CHALMERS
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Identification of misalignments between climate and tourism strategies

Case study of City of Gothenburg

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Master's thesis in Sustainable Energy Systems
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Abstract

Tourism has until recently been an ever-growing industry where SCB tells that the international tourist guest nights in Sweden consecutively increased over the last 10 years (2009-2019) and air travel is forecast to double in the next 15 years according to Airbus. At the same time, concerns about global warming are increasing, leading to international climate targets getting stricter. Gothenburg municipality has ambitious targets in both the climate and tourism areas. They are working to support the 1.5-degree climate target set by the IPCC. For that reason, the Climate Programme for the City of Gothenburg includes targets to reduce the carbon footprint of its residents, where outgoing flying emissions should be reduced by 20%. From the tourism side, the industry development is looking to double the number of guest nights spent in the city and they are looking for increasing the share of international visitors. There seems to be a conflict between the targets between the climate action promoted by the City of Gothenburg and the targets set by the tourism actors in the region. This report aims to find out what misalignments may be between the climate targets and the tourism ambitions within the City of Gothenburg. It includes looking at how these misalignments may affect the municipality's ability to achieve the targets and what can be done to resolve them. The data was gathered and analyzed through the analysis of the governing documents and nine interviews have been performed with stakeholders identified by the Snowball Sampling process and the Triple Helix methodologies. The findings show two misalignments in the municipality: A. Reduction of outbound flying emissions against the increased inbound air travel. B. Public transport's role in tourism. Recommendations to misalignment A proposes to slightly adjust the tourism targets to focus on regions accessible by alternative means than flying. Whereas to B, it is recommended to get tourism on the agenda for Västtrafik. The results are of interest for the regional actors as it proposes the two aforementioned recommendations to increase the alignment in the system by tackling the misalignments found in the City of Gothenburg.

Keywords: misalignment, sustainability, goal conflict, tourism, climate programme.

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Last but not least, we would like to thank all stakeholders involved in our project for their help and participation in the interviews. The insights about the work of tourism actors and climate targets of the city, beyond what is written, have been invaluable for us and it has been essential to carry out our thesis.

Carl Alvelid & Marisi Fernández, Gothenburg, May 2020

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1
Introduction

This chapter provides an introduction to the thesis starting by explaining the context used to develop this research, the Challenge lab approach. It is followed by the background of the topic, the project's aims and research questions formulated. The scope and delimitations of the research are also included in the chapter.

1.1 The Challenge Lab approach

This thesis is developed under the context of the Challenge Lab (Clab). The lab is an arena for systems innovation and transformation, aiming to work for a more sustainable society [1]. It is based on co-creation and exploration of the current reality by interdisciplinary master thesis students from Chalmers University of Technology and the School of Business, Economics and Law of Gothenburg University. The students in collaboration with academia and regional actors work under a specific thematic area fostering a deeper understanding of the subject and its dynamics in the system. The CLab aims to provide the necessary skills and space for the students to find out what complex sustainability challenges is affecting society and how to foster the sustainability transition. The lab promotes the development of problem formulation skills, i.e to find out what the real problem is, so the root cause of the problem can be tackled and solved. Unlike classical engineering approaches that pay more attention to the problem-solving process itself, the Clab approach emphasizes the need of systems thinking to find out the root cause of the problem. Understanding what mechanisms reinforce or hinder the success of the proposed solution, complex problems can be solved effectively. Therefore, a systems perspective approach is used to find out what problems is society facing in relation to a proposed thematic area.

Today, we are facing pressing sustainability challenges such as air pollution, climate change and resource depletion to mention a few. The causes and effects of these problems are part of complex systems and can be found at global and local levels. Complex systems are composed of many interlinked elements that interact with each other and whose relationships and dependencies creates a complex network difficult to model. Actions posed in the wrong element of the network can evolve into unexpected results or problem reinforcement. For example, approaches trying to solve the congestion suffered by residents in big cities has historically been to upgrade the roads. Leading to bigger roads with fewer cars, reducing congestion for a while. Eventually, as the city has bigger and better roads, more people start using a car

instead of other means of transport and therefore congestion comes back. In fact, this phenomenon is called induced traffic [2]. The solution proposed to the problem can be seen as emphasizing the problem and creating a reinforcing loop. Where the reinforcing loop implies that the solution proposed contributes to sustaining the problem in the long run. In this example, is easy to see that by keeping cars on the roads, no matter how much they are extended, congestion will eventually come back. If instead, the root cause of the problem would have been tackled, then alternatives to private transport could have been proposed as a solution to reduce congestion. Another approach to the problem is to use a system perspective and analyze the big picture, for example by questioning why people need to transport themselves in the first instance. By doing so, the root cause of the problem can flourish and solving what really provokes congestion can be a more efficient strategy to solve the traffic problem.

In this thesis, complex sustainability challenges have been addressed using a systems perspective and through the Backcasting methodology [3]. This methodology proposes to analyze the current system starting from the position of how a desirable future looks like. Having a vision of a desirable future as a starting point helps to identify if current trends follow the direction of that desired future and if they serve as stepping stones to achieve it. Or if on the contrary, current trends are going in the opposite direction of development and interventions in the system are needed. Those interventions should take into account the root cause of the problem and they should be made in points of leverage where actions can make the most effective change. This strategy makes Backcasting a powerful tool when looking at complex systems.

The Backcasting methodology is composed of four main steps. The first one starts by framing the conditions for a sustainable future. This framework is built together by the students in the CLab and based on the sustainability principles to create a shared common ground for the future. The second step is the analysis and mapping of the present reality in relation to the framework for the desired future defined in the previous step. This is achieved by statically mapping the current situation and involving relevant stakeholders of the field in a dialogue to gain insights and knowledge. The results from the dialogue will update the initial systems mapping leading to a dynamic system composed by feedback loops. As a result, the dynamic mapping will enable the CLab students to explore the gaps and challenges in the current system. Then, the third step is to bridge the gap between the present situation and the desired future. To do so, the leverage points need to be identified for a systems intervention [5] and the research question of this thesis is formulated. Finally, the last step involves creating solutions and strategies from the leverage points to move towards the desired future. The thesis consists of two phases, where Phase 1 include steps one to three of the Backcasting method and Phase 2 aims to solve the research questions previously stated.

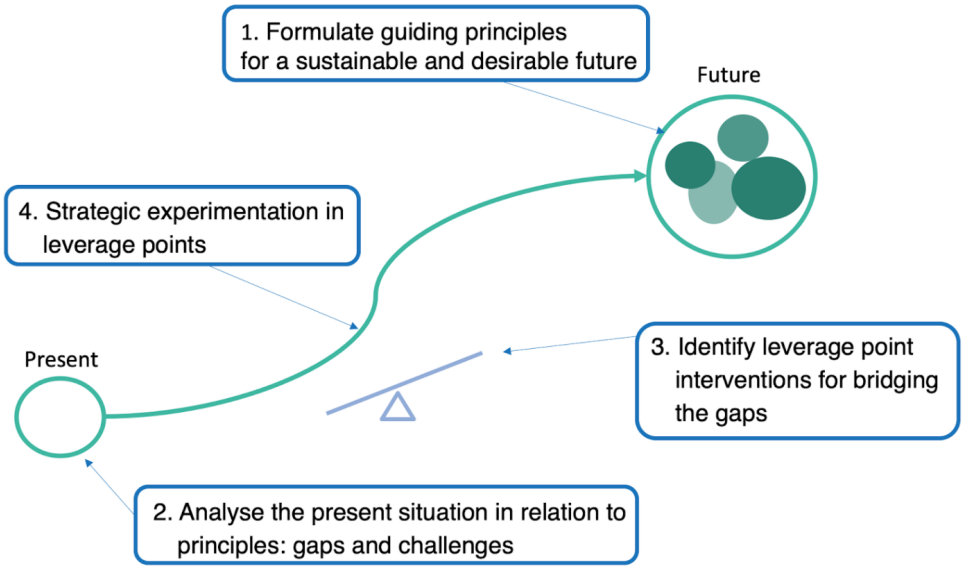

Figure 1.1: Backcasting approach used at Challenge Lab, adopted from [3]

The Challenge Lab 2020 works under the thematic area of mobility in the region of Västra Götaland and within it three topics arose as potential areas of improvement: tourism, mobility of goods and mobility of people. This thesis is going to address the tourism area where a leverage point was found on the possibility to resolve misaligned strategies between the tourism and climate programmes.

1.2 Background

Tourism has until recently been an ever-growing industry where the international tourist guest nights in Sweden consecutively increased over the last 10 years (2009-2019) [4]. In the same time, the World Tourism Organization also recognizes that international air passenger traffic, measured in revenue passenger kilometers, followed a similar pattern of growth than the international arrivals [6]. Similarly, the aircraft manufacturer leading company Airbus, estimates that within 15 years the amount of international air travel trips will be doubled [8]. With increased air travel, greenhouse gas emissions, primarily CO_2 is expected to increase. Transport related tourism emissions accounted in 2016 for 5% of total anthropogenic emissions (32,100 million tonnes) and are expected to increase to 5,3% of 37,800 million tonnes by 2030 under current trends [7].

A problem arises when cities willing to mitigate climate change and reduce their environmental impact may oversee the influence of tourism emissions. Cities committed to taking action created the Global Covenant of Mayors for Climate and Energy alliance. The alliance aims to keep the Paris agreement and reduce CO2 emission to achieve the 1.5-degree target [9].

The city of Gothenburg is part of this alliance and correspondingly has its own cli-

mate strategy. It is called Climate Programme for Gothenburg [10] and has served as a basis for the development of this thesis. The Climate Programme covers environmental, social and economic sustainability in the city, and gather the strategies, actions, and emissions targets that paves the way for calculating the carbon footprint of its citizens. Other aspects covered by the program also involves switching to renewable energy, reducing consumption of resource-intensive goods and creating opportunities for residents to reduce their own carbon footprint by providing more efficient public transport or promoting climate-friendly activities such as urban farming.

The climate programme proposes 9 strategic objectives and 24 strategies to ensure the achievement of the objectives. Examples of strategic objectives that could be related to tourism are objectives 6 and 8.

6. The climate impact of citizen's air travel will be reduced by at least 20 percent by 2030 compared to 2012. [10]

8. The climate impact from our purchase of goods and materials should decrease. A target for 2030 will be set before 2018. [10]

A relevant strategy for these objectives is, for example, strategy 24. This is to *promote alternatives to air travel* [10] which is a responsibility of all boards and committees in the City of Gothenburg to follow. The strategy points at the impact air travel has on the climate and what steps should be taken to avoid it. In brief, the strategy states that they will:

- Reduce their own level of air travel by making use of alternative means of travel and travel-free meetings.
- Continue to work with financial means of control, such as climate compensation.
- Work to bring about infrastructural investment that facilitates rapid, sustainable long-distance transport.
- Encourage residents of Gothenburg to holiday at home.
- Act as a driving force behind technical development in the air sector. [10]

While the city has climate strategies, it also has other ones to increase tourism and develop this industry. For example, a strategy for tourism development states that:

By 2030, tourism to Destination Gothenburg has doubled [11]

This means that by 2030 the number of guest nights in the destination of Gothenburg should be doubled, compared to the 2015 numbers. A part of these increased guest nights is targeted to be international visitors. For the purpose of tourism, the city owns a company that work with this: Göteborg & Co. They market the destination and develops the hospitality business. The business plan for this company shows that one of the strategies used has a continued focus on accessibility. A part of this strategy tells that the company should:

Actively campaign for the expansion of Göteborg Landvetter airport in collaboration with other stakeholders. [13]

In this initial pre-study, literature shows a possible misalignment between the city's climate strategy and the strategy for tourism development. This aligns with a dialogue performed in the CLab during step 2 of the Backcasting process, where stakeholders within the academia pointed out that other types of misalignment and a lack of cooperation exits in this sector. Two sources, therefore, confirm the possible existence of a root cause coupled to this, where problems occur because it seems separate interests acting upon the sector or not enough shared vision.

1.3 Aim and research question

This project aims to explore the misalignment phenomena, in particular, concerning the climate ambitions of the City of Gothenburg and the tourism sector working in the region. A misalignment is often seen as an undesirable state in a system that needs to be fixed to achieve alignment of objectives or strategies. However, this thesis will explore more in detail what misalignment is, how it usually starts, and what implications it might have in a system. To do so, this general concept is studied for the case of the City of Gothenburg for what *a priori* seems to be a possible misalignment within Gothenburg's development plans for climate action and tourism.

The logical sequence of this project is to first find out if there is any misalignment at the municipality level and how many of them can be identified. Therefore, the proposed main research question is:

1. What are the misalignments between the Climate Programme for Gothenburg and the strategies of the tourism stakeholders within the region?

From this research question, the aim is to understand how the Climate Programme is implemented in municipality-owned organizations and how the strategies are used in their daily work. At this stage, the collaboration between the researchers and the stakeholders is essential to identify the possible misalignments in the system and understand the origin of these. The collaboration works looking forward to creating a space for common understanding with the stakeholders where the identified misalignments will be surfaced before working on a solution. Once the common ground is created and the misalignments are understood, the second step is to find out what prerequisites are needed for a misalignment to be solved, and what actions can be taken to reduce the problematic nature of these. It will be done by solving the second research question:

2. How may problematic misalignments be resolved?

1.4 Scope and delimitations

The scope of this thesis comprises:

1. The geographical boundary of this thesis is the Gothenburg region (see figure 1.2) which is defined as a co-operative organization composed by thirteen municipalities in western Sweden. The municipalities involved are Ale, Alingsås, Gothenburg, Härryda, Kungsbacka, Kungälv, Lerum, Lilla Edet, Mölndal, Partille, Stenungsund, Tjörn, and Öckerö. This cluster of municipalities collaborates across borders to benefit from each other by exchanging ideas and experiences within the region [14].

Figure 1.2: Goteborg region co-operative organization (GR) [14]

2. The focus will be on private tourism where the tourist is paying for themselves and making their own choice of where to travel. Hence, where the region can influence on the sector by directing their marketing to certain activities and places or targeting specific clients.

3. This study covers the Climate Programme of Gothenburg and the Gothenburg development plan for the tourism sector as the two main governing document bases for the project.

The thesis delimitations include:

1. Although there can be misalignments between the steering documents and visions from the national level to the regional level, they are out of the scope of this project as the focus will be at a regional level.

2. Events and conferences hold a share of tourism in the region, however, the study is limited to private tourism.

3. There are large amounts of governing documents and planning strategies in the city and region of Gothenburg. Aware of this, the project time limitation will lead to the prioritization of the aforementioned documents.

2
Theory

This chapter explores the theoretical framework used to approach and solve the research questions proposed in section 1.3. The chapter describes two interrelated concepts: misalignment and goal conflicts. The first subsection of this chapter defines misalignment in general terms and its relation to a dynamic process. The second subsection evolves to goal conflicts, typologies and strategies that can solve them.

2.1 Misalignment theory

Alignments and misalignments are two commonly used terms in the business sector, especially in strategy implementation and marketing. Research recognizes the ambiguity around what objects to be aligned and the consequences they both, alignment and misalignment, can have [29]. Moreover, Baker et al. and Sousa and Voss also acknowledge that there is a lack of an overarching theoretical framework guiding alignments studies [27][28]. Therefore, alignment and misalignment studies are concepts not easy to work with.

A problem arises regarding understanding if the alignment is always positive for an organization and if they should see it as an ultimate goal. Or if on the contrary, the appearance of misalignments in a process can be beneficial for a company. An example of this is the traditional goal of business strategies that aims to find the balance between supply and demand, by offering the exact quantity the market needs. In this setting, it is easy to see that the alignment of supply and demand is set as a goal to achieve. Another typical example of alignment theory is related to strategy development and the implementation of it. If employees lack the means to implement a recently created strategy, then it will be hard to achieve its desired outcomes.

These traditional divergences between supply vs. demand and strategy vs. implementation set alignment as an ultimate goal and misalignment as a situation to avoid. The figure 2.1 describes the traditional view on alignment as an end-goal. However, recent research is paying more attention to the positive effect of misalignment as an alternative to alignment [31]. This can be illustrated by developing the previous example of supply and demand. If the organization understands why a product in the market is not working, the product can evolve to what society needs, i.e. by listening to why there is a misalignment between supply and demand the company might be able to adapt their product to the actual needs and succeed

in their business operations in the long-term. As figure 2.2 shows, misalignments found in a process can work together to achieve new alignments and improve the intended outcomes, by for example improving processes. Actions taken by a company does not necessarily need to go in the same overarching direction of their intended outcomes. For example, an organization aiming to improve their profits believed that they should sell more products and actions are developed to meet that goal. However, it can happen that improving shipping logistics can give them the profit they expected without increasing their sales. That action of working to improve shipping could be out of the expected plan and therefore, it might be seen as a misalignment from the strategy as increasing sales was the settled goal. However, being able to adapt and include unexpected actions can lead to improving the process and outperform. In conclusion, misalignments can be actions that does not follow the same direction of the intended outcome but actually they can increase knowledge and feedback in the process and improve the process, leading to achieving the goal anyhow.

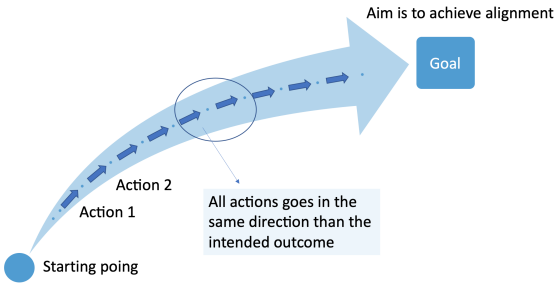

Figure 2.1: Alignment is represented as an end-goal where all actions should go in the same overarching direction to achieve a goal.

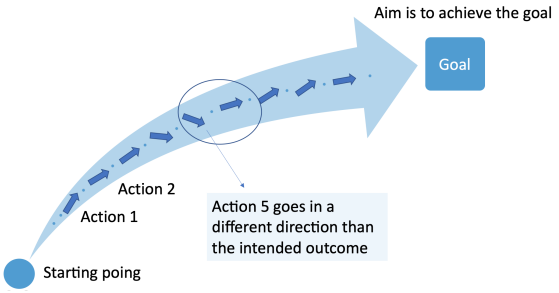

Figure 2.2: Misalignment and alignment working together along a process to achieve the intended goal

Recent studies from Corsaro and Snehota show evidence of that misalignments can be positive under certain conditions [30]. Especially if two different organizations or more are involved, those conditions include when both parties acknowledge the misalignment, when there are communication problems or misperceptions and when the relationship leaves room enough for moving from one state to another one. In this context, reaching an alignment or misalignment is not a goal but can be seen as

an intermediary state in a dynamic process that benefits both parties as represented in figure 2.3.

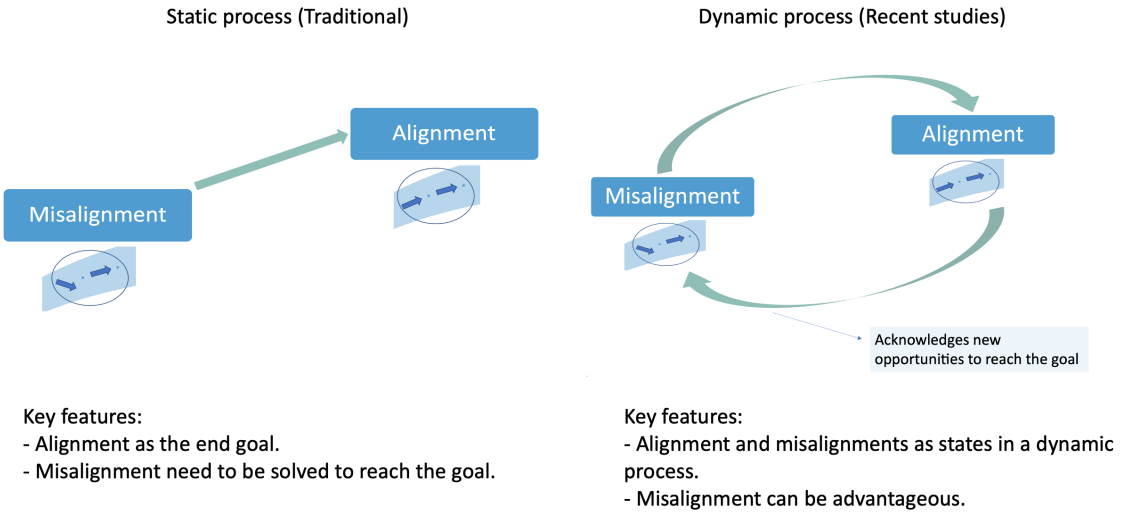

Figure 2.3: Comparison between traditional alignment as an end-goal and mis-/alignments as states in a dynamic process.

In this sense, the overarching direction of development for the Västra Götalandregionen (VGR) is to provide the conditions for a good, meaningful and healthy life for its residents [32]. For that reason, departments and organizations located in the VGR and the GR governing bodies are supposed to align with this overarching development direction that seeks a positive impact on the regional residents' lives in general terms. However, the identification of misalignments can help to identify spots for intervention, making room for improvements within the system.

To study this dynamic process the objects studied are the stakeholders' strategic goals to evaluate if they are aligned or not with the overarching direction of the regional development aforementioned. It will be evaluated if the misalignment should be solved and what opportunities for improvement in the system does it provide.

Three kinds of misalignments can be identified at the different systems-level: political misalignments, strategy misalignment and practical misalignments. The first one, political misalignment is tied to the organization business model or service they provide. While strategic misalignments occur between collaborating institutions that can have conflicting goals and they can hinder the possibility to reach an overarching target. However, practical misalignments are those that arises from the discourses between documented goals in an organization's policy and the implementation of a system to work towards it in daily life.

2.2 Goal conflict

Misalignments may seem vague and hard to define, especially since they are states in a dynamic process, ever-changing and in some instances, they can be positive or negative to the process. A more concrete way of looking at misalignment is to identify goal conflicts that can lead to misalignments and how these can be solved. By solving goal conflicts, some of the underlying structures for misalignments may be removed, providing ground for alignment. Solving the goal conflicts ensures the targets and goals of an organization no longer work against each other.

A goal conflict consists of two or more goals contradicting each other. The conflict implies that the fulfilment of one of the goals will either hinder or even make it impossible to complete the other goal. One example of this is time management where time must be allocated to work, training, social activities, relaxation and more. All of these come with separate goals and time requirements. Spending too much time on one of the goals will hinder the fulfilment of the others. The conflict consist of how the time shall be managed. Not only time can be the target for conflict, but all other resources such as economics or ambitions can be the target of a goal conflict as well. In fact, a study done for sales personnel on goal conflicts shows that these conflicts can directly influence goal commitment [21]. The result is that when a goal conflict is present, the commitment to achieving the goals will be lowered.

Not only individuals are affected by goal conflicts. Organizations, companies and likewise suffer from goal conflicts as well [22]. The effects and the consequences of these conflicts may be others than what the individual may experience.

In this thesis, the goals set up in the Climate Programme of the City of Gothenburg are the basis to identify possible conflicts with stakeholders in tourism. Within the municipality, several organizations and departments have their own targets and functions to fulfill. These functions and targets have the highest priority. Secondary to that comes the various directives from the municipality including the Climate Programme. Most of these directives can be easily implemented or in some cases may not even affect the organization structure and business at all. But in the cases where the supplementary goals are directed against the prime function of the organization, there will be a goal conflict.

The Environmental Administration of the City of Gothenburg mission is to *work for the Gothenburg citizens to have a good living environment and for the Gothenburg community's negative impact on health and the environment to be as small as possible* [33]. Therefore, this mission should look at the same direction as the other municipality-owned organization's goals. Additionally, the strategic objectives set in the programme should not be conflicting with the functions and aims of the municipality-owned organizations.

The risk of goal conflicts as it can be seen from the previous example of sales personnel is that it can result in lowered goal commitment. For the municipality case,

the commitment to the second goal could be reduced as well if these are against the primary function of the organization. This creates the risk that the supplementary goal could simply be ignored and that only the primary function is carried out. The supplementary goal, in this case, would be rendered useless. For the City of Gothenburg and specifically for this project, the supplementary goals are the Climate Programme in contrast to what the primary function of the organization would be. Likewise, the programme for accessibility, social inclusion or other programmes within the municipality could be a supplementary goal instead. Goal conflicts can be present in a majority of the strategies used within the municipality although the severity between them may differ.

2.2.1 Types of goal conflicts

When describing goal conflicts, it can be noticed that there are several types of conflicts [25]. There are external, internal and social conflicts. Each coupled to different problems and involving various stakeholders. The types of conflict are also clarified by made-up examples of situations where this could apply.

External - Issues coming from higher (or lower) authority.
Example: A municipality could have a goal of reducing road traffic within the municipality by promoting alternatives and expanding public transport. Meanwhile, the state-controlled road network is expanded, leading to an increase in traffic volumes instead. The municipality and the state have different goals and cannot make decisions for the other part. This makes the conflict external when the conflicting goal is from an external stakeholder. It can apply for conflicts between institutions at different levels.

Internal - Issues steaming from conflicting targets within the organization or municipality.
Example: An aim of a municipality can be to reduce the emissions in the city. This can be in contrast to another goal from the municipality to increase the economic growth and attract industries to the city. The goal conflict, in this case, is within the same organization, the municipality. No other stakeholders except for those internal to the municipality are affected. Hence the issue is internal.

Social - Issues coming from the targets that do not match with the opinion of the public or do not take in consideration people resistance to change.
Example: A municipality can set a goal of achieving a certain recycling rate of plastics in the city where the residents are then expected to sort out the plastics from the household waste for them to meet the target. People may see this sorting as an inconvenience and either ignore it or sort a far lower amount than targeted as it's against peoples will of simplicity in life. In this conflict, the municipality and the residents are the stakeholders and hence the social classification of goal conflict. But the same conflict could be on a national level with the government and the population of a country.

Gothenburg is the largest municipality population-wise [15] and one of the most prominent municipalities in the GR. This thesis will focus more specifically in the municipality of Gothenburg and the different targets within this as the conflicts found in this project are of the internal nature.

2.2.2 Ways of resolving goal conflicts

There are several different types of strategies for solving goal conflicts. Five strategies are presented here which can be utilized to solve goal conflicts: Compete, solution solving, compromise, adaptation and avoidance [24]. There may be additional strategies and ways of resolving goal conflicts, but these five give a comprehensive overview.

Compete: By putting the own goal above all other goal, conflicts can be solved by simply prioritizing one or another. This way of solving can often be seen when an overarching goal is more important than the sub-goals. An example would be in a company where the overarching goal is to generate profit. Goal conflicts regarding emissions reduction or providing benefits to the employed can then be out-competed by this more prioritized goal, provided there are not any synergies to utilize [24].

For specifically internal goal conflicts there is often not a goal that by definition is more prioritized from the get-go. That is often a decision made when action would affect both goals, and one of the goals is chosen to be prioritized.

Solution solving: Finding the optimal solution to a conflict is another way of solving goal conflicts. The optimal solution would contain the highest benefit that can be achieved. When two opposing goals are present this approach can help to find out which goal would present the best value. This can either be in the form of economy, environmental sustainability or social benefits to the society [24].

The optimal course can be a mix of the two goals, partly fulfilling each of the goals to get the best result. From this course, a new goal could emerge. One example of this is green growth, where organizations like the Organisation for Economic Co-operation and Development (OECD) and the United Nations Environment Programme (UNEP) provide strategies to combine environmental protection and economic growth in an attempt to find the best solution [39][40]. By optimizing the production from natural resources and services to be sustainable long term, both the aim of protecting the environment and further economic growth may possibly be sustained. A new goal combining both emerges from this.

Important to notice is that this way of solving conflicts is rather dependent on data and available calculations of estimating cost or benefits. Hence it must in a way be possible to model the system and try different solutions to find the best and utilize this. For more abstract goal conflicts this way of problem-solving will not be possible [24].

Compromise: Goals will often include different stakeholders. Stakeholders can be affected by the goal in different ways, and also bring goal conflicts with their own strategies and aims. A way of solving goal conflicts involving many stakeholders is to utilize compromising, where each stakeholder can present their view on the issue and a form of bargain is made. Much like the solution solving, the result will be a new form of goal, a goal each stakeholder can in a way feel is more reachable or less conflicting than the previous. If stakeholders had been involved in the design of this compromise, they will feel entitled and represented by the new one. In the best cases it would be possible to even find synergies instead, where instead of conflicting the target, it can help the different stakeholders one way or another [24].

Compromise is often used in the political sphere, where different interests are balanced against each other. The economic growth contrary to the environmental protections example as used before have this balancing act often solved by compromise. By compromising some results can be achieved without creating too much tension or conflict.

Adaptation: Adaptation can be seen as similar to compete. In this strategy the goal that is conflicting is adapted to fit the other goal. The conflict is solved by prioritization, but the difference from compete is that the weaker goal is rather changed or worded differently. It could also be that a specific exemption is made in the goal. This way of solving conflicts is often used when one goal can be considered weaker in general or the issue not worth fighting over. The solution would then embrace the more prioritized goal [24].

Avoidance: Avoidance, as the name tells, is about avoiding conflicts and work to not create them firsthand. This may seem as a passive way of solving goal conflicts, but on the contrary, it can be an active process. An example of this would be in the conflict of economic growth and environmental protection previously used. The avoidance way could be to utilize technological means of avoiding the conflict. Installing cleaning filter on equipment, making energy-efficient production and likewise. In this way, both targets are fulfilled without the problematic element shared between them. This approach of solving conflicts can be compared to an engineering approach to problems [24].

There are problems coupled to this strategy as well. Sometimes technological advancements may not be enough. There would be a need to complement with another strategy to fully solve the conflict. There is also the issue of what technology is implemented. The technology can create other problems not foreseen so that by avoiding one conflict other conflicts have been created instead.

3
Methods

This chapter describes the methods used in this qualitative research. The process is represented in figure 3.1, starting from document analysis, followed by the stakeholder identification, leading to the performance of interviews to who has been identified as relevant for the development of the project. These interviews were used to confirm or reject the information previously gathered in the document analysis and to get new insights on the topic. During the interviews, new stakeholders were identified as relevant for the project by using a process called Snowball sampling. Additionally, the interviews provided information on what other documents to review, therefore, the three steps of the process are two ways and iterative.

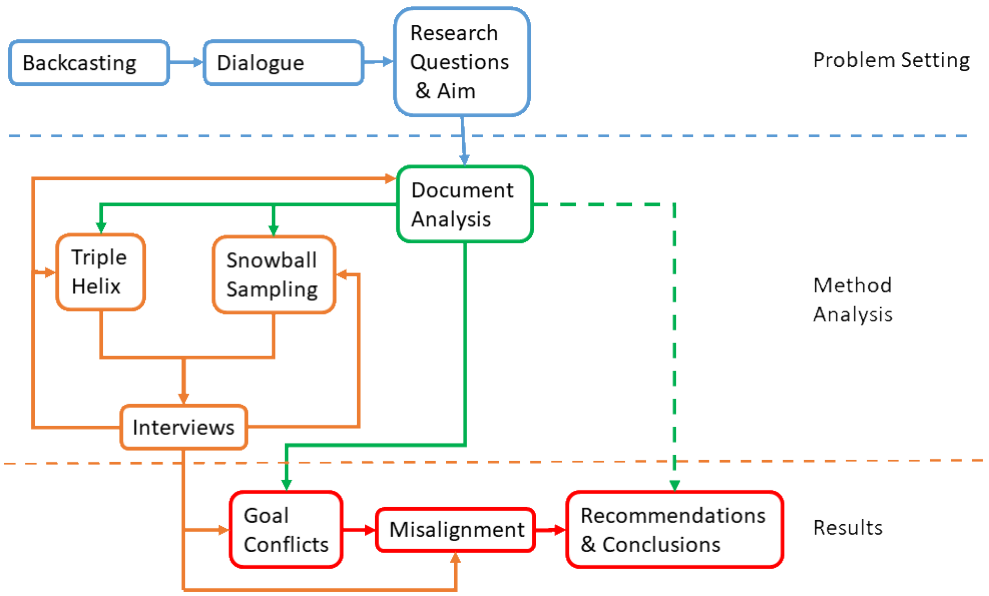

Figure 3.1: Process of the methodology

3.1 Document analysis

An initial document analysis was conducted to get an overview of the system and find initial points of conflict. This study consisted of searching for documents from the municipality of Gothenburg related to "climate" or "tourism". In early stages of the research the documents "Climate Programme for Gothenburg" and "City of Gothenburg's program for the tourism industry's development up to 2030" were found, as mentioned in the background section 1.2. These documents provide the targets and visions for the climate and tourism respectively and served as a starting point on what the municipality wants to achieve in the respective areas.

These two documents provided further references to other documents and relevant strategies for the study. A full list of the strategies and documents studied is found in Appendix A. These strategic documents were examined as well while taking notes on the essentials from each of them, such as strategies and targets from each document. When a clear point of conflict was found regarding climate or tourism, it was highlighted and put into a separate document. In this way, an overview of the existing goal conflicts was created, including which stakeholders that are attributed to which goal conflict. This overview is helpful when preparing whom to include in the interviews and what clarifications were needed to understand if there were goal conflicts or not.

3.2 Stakeholder identification and analysis

To identify the stakeholders relevant for this project a process called Snowball has been used. The Snowball process was performed simultaneously with the Triple Helix method to get a better understanding of the stakeholders' roles and involvement. Both methods contributed to the project by identifying where the stakeholder's interest lies and whom to focus upon.

3.2.1 Snowball sampling process

To gather the stakeholders and identify which ones to contact the process called Snowball was used [16]. A vast network of stakeholders was created by asking each stakeholder which other actors are relevant for the process [23], and these new actors also recommend other ones to involve. The first stakeholder contacted was found though the dialogue hold in Phase 1. The Snowball process included both identifications of what organizations are relevant for the project and who in the organization could be important to contact. An important part of this procedure is when several actors recommend a specific one, including both the organization and the person within the organization itself. This highlights the relevance of involving that stakeholder in the process.

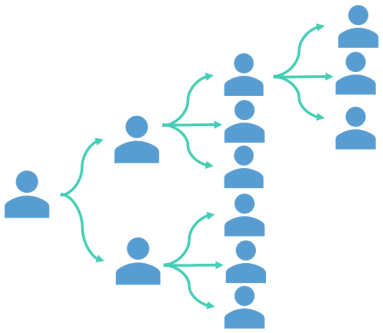

Figure 3.2: Snowball sampling process to identify relevant stakeholders

Utilizing this process in properly is an effective way of both creating the stakeholder network but also to give an early indication on which is the primary stakeholder in the process. All this is based upon the actor's own insights, not biased from the side of the researcher. There is a risk that relevant stakeholders are not taken into account if previous collaborations with those organizations have never happened before or if no one in the organization is available or interested in joining the project.

3.2.2 Triple Helix

The Triple Helix methodology is used to further identify actors, their interests and power in the system [17]. Utilizing the Triple Helix brings together three legs of society: Government, Businesses and Academia. Involving them makes for a robust process that is closer to reality since stakeholders from different parts of the society have been represented and can provide insights into the project development.

At the municipality level, decision-making and planning should include interests from society, such as the residents or relevant stakeholders representing society. Residents views are important in most settings, especially in city development and planning, where a Quadruple Helix method is commonly used. However, for the sake of this research, the misalignments are studied at higher levels in a systems perspective, meaning that misalignments and goal conflicts between institutions and society are not on focus in this project. Therefore, the Triple Helix method is used instead.

The Triple Helix is represented in a table, listing each stakeholder and their general goal or function as an organization. The table is expanded with more columns to see how the stakeholders related to this topic and the role they play for this project. Since this thesis is looking at the climate targets and their connection to tourism, the table also includes what interest the stakeholders have in tourism or climate change. This is an essential step to understand where the interest lies from the stakeholder point of view. Some actors will have none or low interest in one part but may see another one as of vital interest for their organization. An example of the Triple Helix table can be seen in table 3.1.

Table 3.1: Example of Triple Helix used

Stakeholders	General Function / Goal	Main role for the project	Interest in tourism (Low - Very high)	Interest in climate change (Low-Very high)	Power to influence (Low - Very high)
Stakeholder 1	Organization prime goal and functions	Organization role in relation to this project	How important is tourism for the organization?	How important is climate change/environmental sustainability for the organization?	Can they influence the system?

The last column of the Triple Helix table is called the power to affect. Each stakeholder can influence the system in one form or another. Assessments can be done based on this influence whether the stakeholder should be supported and empowered or already have enough influence in the system and therefore no action is needed regarding influence at least.

The use of the Triple Helix to analyze the stakeholders has been an iterative process. The first iteration of the table is filled out by data found in the documents. Performing the interviews made it possible to increase the quality of the data and produce more iterations. This generated a detailed analysis of the stakeholders, hence giving better material for the coming interviews and making it possible to obtain qualitative information from the interviews. It improved upon the Triple Helix, therefore closing the loop of document analysis, stakeholder identification and interviews performance.

The points of conflicts found in the document analysis were also highlighted in a separate table. Each conflict includes different stakeholders, showing who is more prominent in the conflicts. This provided value by showing where the focus should be during this project.

3.2.3 Stakeholder management and engagement

The data gathered from the Triple Helix is visualized trough an Interest-Influence matrix [26]. In the matrix, two axes are used to create a grid: influence and interest. Influence is the stakeholders' ability to impact the system. In this context the impact on society and people within it has been considered, but also the impact on the municipality and the voice it carries within the decision making. Interest measures the importance the stakeholder puts on the topic. If they consider the topic to be a core part of their function or may only be something in the periphery.

Four boxes will emerge from the matrix defined as box A, B, C and D. The low influence - high interest (A), the low influence - low interest (B), the high influence - low interest (C) and the high influence - high interest box (D). Box A consists of the stakeholders interested in the topic but without influence to affect. The stakeholders in this group require empowerment to influence the system. Box B includes stakeholders who neither have interest nor influence in the process. It may be beneficial to empower or raise their interest in the topic, but most often they can

be considered the less relevant for the system. Box C has stakeholders who have the power to influence but are not interested in the topic. These stakeholders should either be activated to increase their interest or just keep them on the level they are. Finally, box D includes the actors that should be closest to the project. The stakeholders who are key players having both interest and influence in the process. An illustration of the matrix and the different boxes can be seen in figure 3.3.

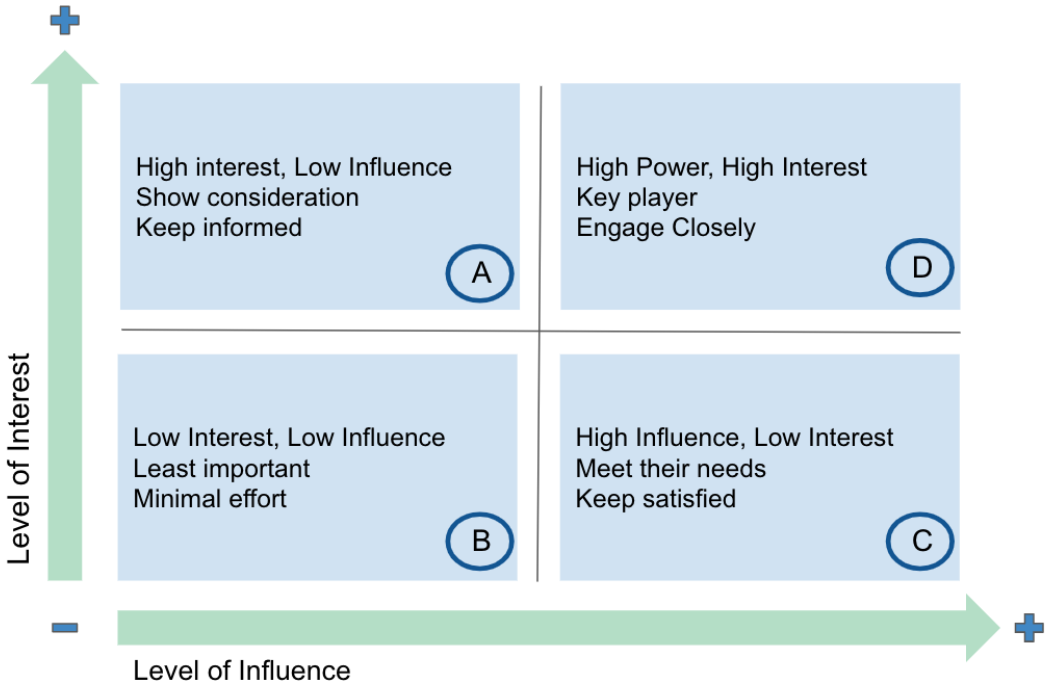

Figure 3.3: Interest-Influence matrix used for the stakeholder management

In the project, the interest-influence has been iterated several times. The first iteration was based on the document analysis and assumptions of the influence that each stakeholder had. Later iterations were based on the interviews where specific questions were asked about their interest and influence. Based on this, the stakeholders could be placed in each box. This was used to visualize which stakeholders are important in the process, which ones this process should empower and where to raise interest.

3.3 Interviews

There are several types of interviews, the most prominent of these are the structured, the semi-structured and the open interview [18], but in this project, the semi-structured interview has been used. This interview method provides flexibility, opportunities to adapt, change order and ask unplanned questions to clarify the interviewee's responses [20]. The baseline for all stakeholder interviews is predetermined beforehand although depending on the direction of the conversation, questions are asked in a different order and follow-up questions are used to clarify or dig deeper into the topic. The baseline questions are also open-ended and slightly adapted to the interviewee depending on their role in the organization. The outputs from the interviews are different but the baseline serves as a point of comparison between them. The evaluation thereafter can be concentrated on the differences or similarities between the interviews. The baseline questions asked in the interviews can be seen in Appendix B.

The benefits of semi-structured interviews include being able to explore more thoughts of the individual. Unlike the open or structured interviews, the semi-structured interviews are performed one by one [19], bringing the advantage of providing more secrecy for the individual, making more information available, information the interviewee otherwise may withhold in fear of leaking to other participants. The inclusion of follow-up questions and the adaptation of the baseline questions have influenced the results, however, they are required to make the interview relevant for the interviewee.

Nine semi-structured interviews were performed in total to the previously stakeholders identified. They provided a great share of the information gathered for the thesis development. Representatives from government, business and researchers from academia have been interviewed to get different insights and takes on the problems, as mentioned in section 3.2.2. The first interviews were used to gather information on the system as it is, to compare it with the system described by the documents. Interviews performed in the middle of the project are focused more on the concrete goal conflicts, while the last interviews provided more insight on problems and solutions found during discussions with stakeholders. Even if different aspects were explored with each interviewee the baseline was kept somewhat intact not to compromise the comparability between interviews.

Each interview lasted between 45-60 minutes depending on the availability of the stakeholder. The interviews were intended to be a space for people to speak freely, where creating a trusting atmosphere is seen as essential for the successful development of this research. If information from the interviewees is withheld during the interview, it could hinder the results or provide a false view of the system. For that reason, the set-up for each interview was decided beforehand and the interviews were not recorded. The set-up of each interview consisted on one person conducting the interview, while the other took notes and analyzed the interview as an observer. The interviewer used the baseline questions and the follow-up questions for each topic.

The observer could include follow-up questions as well if something was unclear or if an answer was missing from the original question. In this way, the stakeholder interacted mainly with one interviewer, which simplified the process. At the same time, a sort of cross-referencing was created when the information was documented in written form by both the interviewer and the observer, making sure that the essence of what has been said is conserved.

4

Analysis and results

This chapter gathers the research results and analyzes them in four different sections. The first one, section 4.1 describes and analyze the points of conflicts identified in the document analysis. Then, the stakeholder identification results are presented in section 4.2 which includes the outcomes from the Snowball sampling process and the finding of the more prominent stakeholders in the system and also which ones are not suggested to be involved in the research by other actors. The stakeholder's section also includes the results from the Triple Helix where the interest and influence of the identified stakeholders are discussed. Section 4.3 interviews misalignments explain what misalignments are found in the system as a result of the previous sections and are likewise confirmed on the interviews. Recommendations of possible ways for solving the underlining goal conflicts that provoke the two identified misalignments are proposed in the last section 4.4.

4.1 Documents points of conflict

The document analysis described in section 3.1 results in the identification of five points of conflict. Each point of conflict is composed of two goals from different organizations represented in table 4.1. The table includes what are the goals in conflict, which are the responsible organizations of these goals and where are they stated, i.e. the reference document where they can be found.

Table 4.1: The five points of conflict identified in the document analysis

Conflict	Goal	Owner of target	Reference document
1	Doubling of tourism guest nights	City of Gothenburg Göteborg&Co	The City of Gothenburg's program for the tourism industry's development until 2030 [11]
1	Reduction in residents flying emissions	City of Gothenburg Environmental administration	Climate Programme for Gothenburg [10]
2	Sustainable tourism	City of Gothenburg Göteborg&Co	The City of Gothenburg's program for the tourism industry's development until 2030 [11]
2	Market tourism from US and China	Göteborg&Co	2020 European Capital of Smart Tourism [12]
3	Accessibility for tourism	Göteborg&Co	Way to Go: Business plan for Göteborg & Co 2018–2020 [13]
3	Simplify daily life	VGR Västtrafik City of Gothenburg	Public Transport Targets 2035 [37]
4	Support Landvetter, work for continued development	Destination Gothenburg Göteborg & Co	Ways to Grow : Business plan for destination Gothenburg 2018–2020 Ways to Go : Business plan for Göteborg & Co 2018–2020 [13]
4	Stop promoting expansion of Landvetter	City of Gothenburg Environmental Administration	Fossil free Gothenburg - What is required? [38]
5	Increase direct flight lines to Landvetter	Business region Göteborg	City of Gothenburg business strategy programme 2018-2035
5	Stop promoting expansion of Landvetter	City of Gothenburg Environmental administration	Fossil free Gothenburg - What is required? [38]

Conflict 1 consists of the aim to *double the amount of guest nights in Gothenburg, from 4.5 million in 2012 to 9 million in 2030* [11]. There is also a separate sub-goal that the *international guest nights should be increased from 1.35 million to 3.6 million per year*, which is a larger increase than for the total number of guest nights. This contrast to the aims of the city to *reduce the emissions from residents flying by 20%* [10]. A share of the increasing international guest nights will possibly be due to visitors flying to Gothenburg. An increasing share of flying would have the probable effect of increasing the number of direct flights to and from Landvetter. More direct flights available for the residents in the municipality would not decrease the tendency to travel by air but rather increase it instead. The result would be that the target of reducing the residents' emissions from flying would be harder or even impossible to fulfill.

Conflict 2 is about the aim that the hospitality business in Gothenburg should be sustainable [11], meanwhile, two of the targeted market group for bringing in tourism is the US and China [12], where the US is mentioned as having the highest growth potential. These groups of tourists would require flying to Gothenburg which would harm environmental sustainability. Although these targeted groups are small in numbers they are projected to increase.

Conflict 3 is about tourism having goals of providing accessibility to destinations in the city, where Göteborg & Co recognizes that *accessibility is vital for an attractive destination – for travellers and for digital visitors.* However, this relies on the usage of the existing public transport, while public transport organizations such as Västtrafik in cooperation with VRG and City of Gothenburg have a goal of making life easy for the residents in the city and they have no stated goals in regard to tourism. This point can be seen as a gap rather than a conflict. However, the tourism actors have an interest in functioning public transport to attractive destinations, meanwhile, public transport does not clearly plan for tourism and they aim to provide the best accessibility for the residents in the region.

Conflict 4 is about Destination Gothenburg and Göteborg & Co aiming to *Actively campaign for the expansion of Göteborg Landvetter airport in collaboration with other stakeholders* [13]. The City of Gothenburg Environmental Administration, on the contrary, gives the guideline to not promote the Landvetter expansion, stating that: *The city may stop implement flight promotion measures, such as those that do to get more direct routes to Gothenburg Landvetter Airport, which stimulates increased air travel* [38]. It should in this regard be noted that *Fossil free Gothenburg - What is required?* is not a goal or strategy document. It merely states what is needed to be done to fulfill the environmental goals of having a fossil-free city by 2030. They can be seen as guidelines on actions to take for making the target possible.

Conflict 5 is the same as number 4, but instead of Destination Gothenburg and Göteborg & Co, it is Business region Göteborg aiming for more direct lines to Landvetter. This once again implies a goal conflict in relation to the guidelines set up by the City of Gothenburg Environmental Administration.

4.2 Stakeholders

4.2.1 Snowball sampling process

The snowball sampling process has served as a basis to identify who and what organizations are relevant for this project. The process identified the following stakeholders listed in table 4.2.

Table 4.2: List of identified stakeholders during the Snowball sampling process

Organizations or departments of the City of Gothenburg	Environmental department
	Göteborg & Co
	Liseberg
	Got Events
	Business Region Göteborg
	Urban Planning Office
	Executive Office
	Traffic Office
	Environmental Board
	Tourism Board
	Municipality Board
Organizations within VRG	West Sweden Tourist Council
	Västtrafik
	Local businesses
Academia	Researchers on sustainable tourism
	Researchers on sustainable consumption

Along the process, people or concrete roles in the organizations were recommended by previous stakeholders while sometimes just the institution was mentioned. The snowball process started by West Sweden Tourist Council which directed towards another two stakeholders. Please note that for confidentiality reasons, names of volunteering experts who collaborated in the project are not disclosed and just the organization they belong to or roles in there are disclosed in the table. The simplified result from the Snowball sampling process is shown in figure 4.1.

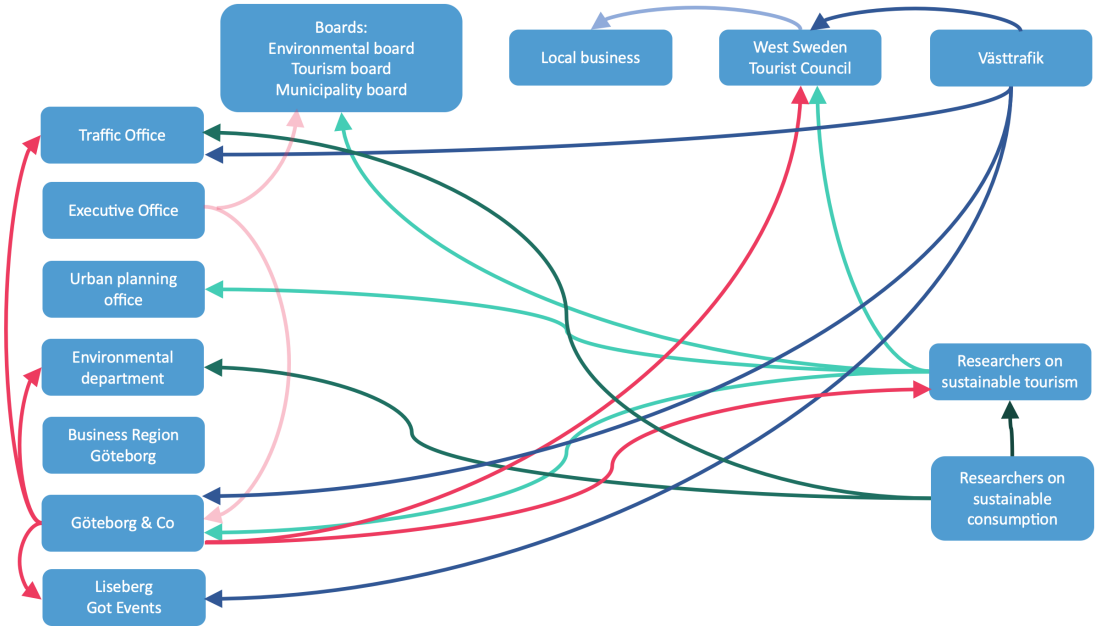

Figure 4.1: Simplified results from the Snowball sampling process diagram

After analyzing the diagram in relation to the points of conflicts mentioned in section 4.1 there are several outputs to highlight.

- The organization that most stakeholders thought could be relevant for this project and got more references concerning the topic of this project was Göteborg & Co, where at least 4 other stakeholders acknowledged they could be relevant to consider.
- The other organizations which 3 stakeholders directed us towards them were West Sweden Tourist Council, the City of Gothenburg Environmental Administration and the Traffic Office of the City of Gothenburg.
- Two other organizations were identified by the document analysis as relevant for the project, Business Region Göteborg and Västtrafik. They were included in the interview phase and their insights helped the project move along. However, despite several discussions with stakeholders during the interviews and the key role the previously mentioned organizations played out in practice for the project, no stakeholder gave their names when they were asked who else should be contacted.

4.2.2 Stakeholders managements and engagement

The results from the Snowball sampling process and the Triple Helix methods were analyzed and compose the Interest-Influence matrix shown in figure 4.2.

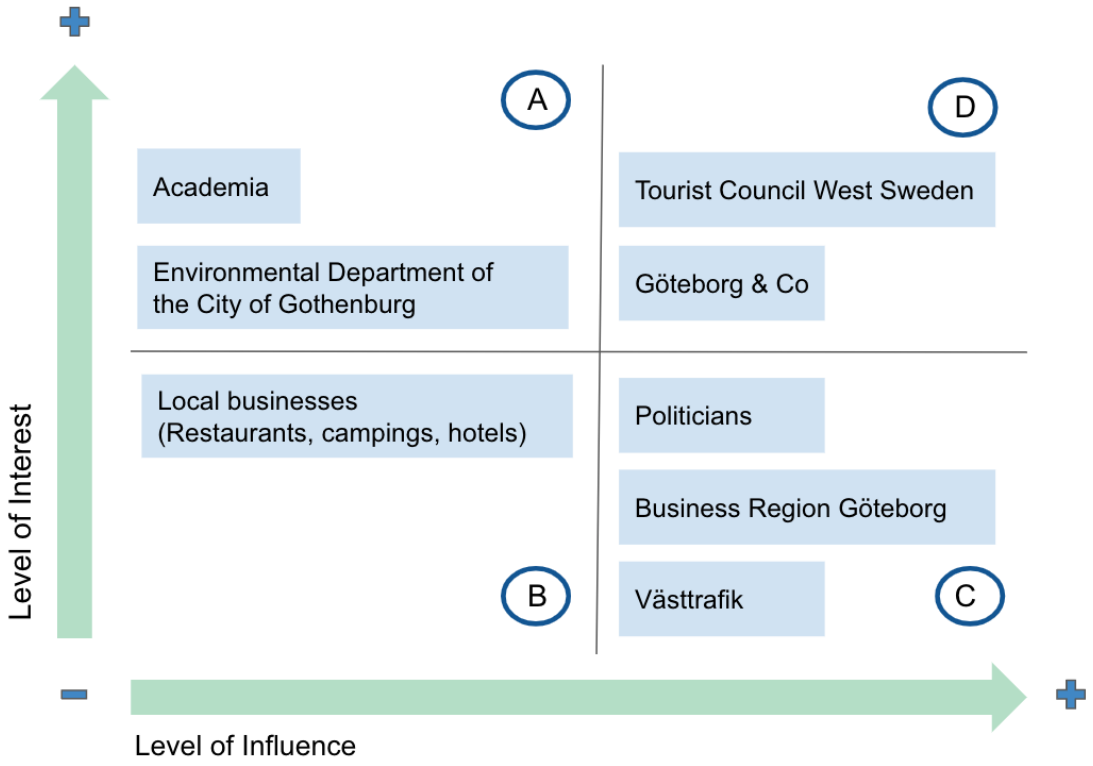

Figure 4.2: Interest-Influence Matrix

As shown by the matrix, the organizations with the highest interest and influence in the process were found to be Göteborg & Co and Tourist Council West Sweden. These organizations that work directly with tourism and looks for attracting visitors to the region are therefore identified as the key players in this project and should be focused upon.

Thereafter it can be looked into box C where politicians, Västtrafik and Business region Göteborg are found. These stakeholders do not include tourism as one of their focus areas or functions in their organizations/roles. Hence, this could explain their lowered interest in what could be considered sustainable tourism in comparison with actors in Box D. Nevertheless, it would be very beneficial to raise their interest in the topic as their level of influence in the system is very high.

By contrast, Academia and the City of Gothenburg Environmental Administration of the City of Gothenburg are found to be located in Box A. They seem to have more interest in the topic than an actual influence to affect it, even though the Snowball sampling and the Triple Helix analyses indicated that they already possess a great level of collaboration with the other stakeholders in the system. For that reason,

empowering these actors can lead to increasing the level of success in the city network of sustainability and tourism.

In the last box, local businesses are found to have low influence and interest in this field. It can be explained as most of the governing documents of the City of Gothenburg concerning the Environmental Programme and other development strategies are not directed to them. Therefore, trying to increase their interest and influence in the system might not result as worthy as in the cases A and D.

4.3 Interviews misalignments

The nine interviews held in the project represented the views of the three legs of society required by the Triple Helix method: Government, Businesses and Academia. The Government was represented by the public organizations working under the directives of governing bodies such as Västtrafik, Tourist Council West Sweden, the Executive Office, the City of Gothenburg Environmental Administration, Göteborg & Co and Business Region Göteborg. The business was represented both by the previously mentioned Göteborg & Co, Tourist Council West Sweden and Business Region Göteborg, but also by local camping in the VRG. Whereas Academia included three researchers working in the field of sustainable consumption and sustainable behavior/development in tourism. More information about their areas of expertise in each organization can be found in figure 4.3.

Table 4.3: List of stakeholders taking part in the interviews and their role/area of expertise in their organizations

Interviewee	*Business / Organization*	*Area of expertise and work*
1	Local Camping in VGR	Business owner
2	Västtrafik	Accesibility and social sustainability
3	Tourist Council West Sweden	Destination development
4	Executive Office of the City of Gothenburg	Planning management
5	Göteborg & Co	Destination development and sustainability
6	Business Region Göteborg	Sustainable city development and social sustainability
7	Environmental Department of the City of Gothenburg	Researcher in sustainable consumption
8	University of Gothenburg	Researcher in consumer behaviour/experience linked to tourism
9	University of Gothenburg	Researcher in sustainable development in tourism

During these interviews, the five conflicts found in the document analysis were brought up to determine if they could be confirmed or debunked. A result from the analysis is that the points of conflicts could be boiled down into two main misalignments rather than five conflicts as shown in table 4.4, resulting in misalignment A related to air-borne trips and misalignment B that encompasses the use of public transport.

Table 4.4: The two misalignments confirmed in the interviews

Misalignment	Goal	Stakeholder
A	Flying in tourism and business	Göteborg & Co Business region Göteborg
A	Reduce flying emissions	City of Gothenburg Environmental Administration
B	Provide accessibility for tourism	Göteborg & Co
B	Provide accessibility for residents	Västtrafik

4.3.1 Misalignment A

From the document analysis, goal conflicts 1,2,4 and 5 were in some way or another related to flying. These could be summarized in misalignment A where the aim of sustained or even increased amount of flying is put against the strategy target from the City of Gothenburg Environmental Administration to reduce the flying emissions by 20% [10]. During the interviews, it came forward that this is a known issue and is actively discussed, but also that it is coupled to the balance of environmental, social and economic sustainability, which was mentioned as a challenge to keep in balance. Flying contributes to the later and has the opportunity to enable other forms of development. The economic benefits from an airport with well-developed connections to other countries or metropolis are perceived as high. These benefits could, for example, generate jobs or increase attractiveness to the region, providing more pull in both capital and people to the area. More jobs and capital can, in turn, provide more social security and sustainability in that aspect, further enhancing the benefits from the airport. The other side would be that this feedback loop accelerates the emissions when more and more people are travelling by air.

4.3.2 Misalignment B

Misalignment B comes from the previous conflict 3 in the document analysis. It confronts the tourism actors having a desire of providing main accessibility to visitors through public transport, since this is an efficient way, both economically and environmentally, to transport people. The problem lies in the directives for public transportation, where tourism is not included as a specific guideline. As previously mentioned, the directives are planned for residents, commuting within the region and likewise. There are no references to tourism, hence it is not part of the function public transport will provide. However, since accessibility for the residents is on focus and they also expect to travel to attractive destinations within the region, then it might not be a problem that directives does not mention or are directed towards the tourist's target group.

During the interviews, stakeholders mentioned that previous discussions around the topic led to agreements of tourism actors with Västtrafik offering free transport tickets (or other reduced price offers) to people attending conventions or events to prevent congestion and emissions from the participants using their private vehicles. However, there are conflicting points of views in this regard, that questions if the budget that sustains the public transport system and part comes from the resident's tax money should be used to facilitate transportation of visitors or instead, to increase the residents' well-being in their daily life. Alternative views of this argument expressed that these events and conventions also provide both economic and social benefits to the residents. Such as increased revenues to the city, providing more tax money. The promotion of public transport to the attendees avoids as well the unnecessary use of private vehicles to these events, preventing emissions.

A problem that may arise if the goal of doubling the number of guest nights is

fulfilled, is a doubled need for visitors' transport. Capacity to popular destinations may be decent enough today but could not be sufficient when there is a doubling of the need. It should be noted at this point that this may be considered a gap rather than a direct misalignment.

4.4 Solving of misalignment A & B and recommendations

Misalignment A

During the research into the Climate Programme and from the interviews, it was found out that a new programme is under development to replace the current one. The relevance to this project is that the new programme is expected to remove the strategic target of reducing the flying emissions. The result from this, assuming the new climate programme enter in effect in the current shape would be that conflict A is not relevant anymore. Since then, there would officially not be any goal conflict between sustaining or increasing flying and environmental targets. The increased flying would still be against the general target of emission reduction, still providing the misalignment, but the underlying goal conflict would be resolved.

The reason for this removal has partly been that the new programme, in general, has fewer target than the previous one. This is to improve its ease of implementation and also making it more focused. Partly a reason is that the new programme focus on what the municipality can affect more directly. The old programme did contain several targets deemed hard to influence from municipality point of view. Another reason is that emission reduction from flying is already integrated into the general emission reduction, resulting in that emission reduction could be either reducing emissions from flying, food, goods, transports etc. One of these or a combination can be used, as long as the main emissions reduction is fulfilled. Theoretically, the emissions from flying could be on the same levels or even increased, given that other areas can reduce their impact in the corresponding amount.

In the theory section 2.2.2 different methods of solving goal conflicts are mentioned. Two of these were avoidance and adaptation. Where the conflict is solved by either removing the goal that is conflicting or modify it to fit the other goal. Both can describe how the case with the new programme handles the goal conflict, although this may not have been an active choice but a consequence of the new form for the programme. During the interviews, people with insights in the programme development process confirmed that the emissions target was removed since the new programme partly want to slim down the number of targets and wants to focus on aspects that the municipality can actually affect. Air travel is one aspect that is deemed hard to affect or control by the municipality.

Avoidance can be a powerful way of solving conflicts if the technological prerequisite is available. But as mentioned in the theory section it is often coupled with

another strategy. For this case compromising or adaptation would be possible ways. By both promoting technological advancements and making small changes in the tourism goals can a similar effect be achieved regarding goal conflicts. A recommendation for the municipality would be to instead of dropping the emission target, rather make a small change in the tourism goals focusing on nearby accessible regions. The tourism targets as of now are set to 2030. But Göteborg & Co and Destination Gothenburg work on 3-years businesses plans, where the current plan expires after 2020 [13]. There is, therefore, a window of opportunities to change direction in the new and coming 3-years plan.

One example of adaptation can be seen in the tourism strategy of VGR. Here the target is set as destinations within VGR should only be marketed to nearby tourists [41], such as Swedes or to countries accessible by train. Resulting in that the target of increasing tourism can be achieved without affecting the target of reducing the emissions from air travel.

Misalignment B

As previously mentioned, misalignment B comprises the dilemma between the tourism actors looking to provide accessibility for tourist in public transport while public transport operator directives are limited to provide this accessibility to residents. However, this dilemma or goal conflict can be seen more as a gap to be bridged instead of a conflict to solve. From the tourism sector that aims just needs to be bridged to the side of the public transport.

The gap from public transport to serve for tourism purposes also affects residents travelling regional or national. Alternatively, if the focus of the tourism actors is set on promoting tourism from nearby areas and countries, more attention should be put on developing a more convenient public transport system within the country and the surrounding areas. What directly affects residents and public transport should be entitled to address, inserting more capacity when and where needed, without intervention from the tourism side.

Summarizing
To clarify the recommendations for misalignment A & B is table 4.4 presented summarizing the two recommendations given.

Table 4.5: Recommendations to the misalignments found

Misalignment	Recommendation
A	Modify the tourism strategy to focus on nearby regions accessible by alternatives to train
B	Raise the interest in tourism at Västtrafik, and get it into the strategies for public transport

5

Discussion

In this chapter the results and conclusions of the thesis are discussed. The limitations of the project are also brought up and how these have influenced the development of the research and what was done to mitigate them.

5.1 Knowledge gap fulfillment and contribution

The thesis has explored the misalignment in the City of Gothenburg regarding the relationship between tourism and climate. The area of investigation was chosen from the pre-study performed in Phase 1, where indications showed that misaligned strategies could exist in this area. It resulted in the first research question: *What are the misalignments between the Climate Programme for Gothenburg and the strategies of the tourism stakeholders within the region?* The research question is answered in the results section (4.3) where two misalignments are found. Knowing of the existence of these it enables the researchers and municipality to work towards solving them.

The two misalignments lead onto the second research question and the knowledge gap the thesis is bridging; *How may problematic misalignment be resolved?* where the focus is set on finding solutions and recommendations to either solve them or at least pamper the effects from the problem they might cause. The recommendations are also gathered in the results section 4.4 where recommendations given to the misalignment A are based upon resolving underlying goal conflicts causing the misalignment, whereas for misalignment B recommendations are given based upon stakeholder management. Both recommendations are designed based on the previously performed document analysis, interviews and stakeholder analysis. These recommendations give a way to approach the misalignments and if they are taken into account the municipality could contribute to a better allocation of the resources and an easier achievement of the climate targets proposed by them.

This thesis contributes to finding out which are those misalignments and how to tackle them, therefore, it is intended to increase the knowledge in the municipality on what flaws can be found in that system and how to sort it out.

5.2 To include emissions from air or not

The first major point in this thesis was the air traveling and its role in the municipality. Air travel provides economic and social benefits while also contributes to generating emissions. To reduce the negative environmental impact of aviation, the municipality has set up the target of reducing emissions from the residents' flights by 20%. Not explicitly stated how this will be fulfilled. There are short mentions of technology improvements and making sure the increasing trend of air traveling is not progressing. Important to notice in this regard is that the target is written such as that only the outbound flying from residents is targeted while incoming flying is not mentioned. This results in that tourism and business trips to Gothenburg are not affected by this target.

A strong case could, therefore, be made that actually there is no goal conflict or misalignment at all in this context since the strategy targets different traveling groups. However, in this thesis, a connection is made between increasing air travel into the region from tourism and a sustained or even increased air travel from residents. An increase in international tourism would require better connections and more traffic volume to Landvetter airport. Making it easier and cheaper for tourism to come to the region. Double-edged this will also have the same effects for regional residents traveling outbound. Hence, in the broader perspective, the target of reducing emissions from the residents' air travel should be coupled to the incoming flights as well. Understandably, it is not easy to formulate such a target, since it would go against other aims of increasing attractiveness of the city and increasing economic growth and on top of it be quite hard to put in effect.

Until now, the consumption-based perspective for accounting emissions involve the emissions generated by residents taking those airplanes, however, they create a demand for flying that non-residents also benefits from. Those emissions by non-residents are so far not taken into account.

This reasoning raises the question about if we should be environmentally responsible for the people we brought here, trough marketing or likewise. On the one hand, in the programme *Fossil free Gothenburg -What is required?* it is mentioned that the influence of reducing the emission from outbound flying is low. Mainly, the only way is to support technological advancements such as providing biofuels and trying to influence the population's behavior. However, the influence about who to direct marketing to and which businesses to attract to the region is something the municipality have more direct influence over. Should it be to faraway destinations or nearby ones reachable by other means than flying?

5.3 The new environment- and climate programme

During the progress of this thesis a new environment- and climate programme was developed for the City of Gothenburg and is currently under review for its approval.

The programme is developed as a continuation of what the city has been doing with the previous programmes. It is expected to work for increasing the residents' wellbeing while reducing the environmental impact of the city. But the programme has followed the guidelines of an easier programme to implement, by for example reducing the number of targets.

This new programme will have implications for this thesis. Many of the found conflicts are rooted in the old climate programme which is the governing document until the end of the present year, 2020. This poses an opportunity for a similar study to this one to be done in the future. A similar study could evaluate how this new programme fits within the web of strategies of the municipality and review the evolution of the misalignments. The programme is expected to affect the misalignments, however, general alignment can be strengthened or made worse trough this.

5.3.1 Removal of emissions reduction for flying

In the new version of the environment- and climate programme the strategic target of reducing the emissions from flying is removed. It is also excluded when targets regarding transportation are mentioned. As mentioned in the results section this came from the new programme being slimmer, more focused on direct influence, and that the target is still incorporated in the general emission reduction.

The emission target for flying will therefore not be as clear as it was in the old programme. Especially that the emissions could be on other frontiers rather than flying, meaning flying could be left at on the same level as of today or even increased. Different cities have other ways of looking at emissions from air travel, how and if it should be constrained, and how to allocate these. A study done by Elofsson et al, looked at over 200 sustainable energy plans to compare how different cities take on these questions [43]. In this paper, a study brought up in Manchester city council put attention on letting the flying emissions increase. In the study, it was found that if the UK would let the air travel increase at an expected rate with efficiency improvements in place until 2050, the carbon emissions from this would fill the allowed total carbon budget on its own [42]. Hence no other sector would be allowed to emit carbon emissions to fulfill the climate target.

The UK is a global hub with a large share of international travels. But a similar scenario for Sweden or specifically Gothenburg and Landvetter would not be too unrealistic. Especially with this new emission target where air travel is absorbed by the total reduction target, which may be implemented with the new programme.

5.4 Public transport and its role

The second major point from this thesis is public transport and what service should be provided to tourism. That there is a reliance on these systems meanwhile the public transport sector providing it is not taking tourism into consideration. The

results show though that tourism is considered when it comes to events and big happenings in the city, where there are considered benefits of the public transport stepping up and be the preferred mode of transport. The question becomes, where lies this threshold where it is considered important for the public transport to be the main transport mode and efforts made to accommodate these?

Residents' daily life and the big events taking place in the city are already a part of this. It seems to be possible to integrate regular tourism as well in the system. As mentioned in the results this is viewed as a gap rather than a misalignment. There may be a question of either too little information from the tourism perspective about the ambitious plans in the coming years and its effect on public transportation in the region. Or there may be too little interest from the public transport in getting into the matter and make changes to plans and targets.

5.5 Alignment within the municipality

In this report, the goals and targets of the municipality have been scrutinized in regard to goal conflicts, and them leading to misalignments. Some results have been found in these aspects, but there is another not visible result from this study. That is the alignment already existing between tourism and the goals of the municipality. The remarks done in the results are the places where a misalignment could be found, otherwise the tourism part of the municipality seems to be in harmony with the rest.

The reason for calling these results invisible is that this is the presumed norm. That everything should be aligned within the municipality. But as the theory describes it, misalignments might be ever-present and dynamically changing. They could also be positive in some remarks for identifying existing problems or to strive for improvement and development of the well-functioning systems. To find this level of alignment can be seen as a positive sign of the work done in the municipality to incorporate goals and targets cross-wise trough the departments and companies owned. A caveat would be that this study has only looked into the environmental and tourism part of the municipality and relevant parts around that. There may be other departments or companies owned by the municipality where more misalignments are prominent and function hindering.

5.6 Limitations and their effects

Along with the project development, different limitations have been present. There are those set by the project itself. For example, the limitation on geographical area, or what kind of tourism is looked upon. In retrospect, these limitations can be considered to have fulfilled their purpose that was to limit the scope and ensuring the research stayed focused. A discussion could be about the limitation on the exclusion of conferences and events in the study. Gothenburg has a well-developed event industry with major events taking place in mostly the summer period. It would have been interesting to include this in the analysis and see what possible misalignments

there may be. But since the project has limited time a compromise has been done not to affect other parts of the research.

An external limitation has been the outbreak of the Covid-19 pandemic. It started to affect the normal development of the project a third of the way in. Impacts from this pandemic have been on the interviews and a planned dialogue. Since physical meetings could not be performed, interviews were held digitally instead. Initially, the interviews were planned to be performed at the preferred location of the stakeholders, providing more comfort and making sure the interviews went smoothly. With the digitization of them, limitations both on the technical aspect, like sound and video, but also the interaction aspects raised. Body language and interaction with participants in front of a screen in comparison to a physical meeting differs from digital meetings. No analysis has been done on the actual effect of these online interviews, but the subjective feeling was that this limited interaction, data recovery and the trust to speak freely from the interviews.

Another impact from the pandemic is the halt it put on the plan for having a dialogue with the stakeholders involved in this project. Initially, the plan included the document analysis and performing the interviews to confirm the previous conflicts found and then holding a dialogue to work on solutions together with the stakeholders. This would have provided a triangulation approach where the misalignments would pass a triple filter, providing more legitimacy and cementing its position. With once again physical meetings not possible to be performed, the dialogue needed to be moved to digital means. Complications with this combined with problems to fit stakeholders' schedules lead to the dialogue being canceled. Instead, the study continued only with the document analysis and the interviews. Having access to the results from the dialogue would have improved the project quality-wise.

On the perspective of methodology, the Triple Helix may be scrutinized. Originally, the Quadruple Helix was going to be used where in addition to government, business, academia also people are included. For this project, this leg would have been the tourists. Like mentioned in the method 3.2.2, the helix is used to provide insights from different areas of society, and in that way get a more complete picture. Having tourists as part of this project could have given relevant insights into the issues discussed in this thesis. Early on in the project, the challenges with including tourists became apparent. The outbreak of Covid-19 halted all tourism in the region of VG, increasing the difficulty of performing a Quadruple Helix. Compromises have been made deciding to use a Triple Helix instead and optimizing for that method, losing some perspective on the complete pictures, but ensuring the feasibility of the project. It can be argued that the quality of the project would have been improved with the addition of this aspect.

A limitation affecting the project has been the accessibility of stakeholders. Even if many interviews have been performed the ambition was higher in terms of stakeholders involved and the data gathered from discussions with these. Many of the stakeholders could spare time and were available for questions, others had a harder

time and could not participate. An example could be that the project early found trough Snowball Sampling that politicians played an important role in the policy steering and target decision, so it became apparent the need to get in touch with them. Attempts were made to get in contact with them but to no avail. The report, therefore, lacks the political insights into the problems presented here. The government branch of the Triple Helix is deemed nevertheless fulfilled by the numerous interviews with civil servants working in the different departments. But the quality of the method could have been raised with inputs from the decision-makers in these regards. It is important to note that the outbreak of Covid-19 surely affected the priorities of stakeholders resulting in lower availability of time for the project inquiries and other personal circumstances.

6
Conclusion

From this study, two misalignments have been identified:
A. Reduction of outbound flying emissions against the increased inbound air travel.
B. Public transport's role in tourism.

Underlying goal conflicts is fueling the misalignment. The recommendations from this project are therefore first to resolve goal conflicts.

For misalignment A this can be done by utilizing avoidance and adaptation. A small modification to the tourism targets can significantly help the goal conflict, such as to clearly state that tourism should be focused on regions accessible by other means than flying. This in conjunction with avoidance consisting of continued work with efficiency improvements or climate-neutral solutions such as biofuels, has the potential to resolve this goal conflict and therefore the misalignment.

For misalignment B the recommendation is not coupled to the goal conflict since it is considered a gap between the public transport role and the tourism expectations of using that service. Therefore, the recommendation is to try to simply bridge the gap. Tourism needs to be empowered on the agenda for public transport. There are already synergies used, but more potential could be used if the interest is raised.

Due to the circumstances during the writing of this thesis, the recommendations provided here can be taken into account once society returns to normal and tourism can be resumed. Further areas to investigate are the possible misalignments between other sectors and the climate strategy in the City of Gothenburg. Especially taking into consideration the new programme entering in effect 2021. The new programme also makes it viable to follow up on the studies done in this thesis and compare how the alignment has developed with the introduction of new strategies. The last suggestion would be to explore the municipality targets for climate action and tourism strategies compared to the regional and the national targets and see how these align with each other since this thesis have been limited to the Gothenburg region.

A finishing conclusion drawn from this project is that the municipality seems to be overall aligned in regards to the tourism and the environmental targets. The project has identified these previously mentioned misalignments that should serve as opportunities to improve the system, but overlooking these the targets are in general aligned or at least not conflicting with each other in this sector.

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A

List of policy-, strategy- and guidelines documents used in analysis

Original Name of the Document	**English Name of the Document**	**Year of Publication**	**Region/Area included**	**Owner of document**
Göteborgs Stads program för besöksnäringens utveckling fram till 2030	City of Gothenburg's program for the tourism industry's development up to 2030	**2018**	Gothenburg Extended Region	**City of Gothenburg**
2020 European Capital of Smart Tourism	-	**2019**	Gothenburg Extended Region	**Göteborg & Co**
Ways to Grow	-	**2018**	Gothenburg Extended Region	**Destination Gothenburg**
Ways to Go	-	**2018**	Gothenburg Extended Region	**Göteborg & Co**
Göteborgs Stads näringslivsstrategiska program 2018-2035	City of Gothenburg's business strategy programme 2018-2035	**2017**	City of Gothenburg	**City of Gothenburg Business region Göteborg**
Klimat 2030 - Västra Götaland ställer om Strategiska vägval	Climate 2030 – Västra Götaland in transition	**2017**	Västra Götaland	**VGR**
Fossilfritt Göteborg - Vad krävs?	Fossil free Gothenburg - What is required?	**2018**	City of Gothenburg	**City of Gothenburg**
Klimatstrategiskt program för Göteborg	Climate Programme for Gothenburg	**2014**	City of Gothenburg	**City of Gothenburg**
Göteborgs stads miljö- och klimatprogram 2021-2030	City of Gothenburg's environment - and climateprogramme 2021-2030	**2020**	City of Gothenburg	**City of Gothenburg**
Målbild Koll2035	Public Transport Targets 2035	**2018**	Gothenburg Extended Region	**VGR**

Table A.1: Strategies, guidelines and documents used in the document analysis

B

Questions used in interviews

How do you work with climate impact and how important is it to your sector?
Is tourism relevant for your sector? How in that case?
What is your ability to influence in the sector? (decisions, economical)
Gothenburg city has a climate programme in place. How is that affecting your sector? How are that taken into consideration when making own strategies and likewise?
Misalignment question - Specific for each stakeholder interview Based on the document analysis Example: Doubling of tourism in line with fossil free Gothenburg?
What organizations/actors would be interesting to contact? Any specific person within that organization to contact?

Table B.1: Baseline questions used for the interviews with stakeholders