in Greve. If there are structural stories emphasizing the dangers of poor bike paths or traffic insecurity, these stories can act as barriers. Employers can challenge these stories and present alternative perspectives to change perceptions and promote cycling as a safe and attractive mode of transportation.

Transport habits and changes point to the need to influence behavior stages, especially those in the first phase where people need to overcome hesitation and try cycling as an alternative mode of transportation. To address concerns about poor bike paths and traffic insecurity, campaigns can focus on creating positive experiences and increasing confidence in cycling through practical experiences.

In summary, there are common barriers to cycling among employees in Greve Municipality, including concerns about distance, time, weather, sweat, safety and infrastructure. Employers can challenge these barriers by promoting the benefits of cycling, addressing structural narratives, and implementing practical solutions such as improved infrastructure, cycling training and information, and facilities. The importance of understanding employees' attitudes and needs, reshaping narratives, and encouraging positive cycling experiences is emphasized throughout the analysis. Employers are encouraged to develop specific strategies to make cycling a more feasible and appealing mode of transportation.

Why Employees Choose to Cycle

Despite numerous reasons not to choose the bicycle as a mode of transportation to and from work, a significant third of individuals cycle at least once a week. In the survey, respondents were asked to specify the reasons for currently cycling to work one or more times a week.

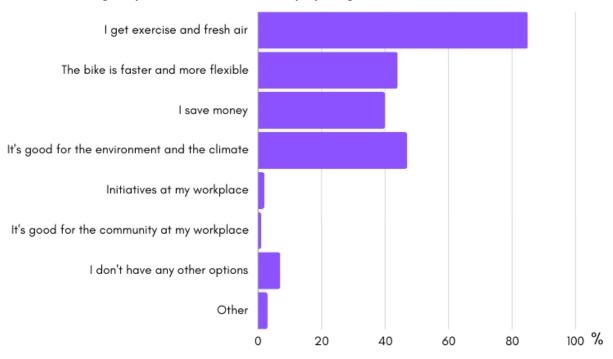


Figure 8: Why employees choose to cycle to work (Appendix 6)

Within the framework of the questionnaire, the following statements received the most frequent responses from the respondents: "I get exercise and fresh air," "The bike is faster and more flexible," "I save money," and "It's good for the environment and the climate." Respondents' affirmation of these statements indicates significant factors motivating their preference for cycling as a mode of transportation. These factors encompass health-related benefits, temporal efficiency, economic savings, as well as environmental and climate considerations. This provides valuable insights into the motivations driving the choice of cycling within the target audience and serves as a foundation for further strategic initiatives in promoting cycling as a preferred mode of transportation.

The statement "I get exercise and fresh air" directly relates to Malene Freudendal-Pedersen's focus on physical mobilities and the importance of understanding everyday mobilities as a prerequisite for sustainable transportation. This indicates that employees are aware of and appreciate the health aspects of cycling. To support this aspect, employers can implement

incentives such as health information, as suggested by Kaufmann's concept of "competence" in mobility conditions.

The statements "The bike is faster and more flexible" and "I save money" relate to Kaufmann's concept of access and the significance of having accessible and well-designed cycling infrastructure, as well as the affordability of cycling. This highlights the role of economic factors in the decision-making process.

The statement "It's good for the environment and the climate" relates to the idea of the "mobile risk society" and the need to address climate change through sustainable mobility. This underscores the importance of understanding and challenging structural narratives that portray cars as indispensable. Employers can incorporate these environmental benefits into their campaigns to change attitudes and behavior, including information on how cycling contributes to reducing CO2 emissions and promoting a more sustainable lifestyle.

It can be beneficial for employers to actively share positive experiences and narratives from employees who already cycle to work. This can be accomplished through internal communication channels or even cyclist ambassador programs. By highlighting these personal stories, employers can foster an inspiring and positive workplace culture around cycling, further enhancing their efforts to make cycling an attractive mode of transportation in Greve.

Suggestions from employees to promote cycling to work

In the questionnaire, respondents were asked about what their employer can do to make cycling a more attractive choice for them when commuting to and from work. In the following section, I have selected a few quotes that represent multiple responses after coding all free-text answers in this question.

Several employees mention that an electric bicycle could overcome the barrier of the distance to the workplace, making it physically more manageable to cycle to work. One quote reads: "Now it's a bit far to cycle to work, but it could perhaps be solved with an electric bike." (Appendix 7) The employee mentions the need for an electric bike to make the long bike ride

more manageable. This response relates to Kaufmann's concept of access, where it is crucial to have access to suitable means of transportation.

Another quote I would like to highlight concerns the improvement of facilities: "Better bathing facilities. A place where you can park your electric bike and charge it at the same time." (Appendix 7: 1) This quote reflects the employee's need for facilities and infrastructure, which relates to Kaufmann's concept of appropriation. Offering facilities such as bike parking and charging for electric bikes can create an environment that supports and promotes cycling as a means of transportation. Several employees have pointed out the unsatisfactory quality of the shower facilities.

Several employees also mention that if a bike path were established on their route to work, they would choose to cycle. One quote says: "If there was a bike path, I would cycle, but I have to go through rural areas with smaller roads, and cars drive at high speeds." (Appendix 7: 16). The employee points out safety concerns and a lack of cycling infrastructure. This underscores the importance of addressing structural challenges such as the absence of bike paths.

Others mention that activities would make it more attractive for them to choose the bike; one writes, "Bike campaigns and fun bike competitions, for example, comparing how many km our department cycles compared to other departments." (Appendix 7: 6) This quote indicates the employee's interest in campaigns and competitions. This could contribute to changing attitudes and encouraging a positive perception of cycling.

Most of the suggestions say that bike parking spaces at their workspace should be improved: "Ensure good bike parking spaces. Preferably, the bike should be sheltered from the rain – but it should be easily accessible." (Appendix 7). This employee emphasizes the need for good bike parking facilities, preferably sheltered from rain and easily accessible. This aligns with Kaufmann's concepts of "Access" and "Appropriation," where a well-designed and accessible infrastructure supports the use of bicycles. Creating covered and convenient bike parking spaces can contribute to making cycling more attractive and practical for employees.

In summary, the analysis shows that employees in Greve have a need for a combination of access to suitable means of transportation, the development of cycling skills, facilities for

bike storage and charging, changes in structural narratives, and improvements in infrastructure to make cycling more attractive as a means of transportation. Employers may consider implementing a wide range of initiatives that take these aspects into account to promote cycling among employees.

Conclusion

The survey results indicate that a considerable percentage of Greve Municipality employees have short distances to work, presenting a substantial opportunity to promote cycling as a viable mode of transportation. With 30% living within 5 km and 28% within 6-15 km, there is a significant target audience for cycling initiatives, particularly for those with shorter commutes. Notably, the existing high percentage of employees with short distances emphasizes the potential for further cycling promotion within this group. This becomes especially pertinent with the introduction of facilities like electric bicycles. The conclusion drawn is that the municipality can take strategic steps to encourage cycling among its workforce, considering their daily mobility patterns.

To achieve this, the municipality should challenge prevailing perceptions that prioritize cars, emphasizing the benefits of cycling as both transportation and a healthy, eco-friendly activity. Positive narratives of successful cycling experiences, even in adverse conditions, can reshape established views. Addressing specific concerns expressed by employees is crucial. Investing in cycling infrastructure, maintaining paths, creating bike lanes, and establishing amenities like changing rooms and secure parking can mitigate concerns related to safety and practicality. Incorporating employees' suggestions is essential. Desire for electric bikes, improved facilities, and engaging activities indicates openness to change. By listening to these needs, employers can create a more bicycle-friendly environment.

The analysis stresses the importance of influencing attitudes through campaigns that highlight the positive aspects of cycling. Internal communication, cyclist ambassador programs, and campaigns emphasizing health benefits, time efficiency, cost savings, and environmental advantages can be effective.

In conclusion, for Greve Municipality to effectively promote cycling, a holistic approach is necessary. This involves challenging existing narratives, implementing practical solutions based on employee needs, and fostering a positive cycling culture. By doing so, the employers can contribute to changing perceptions and make cycling an attractive transportation choice for their employees.

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Appendices

Appendix 1: Dataset with the questionnaire

Appendix 2: Dataset of no. km to work (connected to Appendix 1)

Appendix 3: Dataset of demographics (connected to Appendix 1)

Appendix 4: Dataset of Transformforms (connected to Appendix 1)

Appendix 5: Dataset of free text answers for why not to choose the cycle to work (connected to Appendix 1)

Appendix 6: Dataset of free text answers for why to choose the cycle to work (connected to Appendix 1)

Appendix 7: Dataset of free text answers for suggestions from the employees (connected to Appendix 1)