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RUNNING HEAD: DECISION-MAKING IN DUTCH PUBLIC TRANSPORT

DRAWING THE LINES: POLICY PRIORITIZATION IN DUTCH PUBLIC TRANSPORT CONCESSION AREAS

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Master's Thesis Environment and Society Studies (MAN-MESS02)

Specialization: Local Environmental Change and Sustainable Cities

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July 22nd, 2023

Colophon

Title:	*Drawing the Lines: Policy Prioritization in Dutch Public Transport Concession Areas*
Document:	Master's Thesis (MSc)
Program:	Master Environment and Society Studies (ESS)
Specialization:	Local Environmental Change and Sustainable Cities
Date of submission:	July 22nd, 2023
Wordcount:	25,091 (excluding title page, Colophon, Index, Glossary, Abstract, Preface, in-text citations, references, figures and tables, headers and footers, and appendices)

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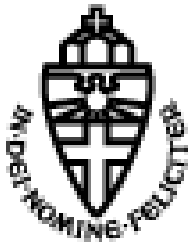

Abstract

Policy-making in the Netherlands faces several crucial challenges, including a housing and energy crisis, the effects of the COVID-19 pandemic, and the Russo-Ukrainian War. Additionally, the ongoing global warming puts extra pressure on ensuring that policies contribute to a sustainable future. Dutch policies, therefore, need to contribute to numerous policy domains and policy objectives. It is relevant to understand factors on which transport policy-makers base their decisions and why certain objectives are prioritized over others. This thesis investigates the question: 'How do policy-makers prioritize the policy objectives of accessibility, sustainability, and social inclusion in regional public transport concessions areas in the Netherlands?' The study approaches the research question applying the policy arrangement approach to study the policy process and it uses the cognitive rationality model to comprehend prioritization. In doing so, it employs a qualitative comparative case study analysis of two regional transport areas in the Netherlands. The data analysis involves both examining policy documents and conducting semi-structured interviews.

Keywords: policy-making; public transport; accessibility; sustainability; social inclusion; the Netherlands

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Glossary

Table 1.
Presentation of the list of abbreviations and acronyms

Abbreviation	Term
CBA	(Societal) Cost-benefit Analysis
CRA	Cognitive Rational Approach (Cascetta et al. 2015)
GT(M)	Grounded Theory (Methodology)
JAF	Joint Accessibility Framework (Straatemeier & Bertolini 2020)
KiM	Institute for Mobility Policy (Dutch: *Kennisinstituut voor Mobiliteitsbeleid*)
MaaS	Mobility-as-a-Service
OV	Public transport (Dutch: *Openbaar Vervoer*)
OMV	Environmental Planning Plan (Dutch: *Omgevingsvisie*)
PAA	Policy Arrangement Approach (Arts & Leroy 2006; Liefferink 2006)
PCG	Provincial Concession Group
PT	Public Transport
PU	Province of Utrecht
PvE	Public Transport Concession Requirements (Dutch: *Programma van Eisen*)
PZH	Province of South-Holland
QCA	Qualitative Case Study Analysis
UBi	PT Concession Area Inner Utrecht (Dutch: *Utrecht Binnen*)
UBu	PT Concession Area Outer Utrecht (Dutch: *Utrecht Buiten*)
ZE	Zero-emission
ZHN	PT Concession Area South Holland North (Dutch: Zuid-Holland Noord)

Preface

Not exactly an academic start to a thesis, but a personal, short note to this study and thesis. Blood, sweat, and tears: that would basically sum up the final months of finalizing this thesis. But before came interesting months with inspiration, advice, and supervision. I have learned a lot as an intern and later as a student-advisor at TwynstraGudde. Mobility – accessibility! – and infrastructure has been a passion of mine since I was young and I am looking forward to having a professional career in that field. Thanks to David, Jan-Willem, and Tim in particular, as well as all the other colleagues at MenI. Doing researching and writing a thesis is not my ambition, however, the guidance, advice, patient and supervision that Adrian Rinscheid has provided me and several of my peers was unprecedented. I think it is safe to say that Adrian puts in more effort guiding a master thesis than most students expect. So, thank you for your help during this process, Adrian. I hope you will have a wonderful time at Radboud University (mine lasted seven years, which proves that moving here is worth it). Finally, thank you to all that supported me with advice, feedback, library sessions, and more: Leonie, Tomasso, Charlotte, Abrar, Nora, Bobby, Ruben, Merijn, Loïs, Odette, Minke, Stan, and Max and all of my fellow ESS (and American Studies) peers. Time's up!

1. Introduction

1.1 The Complex Endeavor of Public Transport

Excessive population growth due to immigration and urbanization (Kooiman 2020), staggering housing crisis due to inflation and shortage (Schmid 2022), mounting energy crisis as a result of gas extraction debate in Groningen (Van den Berg 2023) and the Russo-Ukrainian War (Frijters et al. 2023), the consequents of the COVID-19 pandemic (Gkiotsalitis 2021), and the ongoing fight against climate change: it is futile not to say that public policy-making in the Netherlands faces several significant crises and challenges as of 2023. The Netherlands and its urban areas in the particular, witness unprecedented numbers of individuals across socioeconomic boundaries desire to reside in or near cities in suburbs (Kooiman 2020). However, the supply of housing in these areas is problematic and, additionally, the affordability is low, due to relative high prices in these areas (Schmid 2022). That is exacerbated by the inflation that is the result of the energy crisis and Russo-Ukrainian War. Increasingly more individuals are unable to buy or afford the rental prices that dictate the contemporary housing market in the Netherlands (Frijters et al. 2023).

In combating these challenges, pressure mounts for elected officials, and indirectly, policy-makers who are assigned to draft policy solutions. How these challenges shall be overcome and addressed and where the prioritization lies is subject to debate. This debate is witnessed in the Dutch context particularly in the field of public transportation (PT) planning. It is a field that is influenced by all of the challenges mentioned here, meaning that policy-makers are bestowed with important and complex decisions (Hirschhorn, Veeneman, & Van De Velde 2018; Straatemeier & Bertolini 2020; Van Wee & Geurs 2011; Veeneman 2018). They are assigned to incorporate numerous (regional) policy plans into their respective policy fields.

The prime objective of PT is granting accessibility to people in the broadest sense. The PT system and the policies surrounding it are installed by policy-makers to grant accessibility to individuals, which allows those individuals to participate in activities, from leisure to work and more (Jeekel 2019; Silva, Bertolini, & Pinto 2019). PT, additionally, makes it possible for goods to travel along these networks and between locations (Van Wee & Geurs 2011). It has also been adopted as policy instrument for different (public) values, such as sustainability, social inclusion, and employment (Banister & Button 2015). Many individuals use PT on a daily basis (CBS 2023), without probably even realizing or acknowledging what this system made possible for specific regions and why these systems are designed in a particular way.

However, there is a change how public policy-making is approached in the Netherlands. PT, as many other urban planning domains, therefore, has the function to contribute to numerous other urban and regional planning policies and policy goals. Public policy-making in the Netherlands has taken a more integrative approach in the recent years (Hirschhorn, Veeneman, & Van De Velde 2018; Veeneman 2018). Transport policies compete prominently with other policy fields, such has housing, health care, and others. This competition concerns both financial support, i.e., what is prioritized, but more interestingly, how particular policy domains approach certain issues and concepts. Sustainability is a wide-used example in the case for integrative policy-making (Hirschhorn, Veeneman, & Van De Velde 2018; Hull 2008). What these policy goals entail sometimes differs from sector to sector. This may lead to a

phenomenon called policy protection where different managers from a given policy domain defends their approach to an issue. (Hull 2008). This is also witnessed in current public policy-making in the Netherlands where many policy fields, therefore, take an integrative approach, combining multiple policy fields with their own. Urban planning and with that, transport planning, has become more cross-sector and multijurisdictional (Hirschhorn, Veeneman, & van de Velde 2018).

1.2 Policy Integration and its Features

In academics, this notion is called 'policy integration'. Several studies have looked at the development of policies and policy-making in recent decades and drew the conclusion that policy-making is increasingly a complex activity. Policy-making is an act of constantly designing, negotiating, framing and reframing and redeveloping with numerous actors, both internal – the policy-makers – and external – ranging from other policy domains to other entire sectors (Isaksson et al. 2017). Part of the complexity in policy-making is the incorporation of other policy domains and goals into, for instance, transport policy (Hirschhorn, Veeneman, & van de Velde 2018; Isaksson et al. 2017). An example of such a complex policy integration is from a study by Isaksson et al. (2017), where the Stockholm city government applies numerous policy documents with set ambitions to the sustainable transport policies. The result is a complex – sometimes conflicting, even – sustainable transport policy that encompasses ideas and ambitions from many other policies, including but not limited to a city plan and a regional development strategy. It stresses that the sustainable transport policy is mandated to contribute positively to e.g., housing objectives and set goals to improve inclusivity.

This debate stresses the eminence of moving beyond the idea of providing accessibility and acknowledge other policy fields in designing PT policies. Broad policy objectives that Dutch policy domains often recognize are sustainability and social inclusion – as stated in the beginning, accessibility can aid in providing equal opportunities, employment, and more – (Hirschhorn, Veeneman, & van de Velde 2018). Considering the impact on the level of inclusivity and sustainability, makes for a more impactful policy that acknowledges the symbioses of policy fields (Hirschhorn, Veeneman, & van de Velde 2018; Veeneman 2018; Veeneman & Mulley 2018). These two, together with the objective of accessibility, are studied in policy-making in PT in the Netherlands.

When discussing the concept of accessibility, there is a debate among policy-makers on what this exactly encompasses and more interestingly, how it is operationalized. Geurs and Van Wee (2004) define accessibility as "the extent to which land-use and transport systems enable individuals to reach activities or destinations by means of a combination of transport modes (351)." This means that how our space and the multitude of transport modes, i.e., automobiles, bicycles, or PT, determine how people are able to reach several destinations and participate in (societal) activities. This would also determine the degree of social inclusion or exclusion. It shows that this term moves beyond the realm of (public) transport, and has societal benefits in other policy domains, such as employment and housing as well.

Veeneman & Mulley (2018) acknowledge this notion, too and argue that planning for mobility is not the answer to approaching public policy surrounding our transport system. They rather argue that PT policy is more effective by focusing on accessibility. According to their research, they argue that even accessibility is too limited, and that it should also involve other

domains, such as (urban) sustainability. "Public transport systems are not simply about mobility; however, they provide access to activities creating value to individuals or society. Hence, more mobility is a poor indicator of value, as accessibility could also be created through mix use centers to facilitate urban sustainability (Veeneman & Mulley 2018, 430)." However, planning for mobility is still dominantly applied in practice, though policy makers might advocate accessibility (Straatemeier & Bertolini 2020).

Planning for accessibility – and mobility, too – does, however, have a negative impact on the environment and greenhouse gas emissions. Policy-makers and elected officials have become increasingly aware of these impacts and devoted effort to drafting policies combatting negative environmental impacts (Isaksson et al. 2017). Policies that advocate modal shifts, reduced travel time, or a more efficient transport system using technology have been proposed and implemented (Banister 2008; Curtis 2020; Cuthill et al. 2019; Isaksson et al. 2017). However, what constitutes sustainability or a sustainability is debated. It is a concept that causes ambiguity about what the term entails. Sustainability or sustainable development as proposed in the Brundtland Report (World Commission on Environment Development 1987) acknowledges the limits in economic growth across scales in a global way. In this way, it is argued that societies should limit the expansion of production and consumption and resource inputs (Curtis 2020; Cuthill et al. 2019). Sustainability is a broader concept, puts the natural environment at the center and perceives social equity as part of the core of a sustainable society (Caradonna 2022; Hopwood, Mellor, & O'Brien 2005). However, sustainable development has been adopted in recent years vigorously by PT policy-makers as will be outlined in *4. State-of-the-art*. This is particularly witnessed through the introduction of new technologies such as Mobility-as-a-Service (MaaS, Veeneman 2018) and zero-emission (ZE, Goodwin & Curtis 2020; Hopkins 2020) vehicles and busses. It should be noted that the Dutch work with a measurement which they call 'broad welfare' (Dutch: *Brede Welvaart*, Yunita et al. 2021) in which they measure a 'healthy society' beyond economic growth and gross domestic product (GDP), but also includes social equity, social safety, and sustainable development.

This approach mirrors the notions of policy integration; however, it does signify that these major elements of broad welfare, i.e., social safety, social equity, inclusivity, must be included in the analysis of a study on Dutch policies. This thesis applies these notions under the umbrella term of 'social inclusion' and specifically tailored to transportation policy: inclusive transport. It conveys, in essence, the degree to which individuals are able to participate in society. Veeneman and Mulley (2018) named this 'urban sustainability', as mentioned before, showing that accessibility is also about providing access to activities in order for individuals to participate. This is supported by the fact that individuals with a lower socioeconomic status are less likely to have adequate (public) transport, having fewer options to participate in society. Additionally, this is unevenly distributed in society, meaning that particular groups in particular regions face this problem increasingly more than others (Henriksson & Linkvist 2021). Bridging social inclusion with transport policies may, therefore, be beneficial.

1.3 Overview of the Research Design

This thesis, therefore, specifically concentrates on the three policy goals of accessibility, sustainability, and social inclusion. The latter shall later be specified to inclusive transport to apply to the transportation context. The study, furthermore, tries to understand how Dutch regional policy-makers navigate the stated objectives. It is interested in the overall process navigation by the policy-makers and eventual prioritization by policy-makers regarding these policy goals. The thesis operationalizes these questions by conducting a qualitative comparative analysis (QCA) on two regional PT concession areas (PTCA) in the Netherlands: one in South-Holland (Dutch: *Zuid-Holland*, PZH) and one in the province of Utrecht (PU) (see Fig. 1). With

Figure 1. A map with outlines of the provinces in the Netherlands. The PZH (A) is located in the west with the major cities of Rotterdam and The Hague. The PU (B) is right in the middle of the Netherlands with the major urban area of the same name. (Overheidinnederland.nl n.d.)

regard to the QCA, the research studies two cases in the Netherlands. These are based on the similarity, as this research is concerned with understanding how similar regions navigate the policy goals. The selected cases, therefore, represent the same side of the spectrum when it comes to their conditions, including their geography, their demographics, their size, and their location in the Netherlands. Both provincial governments are as of 2023 designing a new concession plan to tender their PT concessions for 2024, a process occurring every eight to fifteen years. The central research questions states: "How do policy makers operate in public transport concessions areas in the Netherlands around the policy goals of accessibility, sustainability, and social inclusion?"

Provincial governments are the authorities in the Netherlands with the mandate to design, maintain, and develop regional PT. Regional PT in the Netherlands, typically, constitutes bus, sometimes metro and tram, as in the cases of the larger cities such as Amsterdam, but also Utrecht, waterways (ferries), and in rare cases, regional trains (CROW 2023; Veeneman 2018). These provinces grant these PTCA's to selected transport companies such as Arriva or Connexion to operate PT in those selected areas. These PTCA's are publicly tendered since 2001 when the new Dutch transportation law, *Wet Personenvervoer 2000* (*Overheid.nl* 2022) went into effect (CROW 2023; Veeneman 2018). A closer look at these concession areas is provided in *Chapter 5*.

Different studies have followed how these PTCA's are tendered, what the focus of policy-makers has been with respect to future technologies (Veeneman 2018), how policies have been more integrative in recent decades (Hull 2008), and what the performance indicators are for effective PT in metropolitan areas (Hirschhorn, Veeneman, & Van Der Velde 2018).

This means that these studies have been particularly focused on the outcome of the different PT policies. However, this research centers around the decision-making process and prioritization during the drafting period for the PTCA along the policy goals of accessibility, sustainability, and social inclusion. It will look for instance, at different ideas to promote these goals, such as ticketing, pricing, but also how to promote sustainability, and what policy-makers are concerned with when discussing accessibility

This research adopts a mix of methods in order to research the decision-making and prioritization along the axis of accessibility, mobility, and social inclusion. It will start with establishing a baseline as well, as what is defined within the literature under 'accessibility', 'sustainability', and 'social inclusion', such as seen in the research structure by Veeneman and Mulley (2018). It will then continue with the policy arrangement approach (Liefferink 2006). This approach studies on how to analyze stability and change within policy regimes across four different dimensions, actors and coalitions, division of resources, rules of the game, and policy discourses. These policy arrangements evolve slowly and are influenced by institutions. These institutions are, for instance,

> "The actors and their coalitions involved in the policy domain. The division of resources between these actors, leading to differences in power and influence, where power refers to the mobilization and r-deployment of the available resources, and influence to who determines policy outcomes and how. The rules of the game currently in operation, in terms of formal procedures of decision making and implementation as well as informal rules and 'routines' of interaction. And finally, the current policy discourses, where discourses entail the views and narratives of the actors involved (norms, values, definitions of problems and approaches to solutions) (Liefferink 2006, 54)."

It adopts this approach from a policy-makers perspective, which entails that this study wants to research who is involved, what are their power relations, and how they influence policy (Liefferink 2006). Data is gathered by doing policy analysis from several policy documents from both the PZH and the PU. The policy analysis is supplemented with semi-structured interviews. The data coded and analyzed according to the approaches adopted in Grounded Theory (GT) (Veeneman 2018). This approach is expanded upon in *4. Research Strategy and Approach, Methods of Data Collection and Analysis.*

The research, lastly, also considers recent developments in the analysis regarding PT travel and PTCA development. Hinted at is the 2020-22 COVID-19 pandemic that halted (public) transport off and on for several periods. Both road transport and PT decreased significantly during this time (see Fig. 2). Across education levels and jobs, the majority of people replied they worked more hours from home than they did before the pandemic. Work-related transport decreased compared to the pre-COVID-19 era. This is especially significant for weekdays, where the work-related transport is expected to decrease by 10%-15% after COVID-19 (*Kennisinstituut voor Mobiliteitsbeleid* 2022). This decrease is also witnessed in the modes from transport, where both car transit and PT declined and are expected to decline after the pandemic. Only bike transport and walking are expected to rise after COVID-19 as a mode of transport to commute to work (*Kennisinstituut voor Mobiliteitsbeleid* 2022). It is expected that these post-pandemic effects have an impact on public policy-making and PT, specifically.

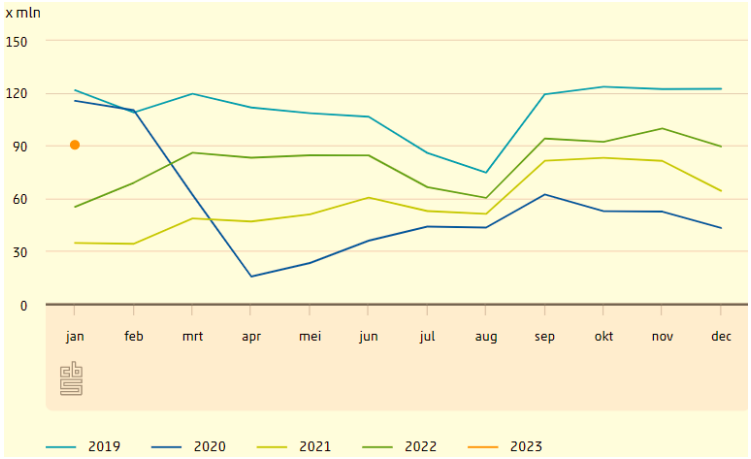

Figure 2. Graph depicting annual transport levels between 2019 and 2023. Particularly the first COVID-19 year, 2020, witnesses a sharp transport decrease in the first months of the pandemic starting in March (CBS 2022).

The thesis is structured as follows. It starts with explaining and identifying the research question, societal and scientific relevance. A literature study is conducted on the term 'accessibility', 'social inclusion', and 'sustainability', particularly in relation to policy-making in transport and the Netherlands. It then briefly depicts what the policy-arrangement approach entails, shows how the data is collected, and analyzes the data. It will close with the conclusion and a discussion. The appendices at the end of the document can be consulted to more precisely comprehend on how the data was analyzed (see *Appendix B: Coding Guide*) or data was acquired (see *Appendix A: Interview Guide*).

2. Research Questions and the Researcher's Perspective

The following brief sections highlight how and why this research is conducted before continuing with the central parts of the thesis. This section presents the research questions and what the contributions are of these research questions to the study. The second step is to present what can and cannot be studied in this research by discussing the main ontological and epistemological frameworks of this thesis. These are the ways in which the researcher perceives the world and their environment and the degree to which knowledge about it can be produced. It, therefore, makes for a personal statement regarding this research.

2.1 Research Questions

As mentioned in the introduction of this thesis, this research is concerned with the decision-making and prioritization of public policy-makers in the domain of PT, specifically in PTCA's in the Netherlands. The stated main research question (RQ) was as followed:

> *RQ: "How do policy-makers operate in public transport concessions areas in the Netherlands around the concepts of accessibility, sustainability, and social inclusion and prioritize them? (See also 1. Introduction)"*

To break this down, the study is concerned with the actors, in other words, the policy-makers in the field of PT in the Netherlands. Moreover, they operate, as seen in the introduction, applying policy integration where a multitude of policy goals must contribute to a policy. In this highlighted case, regional PT must contribute to regional accessibility, sustainability and mobility. The question more specifically is how policy-makers work with these goals in the PT policy domain.

Several sub-questions are drafted to break the research question down that are answered during several stages of the research. These titled sRQ1, sRQ2, and sRQ3, and henceforth, referred to as such. They are as follows:

> *sRQ1: "How do policy-makers in the Netherlands draft public transport concessions?"*
>
> *sRQ2: "What themes – for instance, zero-emission, sharing mobility, and more – are leading in public transport concessions in the Netherlands and how do these apply to the policy goals of accessibility, sustainability, or social inclusion?*
>
> *sRQ3: "How do policy-makers in the selected case study concession areas decide what is relevant with respect to these terms for their respective areas and what is the difference between decision-making in these areas?"*

RQ1 helps understanding what the process is of designing PTCA, specifically the so-called PTCA requirements. Which regional policy and planning plans are studied and applied in drafting these requirements and who is involved in this process? It aids shaping an image of the policy process and relevant documents, including the provincial ambitions. RQ2 and RQ3 submerge in the relevant themes of the provincial policies and policy ambitions, which help distill what is currently under debate within provincial policy-making. It studies the concepts

and ambitions as laid out in the *Chapter 4.* RQ3 then goes deeper in the prioritization of these goals. What do policy-makers see as imperative and what is distilled from the policy documents as such?

2.2 Ontology and Epistemology

As stated before, this is a personal section of the research, because it deals also deals what is and is not possible within the scope of the research pertaining to my ontological and epistemological point of view. It is, therefore, relevant to note what these are to me before discussing the relevant concepts and analyzing the acquired data. The ontological question deals with the nature of reality, and indirectly what we as observers can know about that reality (Guba & Lincoln 1994). In sync with these paradigms and their ontology, there is an epistemological and methodological question, in other words: "what is can be known about reality and how can the researcher know this reality (Guba & Lincoln 1994)?" It is, thus, the debate to what extent the world around can be observed and if we can comprehend the observed.

In short, this study adopts the paradigm of a 'critical theorist' also considering the focus and scope of the research questions. I, therefore, presume that individuals, including policy-makers, constitute realities based on the societal and institutional structures in which they operate. Critical theorists assume that these perspectives are "shaped by a congeries of social, political, cultural, economic, ethnic, and gender factors (Guba & Lincoln 1994, 110)." Several factors, therefore, influence one's perspective and establishes a perspective that is intrinsically dialogic and dialectical.

Though this perception resonates as if the social environment is too complex to fully grasp – which it is, according to critical theory – it allows to acknowledge these complex patterns, both societally and in policy. This is fitting with the notion of policy integration, where different policy goals and domains are stacked into one policy that needs to contribute to multiple goals. The idea that systems are not separate (Guba & Lincoln 1994), i.e., that the housing policy domain is intertwined with the infrastructure policy domain, reflects the idea of a critical theorist. It is, therefore, beneficial to this study that I have this perception of reality, because it recognizes the complexity and holistic nature of reality.

Regarding the epistemology of critical theory, I need to stress that both I as a researcher and the researched subject, PTCA's in this research, have influence on the outcome of the study. Not only the researched subject is influenced by existing systems and patterns, i.e., institutions, but that truth also reflects my perceptions. The outcome of this research is, therefore, also a reflection of my perceptions on institutions based on a multitude of factors. I should, therefore, immediately be stressed that the distilled policy goals – accessibility, sustainability, and social inclusion – are based on my perception of the importance in policy-making. However, it does mean that other goals might also be highly prioritized or other labels can be attached to the mentioned policy goals. To ensure objectivity of the research, the inquire is inherently dialogical and dialectical "transform ignorance and misapprehensions (Guba & Lincoln 1994, 110)."

2.3 Scientific Relevance

Within the scientific field, this study aims to better understand decision-making and prioritization and as well as the process within concession areas in the Dutch context. Several

scholars including Cascetta et al. (2019) and Liefferink (2006) have applied policy and decision-making models to study these in different policy contexts. However, applying these to study PTCA's has not previously been endeavored as such and it is, therefore, relevant to see what the results are of applying those models to different policy contexts.

Furthermore, several studies have taken the idea of policy integration or studied policy integration is specific contexts, but the idea of specifically discussing three policy goals and study how these are approached and prioritized in a policy arena is novel. These concepts as policy goals have previously been studied as separate concepts rather than bringing these in dialogue. Lastly, Veeneman (2018) and Veeneman, Hirschhorn and Van de Velde (2018) studied the policy process of Dutch PTCA, particularly in relation to the tendering process. However, this research centers on the process before the tendering phase where provincial governments decide what the set goals of the new concessions will be. This study focuses rather on prioritization and debate surrounding PTCA, rather than the outcomes of the tendering phase.

3. Research Strategy: Approach to studying Policy-making

This section touches upon the approach to studying prioritization and decision-making in policy-making in the Netherlands. The eventual study starts in *Chapter 4* with a literature overview of the relevant applied concepts including the studied policy goals, accessibility, sustainability, and social inclusion and continues with *Chapter 5*. The literature review is conducted to establish a baseline within the current academic debate. *Chapter 5*, then, outlines the different methods of studying decision-making in policies, such as the comparative case study, document analysis and semi-structured interviews. These documents are policy plans, outlines, memos and more derived from two cases in the Netherlands. These are two neighboring PTCA's with similar conditions, called South Holland North (ZHN, Dutch: *Zuid-Holland Noord*) and Inner Utrecht (UBi, Dutch: *Utrecht Binnen*) and Outer Utrecht (UBu, Dutch: *Utrecht Buiten*). This section merely elaborates on the approach, the policy arrangement approach (Liefferink 2006) and the cognitive decision-making model posed by Cascetta et al. (2015).

3.1 Policy Arrangement Approach

This research adopts a policy analysis in the form of the policy arrangement approach (PAA). This approach is adopted to study the factors for stability or change, cooperation or conflict within a policy process. It is applied when studying policy development and implementation. Though being a relative novel framework, it has been applied to several contexts, including several studies that have applied it to study policy-making in the Netherlands (Kaufmann & Wiring 2021) and other countries (Kim et al. 2022; Yirga et al. 2022). These instances have particularly adopted it to study policy practices in environmental policy-making, ranging from forestry (Kim et al. 2022) to flood risk management (Kaufmann & Wiering 2021), including studies by Veeneman (Veeneman 2018; Veeneman, Hirschhorn, & Van de Velde 2018). Yirga et al. (2022) deem it a suitable to study policy-making in different policy domains. The PAA becomes the key method to study the specific case of this research, decision-making and prioritization in PTCA's in the Netherlands.

The PAA was put forward initially by Arts (2000), to apply to contexts of change, specifically, to describe "the dynamics of change of policies with four interwoven dimensions (Yirga et al. 2022, 2)" in a multilevel governance context (Yirga et al. 2022; Arts & Leroy 2006). It is vital to stress that these changes or stabilities in regimes are influenced by a multiplicity of factors, including the actions by and interactions among policy-makers as well as structural processes of social or even political change (Arts & Leroy 2006). Witnessed within PAA studies is the complexity of governance and policy-making that often involves either multiple citizens or other stakeholders within the policy process (Arts & Leroy 2006; Yirga et al. 2022). As seen later during this research, we see that the complexity of PTCA's is partly hidden in the involvement of different stakeholders, both internal, but from different policy domains as well as external, involving other governments and private entities.

The PAA studies dimensions in policy-making of which four different dimensions are identified that help to understand policy practices by policy-makers. It allows us to gain an insight into certain decisions and priorities. Using the four dimensions, researchers can establish patterns in the policy process. Usually, these are subject to change over the course of the policy process, however, are inclined to become stable (Liefferink 2006). It also means that the

existing arrangements within a policy process can be lost, while other arrangements can be added (Arts & Leroy 2006; Liefferink 2006; Yirga et al. 2023). The PAA stresses that though these dimensions might seem separate, they are interwoven and relate, response, and react to one another (Arts & Leroy 2006; Liefferink 2006; Yirga et al. 2023). It is visually represented in *Figure 3* as presented by Liefferink (2006) with each corner showing one of the dimensions. The discussed dimensions are:

- *Actors and coalitions;*
- *Division of resources;*
- *Rules of the game;*
- *Current policy discourses.*

One final note to the conducting research using the PAA, arrangements can be studied from each of the four dimensions because of their interrelationship. It depends on the type of research, i.e., what is studied, from which dimension the research commences.

3.2 Dimensions of the PAA

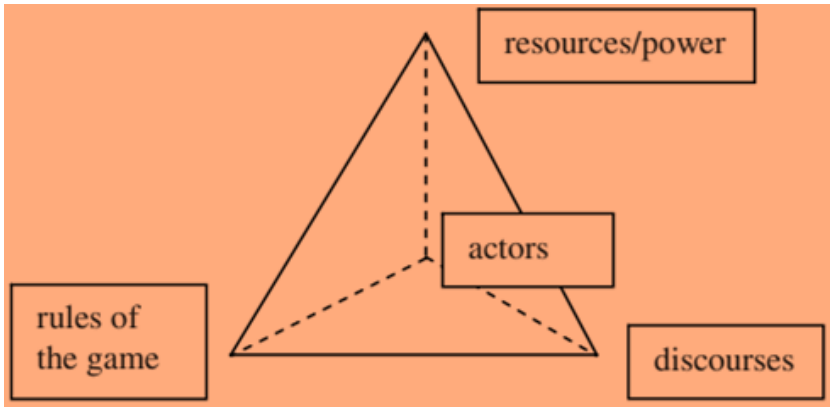

Figure 3. The policy-arrangement approach as depicted in, among others, Arts and Leroy (2006) and Liefferink (2006). It illustrates the intertwining of the different branches, showing that they all are affected by and affect one another. This occurs interchangeably.

This section elaborates on the use of the different dimensions of the PAA as depicted in the visual of *Figure 3*. We start from the actor dimension, which is best applied when studying the roles and positions of actors, including questions on (macro) changes in society such as "how are policies made and implemented in [the] system of multi-level governance? (Liefferink 2006, 50)." Studies that have applied the actor dimension, such as Yirga et al. (2023) studying forest management in Ethiopia, identify the several relevant actors in the policy process of forestry in Addis-Ababa, the capital of Ethiopia. The dimension helps reflecting upon the actors in a policy arrangement, where they are positioned and what their role is (Liefferink 2006). Chapter 5 discusses the involved actors at length, but besides the involved policy-makers in the PU and the PZH, they also inform stakeholders with different assume roles during the PTCA process. These include, municipalities, which have a stake in the requirements of the PTCA's, particularly, to what extend their region is accessible or included. Another important

stakeholder is the traveler's organization ROCOV or Rover, which is legally mandated to consult on the draft proposal for the PTCA guidelines.

The second dimension is that of resources and power (Arts & Leroy 2006; Liefferink 2006, Yirga et al. 2023) and fits the inherent neo-Marxist approaches to power relations. It is concerned with the power dynamic of the different involved actors and their resources, such as finance and information (Liefferink 2006) but also information (Yirga et al. 2023). This dimension becomes particularly interesting when there is a shift in the distribution of resources, for instance, a particular policy objective gain priority. Kim et al. (2023) in studying timber legislation in South-Korea looked in this particularly instance which actor had legislative power and where financial support laid within this context. Seen in Kim et al. (2023) and highlighted by Liefferink (2006), the resource and power dimension allows the researcher to gain insight into which coalitions are formed, by whom, and where power lies and resources are distributed. The context of PT policy-making it will particularly be relevant to see how resources are distributed in terms of finance and who is bestowed with responsibility.

The rules of the game dimension stress the (mutually) agreed upon formal and informal rules (Arts & Leroy 2006; Liefferink 2006, Yirga et al. 2023). This includes the regulations, legislations, and procedures that are in place in a specific context. These rules of the game establish particularly how policy is formed, how decisions are made – and in the case of this research, are prioritized – and how these are eventually implemented (Liefferink 2006; Yirga et al. 2023). Assuming this dimension is suitable for discussing institutional change from different levels, according to Liefferink (2006) and applied by Yirga et al. (2023) and particularly suitable for comparative analysis. This dimension addresses in that way not "only change in particular institutional constellations, but also by singling out the impact of their more stable, enduring features (Liefferink 2006, 56)." In other words, it helps to understand how particular contexts contribute to certain policy formations. It is, therefore, common to apply when studying a single policy field, such as PT in this case, in different contexts (Liefferink 2006). It is likely useful to study PTCA's from this dimension and signal how decisions are made surrounding PT policies and how these decisions are prioritized.

Finally, there is the discourse dimension. It entails, in essence, a societal organization. The dimension has two levels and both needs to explain the societal context and as a second level, the policy context (Arts & Leroy 2006; Liefferink 2006). Yirga et al. (2023) show this by explaining the context of forestry in Ethiopia starting from a relevant year that directly connects to the current situation. Thus, both elaborating on the historical context as well as the policy context of Ethiopian forestry. Speaking to the context of PT and PTCA's, it is, therefore, relevant to stress how these policy and governing structures have come about and how these operate within the domain of PT.

3.3 Decision-making and Prioritization

The PAA particularly highlights how policies are formed within the context of four different dimension as articulated in the previous section. However, this approach does not concentrate on prioritization of decisions, which is a central element of this study (see also sRQ3). Discussing a model on decision-making and prioritization is, therefore, imperative to this study. One of those models is put forward by Cascetta et al. (2015). This approach, called the 'cognitive rationale approach (CRA) acknowledges the complexity of decision-making,

reflecting the PAA and it also shows a decision-making model involving numerous stakeholders (Cascetta et al. 2015).

At the backdrop of decision-making is that there are numerous interests and parties making an effort to involve their 'rationale.' Interests, commonly, conflict and have a complex and multifold nature (Cascetta et al. 2015; Soares 2022). Decisions and the prioritization of decisions reflect rationality in the sense that they exhaust a selected number of alternatives and course of action based on outcomes. To satisfy the majority of stakeholders, a compromised alternative need to be agreed upon (Haial, Benabbou, & Berrado 2021). These stakeholders, in the case of PT policy-making, are both internal and external stakeholders. The CBA aids in reflecting upon the decisions by these stakeholders and the outcome of the decision-making process (Cascetta et al. 2015).

3.4 Elements of decision-making

The question remains of which elements a decision-making process consists to be able to distill the different interests or objectives. This study limits to decision-making in transport policy-making. According to Cascetta et al. (2015), decision-making within transport splits into four different categories. These are formed through a combination of short to medium term or long term and orchestrated by public or by private bodies. This study discusses a long-term, public decision-making process which fits the examples provided by Cascetta et al. (2015) who discuss infrastructure projects. This entails that there are, a) likely, several decision-makers (provincial policy-makers) and stakeholders, b) a complex financial structure, c) high level of uncertainty in the decision-making process, d) interaction with other systems and other policy domains and goals, and finally, e) decisions are unable to be reversed.

This category of decision-making contains several processes and elements, presented below. These elements spell out the parts that are universal to complex decision-making processes involving several stakeholders. It should immediately be noted, as posed by Cascetta et al. (2015) that institutional contexts, stakeholders, geographies and issues make for an endless combination of (viable) decisions. This is, therefore, a selection of elements witnessed in most transport long-term public policy-making (Cascetta et al. 2015).

- *Opportunities and problems*: these are the policy challenges that stimulate the decision-making process. This study identified several of those challenges, such as a climate crisis, housing shortage, and others.
- *Decision-makers:* those individuals with the power of choosing alternatives, in the case of PTCAs these are the policy-makers involved in the working groups of the PTCA. These policy-makers draft the requirements for the PTCAs. Elected officials approve these plans, often with mere minor adjustments.
- *Market regulations:* the degree to which monopoly or competition exists field of decision-making. In the case of PTCA, it is about tendering the monopoly of transport to a transport company.
- *Process coordination*: this concerns the resources and structures, particularly regulations and procedures, that guide the decision-making process. This pertains to sRQ1 of this study and *Chapter 5* details this coordination at length.

- *Stakeholders:* the involved individuals with a stake in the issue, both formal and informal. These include the provincial governments, municipalities, travel organizations, and local organizations in this case study.
- *Objectives or goals:* the policy goals that decision-makers would like to achieve. This study highlights three of those goals, being accessibility, sustainability, and social inclusion.
- *Types of decisions:* what is included in a decision, for instance the use of ZE buses which a decision on the sustainability goal or increasing the number of bus lanes which applies to the accessibility goal.
- *Level of detail:* this concerns what kind of mechanism is involved in the decision-making process. Does it concern only steering or does the public body intends to actively participate in the implementation.
- *Level of reversibility:* this concerns whether decisions can be reversed once made or are there mechanisms in place that allow to reverse decisions.
- *Level of uncertainty:* which discusses unforeseen complexities.
- *Barriers*: these are the conflicts that arise during a decision-making process. These can either be contextual and pertaining to institutional, legal, or financial issues or consensus-based which discuss whether a decision is accepted by the majority of stakeholders.
- *Coalitions*: these are groups made of stakeholders with common interests, issues, or objectives. For instance, some municipalities have a similar desire in redesigning certain bus lines, for instance (Cascetta et al. 2015).

The thesis will not highlight all of the above-mentioned elements, but they help in understanding based on what elements decisions are made and therefore, how certain issues and policy goals are prioritized.

3.5 Appliance in this study

I will adopt the 'policy-arrangement approach' to study the formation of policy within the PT policy domain. This approach aids in analyzing policy regimes from four different dimensions. This allows researchers comprehend certain decisions and priorities and specifically addresses this study's main research question. The PAA is accessed from the rules of the game dimension, which is useful when conducting a comparative study (Arts & Leroy 2006; Liefferink 2006). This dimension aids in understanding how similar conditions contribute to certain outcomes, i.e., policies and how these policy formations divert relative to a different context. Understanding what constitutes in long-term, public decision-making, this research applies the elements as articulated by Cascetta et al. (2015). These research approaches are even more relevant as policies in the Netherlands become more integrative (Veeneman 2018). This approach of policy integration, where several policy domains and policy goals are merged in different policy goals make researching policy-making increasingly more complex. These approaches may provide some disentanglement to this policy integration process. The disentanglement allows the study to identify the relevant priorities. The concept of policy integration is discussed at length in *Chapter 4*.

4. Theories and Concepts in Public Transport Literature

This section dives into the relevant literature surrounding policy-making, particularly pertaining to the Netherlands and PT. It also touches extensively upon the three concepts of accessibility, sustainability, and social inclusion which are studies in this research as policy goals in PTCA's. The chapter commences with explaining what policy-making is and how it revolves in the domain of transport. It particularly gears towards the notion of policy integration and how it fits within contemporary transport literature in the Netherlands. This needs to be comprehended to study the formation of PTCA policy.

4.1 Transport Policy-making

4.1.1 The complexity of policy-making

As will be touched upon in depth later, the field of policy-making becomes increasingly more complex (Cascetta et al. 2015; McLeod, Scheurer, & Curtis 2017; Russo & Rindone, 2021. Different (policy) fields and domains collide; a housing policy, for instance, dictates to a significant extent what measures need to be taken in a transport policy to contribute to housing. This works also vice versa. Interests of different stakeholders, both public and private, also interfere with these fields and become intertwined with the different policies. These interests range from economic, to social and to technical and many more. This is why policy-making is often called a 'wicked-problem' (Cascetta et al. 2015).

The complexity and multitude of different policy goals and policy domains and contrasting and conflicting stakeholder interests make that optimized solutions are virtually impossible (Cascetta et al. 2015). Rigid policy structures and building and maintaining support for policies and policy goals becomes increasingly vital. Decisions are, therefore, required to be "justifiable, retraceable, and *participated*, i.e., whose decisions are shared by the largest possible number of decision-makers and stakeholders (Cascetta et al. 2015, 38)." Additionally, policies and the policy process critically need to be transparent to secure the beforementioned requirements (Cascetta et al. 2015).

Illustrating these prerequisites in transport policy-making, Cascetta et al. (2015) applied them to a large-scale infrastructure project. The highlighted case involves a new rail system in Italy. This was a multi-billion-euro investment project in a region with multiple stakeholders, both private and public as well as civilians. Cascetta et al. (2015) concluded that in these complex projects, where multiple policy goals and stakeholders were involved, the importance laid first and foremost in a shared vision of the project. This vision accounted for several factors, including but not limited to budgets, current transport standards, and pricing. This method displayed a sort of maximum consensus among the stakeholders (Cascetta et al. 2015). Policy-makers, subsequently, applied tools to study public engagement levels. This included identifying relevant stakeholders, gaining their perspectives, and advertising the project to the audience. The final stage of the policy-making process – before drafting the policy itself – was the participation and consultation phase. All of the data gathered during these processes including some qualitative and technical analyses, established the eventual policies. The eventual analysis by Cascetta et al. (2015) proved to benefit policy-makers in terms of knowledge of the context, impacts of the policy, and increase consensus.

4.1.2 PT and policy-making

Though the conditions drawn from Cascetta et al.'s study (2015), were applied to the context of PT, these are still general remarks on policy-making in a complex context. This section dives a step deeper, illustrating particular conditions that need to be accounted for in distinguished PT policy-making. Needless to say, that the proposed structure by Cascetta et al. (2015) is part of these conditions for PT. Before these conditions are outlined, it is important to briefly discuss what constitutes PT and when PT is successful or effective to help understand why certain PT policies are necessary.

The network of PT in an area and the quality of that network in place has a significant effect on the role of PT in that given area. The better that network functions and the more extensive it is, the more effective it is to attract passengers and compete with other forms of mobility, such as the car. What constitutes a good network? Often, these are characterized by a "simple and legible route structure that appeals to both regular and occasional users (Scheurer 2020, 139)." This means that it must be easy to travel and transfer lines for all PT consumers. This includes the possibility to transfer at specific transfer locations with ease and without friction. These transfer locations must maintain a high level of social safety with services such as time tables and, if necessary, coordination (Scheurer 2020). Another precondition for successful PT is that policy-makers must focus during the implementation of their PT policies on improvement. That includes reduction of travel time and reliability of the routes where possible.

Moreover, it is important to account for the existing network structure where the function and services of a particular region align with the existing or to be established PT. This improves accessibility levels and the connectivity of the places. This is what is deemed the 'network effect' (Scheurer 2020). Scheurer (2020) emphasizes the importance of the collective challenges and solutions and a determined planning process, including institutions to help organize and implement these. The reasoning behind this argument, is that PT has a solid behavioral factor. Effective and well-planned PT, with the involvement of (local) communities allows for success. Failure to do so could be imperative to the planning process. Examples of this type of planning and policy-making is witnessed in regional and urban areas such as Vancouver, Canada and Copenhagen, Denmark. Active government participation in the PT planning process established vast and effective networks with increasing users and share of PT as a modality. Anglo-Saxon countries, such as the UK and the US are the direct opposite of this planning, leaving PT to the market operators (Scheurer 2020). This neoliberal approach is discussed more at length in section *4.4. Social Inclusion*

Though these conditions perhaps seem reasonable and have fitting arguments, PT policies are in essence not different than the policies described by Cascetta et al. (2015). The challenges that policy-makers face in PT policies and projects are comprehensive and overall complex. This is concluded from several previous studies pertaining to policy-making in the PT field. Another reason for this complexity is that PT policies compete with private transport. This involves often private car use. PT, thus, needs to be competitive enough to automobility and provide significant added benefits (McLeod, Scheurer, & Curtis 2017; Russo & Rindone, 2021). Simultaneously, regions and cities with the authority to draft transport policies are not willing to rule out either public transport or automobility, making it difficult where to draw the line. Authorities also want to provide an extensive public transport network, with as little

friction as possible. This, however, is also a trade-off as isolated areas are often hard to connect with the existing network and public transport is not viable in those areas (McLeod, Scheurer, & Curtis 2017; Russo & Rindone, 2021). In the data research, this thesis will particularly consider these trade-offs and difficulties in the planning process.

Policies for improving technologies, but also for avoiding unnecessary trips and shifting trips from cars to bikes, public transport, and walking, will be necessary for decarbonizing the sector while bringing multiple other benefits. But the transport sector needs to co-ordinate closely with land-use and housing sectors to ensure access through sustainable modes of transport that provide a high-quality alternative to cars. This involves investment on sustainable transport modes but also policies that can make explicit links between land-use and transport (e.g., transport-inclusive development standards). Overall, policy design that takes multiple priorities into account can lead to more acceptable, feasible and effective mitigation action (Anthony et al. 2017).

For policy-making specifically it should do this: specifically, it means that: (i) policy goals should be defined in terms of well-being outcomes (including the risks and impacts of climate change) and are systematically reflected in decision-making across the economy; (ii) decisions should be taken consider multiple well-being objectives, rather than focusing on a single (or very narrow) range of objective(s) independently of others; and (iii) the interrelations between the different economic sectors and systems in which a policy intervenes are sufficiently well understood (Anthony et al. 2017).

4.1.3 Policy Integration in the Netherlands

Before discussing how the Netherlands has adopted transport policy-making and how it pertains to the notion of policy integration, as stated at the beginning of the chapter, the PTCA structure in the Netherlands must be explained. Relevant literature pertaining to policy integration presume an understanding of the functioning of PTCA's. Public transport policies in the Netherlands are divided at several levels. The national concession for public transport is provided by the national government to the Dutch National Railways (NS) by the Ministry of Infrastructure and Waterworks (I&W). Local concessions, which are abbreviated throughout this study as PTCA, however, are more complex. The Netherlands is divided into several regional transport concession areas (see Fig. 4). Based on this division, public transport in a given concession area is provided by a public transport company for a selected period of time, usually around ten years. This concession is publicly offered to all transport companies, both

domestic and foreign. (CROW 2023) The concession must address certain points, drafted by

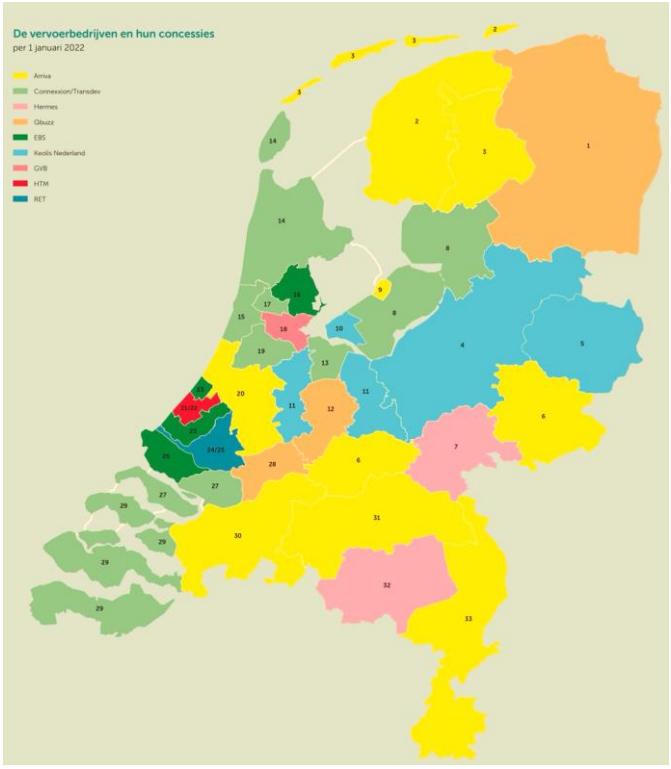

Figure 4. The 2023 concession map of the Netherlands with the regional concession areas managed by the provincial governments. ZHN is number 20 on the map in yellow, while UBu and UBi are 11 (blue) and 12 (orange) respectively (CROW 2023). The colors in the legend represent which transport company operates in the PTCA, which is not relevant to this study.

the provincial governments in the concession areas.

Exempted from the system of publicly offered concession areas are three urban regions in the Netherlands, The Hague, Rotterdam, and Amsterdam. These areas are allowed to offer their concession to one party, in The Hague to the HTM, in Rotterdam to the RET, and in Amsterdam to the GVB, where no competition is allowed. All the other concessions in the areas are not allowed this form of monopoly in any form and, therefore, must tender their concessions publicly. They are, however, allowed in cases of emergency, when, for instances, no operators come forward to can accommodate to the drafted concession, to extend the current concession for a selected period of time as an 'emergency-concession.' The guidelines for these public transport concessions are drafted by policy-makers of the different provincial governments in the Netherlands. They are approved by the legislatures of these provinces. Provincial governments have to some extend the freedom to decide what guidelines are necessary to their regions based on their environmental planning plan (Dutch: *Omgevingsvisies,* OMV) (CROW 2023).

Veeneman (2018) studied how PT concessions in the Netherlands deal specifically with future developments in public transport. He acknowledges that mobility as many other fields in public policy-making are required to be more 'integrative'. It is expected of these respective fields that they contribute to society and policy more broadly than their own field, which usually makes policy-making more complex. This resonates with the complexity in policy-making as noted by Cascetta et al. (2015). Veeneman (2018) tries to understand which lessons the regional staff of transport authorities navigated had drawn for themselves concerning regional public

transport concessions using semi-structured interviews. This study particularly focuses on technological advances and the asset management of the tenders for the PT concession areas. The researcher, therefore, was concerned with questions regarding energy-usage of vehicles, bus lanes, or provided information. Moreover, the research focused on all thirteen transport authorities in the Netherlands, not comparing different areas to one another. Analyzing the interviews, the researcher drew conclusion on which points the tendering process matured, i.e., where policy-makers had learned from the previous tendering process (Veeneman 2018)

Other studies, specifically Hirschhorn, Veeneman, & van de Velde (2018) researched the performance of public tenders, looking at their outcomes, for instance to what degree or extent they achieved 'efficiency' and 'accessibility'. They also studied the organizational form of the tenders and PT concessions. These were connected, studying several policies and different elements, and trying to understand what "performance metrics are suitable to measure strategic PT outcomes and what organizational features might drive strategic outcomes (Hirschhorn, Veeneman, & van de Velde 2018, 145)."

4.1.4 Lessons learned in policy-making

In sum, policy-making in the Netherlands has taken an integrative approach due to the complexity of different issues and objectives which collide. This policy integration allows for different policy goals and policy domains to be reflected in a single policy. Dutch policy-makers, thus, in establishing for instance a transport policy also considers objectives from housing policies and other broader policy goals. PT policy-making specifically, policy-making became demanding due to the multitude of different stakeholders that are involved. Several public bodies, such as municipalities, provincial governments and some departments typically have a degree of involvement, ownership, or responsibilities. Additionally, many private entities, including transport companies, but also large organizations in particular areas, have a significant influence on PT and the policies around it (Cascetta et al. 2015). Additionally, PT needs to compete with other forms of mobility, automobility in particular, which requires a competitive product. These circumstances led to policy integration in the Netherlands. This fits the arguments made by other scholars on the complexity of policy-making and the approach that many contemporary policy-makers take (Cascetta et al. 2015; Hirschhorn, Veeneman, & van de Velde 2018; Veeneman 2018; McLeod, Scheurer, & Curtis 2017; Russo & Rindone, 2021). This notion of policy integration makes for a relevant study on the prioritization of these different policy goals. This discussion is further discussed in *Chapter 5*.

4.2 Accessibility: The Debate of Getting from A to B

Policies worldwide, but in the Netherlands specifically, become more complex, and as stated in the previous section, increasingly 'integrative'. Accessibility and implementing accessibility measures fits that trend (Geurs & Van Wee 2004). To understand what the term 'accessibility' entails and encompasses, it is well to note how urban planners and policy-makers operate when it comes to the mobility of people. The word 'mobility' is pivotal there, as it used to be the objective of experts. It concentrates on 'getting individuals to be on the move', in other words: mobility concern individual movement of getting from point A to point B. Mobility also typically refers to 'being mobile' or 'the ability to move'. The ability to travel, getting individuals out on the road, typically in an automobile, has been the focus for many decades. Scholars and planners tended to get individuals to move from A to B, as smoothly as possible, without friction (Geurs & Van Wee 2004). This is perhaps also why accessibility has become a debated term, both academically and socially.

4.2.1 Accessibility versus Mobility

Accessibility is often used applied simultaneously and synonymously with mobility, but the term accessibility itself does not pursue 'having people on the move'. It rather entails the ability of people to reach services and the degree to which individuals achieve societal participation. (Geurs & Van Wee 2004). The very basic definition relates to degree to which opportunities that can be reached in a locale within the limits of certain costs and time (Geurs & Van Wee 2004; Straatemeier & Bertolini 2020). This has been put by Silva, Bertolini and Pinto (2019) as follows:

> "Understood in this fashion, mobility is an intermediate service that is consumed in pursuit of the directly sought service of access. The relation of transport to access is thus similar to the relationship of electrical consumption to computing power, or fertilizer to crop yields; it is a vital to securing the directly demanded good or service but is not generally valued in and of itself (Silva, Bertolini & Pinto, 2019, 6)."

Mobility, therefore, is to be perceived as a means to an end. It allows goods and services to be accessible.

It is, thus, that planning for accessibility is the link between transport (or mobility) and land-use planning (Van Wee & Geurs 2011). This accessibility approach proves beneficial to both domains. Both have an interdependent nature and are prone to mutual influence of changes. It is, therefore, necessary to plan for accessibility. This approach highlights both the transport system, for instance, travel time and cost, and the land-use system, for instance urban density and mix of functionalities (Silva, Bertolini, & Pinto 2019; Straatemeier & Bertolini 2020).

4.2.2 Land-use and Locality

Let us dive into this discrepancy and gap bridging between mobility, accessibility, and land-use planning and how an integrative approach – as seen before in the theory on policy-making – can create a more accessible system. Land-use, typically, determines, or rather, 'co-determines', according to Straatemeier and Bertolini (2020), the distribution of activities,

ranging from work to recreation activities. This land-use pattern is often seen as the foundation for the allocation of infrastructure, determining the options for mobility. It is noteworthy to say that within this system, the degree of accessible land-use also determines where future services will be located. Although this is a highly simplified version of reality, it lets us realize the existence the interdependency and interrelation between transport and mobility with the land-use system (Silva, Bertolini, & Pinto 2019; Straatemeier & Bertolini 2020). This feedback cycle, is visually represented in Figure 5.

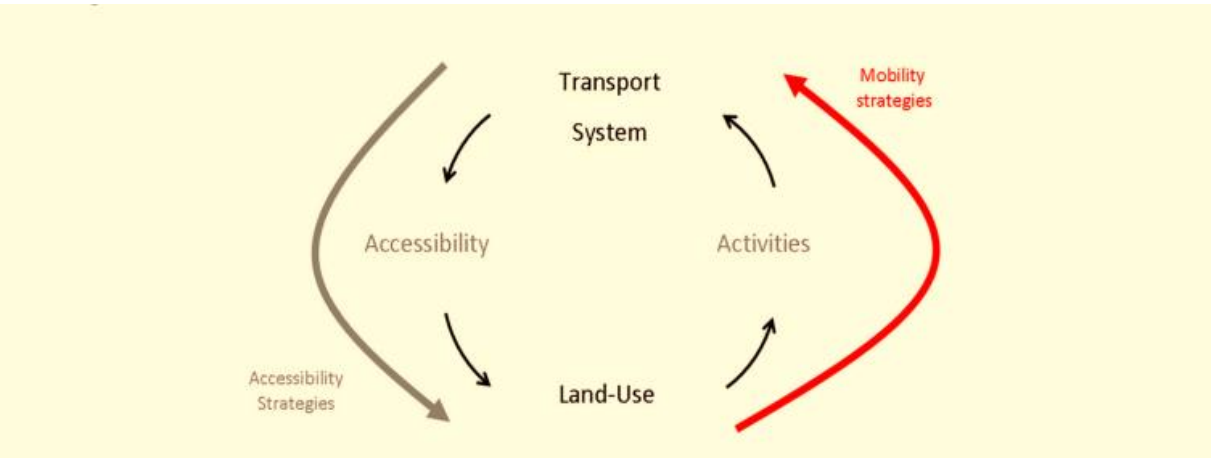

Figure 5. Land-use accessibility feed-back loop as presented by Silva, Bertolini, and Pinto (2019). To simplify this model, land-use strategy determines where activities occur and services are located and simultaneously, travel patterns. However, the degree of access and quality of the transport system in place also co-determines how land-use occurs. Policy-makers can plan to enhance the quality of the transport network (mobility strategies), or they can plan for locality of services (accessibility

This relation between transport and accessibility particularly constitutes the importance of the development of local areas. Depending on governmental decisions and priorities how land or areas should evolve and with which specific functions, selected areas reach a higher, or with the wrong policies, a lower degree of accessibility (Van Wee & Geurs 2011). Not only the functions are important, the accessibility also depends on the allocated types of transport systems in these specific areas. Public or private, perhaps with a focus on sustainable methods will depend how and to what degree people are able to move around in a given area. Important to note is the degree to which individuals are able to reach destinations, both socially, work-related, and basic human needs (Van Wee & Geurs 2011; Pareira 2019). This interdependency shows the potential for accessibility measures and is important to consider.

4.2.3 Planning for accessibility or mobility?

Now that this interdependency has been made clear, one would expect that planning for accessibility seems more suitable for effective, integrative and inclusive results. However, it is common for governments across the spectrum to still focus on mobility-sided measures. They address only half of the feedback cycle as featured in Figure 5 above. Mobility patterns and mobility measures are deemed less complex than accessibility measures to policy makers, according to Straatemeier and Bertolini (2020). Moreover, accessibility measures do not fare well in a traditional cost-benefit analysis (CBA) which is typically deployed by Dutch

governments to assess policies or measures. CBA's, typically, address rather straightforward travel time savings, compared to the more complex 'activity-based' measures of accessibility.

Governments, therefore, apply either one of two typical mobility strategies. These are, either 'limiting' or enhancing mobility strategies. Mobility limiting strategies includes measures such as reducing infrastructure capacity or increasing pricing for either road or PT usage. This type of strategy tries to discourage individuals to use certain routes, travel on specific time frames, or limit travel in general. Mobility enhancing measures is the reverse of previously mentioned measures and aims at more individuals being mobile (Straatemeier & Bertolini 2020). The downside of these types of measures is that they take current land-use pattern as a starting point, as mentioned earlier, which proves not to be the most effective approach to enhance or create an accessible area. These mobility-sided strategies do have a positive outcome in CBA's and are, therefore, often applied by Dutch governments (Straatemeier & Bertolini 2020).

On the flip side, there is, additionally, a way to have accessibility measures. This approach perceives our land-use system more efficiently and realistically, accounting to a greater extent for societal, economical, and natural factors that are currently established within a given area (Straatemeier & Bertolini 2020). That suggests that accessibility measures would acknowledge the following: (1) the risk of planning transportation networks that will put development pressure on locations where it is not desirable (e.g., natural areas) and (2) the opportunity of planning transportation networks where they could facilitate desirable development (e.g., where there is economic or social need). (Straatemeier & Bertolini 2020, 1716)." The former advantage to accessibility measures also accounts for environmental damage, suggesting that accessibility measures are likely to be more sustainable. The latter advantages show a more dispersed development, allowing for a more inclusive society with enhanced social equity. These positive benefits to accessibility will be addressed later in this thesis as well.

What constitutes an accessible measure or when a location is accessible is still complex due to the multitude of involve factors and, therefore, subject to debate. These accessibility measures are used to describe the so-called distribution effects of choices made by policy-makers surrounding transport projects and policies. According to Van Wee and Geurs (2011) the measures can provide insight into the "relative access to spatially distributed social and economic opportunities across [populations] (Van Wee & Geurs 2011 352)." In other words, areas are perceived as accessible if they provide for social and economic opportunities across individuals, regardless of their ethnic or socioeconomic class. It would suit then to adopt these measures when studying societal participation across ethnic or socioeconomic groups.

4.2.4 Accessibility measures in policy and research

It can, therefore, be established that having impact – socially, economically, environmentally – accessibility measures are considerably more impactful than mobility measures, and more completely adopt an integrative policy-making. Whether policy-makers adopt this practice remains the question. According to Pareira (2019), North-American and European policy-makers have, typically, adopted this perspective to evaluate their policies and what their policy's impact is on local and regional populations. What measure or policy has been most effective in providing accessibility, however, remains debated due to the enormous

but also a significant number of outcomes and included variables. The degree of social equity, for instance, is one of those variables that has been incorporated but also left out of accessibility measures. This makes that some accessibility measures have varying outcomes (Geurs & Van Wee 2004; Pareira 2019; Van Wee & Geurs 2011). This term will later separately be addressed as an important factor for planning comprehensive public transport in the Netherlands.

Researching accessibility and accessibility measures makes, therefore, for a complex mix. Bertolini and Straatemeier (2020) came up with a framework, titled the 'Joint Accessibility Framework' (JAF, Straatemeier & Bertolini 2020) to study the integration of land-use with transport strategies. In their study, accessibility was their starting point. They applied this framework in the Netherlands to policies in two different cities. This elaborate model, where the researchers gain insight into the planning goals and accessibility set by policy-makers, as well as measure the degree of accessibility, allows for strategic insights into accessibility measures. Not only could this insight into accessibility be helpful to researchers, discussing these outcomes with policy-makers proves relevant to see possible discrepancies between the goals and the outcomes. This proves the complexity of planning for accessibility and the varying outcomes that accessibility measures can cause, as pointed out by others (Geurs & Van Wee 2004; Pareira 2019; Van Wee & Geurs 2011). As in the research by Bertolini and Straatemeier (2020) was highlighted: "One land-use planner found the accessibility analysis too complex to be useful for strategy making (Straatemeier & Bertolini 2020, 1723)."

Policy-makers must be provided with a clear-cut understanding of the benefits of planning for accessibility. Adding accessibility measures to the CBA would be beneficial. The same goes for studying the degree of service-indicators, i.e., the density of services in an area and the accessibility of those services, by policy-makers (Pareira 2019; Straatemeier & Bertolini 2020). Embracing accessibility-sided measures also requires willingness of policy-makers and politicians alike. Research in making policy-makers in Dutch governments aware of those accessibility measures allows for better policy integration all together (Straatemeier & Bertolini 2020).

4.2.5 Appliance of the Accessibility Theories

Probably most relevant to these insights about accessibility, is how this thesis perceives the concept of accessibility and how it moves forward with this complex term. Following the trends of integrative policy-making as seen in many Dutch public policy-making in recent years, accessibility seems to be a fitting way to analyze and make policy on transport. It does not consider that individuals desire to be mobile per se, but that they do desire to participate in societal activities. As it was aptly put by Silva, Bertolini, and Pinto (2019): "In this their views would be consistent with transportation theory that holds that the purpose of most travel is not movement per se, but access: the demand for transport is derived from the demand to reach the opportunities available "at destinations (Silva, Bertolini, & Pinto 2019, 7)."

This thesis will, therefore, follow the notion that people, and with that, governments, are concerned with researching destinations and participating in society. Governments attempt to plan for accessibility, despite its complexity and integration with different policy fields such as housing and relation with land-use planning. It considers the accessibility enhancing or limiting strategies as put forward by Straatemeier and Bertolini (2020). The research also details the difference between PT policy that merely state to focus on accessibility versus the reality

whether these policies actually practice accessibility measures. Moreover, the distribution effects of accessibility, as noted by Van Wee and Geurs (2011), will also be considered during the analytical phase of the research.

4.3 Sustainability: The Impact of Increased Accessibility

It would be too straightforward to consider that contemporary transport policy-making would end at the consideration of designing 'accessible' measures. It has just been stressed that policy-making in the Netherlands, has become multifaceted, complex, and most substantially, integrative with other policy-domains. The transport policy-making field, can, therefore, no longer ignore other societal, economic, and environmental national and global issues. One of those factors for designing transport policy, is 'sustainability' or 'sustainable development'. The discussion between these two terms is laid out in this section, but it is meaningful to understand why sustainability has gained such a significant role within transport. Moreover, it is important to understand sustainable measures within transport, and how policies around sustainable transport have evolved, particularly in the Netherlands. Those discussions are central to the discussion in this section.

4.3.1 Sustainability as a Concept

It is a debate that nearly defines the 2000s, what is sustainability? How do we as a society define and achieve it? To what extent are we delivering on sustainability and to what extent do we enact the set goals? Almost impossible to realize, the debate to become more 'sustainable' did not exist at the level that we know today (Caradonna 2022). It has moved itself so much to the foreground of our society, even companies and corporations – previously contributing to an endless consumption and capitalist ideal – that Dorobuntu et al. (2018) stated that "to prosper over time, every company must not only deliver financial performance, but also show how it makes a positive contribution to society (Dorobuntu et al. 2018, 1)."

As a brief historical overview: the term sustainability – or sustainable development, as discussed later – emerged from environmentalism during the late 1970s. Finding discussions before that time, seems almost an impossible mission, as noted by Caradonna (2022). The Intergovernmental Panel on Climate Change (IPCC 2018) scientifically identified that the world is increasingly warming by natural causes excessively exacerbated by human activity (Caradonna 2022, IPCC 2018). They have so far stated in their most recent reports that climate change and its effects are "inevitable and irreversible (Caradonna 2022, 4)." Human action that contributes to climate change include, but not limited to, excessive mining, heavy industries, increased use of fossil fuels. Effects include, among others, loss of biodiversity, rising sea levels, and public health crises (Caradonna, 2022). Sustainability tries to combat, or "counteract (Caradonna 2022, 5)" these effects.

Sustainability centralizes ecology, or the fact that there is an interwovenness between human society and economy (Caradonna 2022). Caradonna (2022) and many others with him (Barnes & Hoerber 2013; Cerne & Jansson 2019; Dorobuntu et al. 2018) argue that there is a balance between several factors. These are environment, equity, and economics or in other models, education or society are included as separate elements. Within that balance, there lies sustainability (see Fig. 6). Central to the idea of sustainability is, nowadays, the movement

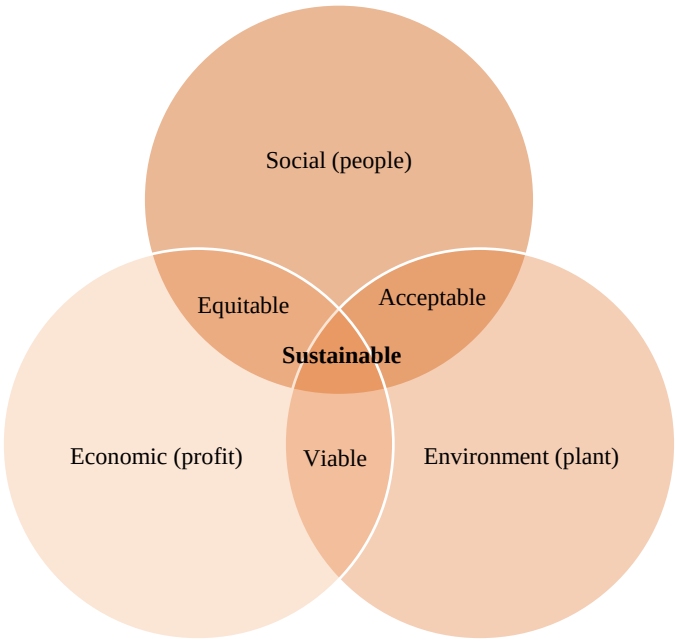

Figure 6. The balancing of systems: people, planet, profit. In a well-balanced system, according to some scholars, it is feasible to achieve sustainability or one may call a system sustainable (Caradonna 2022).

beyond environmentalism. Contemporary scholars include beyond the environment also social sustainability. This is often identified as "well-being, equality, democracy, and [justice], and the economics of well-being (Caradonna 2022, 14)." These are elements that are all interconnected.

Several theories revolving around sustainability have since then been developed by many authors and scholars that seemingly fit similar variables. Slight nuances in these approaches are often visible. Scholars with the likes of Peter Victor and Herman Daly (Daly, Cobb, & Cobb 1994; Victor 1972) argue that any economic and societal system cannot exist without the environment, which, therefore, should have prioritization above anything else. Kate Raworth's 'doughnut economy' where the nine planetary boundaries are visualized, has also become popular (see Fig. 7). It depicts the balance of systems, where human activity over- and undersupplies itself. The goal is, therefore, to nestle in the middle ground, where there is "a safe and just space for humanity (Raworth 2017)."

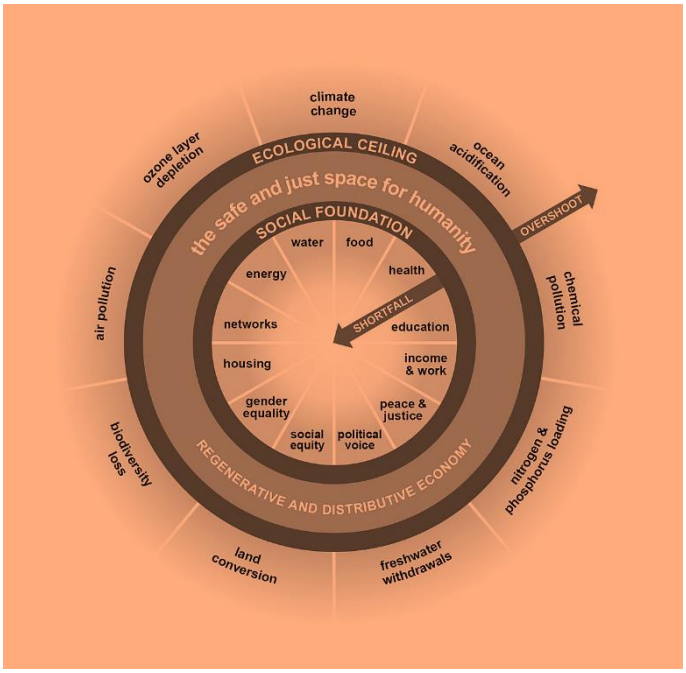

Figure 7. The Doughnut Model as presented by Raworth (2017). Contrasting to the model presented earlier in this section, doughnut economics follows a system where there can either be an overshoot on the use of different systems or a shortfall. The equilibrium, however, presents the "safe and just space for humanity (Raworth 2017,218)."

Another influential model and approach that defines and conceptualizes sustainability is that of the 'Natural Step'. This model focuses on the integrity of ecosystems in relation to organizations, such as businesses and governments. The other models typically emphasize the individual. The Natural Step Approach outlines "four systems conditions for sustainability Caradonna 2022, 10)." These system conditions for a sustainable society include that the (natural) environment cannot be subject to increasing:

- Extracting natural and fossil resources from the earth (also known as 'digging');
- Producing consumption articles by society (also known as 'dumping');
- Environmental degradation by society (also known as 'destroying');
- And finally, "people are not subject to conditions that systematically undermine their capacity to meet their needs (Caradonna 2022, 11)."

This model, therefore, brings the protection of the environment to light, but also the protection of 'social equity' as discussed in the fourth condition. This term is further explained and discussed in the next section.

From these different, often broad, concepts, notions, and terms, there are several common denominators identifiable. All of the conceptualizations of sustainability display the interconnection between human society, economy, and activity and the natural environment. This overlap is also argued in the concept of sustainable development, which is discussed later in this section (Caradonna 2022). All of the conceptualizations acknowledge to some degree the fact that there are ecological and environmental limits to growth. The industrialization period demonstrated a seemingly endless consumption that grew into overconsumption. Nowadays, with the research of, among others, the 1972 book *Limits to Growth*, several

scholars, ecologists, and sustainists acknowledge that human society must thrive within the boundaries of growth (Caradonna 2022; Cerne & Jansson 2019). Finally, all of the conceptualizations advocate for long-term future planning, and local, decentral economies (Caradonna 2022).

4.3.2 Sustainability in Different Ways

As hinted at before, one might perceive 'sustainability' and 'sustainable development' as seemingly intertwined concepts, however, the differences are worth mentioning. Sustainable development stems from an influential 1987 report shortly titled *Our Common Future* (Cerne & Jansson 2019; Report of the World Commission on Environment and Development: Our Common Future 1987). The report discusses how humanity can develop sustainably in the future.

The report argues that first and foremost, individuals have basic need – which are currently not met – and additionally, individuals have inherently aspirations for further improvement of their life quality. Not meeting one's basic needs, in terms of food, housing, and more, means that the world is and shall be prone to severe ecological damage. Simultaneously, consumption that goes beyond the scope, and basic living standards, can only do so if they regard long-term sustainability. Consumption standards can only be promoted if within the ecological boundaries (Barnes & Hoerber 2013; Caradonna 2022; Cerne & Jansson 2019; Report of the World Commission on Environment and Development: Our Common Future, 1987).

However, reaching those basic needs, there is a pressure on the resources that the earth delivers. Those resources include biodiversity, fossil fuels and minerals, but also water and air that we breathe. The report, therefore, concludes that humanity cannot overexploit those resources but maintain consumption within its limits. This is essential for future generations, according to the Brundtland Report. The argument is made, however, that humanity can enhance the exploitation of those natural resources and consume these more efficiently through use of new technological developments. When limits are reached, it is vital that there is an equitable access to the remaining resources and new resources, presumably, green energy alternatives (Barnes & Hoerber 2013; Report of the World Commission on Environment and Development: Our Common Future, 1987). Humanity may, therefore, continue to mine fossil fuels and continue practices such as lumbering, as long as future generations are accounted for. As the report itself summarizes the definition of sustainable development:

> "In essence, sustainable development is a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development; and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations (Report of the World Commission on Environment and Development: Our Common Future 1987,)."

This report has figuratively set the stage for considering our natural environment, our limits to growth and overexploitation for governmental policy-making and business approaches. The definition of sustainable development aids policy makers (in the European Union) to make decisions and address poverty issues while sustaining economic growth, while

simultaneously, protect the damage done to our natural environment (Barnes & Hoerber 2013; Hopwood, Mellor, & O'Brien 2005). However, the report has recently also been made with significant critiques. These critiques, particularly, stem from organizations and individuals that propose a considerably more ecocentric approach to economy and society, rather than an anthropocentric (Caradonna 2022).

Though *Our Common Future* has brought sustainable development in to mainstream policy-making, it has also been argued as "widely ambiguous (Caradonna 2022, 152; Hopwood, Mellor, & O'Brien 2005)." This becomes apparent from different policy documents. For instance, the Clinton administration during the 1990s uses sustainability and sustainable development interchangeably and even the United Nations has documents with conflicting views on sustainability (Caradonna 2022; Hopwood, Mellor, & O'Brien 2005). Other scholars point out that the word 'development' has left room for allowing growth in policies and practices. Integrating sustainable development would, therefore, mean that it does not contribute to ecological stability within our economic state, but is rather a "covert and greenwashed vehicle for business-as-usual economic policy (Caradonna 2022, 153)." Sustainable development is perceived as a continuation of growth economics. This is, additionally, evident from the term 'sustainable economic development' in the Brundtland Report (Hopwood, Mellor, & O'Brien 2005).

4.3.3 Sustainability in policies

Before determining what is used as main concept to perceive the integration between economics, social development, and the environment, it is important to discuss briefly what type of policies exist within this domain. The European Union (EU) alternatively has approached a system where "economic growth cannot be sustained if it undermines healthy functioning of natural systems or exhausts natural resources, but that only thriving economies can generate the resources necessary for investment in environmental protection (Barnes & Hoerber 2013, 36)." This means that the economic benefits and environmental protection become more integrated and depended on one another to be successful. This is also reflected in policy-making in the Netherlands as we will see later. Policy-makers try to be more integrative in their policy-making, combining different (societal) issues with different policy fields, for example, making housing policies more inclusive, or transport policies more sustainable (Yunita et al. 2021).

This development, particularly, occurred in policy-making after the introduction of the Sustainable Development Goals (SDG), which are a reorientation from the previously Millennium Development Goals (MDG) set by the United Nations. The SDGs follow the more sustainable development-oriented side to policy-making and addressing societal issues. It gave policies worldwide a greater focus without undermining other policies. In other words, a transport policy had to attribute to similar goals, i.e., eradicating poverty or promoting circularity, as a housing or health policy had (Yunita et al. 2021). The Netherlands, particularly, have applied the framework of the SDGs radically in their policy-making. The country "has (re)configured institutional arrangements for coherent SDG implementation (Yunita et al. 2021, 93)" making them a frontrunner in this respect. It should be noted in this particular instance, that there is critique revolving around the ambiguity or policy coherence that the SDGs put forward (Yunita et al. 2021). Some argue that the SDGs are a political compromise and

consensus. Others say that the SDG promote both (equitable) growth and fair distribution which can improbably be pursued simultaneously (Hopwood, Mellor, & O'Brien 2005).

The Netherlands, regardless of these critiques on the SDGs, have fully integrated the goals within their policy-making across domains. Dutch governments, both national, provincial, and municipal, conduct ex-ante and ex-post evaluations of the goals in their policies. These are carefully monitored with different statistics on environmental and social impacts in different data sets (Yunita et al. 2021) Additionally, the Dutch governments use the monitor for well-being (Dutch: *Brede Welvaart*) which has a long-standing tradition in Dutch policies where governments can measure their policies against set goals and indicators (Yunita et al. 2021). Additionally, there are committees and organizations testing these policies against the SDGs, which shows the multitude of institutional arrangements that the Netherlands have to apply the SDGs, not only in policies, but also in practice. It proves how sustainable development is integrated within Dutch policies.

This integration within Dutch policies allows virtually one option for analyzing sustainability or sustainable development in the Netherlands. Since the Netherlands apply the SDGs within their integrative policies, it allows for an analysis where the basis for considering the 'natural environment', in addition to the 'human environment' using the frame of sustainable development. This frame is also used in the formulation of the SDGs and applied within the Dutch policy context. Though scholars have argued and studied several critiques of the sustainable development approach against sustainability, including the former being significantly more anthropocentric and growth-oriented, it is the only viable concept to analyze and assess Dutch policies.

4.3.4 Sustainability in transport

The final part of this chapter is devoted to explaining what the different sustainable measures and plans are within transport and transport policies in order to paint the picture what tools governments have at hand for sustainable transport. The story of sustainability in transport – both on the technological development level and policy-making level – has a similar path as the previously described concepts. It started to emerge in the 1980s around the time of the publication of the Brundtland report (Curtis 2020). By that time and since World War II, cars became to dominate transport planning both within cities and in rural areas and both within the United States and across the globe. Planning to enhance car-mobility, i.e., 'automobility' seemed to be the way of the future. However, that changed with this shift in paradigm. And similar to the general debate on sustainability versus sustainable development, there is no clear-cut definition for sustainable transport either (Curtis 2020).

It is important to understand in the case of transport and sustainability, that modern transport since the latter half of the twentieth century has become unsustainable in nature. The emergence of new technologies, including the car, but particularly that of motoring, and for longer distances, the airplane, made that individuals have the ability to travel further. Those traveled distance surge with each new development. The availability of new technology, additionally, rose significantly among the general audience which exacerbated the distance travelled. Though, transport seemed to have a virtually unlimited progress and provided endless possibilities to individuals from different socioeconomic classes, there are limits to that growth in transport (Bertolini 2020; Curtis 2020). Particularly those effects are measurable on

individual's health, but also on "economic efficiency, air quality, local and global environment, quality of life (Curtis 2020, 434)." Additionally, there are also negative inequitable distribution of impacts, which means that transport can enhance accessibility for some individuals or groups, but limit it for others (Curtis 2020). Unequal distribution effects are to be dealt with extensively in the next paragraph.

The solution to the unsustainability of transport does not come from the technological-side. Though technological advancements and improvements do aid in the decrease of nitrogen and carbon emissions, particular hydrogen or electrical zero-emission (ZE) motorized vehicles, it is particular government practices from which sustainable transport benefits. New technologies and advancements that have been made particular to enhance efficiency and decrease carbon emissions focus on car-mobility. The effect of these new technologies and ZE vehicles, simultaneously, could be marginal as the size of many vehicles has increased significant throughout the years. Moreover, ZE vehicles still emit other gasses and polluting substances, particularly from the tires and the production of ZE vehicles particularly relies more on heavy, polluting materials compared to 'regular' combustion engine vehicles. Then there are also issues with increased production, supply, and demand of electricity with the introduction of ZE vehicles and ZE vehicles still have many other issues that are not resolved, such as traffic safety, land-use, and congestion problems (Goodwin & Curtis 2020). Though, it should be mentioned that many of these technologies are applied to PT vehicles, too (Hopkins 2020).

So, it is understandable that focusing on new, 'sustainable' technologies and increasing mobility options and travel distance is not particularly a desired practice when it comes to pursuing sustainable transport. As mentioned early, practices in accessibility, land-use can make the difference in sustainable transport. These practices would involve an integrative way of policy-making and the integration of land-use planning when considering accessibility, both which are discussed before. Most of these practices would involve moving transport from individual to a more collective, efficient system, which would allow for land and space to be opened up to other goals. "Attempts to reallocate road space to give more priority to public transport, walking and cycling (which are much more efficient) have been a significant part of policy implementation in many jurisdictions around the world (Goodwin & Curtis 2020, 438)."

Other practices include designing co-location of homes and location facilities that individuals use on a regular basis, such as hospitals, supermarkets, bars and restaurants, and work locations. This would allow for shorter distances to be traveled, decreasing the degree of energy consumed in transport. Basically, its sustainable transport advocates for the integration of land-use to establish proximity, not the segregation of land-use. Additionally, these facilities and locations should be served by an (increased) form of PT, with high quality, frequency, reliability, and affordability. Other practices that adopt transport on-demand prove to be fruitful when designing for sustainable transport. Furthermore, as stated by Goodwin and Curtis (2020), is pivotal that sustainable measures and policies are broadly supported by different forms of government and different involved stakeholders. This could help in having a decisive measure or policy that is supported by many, which makes it more likely to be effective. The governments must assume a facilitating or leading role in these policies (Goodwin & Curtis 2020).

4.4 Social inclusion: Equity in Transport

The final concept that is important to consider is that of social inclusion or social equity. These are terms that have been brought to light many times when discussing both accessibility and sustainability. It appears to have a vital role in transport and planning for accessibility and a significant impact in policy-making. It is, therefore, necessary to explain this concept and elaborate on the definition, discussion, and application in public and transport policy-making before using this concept in the analysis of this thesis. This analysis focusses on the concepts that have been brought forward by Karel Martens (2017) and Hans Jeekel (2019).

It is, important to stress that social inclusion, unsurprisingly, is also contested among scholars that approach it differently in context-specific situations. The concept and all its related notions, such as justice, equality, and more, are often perceived differently. Not only that, there are many different names for seemingly similar concepts that fall under the same umbrella. This makes for a highly philosophical concept that is difficult to put in numbers and measure. Most generally, the concept of equality, equity, justice, and inclusivity is explained as the degree to which individuals are able to participate in society. Veeneman and Mulley (2018) took this in relation to urban environments and, therefore, named this 'urban sustainability'. Sustainability is inherently linked to notions of equality and inclusion and goes beyond sustaining and protecting the environment, as discussed before (e.g., Barnes & Hoerber 2013; Caradonna 2022; Cerne & Jansson 2019). Accessibility, moreover, also shares similarities as it also stresses the relationship between reaching services and participation in society (e.g., Geurs & Van Wee 2004; Straatemeier & Bertolini 2020).

4.4.1 Transport Justice: Karel Martens

This discussion starts with the justice side. Karel Martens discusses this idea in relation to transport in his book *Transport Justice: Designing Fair Transportation Systems* (2017). He discusses various concepts but particularly highlights the idea of 'fairness' in transport. Fair transport, in essence, is a point where individuals have a "sufficient level of accessibility (Martens 2017, 215)," which is not a radical or novel idea in itself. The degrees of accessibility levels, and when people have decent access to services has extensively been discussed in this chapter, too. However, it does have a significant impact for the role and obligations of individuals and institutions. Martens explains this by comparing individuals lacking accessibility and individuals with sufficient accessibility. The former is entitled to the resources generated by civil society to enhance their accessibility levels while the other is not entitled to these resources, at least not for their degree of accessibility. In other words, a just transport system demarcates what governments can, or rather should do in the accessibility debate to improve the accessibility of those lacking accessibility (Martens 2017).

To delineate who are meant with people lacking accessibility, there are typically identified two types of marginalized groups in this respect. The first group lacks financial resources to have sufficient accessibility levels. They might live near transportation routes or services but are unable to afford those transportation modes or services with their current income. The second group is marginalized because of their physical or mental abilities, which often collides with financial possibilities. Alternatives for this group in terms of transport may be insufficient or even non-existent to participate in society. The third and final group is a group that neither has a lack of financial resources, nor have a disability, but rather reside in a location

where transportation levels or accessibility levels are substandard. It could be that they have multiple transfers, long travel times, unsafe routes, and a multitude of other reasons (Martens 2017).

4.4.2 Governmental roles: Financing

There is not only a vital role for governments in the distribution of resources, there is also the component of finance as designing a (fair) transport system comes with significant costs. The discussion in the finance domain revolves around where to allocate these resources. Governments have several sources of income to enhance the transport system or increase accessibility levels, ranging from general sales and income taxes, to transport specific income, such as road and fuel taxes or parking and PT fees (Martens 2017). The discussion that emerges is whether these transport specific fees such as road taxes or PT fees should be used for these types of infrastructure and transport. What makes this discussion difficult is that the modern (western) transport system is centered around automobility, meaning that the majority of the financial resources is to be allocated to this transport mode (Martens 2017).

Martens (2017) does not suggest new types of income to finance the transportation system to maintain or enhance levels of accessibility but does propose a rigid way of generating that income. The first of that method is based on the user fees. The argument revolves around the idea of marginal cost pricing. Fees that individuals pay to use those fees should not exceed operation and maintenance costs – except for the first period where the fees may also cover the investment – because if they do exceed, it would resemble profit-oriented transportation. That notion is the direct opposite of just transportation. Moreover, governments that price transportation beyond operation and maintenance costs apply a coercive taxing mechanism, which cannot be avoided by individuals. This has a negative effect particular to people with a low socioeconomic status (Martens 2017). Investments in the transport sector should be derived from other financial schemes. These user fees are to be based on particular situations, such as density, i.e., urban versus rural, type of infrastructure, and more. Interesting to note is the notion that increasing user fees during rush hours often pushes more people within the group of having insufficient income for transport. Martens (2017) acknowledges that applying this scheme would require elaborate research to determine what falls under operation and maintenance costs.

The other financial system involves the tax system. A just version of this system enables individuals from lower socioeconomic groups and improves their accessibility levels. This just taxation system can benefit those groups to provide them with sufficient levels of accessibility. The financial resources that are generated must be used to reduce transportation costs for people without sufficient income or resources (Martens 2017). Multiple measures and schemes can be adopted to realize this just taxation system for transportation. Additionally, the extent to which individuals have insufficient income also depend on several factors, similar to the height of the user fee (Martens 2017). How such a tax scheme could be applied is open for discussion, to stress again, varies per region (Martens 2017).

4.4.3 Neoliberalism in Transport

Touching upon similar topics, but with slightly different emphasis is the notion of ‘inclusive transport’. The former part of that concept ‘inclusivity’ has been mentioned

throughout this thesis numerous times (e.g., see 1. Introduction). This is discussed extensively in the book by Hans Jeekel – who cowrote many articles with Martens, including one used for this thesis – titled: *Inclusive Transport: fighting Involuntary Transport disadvantages* (Jeekel, 2019). Jeekel's (2019) point of reference is twofold. There is a desire to design a transport system that does not lead to social exclusion and to create one where the possibilities to meet, have joint experiences, and establish communities through mobility and transport (Jeekel 2019).

Mobility and transport are seen as the main motors of the current, modern and western economy, making transport an objective in its own right. Transport is also increasingly individualized, as discussed in the 'sustainability' section. This is a product of the dominant way of policy-making called 'neoliberalism' according to several scholars (Jeekel 2019; Thomas 2020). This philosophy dictates market-rule, where unregulated market will increase economic growth that will ultimately benefit everyone, according to proponents (Jeekel 2019). Characteristics of those perusing neoliberalist goals, such as many American administrations and the Dutch Rutte cabinets that led the country since 2010, are cutting social welfare and social services. These were designed to particularly protect the individuals of the lower socioeconomic classes (Jeekel 2019). Other neoliberal measures are privatization across sectors, including (public) transportation and relying on individual responsibility.

The result of this neoliberal approach to mobility, is that locations and services are more dispersed, through a variety of reasons, but particularly, bigger scales and less regulation. Dispersal exacerbates the need to travel and decreases levels of accessibility. Mobility is not only a desired flexibility, to go where a person wants to, but has become a necessity: individuals must travel to participate in society (Jeekel 2019). And in an individualized society, the car provides the ability to travel. Our society seems to have been individualized to a degree where automobility not only is a flexible way of traveling, it has become the dominant way of traveling. Perhaps one perceives this not as an issue, but looking closer, it can develop to become an issue. Individuals with a lower socioeconomic status in more than just a few cases do not have access to a car, or in some cases, have access to a car, but are not positioned to afford one (Henriksson & Linkvist 2021). Centralizing automobility and cutting community services, additionally, results in fewer PT possibilities. Individuals with a lower socioeconomic status are less likely to have adequate access to PT transfers. This is unevenly geographically distributed. It means that some regions – often rural ones – face this issue more than others (Henriksson & Linkvist 2021). Moreover, the focus of policy-makers has largely been on removing frictions in transport, such as congestion or increasing the speed limit, without properly studying the needs for participation. These dominant focus of policy-makers is largely economic: they analyze the costs and benefits of transport (Allen & Farber 2020).

4.4.4 Inequality in Transport

There are, thus, many issues with the equality, or rather inequality of transport, across social and economic boundaries. The question that first needs to be addressed is, what is equality? When is a transport system equal and what kind of equal opportunities do we perceive and measure? In the first place, it is important to understand the difference between 'equality' and 'equity'. The former "refers to the distribution of a particular good (income, accessibility, etc.), irrespective of moral judgement (Van Wee & Geurs 2011 352)." The definition of social equity is also "embedded within personal accessibility and therefore, an improvement in social

equity would occur through an improvement in an individual's connectivity to education, leisure, and employment (Cuthill et al. 2019, 1229)." The latter, on the other hand, can best "be equated with 'fairness' or 'justice'. It implies moral judgement (Van Wee & Geurs 2011 352)."

Social equity typically concerns the degree to which a resource – both the costs and its benefits – are distributed among society. That resource can be housing and one would be discussing the degree to which (social) housing is available to individuals (Allen & Farber 2020). In the particular case of this thesis, our distributed resource that we are considering, is transport, more specifically public transport. Allen and Farber (2020) frame social equity in two dimensions, horizontal – or egalitarian – and vertical – i.e., focusing on socio-economic status, needs, and abilities. Transport has a unique status, according to these authors, as they argue that it can never fully provide equal levels of ability to access transport services or be able to participate in society. The reason for this argument is because regions, and the land-use in specific regions along with the distribution of transportation networks, is not uniform. Even if uniformity existed, individuals and groups using these transport systems will do so differently according to their preferences stemming from their lifestyle. (Allen & Farber 2020)

That said, there is some level of equality to be achieved as barriers within travel which limit ability to participate in society. Studies have concluded that individuals who experience some degree of transport exclusion, and with that, decreased societal participation, also encounter other forms of social deprivation, such as lower wages and lower health standard (Allen & Farber 2020). The effect that this transport poverty can have, results in a vicious cycle, where individuals social disadvantage increases.

4.4.5 Social Exclusion in Transport

Social exclusion in transport can take many forms. Early research established that social exclusion occurred in low socioeconomic neighborhoods and areas. It suggests that this social exclusion through transport is mainly a policy issue, and a lack thereof. This would require a more integrative analysis of land use, housing, and other services (Henriksson & Linkvist 2021). Often, the layout and design of PT plays a contributing role when it comes to social segregation and exclusion. This increases when the social welfare state retreats and travel distances increase. Individuals and groups with a lower socioeconomic status will be less able to participate in day-to-day activities (Henriksson & Linkvist 2021).

Noteworthy in the notions of social exclusion and inequality in transport is a study by Allen and Farber (2020). The researchers looked into this relationship between individual's (active) participation and the degree of accessibility in the greater Toronto area. That particular area witnessed a larger cluster of low-income households near better public transit accessibility, probably because of limited car-ownership (private transport). Higher income households also prefer less dense areas with more car-parking possibilities close to home, especially suburban areas. It should be noted, however, that high-income groups without a car could afford homes closest to transit opportunities and lower income groups without a car were often confined to the lesser accessible areas of the city with fewer transit possibilities. This already indicates the relationship between income, access to transit, and societal participation (Allen & Farber 2020).

They also plotted the relationship between those accessibility levels and the daily participation in society among low-income and higher income groups. Based on the degree of accessibility to transit possibilities, household societal participation increased with high density

of transit possibilities and decreased with lower levels of transit possibilities (Allen & Farber 2020). This effect is stronger for low-income households against higher income households without a car. The latter group is significantly more able to locate themselves near strategic transit possibilities such as transit hubs, whereas the former, lower income group, is pushed further away from those options. Their options participate in similar societal activities compared to the higher income group are, thus, smaller. (Allen & Farber 2020). It shows how movement patterns and financial resources influence the degree of participation. It also links to the idea of boundless neoliberalism and an orientation shift for policy-makers to design more inclusive and just transport policies across the board.

4.4.6 Inclusive Transport: Hans Jeekel

Inclusive transport, according to Jeekel (2019) also relates to a broader goal. It is not only about the degree and extent to which individuals across categories are able to participate, but it is about the possibility to meet (Jeekel 2019). Examples of the possibilities to meet in transport include shared mobility, bicycling, and most notably, PT. Research proves that individuals desire – if travel deems necessary – to jointly travel, rather than separately. This is tightly related to notions of social cohesion. This, briefly, defined as: "measure of a society's members' willingness to cooperate and their autonomous action in support of norms that already exist within a society (Koone 2011)." More colloquially it would be perceived as the notion of solidarity, being together, and being helpful (Jeekel 2019). To establish inclusivity within transport – or at least have a preferable starting point – it is desirable to have a high degree of social inclusion and stronger government structures that have the agency to invest in inclusive transport (Jeekel).

As "inclusive transport finds its basis in shared experiences (Jeekel 2019, 214)" and it is desirable to have active government involvement in pursuing inclusive transport. It does not become obvious yet how this can be realized through government policy-making. Japan is one of the rare cases that displays a national policy for inclusive transport, while decreasing involuntary transport disadvantage and automobility dependence. Part of the success of that plan is already hidden in Japan's existing sustainability plan, where the government realizes compact cities and transport services (Jeekel 2019). Though part of the plan is still revolved around the economics of transport, a key piece revolved around policies containing:

> "Securing means of transport indispensable for daily lives; Creating smooth movement for elderly, disabled, and pregnant women; Improving convenience and efficiency of transport services; and aligning transport investment with urban development (Jeekel 2019, 215)."

Additionally, to these goals, Japan also drafted performance indicators to realize these goals. Policies designed to realize these goals include 'eco-commuting' where employees are encouraged to transfer from individualized forms of transport to public or active transport.

Finally, Jeekel (2019) proposes a system with conditions for inclusive transport. That system is displayed below in Figure 8. It is notable that many of the elements have not been discussed in this section specifically, but have been in the other parts of this section on *5.4*

Inclusive Transport. It becomes, therefore, obvious that Jeekel (2019) derives many of his ideas from previous research on this topic.

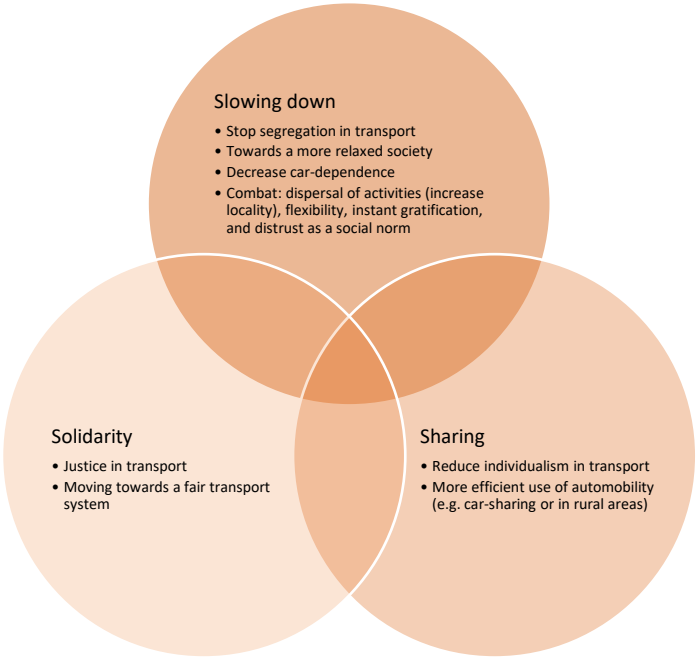

Figure 8. The prerequisites to reach social inclusion (in transport) as drafted by Jeekel (2019) using arguments and analyses made by Martens (2017) and others. Inclusive transport is achieved when all the other prerequisites are met (Inclusive transport is in the middle of the diagram).

4.4.7 Inclusive Transport or Transport Justice?

This part of *Chapter 4* has been devoted to unraveling the notions, definitions, and consequences that fall under the umbrella of justice or social inclusion particularly related to transport. The idea of transport justice came from the book by Martens (2017) where he defines fair transport as "sufficient level of accessibility (Martens 2017, 215)." How to achieve that, he argues, is through various active government involvement in pricing and taxation of transport systems. Governments should approach this location-specific and group-specific in order to have individuals across boundaries able to participate in society. With regard to group-specific measures, it is important to stress that he identifies three groups: individuals with a low income, people with disabilities, and people with insufficient access to transport. Not cautiously considering these marginalized groups and pursuing effective pricing mechanisms can cause transport injustice.

The other concept that is extensively discussed is inclusive transport by Jeekel (2019). He assumes the point of reference of neoliberalism, through which many social services and welfare systems have been dismantled in the past decades both in the Netherlands and other western societies. This established a system in which inequality and social inequity is rising as resources are not adequately distributed among the population. One can already spot the similarities between the two scholars as Martens (2017) also provides a system where resources can be distributed – or at least paid for – more equally. In this highly individualized society with rising social inequalities, social exclusion becomes more prominent, across domains, including transport. To Jeekel (2019), inclusive transport is a transport and mobility system in which people are able to meet and where there is a high degree of social cohesion.

As Jeekel (2019) combines several definitions of inclusive transport with many elements present, this shall be the definition used in this thesis, too. This thesis will also adopt the term 'social inclusion' and 'inclusive transport' to discuss and analyze measure regarding just, equal, and inclusive transport. One final note in this regard is that Jeekel (2019) provides well-illustrated examples of what policy-makers could adopt and apply to establish a more inclusive transport. These will be considered in the next chapters when analyzing the different case studies. These measures are:

Table 1.
Policy suggestions for policy-makers to create a more inclusive transport system and accessibility as drafted by Jeekel (2019, 240).

Measures/Themes	Create	Clean up and abolish	Redirect
Direct:			
	National law on right to mobility for everyone embedded in funding system for sufficient accessibility.	Highway locations without appropriate PT.	Budgets for road infra building to public spaces.
	Elaborate policy framework for inclusive transport.	Addiction to driving alone in your car.	Budgets for public transport only to PT, car- sharing, ride-sharing, Mobility-as-a-Service (MaaS), active modes (bicycle and walking).
	Fund for start-ups with new mobility initiatives		
Indirect			
	National law coordination car-free zones.	Policy bias on economic growth in the traditional sphere.	Investment budgets on infra/mobility services from national government to urban governments.
	National law on CO2 targets to be reached, including time schedule.	Focus on the technological fix, with electric cars as the *Deus ex Machina.*	Taxation should be aimed to reaching sustainable mobility/targets set for fight global warming.
	Permit system related to mobility impacts of important government decisions.	The last vestiges of neoliberalism such as privatization, individualism and intense flexibility.	

5. Data Analysis and Findings

This chapter discusses the studied data and the approach to studying this data. To reiterate, the thesis uses the PAA – Policy Arrangement Approach – to study the different roles of the different actors, discourses, resources, and rules of the game in this policy process. This illustration aids in understanding how these PTCA policies are shaped. What these different dimensions constitute and how they operate can be found in detail in *Chapter 3.* Similarly, this thesis employs the models on decision-making – bounded rationality in particular (Cascetta et al. 2015) – which are discussed in *Chapter 3.* Using the different concepts from the previous chapter – accessibility, sustainability, and social inclusion – we analyze the PTCA decision making process in relation to the two selected case studies in the Province of Utrecht and the Province of South-Holland. The study is briefly outlined first, stating what and how it will be studied. Then, the relevance of case study research is discussed and cases are presented. Finally, the data is put forward and the analyzed.

5.1 Outline of study

The studies utilizes both primary and secondary data for the analysis. The literature review as detailed in *Chapter 4* comprises the most pressing and relevant policy objectives and discusses them in an academic context. This study follows this method from Veeneman and Mulley (2018) who have also been studying PTCA's, though their focus laid on the outcomes of PTCA's rather than the similar conditions of different PTCA bodies. These policy objectives – accessibility, sustainability, and inclusive transport – are used in the data analysis to study what is prioritize by policy-makers from the respective governments. The first line of data, then, is derived from a desk study and researched policy documents written by both provincial governments that resonates to the PTCA guidelines. It ranges from general environmental policies, such as the provincial OMVs to more PT specific documents like the PT-Network perspective from the PU, where the government lays out long-term PT objectives. This is not a novel method and also seen in many PAA studies that apply policy documents to study policy arrangements, including Kim et al. (2022), Liefferink (2006), Veeneman and Mulley (2018), and Yirga et al. (2023).

The desk and policy research are supplemented with interviews with different policy-makers from both provincial governments, as also seen in the PTCA study by Veeneman and Mulley (2018), but also the studies using PAA such as Yirga et al. (2023) and Kaufmann and Wiering (2021). Additional documents that were derived during the interviews, were also taken in the eventual data analysis. The interviewed subjects are policy-makers from both provincial governments and are involved in the PTCA process. The PU policy-makers work within the domain of Mobility while the PZH policy-makers come from the Tendering domain. All of the interviewed were approached via e-mail and acquired by sending a general e-mail to the provincial government which referred these stakeholders. Interviews lasted typically thirty minutes, as agreed upon, though some policy-makers were interviewed for a maximum of 45 minutes. Interviews were conducted online via Microsoft Teams.

As mentioned before, Veeneman (2018) had studied the process of tendering for future tenders specifically and how policy-makers navigate future developments, such as new technologies or concepts, such as MaaS. This research used semi-structured interviews with staff from provincial offices and departments. It asked several key questions to every

interviewee, navigating the interviews along these questions. After the interviews were concluded, the responses were coded and analyzed to establish where policy-makers had matured their tendering process. (Veeneman 2018)

This research will use a similar approach to studying and analyzing PTCA. It will not, however, focus on the maturing of the tendering process, but rather, how policy-makers navigate concepts of accessibility, sustainability, and social inclusion when drafting PTCA's. Though technological and infrastructural changes are included in relation to the above-mentioned concepts. This means that I will not specifically be studying at what kind of innovations the tendering process included compared to the previous tenders. Studies on that subject can be found in Veeneman (2018).

5.1.1 Approach: Comparative Case Study Analysis

This study adopts the method of a qualitative comparative case analysis (QCA) to investigate how decisions are made and prioritized when drafting policy at the regional governmental level in the Netherlands. Case studies have been adopted and applied by researchers as an analytical and diagnostic tool to identify certain aspects within a (policy) research. These include elements such as the failure or success of certain implementation processes, quality of delivering services, or what kind of challenges need must be addressed (e.g., Widner 2022; Veeneman 2018). It is a tool applied by many policy scholars, and popular indeed. That does not automatically mean that the case study method can be apply to every single research, nor does it entail that one must not carefully consider how the data is analyzed in such a method. This section highlights when and why a case study can be applied, and how this method can contribute to our central research question in particular.

Case studies, in general, can help understanding how – in our case – policies are applied through the eyes of a certain actor or actors. When explaining theory, such as why or how actors make decisions, the mechanisms behind the theories help explain the root causes. Policies and decisions can be unraveled, in that way, particularly with the help of conversations, i.e., interviews (Widner 2022). With help of document analysis and interviews with involved actors, case studies are able to show the policy process and the influence of a particular policy measure. It can, therefore, show the outcome of similar measures in different regions (Widner 2022).

For comparative case study, it is not only necessary to have a policy issue or research that focuses on theory building, but also two distinct cases that are seemingly similar, yet have different practices or policy outcomes. As recognized by Janjevic, Knoppen, and Winkenbach (2019), two similar states often operate under the same rules – as is the case for provinces in the Netherlands – but they can follow different trajectories to those rules. Their past, additionally, influences their present behavior and how they organize themselves to their environment. It is, therefore, paramount to study set policy ambitions from previous policy documents that are utilized for the PTCA's. The comparative case study analysis can aid in identifying the differences, and help explain why particular differences occur (Aberg & Satake 2009). Examples of comparative case studies can, for instance, be found in Aberg & Satake (2009) and in Verweij and Gerrits (2013).

For the case study selection, the research studies two cases in the Netherlands. The cases are selected based on the similarity of the different cases in terms of location, geography, and population size (as presented in Aberg & Satake, 2009; Verweij & Gerrits 2013). It is, therefore,

possible to hypothesize that these two cases have a similar approach and similar goals to public transport, particularly, how they navigate and prioritize accessibility, sustainability, and social inclusion. The selected concession areas are in the Province of South-Holland (Dutch: *Provincie Zuid-Holland,* PZH) Dutch with their concession area South-Holland North (Dutch: *Zuid-Holland Noord,* ZHN). The other case is located in the province of Utrecht (Dutch: *Provincie Utrecht, PU*) with their two concessions named 'Inner Utrecht' (Dutch: *Utrecht Binnen,* UBi) and 'Outer Utrecht' (Dutch*: Utrecht Buiten,* UBu) to distinguish between the public transport within and directly surrounding Utrecht City and public transport in the rest of the province. Important to note is that both provincial governments are simultaneously working on the guidelines and tendering a new concession. (Provincie Utrecht 2023; Provincie Zuid-Holland, 2023).

5.1.2 Case I: Province of Utrecht (PU)

The PU is often referred to as the 'middle of the Netherlands', attributing to its centrality in the country. The province is the smallest, but one of the most densely populated areas in the country and additionally, has several important transportation routes and hubs for different transport modes (see *Figure 9*). The Utrecht Central Station is the busiest and largest national railway station in the Netherlands. Some of the busiest highways in the Netherlands not only run through Utrecht but are connected in the province. It is, therefore, that their own provincial environmental planning plan (Dutch: *Omgevingsvisie,* OMV) refers to the province as the cross road of the Netherlands (*Omgevingsvisie Provincie Utrecht 2040,* 2021). This implies that this

Figure 9. The outline of the Province of Utrecht with the major urban areas, national and regional road and railways. The ZHN concession is directly to the west of this province (Omgevingsvisie Provincie Utrecht 2040, 2021).

region is also the bridge between several places and services in the Netherlands. It is vital economic concern for the Netherlands. The PU is also part of the Randstad area (see Figure 1) a metropolitan area in the west of the Netherlands, roughly connecting the largest cities of Rotterdam, the Hague, Amsterdam, and Utrecht with each other.

According to their OMV, the PU faces similar challenges that were discussed before in this study. The province witnesses a significant influx of new residents and will be see an increase in demographics for the next ten years. This is particularly due to immigration from other provinces as well as from other countries (*Omgevingsvisie Provincie Utrecht 2040*, 2021).

The provincial government, consequently, focuses on providing sufficient housing for these new groups and creating an infrastructure system that can transport these new people. Those challenges must, simultaneously, fit with the current nitrogen crisis that unfolds the Netherlands – the Dutch far exceeded their annual nitrogen emission, leading to a gross debate in the country – and current energy and climate crisis (CBS 2023). The PU wants to establish the province into "a sustainable, healthy, and safely accessible region (*Omgevingsvisie Provincie Utrecht 2040*, 2021)" by 2040 in a response to these challenges.

The Province of Utrecht (PU) maintains two concessions, Inner Utrecht, which comprises the metropolitan area of Utrecht City, and Outer Utrecht (OU, Dutch: *Utrecht Buiten*), which comprises the smaller urban areas, such as Veenendaal and Amersfoort, and the rural areas, like Oudewater and Montfoort (see *Figure 9*). The base for the contents of their concession stems from OMV. This is where a provincial or municipal government has laid out the plans and ideas for environmental and societal policy-making in the province or municipality for future decades. This vision goes beyond just transport, or public transport, and also discusses more broadly how the provincial government will address issues such as climate change, housing, but also cultural heritage. Of course, this thesis will center on the parts that addresses how the provincial government envisions transport in the coming decades (*Omgevingsvisie Provincie Utrecht* 2040).

The entire concession is, naturally, not just based on elements from one policy document. There are more factors that influence how a concession is drafted. The PU also studies the Public Transport Network Perspective (*Dutch: OV-Netwerkperspectief* 2025-2035). This is a provincial governmental policy-document, and not drafted by all other provincial governments per se. It envisions more specifically what the focus is for the provincial government towards PT during the next ten years. Together with the Draft Baseline Note (Dutch: *Nota van Uitgangspunten OV-Concessies Utrecht Binnen en Utrecht Buiten*), specifically discussing what the baseline is for the concession, they form the most important documents outlining what will be adopted in the new concession (J. Golstein 2023). Additionally, the PU also hired a consultancy to evaluate the current concessions of the province. These documents, together with a stakeholder analysis, with stakeholders such as the provincial municipalities, neighboring provinces, PT transport companies, and travel organizations and discussions with involved policy-makers from the PU, a draft version of the guidelines for the concession are composed.

5.1.3 Case II: Province of South-Holland

The PZH is a province in the West of the Netherlands, including the cities of Rotterdam and The Hague (see *Figure 10*) It is the most populated province in the Netherlands. Similar to the PU, the PZH has several key road and railway networks and hubs, including Rotterdam Central Station which serves domestic and international railway travel. The PZH is also part of the Randstad area, making this an urban region, like the PU. The challenges in the PZH are similar to those in the PU, including a population increase, housing crisis, energy crisis, climate crisis, and pressure on the transport network, particular on the PT network. Their main goal is

Figure 10. The outline of the Province of South Holland with the major urban areas, national and regional road and railways. The PU concessions are directly to the east of this province (Staat van Zuid-Holland

to build an accessible region with clean energy, a diverse economy in a strong, natural environment with rigid cities and a healthy population (*Omgevingsvise Zuid-Holland*, 2021). Though there are some differences in nuance, the core does not differ completely from the PU's vision.

Though the PZH manages several concessions, including the 'Drechtsteden PTCA, the Zuid-Holland *Midden* PTCA and the Rotterdam-The Hague PTCA, this study will in particular study the PTCA of ZHN, which includes the city of Leiden and Alphen *aan de* Rijn. This is the only concession in the province that is currently being tendered, similar to both concessions in the PU (Provincie Zuid-Holland 2023). It borders the province of North-Holland to the north and the PU to the east, and other PZH concession areas to the west and south. This makes that this particular concession area also has a central function in the Netherlands. The process, at first glance, is similar to that of the PU, where current provincial OMV and transport plans form the basis, an evaluation by an external bureau is conducted, and policy-makers involve several stakeholders (Provincie Zuid-Holland 2023). An extensive process analysis is conducted and discussed in paragraph concerning the *Process of Concession Management.*

5.2 Data Sources and Coding

5.2.1 Type of Data

Both provincial governments drafted several plans and documents with ambitions and objectives for their respective PTCA's. Documents relevant to drafting the concession, from regional long-term ambitions, to policy on (public) transport, are used in the analysis. The list of documents that will be used for the analysis, including a summary of their contents, can be found in Table 2. Exact details of the process of the analysis are discussed in the next session.

The document analysis is complemented with interviews with involved policy-makers and one stakeholder. As mentioned in the approach to conducting policy document analysis and interviews, this study adopts a semi-structured interviewing method. This entails that each interview has similar questions and topics it addresses. Three main leading questions were always adopted and applied in the process However, there some iterative approach is allowed, meaning that interviews were at liberty to discuss relevant topics they considered pivotal to the concession process. The topics that were discussed in each of the interviews are as follows:

- *Policy-making during the draft concession*
- *Importance and adaptation of one of the following (one or more): accessibility, sustainability, social inclusion*
- *Prioritization of policies and ambitions*

The interviews lasted about half an hour as most policy-makers had a busy schedule during the research period and were not often available. It was due to that reason that interviews were also conducted online. Table 2 with the interviews can be found below. Note, however, that interviewees are anonymized during the research process. Most of the information from interviews, including their job title, could be derived to individuals. All of the interviewees, however, were involved in the process of drafting a new concession, either being part of the Concession working group or the Mobility domain or Tendering domain or in some cases, both.

Table 2
Presentation of analyzed documents

Organization	Policy Document	Publishing date	Contents
PU	Environmental Policy-plan Provincie of Utrecht (Dutch: *Omgevingsvisie Utrecht)*		Sets out the long-term plans for the provincial government
PU	Baseline Note: PT Concessions Inner Utrecht and Outer Utrecht (Dutch: *Nota van Uitgangspunten OV-Concessies Utrecht Binnen en Utrecht Buiten*)	May 2020	Contains the baseline and proposed goals for the new concession
PU	Evaluation OV-Concessions by RoyalHaskoningDHV (Dutch: *Evaluatie OV-Concessies door RoyalHaskoningDHV*)	October 2020	Evaluates the current concession in place
PU	PT-Network Perspective 2025-2035: Looking Ahead to 2050 (Dutch: *OV-Netwerkperspectief 2025-2025: Met doorkijk naar 2050)*	May 2022	Provides a long-term perspective for public transport in the province
PU	Concession Requirements: Concession Inner Utrecht and Outer Utrecht (Dutch: *Programma van*	November 2022	Contains the framework and guidelines for the new concession

	Eisen: Concessie Utrecht Binnen en Utrecht Buiten)		
PU	Note of Response Concession Utrecht (Dutch: *Nota van Beantwoording Concessie Utrecht*)	May 2022	Provides the different advices and request by stakeholders that legally had to be include in the process for the new concession
PZH	Policy Framework New Concession: South Holland North (Dutch: *Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord)*	December 2022	Contains the framework and guidelines for the new concession
PZH	Environmental Policy-plan Province of South-Holland (Dutch: *Omgevingsvisie Zuid-Holland)*	September 2021	Sets out the long-term plans for the provincial government
PZH	Transport Plan Concession South-Holland North (Dutch: *Vervoerplan Concessie Zuid-Holland Noord 2023*)	October 19, 2022	Provides the general direction for the concession
PZH	Evaluation Concession South-Holland North (Dutch: *Evaluatie Concessie Zuid-Holland Noord*)	February 4th, 2020	Evaluates the current concession
PZH	Concession Requirements South-Holland North (Dutch: *Programma van Eisen Concessie Zuid-Holland Noord*)	April 22nd, 2020	Contains the framework and guidelines for the new concession
PZH	Note of Response Concession South-Holland North (Dutch: *Nota van Beantwoording Zuid-Holland Noord*)	October 4th, 2022	Provides the different advices and request by stakeholders that legally had to be include in the process for the new concession

Table 3
Presentation of conducted and analyzed interviews

Organization	**Job title**	**Online/in person**
Province of Utrecht (PU)	Policy-maker Mobility Domain	Online
	Policy-maker Mobility Domain	Online
	Policy-maker Mobility Domain	Online
	Stakeholder Concession (consumer-side)	Online
Province of South-Holland (PZH)	Policy-maker Concession Management	Online
	Policy-maker Concession Management	Online
	Policy-maker Concession Management	Online

5.2.2 Coding Process

The data analysis starts with the coding the beforementioned data sources using Atlas.ti. This a program where researchers can upload different (textual) sources and add different codes, nodes, and notes to them and establish links between them. This method allows to perceive the relations between different documents and interviews. The coding follows the process of initial and focused coding as laid out by Charmaz (2014) and others. As mentioned earlier, the analysis of the data will occur simultaneously with data collection and is approached as an iterative process. During the data analysis, codes were added to the data, which were developed through researching. The process of labelling data with codes denotes concepts and add meaning to these concepts. It helps understanding what the data is about. (Belgrave & Seide 2019) This

inductive coding method aids in turning data into categories, and categories into eventual theories. Though there are numerous methods and ways of applying codes according to GT, this analysis adopted the more constructivist approach.

This approach ignores the fact that a 'neutral' observer or researcher exists, but rather acknowledges the fact that research and the analysis that comes with it, is, in fact, constructed (Belgrave & Seide 2019; Charmaz 2014). This GT coding approach applies two coding methods that follow one another: initial (or open) and focused coding. This initial or open coding process allows the researcher to be flexible in their coding process and "leaves later stages of coding strategies open." (Belgrave & Seide 2019, 348) Initial coding also starts out with asking what the data suggests and what is studied in a particular sentence. Note the word 'sentence' here and not paragraph, or other larger text elements, as this GT coding method suggests moving sentence by sentence to deconstruct the meaning (Belgrave & Seide 2019; Charmaz 2014). It allows to see other patterns emerge, rather than larger themes. The final note of initial coding is that the challenge was to stay close to the data. Appendix A displays the coding guide including what codes were used and examples of those codes. An excerpt of the coding guide is below in *Figure 11* with an example from the PvE of the PU (*Programma van Eisen Provincie Utrecht Binnen en Buiten* 2022).

Initial coding (category)	**Description**	**Focused coding**	**Description**	**Example**
Sustainability	Sentences containing keywords pertaining to notions that were discussed in the sustainability discussion, including mentions of zero-emission, protection of nature, circularity, etc.	Zero-emission	Sentences with the mention of 'zero-emission' pertaining to ambitions, goals, or PT.	"Materieel- en Transitieplan ZE, met dit plan kan de inschrijver zich onderscheiden op een betrouwbare implementatie van de ZE-Bussen in de Concessie passend bij de duurzaamheidsambitie (*Programma van Eisen Provincie Utrecht Binnen en Buiten* 2022, 17).

Fig 11. An example of the coding guide and codes used. The first column displays the initial coding, where the codes are applied to the sentences in an iterative way. The second part of the process is a more focused coding, which is more precise pertaining to certain topics or concepts. In this case, it involves 'zero-emission'.

5.3 Findings and discussion

Before starting the discussion on the analysis, the research questions are repeated in order to connect the relevant data and findings to the research questions. The main research questions state as followed: "How do policy makers operate in public transport concessions areas in the Netherlands around the concepts of accessibility, sustainability, and social inclusion?" It supplemented by the following sub-questions:

- How do policy makers in the Netherlands draft public transport concessions?
- What themes – for instance, zero-emission, sharing mobility, affordability, and more – are leading in public transport concessions in the Netherlands and how do these apply to accessibility, sustainability, or inclusive transport?

- How do policy-makers in the selected case study concession areas decide what is relevant with respect to these terms for their respective areas and what is the difference between decision-making in these areas?

5.3.1 Process of Concession Management

Overall, the two studied provinces have a similar approach to designing and drafting concessions. The similarly lies part in the legality of a concession policy process set out by the national government. For instance, it is mandatory for a said process to apply a form of participation in the process to involve 'outside' stakeholders in the process (Interview PU A 2023; *Wet Personenvervoer* 2000). The process roughly moves as followed (see also *Figure 12*). Both provinces have appointed a set of employees, either a steering group (PZH) or working group (PU). These small groups, which will be referred to as 'provincial concession group (PCG)', consisting of employees from either Mobility domain (PU) or Tendering domain (PZH) work to draft the eventual concession. The make-up of such a PCG differs slightly per province. The PZH, as an example, brings in both managers from social and transport domains, as well an elected official from the executive branch of the provincial government (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2022), while the PCG for the PU consists of policy-makers from the Mobility domain as well as external process consultants (Interview PU B 2023). The PCG, typically, works with an evaluation of the different concessions conducted by an external party.

Additional to the PCG, there is a mandatory involvement of stakeholders – as mentioned earlier in the concession process. Most notably, the regional travel organizations that goes by the name of Rover (or ROCOV for the PU) have an advisory role in the concession and can comment on the contents of the concession (Interview PU D 2023). Thus, both the PU and PZH are legally obliged to involve the Rover organizations. Additionally, both works intensively with the municipalities that the concession area encompasses as well as neighboring concession areas and provinces (Interview PU A 2023; Interview PU B 2023; Interview PZH A 2023). Note to this, however, is that there are a significant number of municipalities which means that it is not uncommon that they unite on certain issues in a regional collective, such as the neighboring municipalities of the city of Utrecht do in the collective 'U10' (Interview PU A 2023). Reasons to involve municipalities is both to build support for decisions made but also to inform what certain municipalities desire and where to put the focus. These desires can aid in the decision where to put emphasis on and what to prioritize.

> "[The interaction with stakeholders is meant to react to desires and current developments within the concession of South-Holland North."
> Dutch: "*De interactie met partijen is bedoeld geweest om met de nieuwe concessie optimaal te kunnen inspelen op behoeften en ontwikkelingen in Zuid-Holland Noord* (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord*)."

Though this stakeholder process maps the different desires and challenges those stakeholders deal with, prioritization still lies with the provincial governments and sharp decisions needs to be taken (Interview PZH B 2023):

> Municipalities want quite a lot; however, it is the task of the province to execute the desires and decisions. It remains, therefore, a political decision whether something happens or does not happen (Interview PZH B 2023)."
>
> Dutch: *"Gemeenten willen veel, maar het is de provincie die het straks mag doen. Wat er wel of niet gedaan wordt, blijft toch een politieke keuze (Interview PZH B 2023)."*

Additionally, to the above-mentioned stakeholders, both provinces also involve other stakeholders including, but not limited to: regional companies (such as parcel delivery, transport, and more), schools and universities, elderly boards, disability collectives, tourist attractions, and hospitals (see also *Figure 13*).

Together with organized sessions with these stakeholders, their response and advices, this PCG drafts the concession requirements (PvE). These requirements are also based and involve previous ambitions and goals set out by the provincial government in earlier stages. Often, the provincial environmental policy plan (OMV) is the base for many of these policies. Additionally, it is possible that there are also other involve documents as is the case with the PU which also as a PT Network perspective, laying out the future of PT in the PU (*OV-Netwerkperspectief 2025-2025,* 2022*)*

All of the advices and comments that the stakeholders make, including the municipalities, regions, and travel organizations on the PvE of the concessions have to be answered why certain decisions were taken. These requests or advices and changes to the PvE must be reported back to the different authorities. An example of this is the accessibility of services in the municipality of Holland-Rijnland-Teylingen where the municipality requests to be include as a bus stop in the concession. The province granted this request based on the importance of services, in this case a general practitioner *(Nota van Beantwoording Concessie Zuid-Holland Noord 2022).*

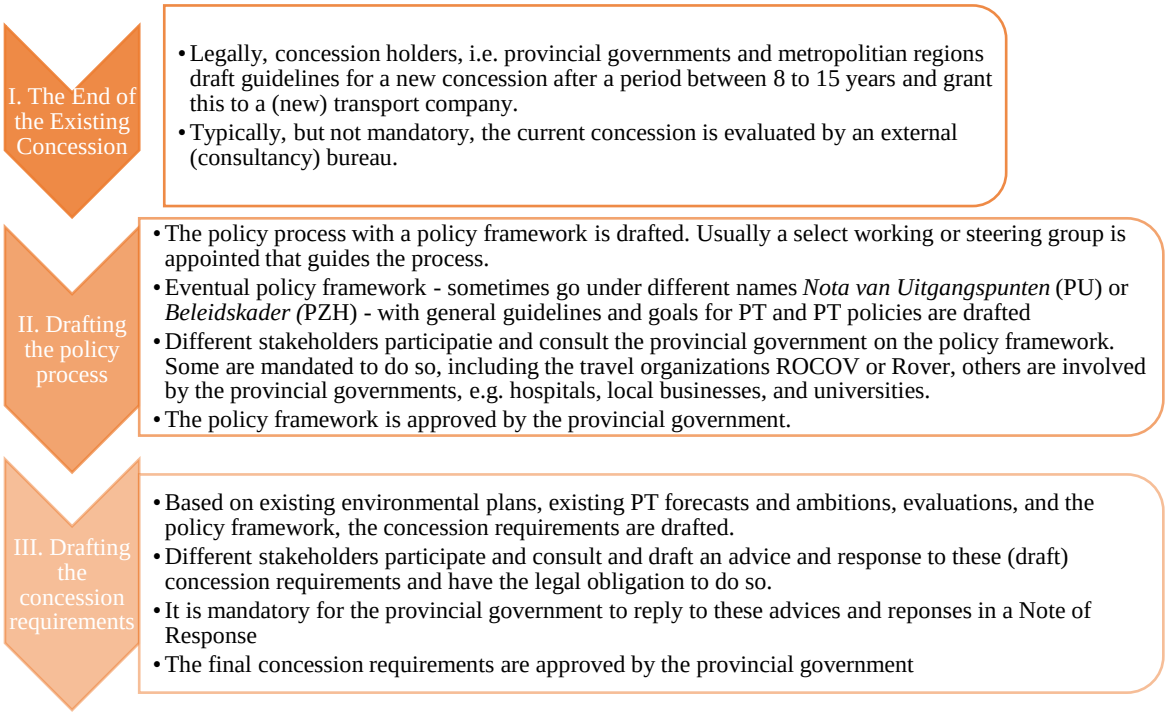

Fig 12. General policy process for drafting new concessions in the Netherlands as witnessed in the PU and PZH. This is the policy process before the tendering phase and the grant of the concession to a transport company

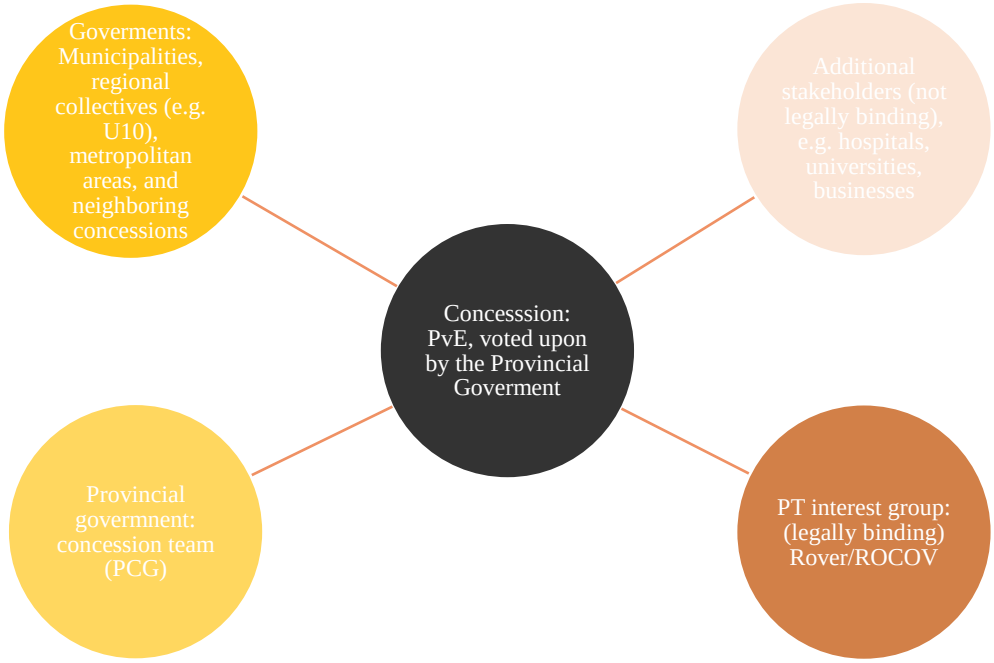

Fig 13. Overview of stakeholders drawn from documents and interviews in during the process of drafting the PvE. Dark yellow are the governmental branches, there is no legal structure who or how to involve these. Dark orange represents the PT Interest Group with legal binding advice and light pink are the additional stakeholders.

5.3.2 Policy Goals: Integration

These following sections go into the policy goals specifically, trying to identify what it said in policy documents and by policy-makers surrounding the discussed policy goals. It will also try to provide specific examples to these policy goals. There are four different sections going into the four discussed concepts, and ultimately policy goals in Chapter 4 which were, policy integration, accessibility, sustainability, and inclusive transport. In each section, a reflection upon these goals is made for each province individually. The analysis goes where ever

PU:

The PU mentions on multiple occasions and at multiple different policy goals that they take an integrative approach to policy-making. Both in translating challenges for environmental planning and PT policy in specific, they take an integrative approach. This means that several policy goals are ascribed by the provincial government to different policy domains. For the PTCA, specifically, it means that it needs to address other policy issues beyond PT planning. Ambitions in terms of accessibility, sustainability, and inclusive transport are detailed in the next sections of this chapter and not discussed separately. Most noticeable mention on the prioritization and importance of policy integration by the PU can be found in the OMV (Omgevingsvisie 2040 Provincie Utrecht, 2022

> "We consider housing, work, and accessibility as interconnected components of an integrated task. Large-scale housing development and growth of work locations are only possible through (major) investments in accessibility. The development of existing and new hubs is necessary to enable quick and efficient transfers between different modes of transport and thereby facilitate exchanges between national, regional, and local networks. In this regard, our primary focus is on the connectivity of (new) public transportation hubs and promoting cycling."
> *Wij bezien wonen, werken en bereikbaarheid in samenhang als onderdeel van een integrale opgave. Grootschalige woningbouwontwikkeling en groei van werklocaties is alleen mogelijk door (grote) investeringen in bereikbaarheid. Ontwikkeling van bestaande en nieuwe knooppunten is noodzakelijk om een snelle en slimme overstap tussen de verschillende vervoerwijzen mogelijk te maken en daarmee de uitwisseling tussen nationale, regionale en lokale netwerken. Daarbij zetten we primair in op ontsluiting van (nieuwe) OV-knooppunten en vergroten van het fietsgebruik.* (Omgevingsvisie 2040 Provincie Utrecht 2022, 97)."

This mention not only considers policy integration in general, but more specifically deals with policy integration related to PT. This proposal from the OMV of the PU highlights how different planned designs in the PT network can contribute to other policy domains and goals. This usage of policy integration fits the ideas and studies put forward by Veeneman (2018) and Cascetta et al. (2015) on policy integration in the Netherlands, particularly in the PT domain.

Policy integration is not brought to the foreground as much in the PvE, where it details specific PT policies and PT measures. This is remarkable as PT should contribute to other policy domains according to studied policy documents and interviewed involved policy-makers. However, some of these measures can be linked to policy integration. For instance, the PU requires from the transport company that they join spatial development boards, where current

spatial developments such as housing and infrastructure are discussed. The future transport company is expected to anticipate developments in spatial planning beyond PT. The PU, for instance, requires the transport company to:

> Offer a connected public transport based on the analysis and relation between potential and changing demand. Changes in that demand must be met with changes in the supply of public transport.
> *Een samenhangend Openbaar Vervoer te bieden op basis van een analyse van de relatie tussen de (potentiële en veranderende) Vervoervraag en het daarop af te stemmen aanbod van Openbaar Vervoer (Programma van Eisen Provincie Utrecht 2022, 62).”*

On another instance, the province requires those transport companies in charge of the concession to be flexible in terms of expansion of PT due to developments in spatial planning or technological developments. The PU displays not only policy integration in their own organization, they also expect other organizations to contribute to their policy integration ambition. This stems from their Baseline Note with their goals and ambitions for the PvE (Nota van Uitgangspunten Provincie Utrecht, 2022).

> “Base line 2: Provide concessions that are flexible and adaptable to enable expansion and change in public transportation due to technological, spatial developments or new infrastructure. We start with a network that closely resembles the current network. That network is developed further during COVID-19. We require flexibility and sufficient management and control."
> *Uitgangspunt 2: Concessies verlenen die flexibel en wendbaar zijn om uitbreiding en verandering van het OV mogelijk te maken als gevolg van technische, ruimtelijke ontwikkelingen of nieuwe infrastructuur (schaalsprong, minder hinder). We starten met een netwerk dat zo dicht mogelijk bij het huidige netwerk ligt. Dat netwerk willen we tijdens de Concessieperiode verder ontwikkelen. Daarvoor is flexibiliteit nodig en voldoende regie en sturing (Nota van Uitgangspunten OV-Concessies Utrecht Binnen en Utrecht Buiten*, 2020, 7).”

Policy integration did play a part in the interviews with policy-makers from the PU. Policy-maker specifically stated that they base their PT policy including the PTCA’s on other environmental planning policies such as the OMV. According to them, connecting policies and perceiving environmental spatial planning broader than just one domain, is part of ‘good spatial planning’. Questions regarding policy integration were almost seen as ‘normal’. One policy-maker noted:

> “We often link other societal challenges to our concessions, such as housing policies. If we did not, we would not be doing a good job (Interview PU C 2023).”

PZH:

The PZH, in line with the PU, proposes an integrative approach to policy-making and takes it as their main approach towards spatial policy-making. This approach is detailed in their OMV where they state that for each policy domain this approach is leading. This fits the earlier ideas

proposed by Veeneman (2018) and others. The PZH highlights and stresses this ambition early on in their OMV, stating:

> "The tasks that the province tackles depend on the added value it can provide and the provincial interest at stake. When addressing priority tasks, the province works at various levels and in an integrated manner."
> Welke opgaven de provincie aanpakt, is afhankelijk van de toegevoegde waarde die zij kan leveren en het provinciaal belang dat in het geding is. Bij het aanpakken van de prioritaire opgaven werkt de provincie verschillende schaalniveaus en integraal (Omgevingsvisie Provincie Zuid-Holland 2019, 7)."

The PZH's OMV continues to specify that their work in priorities and ambitions along several themes, which this thesis identifies as policy goals, such as accessibility. The different themes, according to the PZH, are integrated in a given area, whether that is a larger urban agglomeration or smaller municipality. They argue that areas always witness a merger of different policy goals as these co-occur in areas. This again fits with the ideas of policy integration and moreover, also with the notions of accessibility measures as put forward by Straatemeier and Bertolini (2019) and others. See, for instance, this statement:

> "It is, thus, important to take into account the existing functions and qualities in an area, known as the 'area identity,' when working on the implementation of tasks. It is, additionally, crucial that new developments in an area enhance or at least preserve the spatial quality. An integrated area-based approach is appropriate in this regard."
> *Het is daarom belangrijk om bij de uitwerking van opgaven rekening te houden met de bestaande functies en kwaliteiten in een gebied, de zogeheten 'gebiedsidentiteit'.*
> *Daarbij geldt dat nieuwe ontwikkelingen in een gebied de ruimtelijke kwaliteit moeten versterken of tenminste behouden. Een integrale gebiedsgerichte benadering past daarbij* (Omgevingsvisie Provincie Zuid-Holland 2019, 7)."

This ambition is repeated by the PZH in the Policy Framework for PT, the main document on which their PvE are based. According to the first paragraph, they set the ambition to work in an integrative approach with mobility, PT in specific, towards achieving several policy goals. They argue that domains such as technology, spatial planning, economy, and society have a direct influence on the impact of PT and vice versa (Beleidskader OV Provincie Zuid-Holland, 2020). Interestingly, sustainability is not mentioned specifically as such in the policy integration of PT, though, later in the policy framework, it is witnessed that sustainability, particularly the introduction of ZE vehicles is part of the integration of sustainability in PT.

5.3.3 Policy Goals: Accessibility

Reflecting the remarks regarding policy-making and the use of accessibility and accessibility measures, this term and goal seem to have some ambiguity in both PTCA's (Straatemeier & Bertolini 2020). This section reflects upon the use of accessibility in both provinces.

PU:

Though in Chapter 4, the literature review found that policy-makers often use the concepts of mobility and accessibility interchangeably, the PU adopts a clear definition of accessibility. It almost uses accessibility exclusively in relation to the access of services and goods, rather than being able to travel. This is reflected in their goals regarding accessibility as set out in their PT-Network Perspective and PT Baseline Note. For instance, the PU has the ambition to maintain the accessibility of several types of services including work-related and recreation services.

> "The housing and work locations and social-recreation services within the province of Utrecht will be accessible in an efficient, sustainable, healthy, and safe way.
> *De woon-en werklocaties en sociaal-recreatieve voorzieningen binnen de provincie Utrecht zijn op een efficiënte, duurzame, gezonde en veilige manier bereikbaar* (*Nota van Uitgangspunten OV-Concessies Utrecht Binnen en Utrecht Buiten* 2022, 5)."

Interesting to note is their integrative approach of accessibility. As Straatemeier & Bertolini (2020) remarked, adopting accessibility measures allows for a more policy integration as the concept acknowledges the existence of multiple policy domains. The PU, therefore, includes in their accessibility approach both sustainable and safe as well.

Additionally, the PU also prioritizes accessibility in several ways. New residential locations must be provided with extensive PT in the future. Their level of service should equal that of already established PT. Accessibility through PT is also prioritized in statements where the vow to give more space to PT. Granting space to PT, means that they have more access to roads and makes it a more reliable form of transport. This means providing more funds to public transport to maintain the quality of the PT network.

> "Without decisions in the network and/or significant investments in the network, the quality of our PT (travel time) decrease and with that, our cost efficiency.
> *Zonder keuzes in het netwerk en/of omvangrijke investeringen in het netwerk verslechtert de OV-kwaliteit (reistijd) en daarmee ook de kostenefficiëntie* (*Nota van Uitgangspunten OV-Concessies Utrecht Binnen en Utrecht Buiten* 2022, 20)."

How accessibility is achieved is specified further in the PvE. Though some remarks regarding PT accessibility and PT providing accessibility, the details are left to the future public transport provider. PU has set guidelines for providing PT to new housing locations to make them accessible relative to other locations. That is made even so specific that they state that every household should have a bus stop within 600 meters from their homes (*Programma van Eisen: Concessie Utrecht Binnen en Utrecht Buiten* 2022). How this is realized, is left to the eventual transport company.

PZH:

The PZH uses accessibility and synonymous terms on numerous occasions throughout the analysis. Their PvE opens with a definition of accessibility and the importance of PT contribute to accessibility, without going into details yet concerning their ambitions towards accessibility. However, that definition of accessibility states that accessibility means that people can travel from home to work, school, or other services, emphasizing 'travel'. As seen in the discussion on mobility and accessibility, this definition fits better with the mobility sided measures.

> "Good public transport allows, for instance, that people can travel from home to work or school on a daily basis (= accessibility), in which everyone, with or without disability, can to a full extent participate in society (=inclusive society).
> *"Goed Openbaar Vervoer zorgt er bijvoorbeeld voor dat mensen dagelijks hun reis van huis naar werk of school kunnen maken (= bereikbaarheid), waarbij iedereen, met of zonder Functiebeperking, in principe2 volwaardig kan deelnemen aan de maatschappij (= inclusieve samenleving)* (*Programma van Eisen Concessie Zuid-Holland Noord* 2023, 5)."

Relevant here is also the mix between the definitions of accessibility and inclusive society. According to the definitions put forward throughout this thesis, accessibility allows people to participate in society and be able to research desired and needed services (e.g., Geurs & Van Wee 2014). Mobility, rather, is having people on the move.

This confusion or interchangeable use of the terms 'inclusive transport' and 'accessibility', is seen during the interviews with policy-makers as well. When discussing policy goals and to what PT should contribute, according to policy-makers, they often replied 'accessibility' as one of the main goals. However, when elaborating on accessibility, they rather focused on the 'social function of PT'.

> "Accessibility one of the functions of PT. Whether that social function is achieved, depends on numerous factors, including demand. Lack thereof can sometimes limit the social function or makes it even impossible (Interview PZH A 2023)."

The policy-maker in question first ascribes accessibility as an important function of PT in the province, reflecting provincial ambitions. Yet, continues stating that PT has a social function and referring to sparsely populated areas where sufficient PT is difficult to establish. In that comment, the policy-maker both addresses accessibility and social inclusion as identified in this thesis (for definitions, see also *Chapter 4*).

Though there seems to be confusion regarding the term accessibility, which is used interchangeably with mobility, reflecting remarks by Straatemeier and Bertolini (2020), and also social inclusion, the PZH states enhancing as their first goal in their PT policy documents. Their PT policy framework states as first objective the enhancement of accessibility. That goes for their PvE as well which repeats this goal. Though again, mobility ambitions are used interchangeably with accessibility goals, there are two clear goals distilled. The PZH first wants to incentivize a future transport company to develop PT in specific regions to establish a baseline of services that can be reached using PT. Additionally, those developments should occur both in urban and rural areas to ensure they remain both accessible. Differentiating

between services and rural and urban regions, does fit the notion of accessibility as seen in Straatemeier and Bertolini (2020) and Pareira (2019) among others.

Additionally, those future transport companies that operate in the PTCA have the obligation to link new housing locations to PT before these locations are fully realized. This promotes accessibility both to that new housing location and from this new housing location. This approach allows PT to become an attractive alternative to other modes of transport in new housing locations.

> "The province establishes a baseline with decisions between municipalities, project leaders, province, and transport companies to operate public transport lines from the first day [of the new housing location].
> *De provincie kent als uitgangspunt dat afspraken tussen gemeenten, projectontwikkelaar, provincie en vervoerder noodzakelijk zijn om bediening met openbaar vervoer vanaf de eerste dag mogelijk te maken (Beleidskader Openbaar Vervoer Provincie Zuid-Holland* 2023, 8).

Specifics on how to achieve enhanced accessibility is left to the future transport company to which the concession is tendered. There are clear-cut remarks for some instances, where PT made available. For instance, residential neighborhoods are granted more bus stops than any other area and, additionally, work-related areas must be served by PT extensively on the weekdays (*Programma van Eisen Provincie Zuid-Holland* 2023). This goal stems from outlines in their policy framework on public transport.

5.3.4 Policy Goals: Sustainability

At least, publicly, sustainability is discussed at length by both provincial governments and is prioritized in several ways by both provinces. During interviews, as well, sustainability and sustainable measures were spoken of as important to the PTCA. This is an overview of the most important remarks regarding sustainability in policy documents and in interviews with policy-makers.

PU:

The PU both in policy documents and interviews sets sustainability and ZE as one of their highest ambitions. In their OMV, the PU states that by 2050 they want to become fully energy-neutral in terms of CO2-emissions. This is in line with the European guidelines towards sustainability and ZE and similar to the ambitions of the PZH as we will see later. The PU vows to provide space in all of its urban and rural regions to achieve this objective (*Omgevingsvisie Provincie Utrecht* 2023). There are multiple ways in which they want to achieve sustainability, of which establishing a network of clean energy sources is one, for instance. Regarding transport, and PT specifically, they prioritize the use of active modes of mobility, i.e., walking or cycling, above other modes of transport on short distances. For mid to longer distances, they want to promote PT (*Omgevingsvisie Provincie Utrecht* 2023).

The OMV discusses the sustainability of PT within the context of ZE busses. Establishing ZE busses in their PT, would provide an impulse to other ZE transport in the region. The PU, therefore, hopes that their use of ZE vehicles will incentivize private use of ZE

vehicles. The challenge for ZE busses in the PTCA of the PU is establishing sufficient charging stations.

> Public transport in our province is zero-emission and other zero-emission transport is given an impulse. This means that charging infrastructure for electric transport is sufficient to adhere to the increased *demand.*
> *Het openbaar vervoer in onze provincie is zero-emissie en er is een impuls gegeven aan ander zero emissie vervoer. Dat betekent dat de laadinfra-structuur voor elektrisch vervoer voldoende moet zijn om de toenemende vraag te bedienen (Omgevingsvisie Provincie Utrecht 2023, 100).”*

Other PT, specific, policy documents also discuss sustainability in transport. Both in their Baseline Note and in their PvE they outline several goals towards sustainability. Those include ZE PT, in line with the earlier statement concerning a climate neutral province.

> “Ambition 100% zero-emission in 2028, the concession holders realize zero emission in 2028 or in other words, emission-free public transport. It requires new buses and sufficient capacity of the Utrecht energy network. In other words, the goal is still a challenge. The future transport company has a vital role in that challenge.
> *Ambitie 100% zero emissie in 2028, de concessiehouders maken het waar Zero emissie in 2028, oftewel openbaar vervoer zonder uitstoot. Dat vraagt om nieuwe bussen, en voldoende capaciteit van het Utrechtse energienetwerk. Kortom: dit uitgangspunt is nog een uitdaging. Een uitdaging waar ook de nieuwe concessiehouders een belangrijke rol in hebben* (Nota van Uitgangspunten OV Concessie Provincie Utrecht 2023, 7).”

Particularly noticeable in this ambition, is the responsibility of the transport company in realizing the goal. It is merely a goal or objective of the PU to achieve it, but the realization lies with the transport company. Other goals continue on the notion of ZE and how to achieve sufficient network capacity.

The other type of sustainability that the PU wants to implement in their concession is extending the usage of buses. The argue that circularity also leads to a better environment and climate, and, therefore, carefully considering how long materials are used and how they are re-used or recycled, is part of their sustainability goals for PT.

> “By using buses as long as possible and maintaining the path for used batteries of electric vehicles, transport companies can operate even more sustainable.
> *Door bussen bijvoorbeeld zo lang mogelijk te gebruiken en goed op te letten wat er met afgedankte batterijen van elektrische voertuigen gebeurt, kunnen concessiehouders het openbaar vervoer nóg duurzamer maken* (Nota van Uitgangspunten OV Concessie Provincie Utrecht 2023, 8).”

Though discussed in *Chapter 4* and laid out by Caradonna (2022) among others that sustainability inherently means shifting the priorities from the economy to the environment, the PU still adopts links to sustainability and economic growth. The PU still seems to prioritize prosperity. This is witnessed in their OMV, for instance, where they state that:

> In a circular economy, we are less depended on new resources (from abroad). Products in use in a linear economy are destroyed or burned after use, while a circular economy re-uses these products.
> *In een circulaire economie zijn we veel minder afhankelijk van nieuwe grondstoffen (uit het buitenland). Producten die in een lineaire economie na gebruik worden vernietigd of verbrand, worden in een circulaire economie gebruikt om grondstoffen uit te halen (Omgevingsvisie Provincie Utrecht 2022, 76).”*

The PU shows that one of their motivations behind the circularity of their economy, is profit driven rather than having a sustainable motivation. The same goes for establishing attractive PT. One of the motivators behind attractive PT, is to reduce the increase of private transport and parking issues for private, mobilized traffic, while remaining an economically vital and attractive province to businesses and individuals. See for instance:

> It [PT] is an attractive travel option on routes with large traffic flows and a scarcity of (parking) space
> *Het is daarmee een aantrekkelijke reismogelijkheid op de routes waar de vervoersstromen groot zijn en de (parkeer)ruimte steeds schaarser (OV-Netwerkperspectief 2025-2035 Provincie Utrecht 2023, 45).”*

And also related to the attractiveness of the province:

> For the appealing settling climate in our province and the growing number of inhabitants in other places in the Netherlands, we can expect an autonomous growth of transport and commuters.
> *Voor het gunstige vestigingsklimaat in onze provincie en de groei van inwoners elders in Nederland, is een verdere autonome groei van deze inkomende pendel te verwachten (OV-Netwerkperspectief 2025-2035 Provincie Utrecht, 2022, 75).”*

PZH:

The PZH in their OMV establishes the direction towards a more sustainable society, particularly a more sustainable urban development. The PZH opens with the acknowledgement that the PZH is one of the most energy-intensive regions in the Netherlands, particularly due to the Port of Rotterdam and other heavy industries that are situated in the region. Transport in the PZH is also one of the largest in the Netherlands, and as seen before, one of the biggest polluters in the world. According to this policy document they acknowledge the national and European ambition to reduce CO2 emissions in half by 2050. Additionally, they state that several sectors should participate in reducing greenhouse gases, including mobility.

> *“De energietransitie is in Zuid-Holland van en voor iedereen; het is haalbaar en betaalbaar. Onze focus ligt op de gebouwde omgeving, industrie, mobiliteit, en land- en glastuinbouw. Wij willen een slimme en schone economie zijn waar fossiele bronnen zijn vervangen door hernieuwbare bronnen.*
> The energy transition in South-Holland is of and for everyone: it needs to be feasible and affordable. We place our focus on the built environment, industry,

> mobility, and agriculture. We want a smart and clean economy where fossil fuels are replaced by renewable sources (*Omgevingsvisie Zuid-Holland 2019,* 15)."

The move towards a more sustainable society is recognized in several PT policy documents published by the PZH. The policy framework for the PTCA discusses several economic and spatial planning developments, including trends towards sustainability. They have laid out four goals for PT in the region of which the energy transition is one. It translates as "energy transition in public transport: from diesel to zero-emission." Analyzing their goals more in-depth, it becomes obvious that their main goal towards sustainable PT is to implement ZE busses. This is split into two objectives, phasing-in new ZE busses between now and 2030 and from 2030 onwards only use ZE busses. This is mandatory for the new transport company. However, the province also specifically states that the new operator is not mandated to implement ZE busses from the beginning. It merely has to adhere to current baselines set by the PZH (Beleidskader Openbaar Vervoer Zuid-Holland 2022).

The idea of the implementation of ZE busses is, additionally, recognized by the interview policy-makers who placed this as the second most important priority for the PZH. There are some footnotes to that priority.

> "We want to implement zero-emission on our bus lines. There is an issue of feasibility. Are we able to meet the set deadline? And is it affordable to the province to implement these buses and maintain an affordable public transport (Interview PZH B 2023, 18)."

It shows that the PZH has a dilemma regarding the implementation of ZE vehicles and affordability, i.e., social inclusion of PT to their customers. Simultaneously, they want to follow European Union guidelines. The focus on ZE vehicles does fit the dominant notion of sustainability in transport as laid out by Curtis (2020).

Nonetheless, the PvE of the PZN concession only has very few mentions of sustainability and they only pertain to the implementation of ZE mobility except for one. The last obligation that discusses sustainability, circularity or ZE pertains to the mandatory 'sustainability plan'. In this obligation towards transport companies, the PZH requires them to discuss in detail how they deal with sustainability in their operation. This includes both the measures taken and the effects of the taken measures.

> "The latest in the first quarter of 2023 and in the same period in 2024 the concession holder puts forward a sustainability plan which shall be approved by the steering group public transport ZHN. Every quarter, the concession holder informs about the progress and effects of the taken measures.
> *Uiterlijk in het eerste kwartaal van 2023 en in dezelfde periode in 2024 legt de Concessiehouder een duurzaamheidplan ter goedkeuring aan de stuurgroep Openbaar Vervoer ZHN voor. Uiterlijk ieder kwartaal informeert de concessiehouder aan de Concessieverlener over de voortgang en effecten van genomen maatregelen (Programma van Eisen Zuid-Holland Noord 2023*, 12)."

However, many of the PZH measures in terms of sustainable accessibility are also particularly designed to enhance their economic position. They see possibilities in economic

entrepreneurship and sustainable measures. They, for instance, incentivize public transport operators to use locally produced energy to stimulate their local economy.

> The province stimulates the transport operator to use as many regional renewables as possible. The province has the ambition to support sustainable entrepreneurship and societal responsible entrepreneurship in a broad sense.
> *De provincie stimuleert de vervoerder om zoveel mogelijk regionaal opgewekte hernieuwbare brandstof en/of elektriciteit te gebruiken. De provincie kent als uitgangspunt duurzaam ondernemerschap en maatschappelijk verantwoord ondernemen in brede zin (Beleidskader Openbaar Vervoer Provincie Zuid-Holland 2023, 23)."*

5.3.5 Policy Goals: Inclusive Transport

As noted earlier, inclusivity or inclusive transport as a goal is sometimes used conflictingly and interchangeably with accessibility. Nonetheless, both provincial governments have some distinct mentions and measures towards inclusive transport. This section reflects upon those major mentions, decisions, and measures of inclusive transport.

PU:

As mentioned earlier, the PU has set three distinct marketing strategies of which inclusive transport is literally mentioned. Their main specific goal mentioned in regard to this policy goal is to address transport poverty, which was also put forward in this study by Allen and Farber (2020) as a serious threat to inclusive transport. Access to transport, PT in specific, in numerous ways, from the lack of a bus stop to not being able to afford PT fares, transport poverty comes in several ways. They acknowledge these themes of transport poverty and inclusive transport, in specific, stating: "Prevent transport poverty and allowing societal participation for everyone: PT is for everyone and by everyone, for accessible and affordable PT (Programma van Eisen OV Concessie Provincie Utrecht 2023)." This notion is derived from the PT-network perspective where the province states:

> "We [the PU] strive to a PT-system where as many individuals as possible can and want to use PT, as inclusive as possible with attention for the social function of PT
> *We streven naar een OV-systeem waar zoveel mogelijk mensen gebruik van willen én kunnen maken,*
> *een zo inclusief mogelijk systeem waarbij ook voldoende aandacht is voor de sociale functie van het OV.* (*OV-Netwerkperspectief 2025-2025*, 2022)."

In these three marketing strategies, the ability to meet other people through PT is also address by the PU. However, this is linked to accessibility rather than inclusive transport to which Jeekel (2019) links meeting other people. The PU states to connect people using PT and other forms of transport. This does link to the ideas of interactions and enhancing social cohesion through PT. Specific ideas on how to address these are not provided in this case and future transport companies are charged with drafting specific plans to address these goals. This ambition to let PT contribute to the connection of individuals is also address in the PT-Network perspective by the PU.

The Network Perspective also specifies that it is the obligation and decision of the PU to help individuals who are not able to afford or use PT. The PU states that they will aid in providing other types of transport to sparsely populated areas with 'door-to-door transport''. They will also support, i.e., subsidize local initiatives that operate local private bus networks. These do not fall under the responsibility of the province or the PTCA and are created to help marginalized groups, particularly elderly people, to travel and participate in society (*OV-Netwerkperspectief Provincie Utrecht* 2023). Interviews also stress these decisions and priorities to regard PT not as just transport, but that it has a broader function. We have to discuss what that function is going to be (Interview PU C 2023)." Contrasting to these ambitions on individual connection and the role of PT, the PU choses in their PT-Network Perspective to focus on main lines, rather than local lines. They state that they will facilitate better infrastructure to reach these main lines.

The PU requires the future transport companies to draft an 'accessibility- and inclusivity plan'. Note here that accessibility in Dutch has a broader meaning than merely transport-related and is often used simultaneously and synonymously with inclusivity. According to the PvE of the PU, this plan should contribute to "all extra [plans] regarding the contribution to inclusivity and accessibility of PT for a broad group (Programma van Eisen Provincie Utrecht 2023, 17)." The PU asks the transport companies to put forward additional plans on how to include the participation of different groups. Those groups are not specified; however, the PU defines in the PvE inclusivity by contributing to set goals by the UN regarding inclusivity and they only mention people with disabilities. Other marginalized groups, such as asylum seekers or others with a lower socioeconomic status are not mentioned. This plan is also merely an extra requirement, not a demand by the PU per se. Additionally, this plan must be designed and put forward by the transport companies, as stated in the PvE. It shall not be drafted by the provincial government. This notion of an inclusivity plan does fit arguments made by Jeekel, specifically to draft extensive inclusive policy plans to eradicate transport injustice.

PZH:

The PZH underlines the importance of inclusivity by stating this as one of their main challenges. They argue that everyone, regardless of their disability, should be able to participate in society and transport. PT should be faciliatory in the inclusive society (Beleidskader OV Concessie Zuid-Holland Noord 2023). The PZH states several goals that they are willing to work on in terms of inclusivity, including that PT cannot be limiting to people with disabilities and PT companies should consider and involve different "types of individuals, including elderly people (Beleidskader OV Concessie Zuid-Holland Noord 2023, 10)." The PZH acknowledges their role, however, state specifically that in the PTCA, it shall be the obligation of the transport company to include these travelers. They also identify several types of travelers, underscoring their notion of the importance of the inclusion of different individuals, which includes many socio-demographics. However, they do not acknowledge individuals with a low socioeconomic status, thereby not following Jeekel's (2019) notion of inclusive transport and the importance of combating transport injustice in this way.

Other suggestion by Jeekel (2019) for inclusive transport are drafting a social inclusivity policy. The PZH does follow that perception in several ways. The PvE goes into inclusive transport at length, following the set goals in the policy framework. Not only are transport

companies required to draft a sustainability plan, a social safety is also demanded by the provincial government. Transport companies are required to submit progress regarding their plans to the provincial government (*Programma van Eisen Concessie Zuid-Holland Noord* 2023)

It should also be noted, however, that though it seems that they are ambitious in terms of inclusivity, that according to their PT policy framework, they adhere to current legislation regarding inclusivity. The specify this statement with "transport companies are not obligated to guide travelers in public transport (*Beleidskader OV Concessie Zuid-Holland Noord* 2023, 10)." Though in this way, they follow some of Jeekel's (2019) policy suggestions for establishing inclusive transport (namely, drafting inclusivity policies), they seem to limit themselves to what is possible, regarding social inclusion.

Inclusive transport was discussed during the interviews as well, and the inclusive function of PT was acknowledged by the policy-makers. Following Jeekel (2019) as well, policy-makers advocated for the social function of PT. According to them, this meant that PT had to contribute to the ability of people to meet others. This social function is particularly stressed by Hans Jeekel (2019) in his influential work, as discussed in Chapter 4. It shows that policy-makers are aware of the social function of PT and its contribution to inclusive transport. However, it should also be noted that there are limits to the social function of PT. According to a policy-makers, a lack of demand in less densely populated areas made it impossible for the provincial government to support those areas with adequate PT. "It is a matter of supply and demand", one policy-maker replied (Interview PZH A 2023).

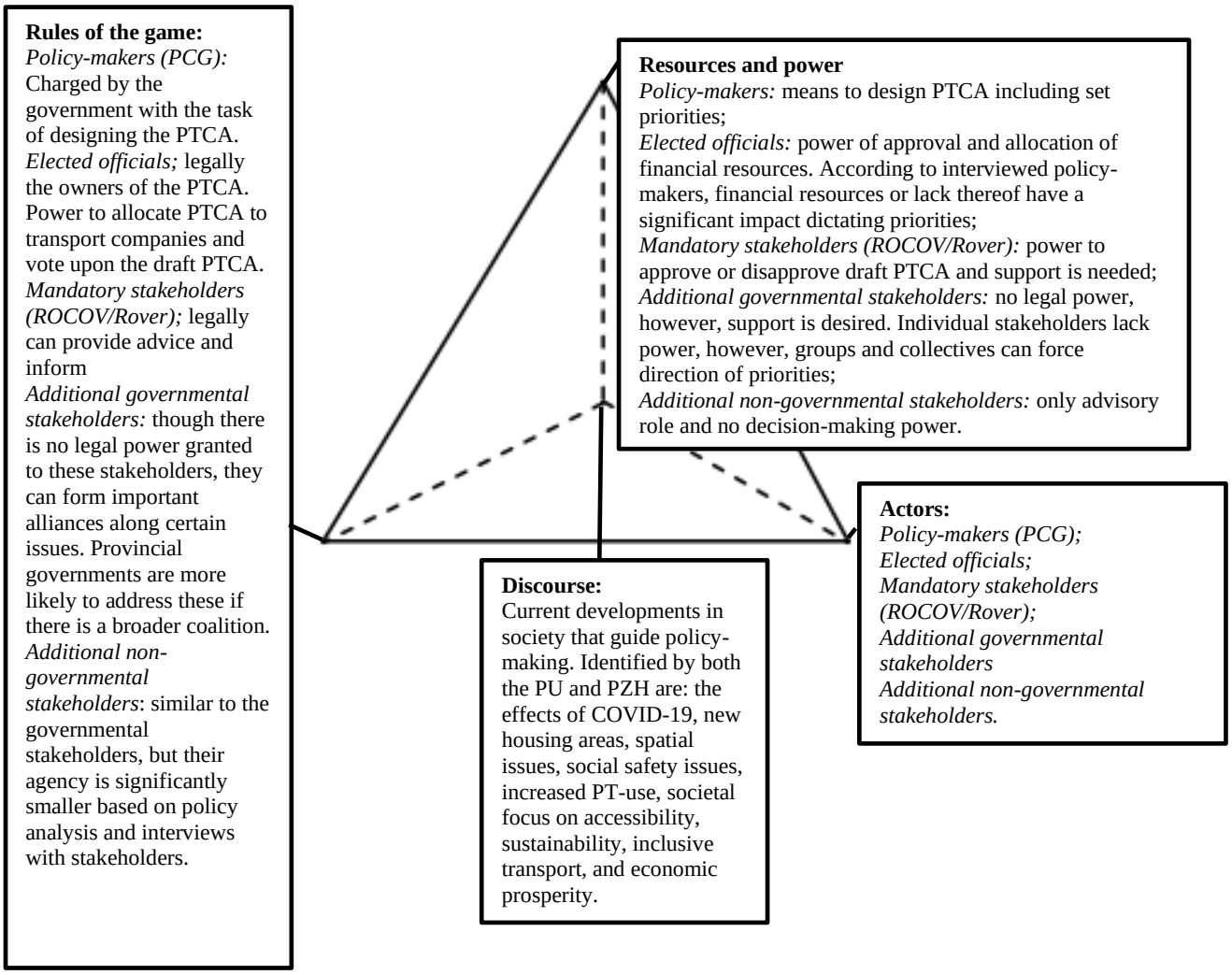

Fig 14. The policy arrangement approach framework as put forward by Arts and Leroy (2006) and Liefferink (2006) applied to the context of policy-making in Dutch regional PT concession areas. All of the four dimensions – actors, resources and power, discourse, and rules of the game – are addressed in this framework pertaining to policy-making and decision-making.

5.3.6 Policy-arrangement approach

Based upon the previously discussed and analyzed policy-documents and interview regarding policy goals and the framework concerning the policy process, the PAA as outlined in *Chapter 3* can be applied, which looks as represented in Figure 14. This filled framework of the PAA relates to different discussions concerning integrative policy-making in the Netherlands. From the framework, the involvement of different stakeholders is made obvious. As seen before, PT policy-making in the Netherlands became more complex due to the involvement of different stakeholders (Cascetta et al.; Hirschhorn, Veeneman, & Van de Velde 2018). In this framework, four different types of stakeholders are made visible, all of which have a different degree of resource, power, and agency. Discussing those power and resources, Cascetta et al. (2015) stated that not only governments at different levels have the resource to dictate and decide upon the priorities for PT policy, other stakeholders also have to some extend the resource to guide the policy process in a certain direction. From interviews and in the policy documents from both governments, it can be distilled that the coalitions of different municipalities have significant influence on certain issues. Particularly on accessibility measures, local municipalities can give input on the direction of PT policy (Interview PU A

2023, Interview PZH B 2023). However, the affordability and feasibility of these inputs are leading to the provincial governments in the implementation.

Discussing discourse, several policy documents and policy-makers address similar challenges, though there are slight variations in the different provinces in the focus of these challenges. The PZH, for instance, emphasizes the spatial issue more significantly than the PU. The PU, on the other hand, pays more attention to new developments in the future and builds in flexibility in their PTCA to address those future developments. The rules of the game dimension do not have considerable weight in this policy process. Most of the process is dictated by rules and regulations set out in the *Wet Personenvervoer 2000.* Some of the stakeholders, such as the governmental stakeholders and non-governmental stakeholders, are not mandated by law to be involved in the PTCA policy process, however, to establish broad support for the policies, both the PU and the PZH involve these stakeholders extensively (Beleidskader Provincie Zuid-Holland 2022, Nota van Uitgangspunten Provincie Utrecht 2023; Interview PU A 2023; Interview PZH A 2023).

5.3.7 Elements of decision-making

Additionally, the elements of decision-making can also be applied to the policy goals set out by both provincial governments. These are outlined below per element and also how these elements fit within the policy-making and policy process of both provincial governments as distilled from interviews and the policy documents analysis.

- *Opportunities and problems*: these challenges appear to be similar to both the PU and the PZH, with slight nuances. The PU particularly identifies a strong growth in PT, spatial challenges for PT, a mobility transition because of sustainable developments goals and due to a technological transformation, an energy transition for the same reason, and challenges towards inclusive transport (Nota van Uitgangspunten Provincie Utrecht, 2022). Housing is not addressed similarly by the PU as a challenge, however, is identified by policy makers as a challenge that must be addressed through PT. (Interview PU A 2023). The PZH is also challenged with spatial challenges, particularly as a result of a growing population and focus on housing. This is different from the spatial challenge for the PU, which centers particularly on the loss of space for PT granted to other modes of transport. Additionally, the PZH witnesses a similar mobility transition (including an energy transition) and technological transition, the development of new housing and economic areas, and inclusive transport (Beleidskader Provincie Zuid-Holland).
- *Decision-makers:* in both provinces, the individual policy-makers in the PCG's have the power to design, facilitate, and eventually, implement the process. This shows particularly in the Note of Response (*Nota van Beantwoording Zuid-Holland Noord* 2022, *Nota van Beantwoording Concessie Utrecht* 2023) where they outline their decisions with regard to requests made by stakeholders. There draft PTCA are, however, brought to the elected officials which have to vote upon the implementation of such a document.
- *Market regulations:* in this field of decision-making, the power lies particularly with the policy-makers and elected officials. Though other stakeholders have some agency in

terms of advising or making requests, the PTCA are decided by the provincial governments.

- *Process coordination*: this is followed similarly by both provinces. The reason for the similarly of this process, is partly dictated in the Dutch transport law. This is made visible in Figures 12 and 13.
- *Stakeholders:* the involved individuals with a stake in the issue, both formal and informal. These include the provincial governments, municipalities, travel organizations, and local organizations in this case study.
- *Objectives or goals:* policy goals for decision-makers in both the PU and the PZH is to achieve similar goals, however, the prioritization of these goals varies slightly. The PU accented sustainability and inclusive transport in terms of the researched policy goals and additionally, desires a flexible PTCA to address possible developments and are focused on customer satisfaction (*Nota van Uitgangspunten OV-Concessies Utrecht Binnen en Utrecht Buiten*, 2022). The PZH, on the other hand, has multiple goals geared towards accessibility and accessible measures, sustainability, particularly climate ambitions and energy transitions, and inclusive transport and additionally, prioritizes spatial area development (*Beleidskader Provincie Zuid-Holland* 2023).
- *Types of decisions:* most decisions set out by both governments pertain to the roles of different stakeholders. Both the PU and the PZH discuss in their policies and during interviews the roles of the different involved parties. That means that they discuss what the role of the province shall be, which is in several instances a facilitating role (*Programma van Eisen Provincie Utrecht* 2022; *Programma van Eisen Provincie Zuid-Holland* 2022). The provincial governments decide rather the focus of the PTCA, then the exact contents of that focus. For instance, the PU sets out the guidelines for sustainable measures and ZE, however, the exact contents are left to the future transport operators. The PZH, on another occasion, stresses the importance of providing good accessibility to PT. Though, guidelines are provided with the distances to bus stops and certain lines that are mandatory to use, certain details, are left to the future transport operator (*Programma van Eisen Provincie Zuid-Holland* 2022; Interview PZH B 2023). The provincial governments specifically state that future transport companies can submit plans to address these goals in their policies and PvE

  Additionally, the type of decisions fit the notions of accessibility, sustainability, and inclusive transport goals. Most of these goals are realized with tangible and similar examples, such as establishing new PT lines in new housing areas, establishing a strong main PT network supported by more local lines, phasing-in ZE-buses, usually propelled with electricity, and ensuring mechanisms for affordable PT. However, finance is also an often-discussed theme and who has responsibility on the distribution of financial resources. Policy-makers stress that decisions in PT heavily rely on financial resources, which decrease relatively each year due to inflation. Simultaneously, PT operations have become more expense, due to the introduction of new, smart technologies and sustainable measures. Finance, therefore, puts a cap on the possibilities of new policy goals within public transport (Interview PU A, 2023; Interview PZH B, 2023).

- *Level of detail:* often in the case with decision-making in both provinces, they set out broader policy goals, such as enhancing accessibility through establishing new PT-lines or ensuring PT is provided in new housing areas (*Programma van Eisen Provincie Utrecht 2022; Programma van Eisen Provincie Zuid-Holland* 2022). However, exact details on how to achieve these are left to the future transport companies. The provinces in this way assume a steering role rather than having active participation in the realization of these goals.
- *Level of reversibility:* not discussed in policy documents and interviews at length, however, according to the policy documents analysis and particular, the prioritization of goals by the PU, provincial governments build in a certain level of flexibility to address future, unknown developments and circumstances.
- *Level of uncertainty:* PZH does not discuss the level of uncertainty at length. The PU prioritized it, however, as one of their main goals to address any (unforeseen) developments. These uncertainties are one of their four priorities in the PTCA.
- *Barriers*: these are the conflicts that arise during a decision-making process. These can either be contextual and pertaining to institutional, legal, or financial issues or consensus-based which discuss whether a decision is accepted by the majority of stakeholders.

5.4 Limitations

Before drawing conclusion towards these results, it is vital to place some footnotes and limitations to this study. There are two types of limitations identified within this thesis, the first one pertaining to the research content, i.e., substantial, rather than procedural, while the latter goes in to the research process of how the research is conducted.

5.4.1 Limitations in the research content

The discussion and study are limited to the interviews with governmental policy-makers, even more specifically, provincial governmental policy-makers. Naturally, to the side of the PAA and decision-making in PT policy-making, there is also the side of other governmental and non-governmental stakeholders. The opinions and perspectives of those respective stakeholders were not considered in this study, but can be applied in future studies on policy arrangements and decision-making in PT policies. Additionally, the applied frameworks, PAA and elements of decision-making, are merely two frameworks of perceiving policy arrangements and decision-making. In literature and practice, other frameworks and tools exist to measure the prioritization of policies. For instance, the multi-criteria analysis is a much-deployed structural tool to study prioritization and decision-making. To gain a more comprehensive overview of decision-making in PT policy-making, these tools can be applied to similar contexts.

5.4.2 Limitations on the Research Process

Though the research process has been completed in the end, some questions remain with regard to acquiring interviewees for the study. Several policy-makers in the PU and PZH were contacted to participate in the research process and were asked to provide insight into decision-making in the respective processes. However, these policy-makers either never replied or said

that they were too busy with other work. This made it particularly difficult to attract policy-makers in the decision-making process. Other research less constraint by time than this one, could potentially try to acquire more and other policy-makers that can provide insights into the policy-making process. The unavailability of policy-makers raises questions with regard to the transparency of this PT policy-making process.

6. Conclusion

This final section presents an overview of the studied elements, particularly the research design and approach, the discussed concepts and policy goals of 'policy integration', 'accessibility', 'sustainability', and 'social inclusion' and their usages in policy-making in the Netherlands. It also provides a brief summary of the studied cases in Utrecht and South-Holland. It then presents a conclusion using the policy arrangement approach (Arts & Leroy 2006; Liefferink 2006) in relation to these cases and the elements of decision-making as put forward by Cascetta et al. (2015). The section and the thesis as a whole close with how this thesis can be applied by policy-makers specifically and what type of further research can be conducted regarding the subject of public transport, policy-making, and integration in the Netherlands.

6.1 Study Overview

This research studied and presented decision-making in public transport, specifically around the concepts of 'accessibility', 'sustainability', and 'social inclusion'. The field of policy-making in the Netherlands across different policy domain, from housing to infrastructure and health, witness momentarily several challenges, including but not limited to, a housing crisis, the effects of COVID-19 pandemic, and ongoing climate change. Governments, both national and regional, ascribe and formulate different policy goals within the policy domains to combat these challenges, of which the studied concepts are just three. The idea of policy-makers is that those policy domains, such as housing or infrastructure should in the first place not only adopt one single policy goal but rather several to combat these challenges. Additionally, the policies within the different policy domains should contribute not to one single domain, but rather several. This is called policy integration and commonly applied in contemporary Dutch policy-making. It entails, for instance, that measures taken within PT must contribute additionally to goals and ambitions set in housing policies and sustainability policies (Cascetta et al. 2015; Hirschhorn, Veeneman, & van de Velde 2018; Veeneman 2018; McLeod, Scheurer, & Curtis 2017; Russo & Rindone, 2021). How these policy goals are prioritized in policies, depends on the focus of a government and on features such as socio-demographics, geography, and socio-economics.

Based on these facts and developments in policy-making in the Netherlands, this research studied regional PT concession areas (PTCA) in the Netherlands. These are specific areas where the provincial governments have the authority to grant PT to a transport company (CROW 2023; Veeneman 2018). Based on a province's size and demographics, one province can have one or multiple PTCA's. In studying these PTCA's with regard to decision-making, the following research questions were used:

> *RQ: "How do policy-makers operate in public transport concessions areas in the Netherlands around the concepts of accessibility, sustainability, and social inclusion and prioritize them? (See also 1. Introduction)"*

> *sRQ1: "How do policy-makers in the Netherlands draft public transport concessions?"*

> *sRQ2: "What themes – for instance, zero-emission, sharing mobility, and more – are leading in public transport concessions in the Netherlands and how do these apply to the policy goals of accessibility, sustainability, or social inclusion?*
>
> *sRQ3: "How do policy-makers in the selected case study concession areas decide what is relevant with respect to these terms for their respective areas and what is the difference between decision-making in these areas?"*

These questions were applied to a qualitative case study analysis (QCA) using two different PTCA's in two different provinces in the Netherlands. The first case is that of the Province of South-Holland (PZH) in the west of the Netherlands and the other is in the Province of Utrecht (PU). Both provinces, and particularly the studied PTCA's, have similar conditions, as their geography, demographics, and socioeconomics are similar. This note is important to stress as this study was concerned with differentiating in decision-making between provinces with similar conditions. This study did not research the outcomes of transport or PTCA policies, as Veeneman (2018) or Hirschhorn, Veeneman, and Van de Velde (2018) did. This research was not an ex-post evaluation of policy.

Studying policy integration in PT in the Netherlands, this research focused on three concepts or policy goals, as mentioned before. These three concepts are discussed extensively within existing literature on transport, public domain, and spatial planning. The first of these studied concepts was accessibility, an evenly complex term as policy integration and often confused with the term mobility. Mobility is the notion of getting from A to B Van Wee & Geurs 2011), but from the perception of accessibility, mobility is merely a means to an end. Accessibility is concerned with individual's access to services and goods and participation in society (Silva, Bertolini, & Pinto 2019; Straatemeier & Bertolini 2020). Though governments still apply mobility-sided measures to enhance the movement of people, scholars argue that accessibility measures are more effect and realistic in terms of addressing our societal, economical, and environmental challenges (Straatemeier & Bertolini 2020). Studying accessibility measures and policies, Bertolini and Straatemeier (2020) drafted a model to study land-use integration with transport strategies. This model gave the researchers insight into the planning goals and accessibility set by policy-makers, as well as measure the degree of accessibility. This thesis has so far adopted accessibility as an effective measure for the outcome of transport policies.

The second concept is that of sustainability, which has since its conception been subject to discussion. What is the relationship between sustainability, the environment, and the economy and what is prioritized (Caradonna 2002; Dorobuntu et al. 2018)? Several scholars, academics, philosophers, and policy-makers have proposed frameworks towards sustainability, of which the Natural Step Approach (Caradonna 2022), Doughnut Economics (Raworth 2017) and Sustainable Development from the Brundtland Report (Report of the World Commission on Environment and Development: Our Common Future 1987) are most commonly adopted and applied. Each of these definitions and uses of the concept of sustainability come with several discussions and notions of critique. Similarly, policies towards sustainability are subject to similar debates. The current outcome of the debate is that several European Union countries, including the Netherlands, follow an approach in which the Sustainable Development Goals are

central Yunita et al. 2021). It is argued, however, that this adopts a sustainable development approach in which the economy and economic growth is still prioritized (Bertolini 2020; Curtis 2020). In transport policies, this embracement of sustainability is particularly reflected in the use of electric, zero-emission (ZE) vehicles and new 'smart technologies with the use of smart-phone apps and shared ridership (Bertolini 2020; Curtis 2020; Goodwin & Curtis 2020).

The final concept from this study's literature review that is applied in the case study is of social inclusion which is later translated to inclusive transport to fit better with the presented debate on this topic (Jeekel 2019). Inclusivity is also linked to sustainability as urban sustainability (Barnes & Hoerber 2013; Caradonna 2022; Cerne & Jansson 2019), however, this research has approached the concepts separately. Two influential scholars and friends on this topic include Karel Martens (2017) and Hans Jeekel (2019) who have both studied inclusivity in transport at length, the former titling it as transport justice and the latter as inclusive transport. Both highlight the role of an active government or lack thereof, i.e., neoliberal government (Jeekel 2019) as the success of the degree of transport inclusivity (Jeekel 2019; Martens 2017). Often, inclusive transport discusses affordability or providing transport services to people of lower socioeconomic class (Allen & Farber 2020; Henriksson & Linkvist 2021) which can enable or limit their societal participation. The latter is particularly stressed by Jeekel (2019) in reference to transport and seen as the importance of meeting (Jeekel 2019). Overall, active government participation and involvement enhances inclusive transport through several pricing mechanisms and other policies that enable marginalized groups to (better) participate in society (Jeekel 2019; Martens 2017).

6.2 Decision-making and prioritization

These three different concepts are often applied in policies and as policy goals in different ways, including in PT policy in PTCA's in both provincial governments. How these PTCA's are drafted in both provincial governments, is detailed in section *5.3.1 Process of Concession Management*. Though plans, ambitions, and goals are formulated in different ways by the provincial governments – the PU, for instance, has a Baseline Note detailing what the overarching goals for the PTCA are. The PZH does not have a comparable document – there are no extraordinary differences to their approach to drafting a PTCA. The reason for the similarity in approach is the legality of this issue. The path to drafting PTCA, specifically, are outlined in the transport law (*Wet Personenvervoer* 2000, 2000) and cannot be diverted from.

There can be a different approach towards the involvement of stakeholders, which is both detailed in the transport law, but also left to the regional provincial governments. However, this case study shows no difference in the approach to the stakeholders. From policy documents and interviews, it is derived that policy-makers consult a broad group of stakeholders, including municipalities, regional collectives (such as U10), other provincial governments, and additional stakeholders such as companies with a large impact on PT, like universities. These stakeholders are both informed in the process and can actively participate in the process. The reason to include these several stakeholders is to establish a broadly supported PTCA by several stakeholders. Their motivation behind this notion, is thus similar. *5.3.1. Process of Concession Management* details this process visually. Including multiple stakeholders in the process does fit the notion of policy integration, which acknowledges the multitude of involved stakeholders

(Cascetta et al. 2015). In this regard, both provincial governments adopt policy integration in the PTCA's.

When it comes to prioritization and decision-making, there are a few important factors. According both to interviews with policy-makers and distilled from policy-documents, the involvement, interference, and power of stakeholders has a significant impact on the decision-making. Though most involved stakeholders do not have a legal mandate to be involved – with the notable exception of ROCOV/Rover – the stakeholders do have agency and power to demand certain issues or goals to be involved. The provincial governments highly regard these stakeholder opinions to have a sufficiently supported policy. The demands, desires, or wishes of these stakeholders and stakeholder coalitions are weighted on their feasibility and, particularly affordability.

Affordability is the second factor when it comes to prioritization of policy goals. Though both governments want, for instance, to implement sustainable measures, and drafted sustainable policies, there are financial limits. Both governments in interviews mentioned the dependency on financial resources, particularly from the national government and that these financial resources are limited. Additionally, PT witnesses a long-term growth – though COVID-19 has temporarily halted that growth – while new financial resources have lacked behind. PT operation costs, particularly due to higher operation costs with the introduction of new and smart (sustainable) technologies has increased over the last decades (Interview PU A 2023; Interview PU B 2023; Interview PZH A 2023; Interview PZH C 2023).

Thirdly, there are differences and similarities between the two provinces in terms of identification of the main societal challenges and their respective policy goals. Those priorities are affected by the above-mentioned factors. The PU and the PZH both stress the importance of sustainability and inclusive transport. The PU, additionally, places a focus on a flexible PTCA, which has linkages to policy integration, particularly with regard to complexity (Veeneman 2018). This province also stresses the importance of customer satisfaction, which is not discussed in this thesis. The PZH, contrastingly, does specifically mention enhancing accessibility as one of their priorities and is concerned with efficient spatial planning due to their challenges with a lack of planning space.

The usage of the concepts particularly accessibility and inclusive transport differs from the studied concepts, while the sustainability approach by both provincial governments fit that of sustainable development. Both governments stress the importance of protecting the environment and future generations, including good health, with the introduction of an ZE society. They practice this, particularly, with the introduction of ZE vehicles. Simultaneously, however, both provinces stress the importance for their economy to live more sustainably and see economic opportunities with sustainable development. That directly combats the notion of sustainability put forward in this research. Moreover, accessibility and social inclusion are used interchangeably while the discussion regarding these concepts in this thesis are outlined differently. Accessibility particularly directs to the participation in society and accessibility to goods and services (Bertolini 2018; Geurs & Van Wee 2014; Straatemeier & Bertolini 2019, Van Wee & Geurs 2011). Inclusive transport is more concerned with establishing equitable conditions in order for individuals to participate in society, regardless of socioeconomic class (Jeekel 2019; Martens 2017). Though there are clearly identified inclusive transport measures, such as establishing affordable PT, some measures are linked to inclusive transport, but rather

relate to access to goods and services. Accessibility is also often confused with mobility measures. Both governments discuss enhancing accessibility by providing and introducing new transport lines. However, these are identified before as mobility enhancing measures.

6.4 Study for policy-makers

The outcome of the data analysis and the subsequent conclusion are particularly beneficial to policy-makers. The main question addressed, specifically, pertains to designing PTCA's in the Netherlands. It is, therefore, possibly a study that is aimed at policy-makers rather than the (Dutch) public in general. As seen in *Chapter 4*, this thesis is particularly concerned with how policy-makers navigate an increasingly and intrinsically complex policy process in which a multitude of policy domains and goals are consulted to draft a policy plan. This approach is framed as 'policy integration'. The applied case in this study is that of transport, more specifically, PT and its policies, but policy-makers are expected to adopted and integrative multiple provincial goals and objectives in their PT policy. This means that Dutch provincial policy-makers are expected to consider in PT also housing policy ambitions, sustainability policy ambitions, health ambitions, and the list continues. How to prioritize and apply focus to the different policies is still fuzzy.

This research, therefore, helped to disentangle the complexity of decision-making when it comes to policy integration. It will try to show how policy-makers decide and prioritize these different policy goals. The research can, therefore, make policy-makers in the Netherlands more aware of the steps taken in their prioritization process. With the main research question, complex policies can be disentangled and the set goals can become more obvious. The research question can, therefore, aid policy-makers in the prioritization process and to map the importance of the researched concepts.

This could lead to more focused policies and policy goals with clear-cut goals. Societally is this beneficial to combat the challenges that the Netherlands, and many other countries, face. Particularly the challenges on establishing a network that is focused on accessibility, allowing for a more inclusive society and the challenges pertaining to creating a sustainable transport system are addressed in this study. The presented research, therefore, also contributes to mapping what measure are taken in light of accessibility, sustainability, and social inclusion and which are effective. To illustrate this, policy-makers might argue in favor of enhanced accessibility, however, their policy may not reflect measure to achieve this. Mapping these is, therefore, crucial for effective policy. It cannot be stressed enough that particularly accessibility and inclusive transport must be considered carefully in terms of approach. Sustainability has clearcut goals, but is also geared towards economic success which does combat certain ideas of sustainability (Caradonna 2022).

On a final short note pertaining to effective policy-making, enhancing accessibility and social inclusion is essential to a functional society, one might argue. However, many argue as well that designing and planning for sustainability to combat climate change is perhaps more pressing than any other policy goal (Barnes & Hoerber 2013; Caradonna 2022; Curtis 2020, Goodwin & Curtis 2020). It is, therefore, even more crucial to have effective measures to achieve a more sustainable and climate neutral society. Transport, including PT, with its high emissions is one of the most important sectors that needs to contribute to combatting climate

change. It is, thus, ever so pivotal to highlight the prioritization and effectiveness of sustainable measures and policies.

6.5 On a final note: Suggestions for Future Research

Though there are multiple decision-making models (e.g., Cascetta et al. 2015) and prioritization methods presented in this thesis, a model specifically designed to decision-making and policy integration could be helpful for policy-makers in the future. Policy integration does fit the contemporary perception towards challenges and objectives to combat these challenges that society is connected in and through various domains (e.g., Veeneman 2018). These include transport, housing, health care, and countless more. Testing in a different method how decisions are prioritized could, therefore, be helpful to policy-makers to gain a better overview of their decision-making process and provide rational arguments why certain decisions are prioritized. One of such examples is the multi-criteria analysis which is used both by researchers (e.g., Nalmpantis et al. 2019) and policy-makers to assess different policy options against different criteria, including policy goals, finance, nuisance, and more. Applying such a multi-criteria analysis to decision-making and prioritization in PT could, therefore, be insightful (Nalmpantis et al. 2019).

This study centered on the decision-making process of policy-makers that work in the policy domain of PT, or at least, work in mobility policy-making. However, as stated countless times, policy-making has adopted an integrative approach including other policy domains and goals. It would, therefore, be relevant to study the degree of policy integration in PTCA's in the Netherlands by researching or interviewing policy-makers from other domains and let them reflect upon integrative measures taken in PTCA's. The research question that pertains to the extent to which PTCA's in the Netherlands adopt an integrative approach is not discussed at length in this study.

Similar to the above-mentioned approach, this study focused on the decision-making and decision-making process of policy-makers in PT, particularly with regard to PTCA. However, there is relevance in adopting a similar approach and research question – i.e., how policy-makers navigate around policy goals in a certain policy field – but within a different policy domain, for instance housing. What are the differences in the PAA in that domain and what are the difference in decision-making? **RU**

Written by Rindert Oost
Word count: 25,091 (excluding title page, Index, Glossary, Preface, Abstract, in-text citations, references, figures and tables, headers and footers, and appendices)

References

Aberg, G., & Satake, K. (2009). Sources of dissolved mine drainage and atmospheric transported lead: a comparative case study in Japan and Sweden. The Science of the Total Environment, 408(1), 117–21. https://doi.org/10.1016/j.scitotenv.2009.09.038

Allen, J., & Farber, S. (2020). Planning transport for social inclusion: an accessibility-activity participation approach. *Transportation Research Part D*, *78*. https://doi.org/10.1016/j.trd.2019.102212

Ampe, K., Paredis, E., Asveld, L., Osseweijer, P., & Block, T. (2021). Power struggles in policy feedback processes: incremental steps towards a circular economy within Dutch wastewater policy. Policy Sciences : Integrating Knowledge and Practice to Advance Human Dignity, 54(3), 579–607. https://doi.org/10.1007/s11077-021-09430-6Equity in transport: Learning from the policy domains of housing, health care and education. (

Anis, S., Di Febbraro, A., Sacco, N., & 2021 Smart City Symposium Prague (SCSP) Prague, Czech Republic 2021 May 27 - 2021 May 28. (2021). 2021 smart city symposium Prague (scsp). In A methodological framework for determination of public transport accessibility index (pp. 1–6). essay, IEEE. https://doi.org/10.1109/SCSP52043.2021.9447403

Anthony, M., Susanne, B.-B., Laura, D., Thomas, D., Mircea, E., & Jan-Willem, van der P. (2017). Appropriate national policy frameworks for sustainable urban mobility plans. *European Transport Research Review*, *9*(1), 7–7. https://doi.org/10.1007/s12544-017-0224-1

Arts, B., & Leroy, P. (2006). *Institutional dynamics in environmental governance* (Ser. Environment & policy, v. 47). Springer. https://doi.org/10.1007/1-4020-5079-8.

Banister, D., & Button, K. (2015). Transport, the environment and sustainable development. Routledge.

Belgrave, L., & Seide, K. (2019). *Coding for Grounded Theory*. SAGE Publications Ltd, https://doi.org/10.4135/9781526485656

Bertolini, L. (2020). "7. Beyond the dilemma: questioning the links between human prosperity and mobility growth" in Curtis, C. (Ed.). (2020). *Handbook of sustainable transport* (Ser. Research handbooks in transport studies). Edward Elgar Publishing Limited. Retrieved June 14, 2023, from https://ebookcentral-proquest-com.ru.idm.oclc.org/lib/ubnru-ebooks/reader.action?docID=6422461&ppg=44.

Brandt, T., Wagner, S., & Neumann, D. (2021). Prescriptive analytics in public-sector decision-making: a framework and insights from charging infrastructure planning. European Journal of Operational Research, 291(1), 379–393. https://doi.org/10.1016/j.ejor.2020.09.034

Cascetta, E., Cartenì, A., Pagliara, F., & Montanino, M. (2015). A new look at planning and designing transportation systems: A decision-making model based on cognitive rationality, stakeholder engagement and quantitative methods. Transport policy, 38, 27-39.

Cascetta, E., Pagliara, F., 2013. *Public engagement for planning and design transportation systems: tools and experiences. Procedia Soc. Behav. Sci. 87, 103–116.*

Cats, O., Susilo, Y. O., & Reimal, T. (2017). The prospects of fare-free public transport: evidence from tallinn. *Transportation : Planning - Policy - Research - Practice*, *44*(5), 1083–1104. https://doi.org/10.1007/s11116-016-9695-5

CBS. (2023). Hoeveel wordt er met het openbaar vervoer gereisd? [Data visualization]. Retrieved from https://www.cbs.nl/nl-nl/visualisaties/verkeer-en-vervoer/personen/openbaar-vervoer

Condeço-Melhorado Ana, Reggiani, A., & Gutiérrez Puebla Javier (Eds.). (2014). Accessibility and spatial interaction (Ser. Nectar series on transportation and communications networks research). Edward Elgar. Retrieved January 19, 2023.

CROW. (2023, January 1st) *Concessiemanagement.* Retrieved from https://www.crow.nl/thema-s/collectief-vervoer/aanbesteden/concessiemanagement-(1)

Curtis, C. (Ed.). (2020). *Handbook of sustainable transport* (Ser. Research handbooks in transport studies). Edward Elgar Publishing Limited. Retrieved June 14, 2023, from https://ebookcentral-proquest-com.ru.idm.oclc.org/lib/ubnru-ebooks/reader.action?docID=6422461&ppg=44.

Cuthill, N., Cao, M., Liu, Y., Gao, X., & Zhang, Y. (2019). The association between urban public transport infrastructure and social equity and spatial accessibility within the urban environment: An investigation of Tramlink in London. *Sustainability, 11*(5), 1229.

Daly, H. E., Cobb, J. B., & Cobb, C. W. (1994). *For the common good : redirecting the economy toward community, the environment, and a sustainable future* (2nd ed., updated and expanded, Ser. Issr library). Beacon Press.

Dixit, M., Chowdhury, S., Cats, O., Brands, T., van Oort, N., & Hoogendoorn, S. (2021). Examining circuity of urban transit networks from an equity perspective. *Journal of Transport Geography*, *91*. https://doi.org/10.1016/j.jtrangeo.2021.102980

Frijters, S., van Uffelen, X., Eshuis, N., Hofstede, S., & Nadalic, B. (2023, June 23). Klautert Nederland uit de gascrisis? De belangrijkste grafieken op een rij. Volkskrant. Retrieved from https://www.volkskrant.nl/nieuws-achtergrond/klautert-nederland-uit-de-gascrisis-de-belangrijkste-grafieken-op-een-rij~bb2277ba/

Geurs, K. T., & van Wee, B. (2004). Accessibility evaluation of land-use and transport strategies: review and research directions. *Journal of Transport Geography*, *12*(2), 127–140. https://doi.org/10.1016/j.jtrangeo.2003.10.005

Gkiotsalitis, K., & Cats, O. (2021). Public transport planning adaption under the covid-19 pandemic crisis: literature review of research needs and directions. *Transport Reviews*, 41(3), 374–392. https://doi.org/10.1080/01441647.2020.1857886

Glover L., & Low, N. (2020). "3. Unsustainable Transport" in Curtis, C. (Ed.). (2020). *Handbook of sustainable transport* (Ser. Research handbooks in transport studies). Edward Elgar Publishing Limited. Retrieved June 14, 2023, from https://ebookcentral-proquest-com.ru.idm.oclc.org/lib/ubnru-ebooks/reader.action?docID=6422461&ppg=44.

Goodwin, P. & Curtis, C. (2020). "44. Sustainable Transport: Looking Back, Looking Forward" in Curtis, C. (Ed.). (2020). *Handbook of sustainable transport* (Ser. Research handbooks in transport studies). Edward Elgar Publishing Limited. Retrieved June 14, 2023, from https://ebookcentral-proquest-com.ru.idm.oclc.org/lib/ubnru-ebooks/reader.action?docID=6422461&ppg=44.

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), Handbook of qualitative research (pp. 105-117). Thousand Oaks, CA: Sage.

Haial, A., Benabbou, L., & Berrado, A. (2021). Designing a transportation-strategy decision-making process for a supply chain: case of a pharmaceutical supply chain. International Journal of Environmental Research and Public Health, 18(4), 2096.

Handy, S. (2020). "23. Why sustainable transport cannot ignore land use" in Curtis, C. (Ed.). (2020). *Handbook of sustainable transport* (Ser. Research handbooks in transport studies). Edward Elgar Publishing Limited. Retrieved June 14, 2023, from https://ebookcentral-proquest-com.ru.idm.oclc.org/lib/ubnru-ebooks/reader.action?docID=6422461&ppg=44.

Henriksson, Berg, Lindkvist, & Lucas. (2021). Questioning mobility ideals - the value of proximity for residents in socially deprived urban areas in Sweden. Mobilities, 16(5), 792–808. https://doi.org/10.1080/17450101.2021.1947134

Hirschhorn, F., van de Velde, D., Veeneman, W., & ten Heuvelhof, E. F. (2020). The governance of attractive public transport: informal institutions, institutional entrepreneurs, and problem-solving know-how in oslo and amsterdam. Research in Transportation Economics, 83.

Hirschhorn, F., Veeneman, W., & van de Velde, D. (2018). Inventory and rating of performance indicators and organizational features in metropolitan public transport: a worldwide Delphi survey. Research in Transportation Economics, 69, 144–156. https://doi.org/10.1016/j.retrec.2018.02.003

Hoddy, E. T. (2019). Critical realism in empirical research: employing techniques from grounded theory methodology. International Journal of Social Research Methodology, 22(1), 111–124.

Hopkins, D. (2020). "8. Low Carbon Mobility Transitions" in Curtis, C. (Ed.). (2020). *Handbook of sustainable transport* (Ser. Research handbooks in transport studies). Edward Elgar Publishing Limited. Retrieved June 14, 2023, from https://ebookcentral-proquest-com.ru.idm.oclc.org/lib/ubnru-ebooks/reader.action?docID=6422461&ppg=44.

Hopwood, B., Mellor, M., & O'Brien, G. (2005). *Sustainable development: mapping different approaches*. Sustainable Development, 13(1), 38–52. https://doi.org/10.1002/sd.244,

Hull, A. (2008). Policy integration: What will it take to achieve more sustainable transport solutions in cities?. Transport policy, 15(2), 94-103.

Janjevic, M., Knoppen, D., & Winkenbach, M. (2019). Integrated decision-making framework for urban freight logistics policy-making. Transportation Research Part D: Transport and Environment, 72, 333-357.

Jansen, M., Baltussen, R., Bijlmakers, L., & Tummers, M. (2020). The Dutch Citizen Forum on Public Reimbursement of Healthcare: A Qualitative Analysis of Opinion Change. Retrieved from https://repository.ubn.ru.nl/bitstream/handle/2066/287909/287909.pdf?sequence=1&isAllowed=y

Janssen, S. K. H., van Tatenhove, J. P. M., Otter Henriëtte S, & Mol, A. P. J. (2015). Greening flood protection-an interactive knowledge arrangement perspective. Journal of Environmental Policy & Planning, 17(3), 309–331. https://doi.org/10.1080/1523908X.2014.947921

Jeekel, J. F. (2019). *Inclusive Transport: fighting Involuntary Transport disadvantages*. Elsevier, Retrieved April 29, 2023 from https://labverantwoordemobiliteit.nl/notities/

Jeekel, J. F., & Martens, C. J. C. M. (2017). Equity in transport: learning from the policy domains of housing, health care and education. *European Transport Research Review : An Open Access Journal*, *9*(4), 1–13. https://doi.org/10.1007/s12544-017-0269-1

Kaufmann, M., & Wiering, M. (2021). *The role of discourses in understanding institutional stability and change – an analysis of Dutch flood risk governance*. Journal of Environmental Policy & Planning, 23(5), 663-683. https://doi.org/10.1080/1523908X.2021.1907752

Kennisinstituut voor Mobiliteitsbeleid. (2022). *Heeft COVID geleid tot structureel ander reisgedrag?*. Retrieved from https://www.kimnet.nl/publicaties/publicaties/2022/07/26/heeft-covid-geleid-tot-structureel-ander-reisgedrag

Kim, T. H., Lee, H., Lee, H., & Park, M. S. (2023). *Centralized governance for food safety of non-timber forest products: Wild-simulated ginseng in the Republic of Korea*. Forest Policy and Economics. Advance online publication. https://doi.org/10.1016/j.forpol.2023.103021

Kooiman, N. (2020). Residential mobility of couples around family formation in the netherlands: stated and revealed preferences. *Population, Space and Place*, 26(8). https://doi.org/10.1002/psp.2367

Koolen, D., Huisman, R., & Ketter, W. (2022). Decision strategies in sequential power markets with renewable energy. Energy Policy, 167. https://doi.org/10.1016/j.enpol.2022.113025

Kuttler, T., & Moraglio, M. (Eds.). (2021). *Re-thinking mobility poverty : understanding users' geographies, backgrounds and aptitudes* (Ser. Transport and society). Routledge. https://doi.org/10.4324/9780367333317

Liefferink, D. (2006), The dynamics of policy arrangements: turning round the tetrahedron?, in Arts B. and Leroy P. (eds.), Institutional dynamics in environmental governance, Springer, pp. 45- 68. (E-book available through the Radboud library).

Martens, K. (2017). *Transport justice : designing fair transportation systems*. Routledge. https://doi.org/10.4324/9781315746852

McLeod, S., Scheurer, J., & Curtis, C. (2017). Urban public transport: planning principles and emerging practice. Journal of Planning Literature, 32(3), 223-239.

Nalmpantis, D., Roukouni, A., Genitsaris, E., Stamelou, A., & Naniopoulos, A. (2019). Evaluation of innovative ideas for public transport proposed by citizens using multi-criteria decision analysis (mcda). *European Transport Research Review : An Open Access Journal*, 11(1), 1–16. https://doi.org/10.1186/s12544-019-0356-6

Organisation for Economic Co-operation and Development. (2019). *Accelerating climate action*. OECD Publishing. Retrieved March 13, 2023, from https://doi.org/10.1787/2f4c8c9a-en.

Overheid in Nederland. (n.d.). Welkom to Overheid in Nederland. Retrieved July 3, 2023, from https://www.overheidinnederland.nl/

Overheid.nl (2023). Wetten Overheid, Wet Personenvervoer 2000. Accessed on 01 February, 2023. Retrieved from https://wetten.overheid.nl/BWBR0011470/2022-10-01.

Petterson-Loefsted, F. (2020) "6. On-demand public transport-the future of public transport or the emperor's new clothes?" in Curtis, C. (Ed.). (2020). *Handbook of sustainable transport* (Ser. Research handbooks in transport studies). Edward Elgar Publishing Limited. Retrieved June 14, 2023, from https://ebookcentral-proquest-com.ru.idm.oclc.org/lib/ubnru-ebooks/reader.action?docID=6422461&ppg=44.

Larsson, A. (2020. "30. Integrating land use and transport: understanding the dynamics of proximity" in Curtis, C. (Ed.). (2020). *Handbook of sustainable transport* (Ser. Research handbooks in transport studies). Edward Elgar Publishing Limited. Retrieved June 14, 2023, from https://ebookcentral-proquest-com.ru.idm.oclc.org/lib/ubnru-ebooks/reader.action?docID=6422461&ppg=44.

Priemus, H. (2007). Decision-making on large infrastructure projects: the role of the Dutch parliament. Transportation Planning and Technology, 30(1), 71–93.

Russo, F., & Rindone, C. (2021). Regional transport plans: From direction role denied to common rules identified. Sustainability, 13(16), 9052.

Scheurer, J. (2020). "15. Public Transport Network Planning" in Curtis, C. (Ed.). (2020). *Handbook of sustainable transport* (Ser. Research handbooks in transport studies). Edward Elgar Publishing Limited. Retrieved June 14, 2023, from https://ebookcentral-proquest-com.ru.idm.oclc.org/lib/ubnru-ebooks/reader.action?docID=6422461&ppg=44.

Schmid, C. U. (Ed.). (2022*). Ways out of the european housing crisis : tenure innovation and diversification in comparative perspective* (Ser. Elgar land and housing law and policy series). Edward Elgar Publishing Limited. Retrieved June 30, 2023, from https://www-elgaronline-com.ru.idm.oclc.org/edcollbook/book/9781800377448/9781800377448.xml

Silva, C., Bertolini, L., & Pinto, N. N. (Eds.). (2019). *Designing accessibility instruments : lessons on their usability for integrated land use and transport planning practices*. Routledge, Taylor & Francis Group. Retrieved April 19, 2023, from INSERT-MISSING-URL.

Soares, F. D. P. (2022). A Problem Oriented Approach to Urban Transportation Planning (Doctoral dissertation, University of Toronto (Canada).

Staat van Zuid-Holland. (2023). Provincie Zuid-Holland. Retrieved from https://staatvan.zuid-holland.nl/

Straatemeier, T., & Bertolini, L. (2020). How can planning for accessibility lead to more integrated transport and land-use strategies? two examples from the Netherlands. European Planning Studies, 28(9), 1713–1734. https://doi.org/10.1080/09654313.2019.1612326

Tarozzi, M. (2019). *Coding and Translating: Language as a Heuristic Apparatus*. SAGE Publications Ltd, https://doi.org/10.4135/9781526485656

Tatenhove, J., Arts, B., & Leroy, P. (2000). *Political modernisation and the environment : the renewal of environmental policy arrangements* (Ser. Environment & policy, 24). Springer Netherlands. https://doi.org/10.1007/978-94-015-9524-7

Thomas, R. (2020). "5. Social Equity and Disadvantage" in Curtis, C. (Ed.). (2020). *Handbook of sustainable transport* (Ser. Research handbooks in transport studies). Edward Elgar

Publishing Limited. Retrieved June 14, 2023, from https://ebookcentral-proquest-com.ru.idm.oclc.org/lib/ubnru-ebooks/reader.action?docID=6422461&ppg=44.

Van Ammelrooi, https://www.volkskrant.nl/economie/geen-vervoerder-zit-te-wachten-op-treindienst-van-amersfoort-naar-ede-wageningen~bca1f3ea/

van den Berg, J. (2023, June 26). De gaswinning naar nul: een historisch moment, maar bij de Groningers gaat 'de vlag nog niet uit'. Volkskrant. Retrieved from https://www.volkskrant.nl/nieuws-achtergrond/de-gaswinning-naar-nul-een-historisch-moment-maar-bij-de-groningers-gaat-de-vlag-nog-niet-uit~b90885fb/

Van Wee, B. (2022). Accessibility and equity: a conceptual framework and research agenda. *Journal of Transport Geography*, *104*. https://doi.org/10.1016/j.jtrangeo.2022.103421

Veeneman, W. (2018). Developments in public transport governance in the netherlands; the maturing of tendering. Research in Transportation Economics, 69, 227–234. https://doi.org/10.1016/j.retrec.2018.07.002

Veeneman, W., & Mulley, C. (2018). Multi-level governance in public transport: governmental layering and its influence on public transport service solutions. Research in Transportation Economics, 69, 430–437. https://doi.org/10.1016/j.retrec.2018.07.005

Verweij, S., & Gerrits, L. M. (2013). *Understanding and researching complexity with qualitative comparative analysis: evaluating transportation infrastructure projects*. Evaluation, 19(1), 40–55. https://doi.org/10.1177/1356389012470682

Victor, P. A. (1972). Pollution: economy and environment. Allen and Unwin.

Wet personenvervoer 2000, (2000). Retrieved fromhttps://wetten.overheid.nl/BWBR0011470/2022-10-01

Widner, J. A. (Ed.). (2022). *The case for case studies : methods and applications in international development* (Ser. Strategies for social inquiry). Cambridge University Press. Retrieved 2023, https://www.cambridge.org/core/books/case-for-case-studies/using-case-studies-to-enhance-the-quality-of-explanation-and-implementation/FACFB9C877AAAD65909220E80E3074C7

World Commission on Environment and Development. (1987). Our Common Future (Brundtland Report). Retrieved from http://www.un-documents.net/our-common-future.pdf

Yirga, B., Megento, T. L., & Habetemariam, K. Y. (2022). *Urban forest management in Addis Ababa, Ethiopia: A policy arrangement approach*. Urban Forestry and Greening. Advance online publication. https://doi.org/10.1016/j.ufug.2022.127809

Appendices

Appendix A Coding Guide

This table highlights the applied codes to different fragments and sentences from policy-documents and interviews with policy-makers from the respective provinces. From left to right, the first column indicates the first line of coding, the second column what that code entails, the third the second line of coding and the fourth what it entails. Finally, each code comes with an example. The same examples are also found in the initial coding.

Table 4.
Code guide to the policy and interview analysis

Initial coding (or categorical coding)	Description	Second coding	Description	Example
Roles and responsibilities	Codes that were applied to sentences and fragments discussing ascribed to stakeholders or responsibilities assigned to specific stakeholders. Key words include: cooperation, require, obligation.	Stakeholders (governmental)	Codes that were applied to sentences and fragments pertaining to governmental stakeholders, such as municipalities with keywords as: municipality, provincial government.	"De provincie wil de volgende onderwerpen – die vanuit het participatieproces naar voren zijn gekomen – graag vormgeven en uitwerken met stakeholders in de regio (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 9)."
		Stakeholders (non-governmental)	Codes that were applied to sentences and fragments to non-governmental stakeholders, such as transport companies with keywords: stakeholders, companies, external.	"MaaS is een met technologie ondersteunende dienstverlening, waarbij iemand simpel gezegd met één app een hele ketenreis van verschillende aanbieders kan plannen, boeken, reserveren, betalen en zo nodig real-time onderweg bijsturen (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 8)."
		Advice	Codes that were applied to sentences and fragments discussing advice, or advisory roles with keywords such as: advising.	"De provincie is verplicht het reizigersoverleg advies te vragen bij het verlenen, wijzigen of intrekken van een concessive (Beleidskader Provincie OV-Concessie Zuid-Holland Noord 2022, 5)."
		Agency	Codes that were applied to sentences and fragments concerning agency, including: responsibility, executing.	"Voor dit laatste is niet een vervoerder maar een wegbeheerder verantwoordelijk (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 8)."

		Agreements	Codes that were applied to sentences and fragments concerning agreements, including: agreeing, agreements.	"Voorwaarde hiervoor is dat de provincie als concessieverlener hiertoe afspraken maakt met de concessieverlener in het aangrenzende gebied. Dit is ook in de huidige concessie de gang van zaken (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 7)."
		Conditions	Codes that were applied to sentences and fragments concerning conditions, including: conditions.	"Bereikbaarheid is een voorwaarde voor ruimtelijke plannen, bijvoorbeeld de aanleg of uitbreiding van een woonwijk of bedrijventerrein (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 15)."
		Cooperation	Codes that were applied to sentences and fragments concerning cooperation , including: cooperation, shared, together.	"Momenteel wordt gezamenlijk onder meer gekeken hoe hieraan invulling kan worden gegeven in het stationsgebied Leiden Centraal, waarbij sprake is van een duurzame, toekomstbestendige gebiedsontwikkeling en waarbij de nadruk veel meer komt te liggen op de knooppuntfunctie van het gebied (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 9)."
		Obligations	Codes that were applied to sentences and fragments discussing obligations with keywords such as: must, obligation, mandatory.	"De provincie kent als uitgangspunt dat de concessiehouder openbaar vervoer Zuid-Holland Noord brondata ter beschikking moet stellen aan bijvoorbeeld een eventuele MaaS provider en moet voldoen aan MaaS-ready voorwaarden (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 8)."
Finance	Codes that were applied to sentences and fragments pertaining to finance.	Financial decisions	Codes that were applied to sentences and fragments pertaining to financial	"Het maximale bedrag per jaar voor de exploitatie (het laten rijden) van bussen

	Key words include: financial, growth, exploitation, costs, economy.		decisions with keywords such as: exploitation, financial decision, decision.	staat vast (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 6).”
		Economic decisions	Codes that were applied to sentences and fragments concerning economic decisions, including keywords: economic, development	“afstemming ruimtelijk-economische ontwikkelingen (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 9).”
Provincial Aspects	Codes that were applied to sentences and fragments stating facts or figures about the make-up of the province or an area of a province. Key words include: our province, we, our, here.	Provincial aspects	Codes that were applied to sentences and fragments concerning provincial aspect, including keywords such as: the province, in the province, the province X.	“De provincie Zuid-Holland heeft samen met regionale partners een gezamenlijke opgave op het gebied van verstedelijking en regionale mobiliteit en de samenhang daartussen (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 10)
		Provincial challenges	Codes that were applied to sentences and fragments concerning provincial challenges, including keywords such as: the challenges, task, complex	“De provincie Zuid-Holland heeft samen met regionale partners een gezamenlijke opgave op het gebied van verstedelijking en regionale mobiliteit en de samenhang daartussen (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 10).”
		Provincial developments	Codes that were applied to sentences and fragments concerning provincial developments, including keywords such as: the developments and change.	“Momenteel wordt gezamenlijk onder meer gekeken hoe hieraan invulling kan worden gegeven in het stationsgebied Leiden Centraal, waarbij sprake is van een duurzame, toekomstbestendige gebiedsontwikkeling en waarbij de nadruk veel meer komt te liggen op de knooppuntfunctie van het gebied (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 9).”
		Economic developments	Codes that were applied to sentences and fragments concerning economic developments, including keywords such as: the	“afstemming ruimtelijk-economische ontwikkelingen (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 9).”

			developments, economy, industry.	
Policy integration	Codes that were applied to sentences and fragments that pertained discussions or mentions of the integration of policy or concerning the contribution of PT to another policy goal or domain. Key words include: integral, integrative, adaptive, flexible	Policy (specific example)	Codes that were applied to sentences and fragments concerning policy including keywords such as: the policy, policy-makers, laws.	"Busstation Leiden Centraal (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 8)."
		Policy process	Codes that were applied to sentences and fragments concerning the policy process including keywords such as: the policy, process, tendering.	"Het proces van de aanbesteding is eind 2017 gestart. Het proces om te komen tot het beleidskader is aangestuurd door de Stuurgroep 'Aanbesteding concessie Zuid-Holland Noord' (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 2)."
		Policy integration	Codes that were applied to sentences and fragments pertaining to policy integration with keywords such as: including, together, policy A and policy B, collective, relationship.	"De provincie Zuid-Holland heeft samen met regionale partners een gezamenlijke opgave op het gebied van verstedelijking en regionale mobiliteit en de samenhang daartussen (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 6)."
		Policy process planning	Codes that were applied to sentences and fragments concerning process planning including keywords such as: the policy, planning.	"De provincie heeft de planning voor wat betreft de inschrijvingstermijn op concessies van andere OVautoriteiten afgestemd (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 5)."
Accessibility	Codes that were applied to sentences and fragments pertaining to accessibility, whether they discuss enhancing or limiting accessibility. Key words include: accessibility, consumer centrality, hubs.	Accessibility enhancing measures	Codes that were applied to sentences and fragments concerning measures enhancing accessibility with keywords as: services, accessibility, enhancing.	"Het bereikbaar houden van alle type gebieden is een opgave waaraan het OV kan bijdragen (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 10)."
		Accessibility limiting measures	Codes that were applied to sentences	""Waar het artikel 2, eerste lid, om gaat is

			and fragments concerning measures limiting accessibility with keywords as: services, accessibility, limiting.	dat reizigers niet dermate beperkt zijn dat bij het openbaar vervoer hulpverlening door personeel nodig is. De aanbieder van openbaar vervoer is niet verplicht voor begeleiding zorg te dragen (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 10)."
Sustainability	Codes that were applied to sentences and fragments pertaining to sustainability, whether they discuss contributing to or combatting sustainability. Key words include: zero-emission, sustainability, circularity.	Zero-emission	Codes that were applied to sentences and fragments pertaining to zero-emission, with keywords such as: zero-emission.	"verduurzamen busvloot OV: naar nul uitstoot in 2030 (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 9)."
		Sustainable economy	Codes that were applied to sentences and fragments pertaining to a sustainable economy, with keywords such as: incentive for a new economy,	"De provincie stimuleert de vervoerder om zoveel mogelijk regionaal opgewekte hernieuwbare brandstof en/of elektriciteit te gebruiken. De provincie kent als uitgangspunt duurzaam ondernemerschap en maatschappelijk verantwoord ondernemen in brede zin (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 23)."
		Sustainable development	Codes that were applied to sentences and fragments pertaining to sustainable development, with keywords such as:	"Momenteel wordt gezamenlijk onder meer gekeken hoe hieraan invulling kan worden gegeven in het stationsgebied Leiden Centraal, waarbij sprake is van een duurzame, toekomstbestendige gebiedsontwikkeling en waarbij de nadruk veel meer komt te liggen op de knooppuntfunctie van het gebied (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 9)."

		Electrification and charging	Codes that were applied to sentences and fragments pertaining to electrification and charging, with keywords such as: electric, electric buses, charging stations.	"et het groeiende gebruik van elektrisch ondersteunde fietsen (e-bikes tot 25 km/h, speed pedelecs tot 45 km/h) kunnen mensen makkelijker en sneller grotere afstanden afleggen: van huis naar school/werk/winkel (directe rit) of naar halte/station om verder te reizen met bus/trein (voor- en natransport van een ketenreis) (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 8)."
		Renewable energy	Codes that were applied to sentences and fragments concerning renewable energy including keywords such as: energy transition, new energy, renewables.	"De provincie stimuleert de vervoerder om zoveel mogelijk regionaal opgewekte hernieuwbare brandstof en/of elektriciteit te gebruiken. De provincie kent als uitgangspunt duurzaam ondernemerschap en maatschappelijk verantwoord ondernemen in brede zin (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 23)."
Inclusive transport	Codes that were applied to sentences and fragments pertaining to inclusivity and inclusivity in transport, whether they seem to include or exclude certain groups or individuals. Key words include: inclusive, (social) safety, together, affordability	Inclusivity (participation)	Codes that were applied to sentences and fragments pertaining to societal participation, with keywords such as: meeting, inclusive.	""Waar het artikel 2, eerste lid, om gaat is dat reizigers niet dermate beperkt zijn dat bij het openbaar vervoer hulpverlening door personeel nodig is. De aanbieder van openbaar vervoer is niet verplicht voor begeleiding zorg te dragen (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 10)."
		Inclusivity (affordability)	Codes that were applied to sentences and fragments pertaining to affordability, with keywords such as: bus fares, affordable, etc.	"Betaalbaarheid, voorspelbaarheid en betrouwbaarheid gelden voor alle reizigers. Maar worden per type reiziger anders ingevuld (*Beleidskader Nieuwe OV-Concessie Zuid-*

				Holland Noord 2023, 12)."
		Help (personnel)	Codes that were applied to sentences and fragments pertaining to help or aid, with keywords such as: aid, helping.	""Waar het artikel 2, eerste lid, om gaat is dat reizigers niet dermate beperkt zijn dat bij het openbaar vervoer hulpverlening door personeel nodig is. De aanbieder van openbaar vervoer is niet verplicht voor begeleiding zorg te dragen (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 10)."
		Marginalized	Codes that were applied to sentences and fragments pertaining to marginalized groups, with keywords such as: group, class, elderly, marginalized, weaker.	"Het openbaar vervoer moet aantrekkelijk zijn voor verschillende typen reizigers (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 11)."
		Meeting	Codes that were applied to sentences and fragments pertaining to meeting, with keywords such as: meeting, participation, society.	"Een algemene ontwikkeling is de inclusieve samenleving: iedereen, met of zonder beperking, moet volwaardig kunnen deelnemen aan de maatschappij (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 10)."
Mobility	Codes that were applied to sentences and fragments Codes that were applied to sentences and fragments pertaining to mobility, whether they discuss enhancing or limiting mobility. Key words include: travel, transport mode.	Mobility enhancing measures	Codes that were applied to sentences and fragments pertaining to mobility enhancing strategies or measures, with keywords such as: new mobility, new bus lines, etc.	"Ook hebben de gebieden verschillende vervoervraag (volume) en vervoersrichtingen; sommige gebieden zijn op één stad gericht en andere gebieden hebben meer spreiding in de belangrijkste reisrelaties (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 10)."
		Mobility limiting measures	Codes that were applied to sentences and fragments pertaining to mobility limiting strategies or measures, with keywords such as: reducing mobility, reducing bus lines, removing	"Om ongewenste concurrentie tegen te gaan, bewaakt de provincie zo veel als mogelijk – in samenspraak met de regio's en gemeenten – de samenhang van mobiliteitsdiensten. Bij beëindiging van particuliere initiatieven bestaat de

			kans dat schakels in de keten wegvallen (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 17)."
	Transport	Codes that were applied to sentences and fragments pertaining to transport, with keywords such as: bus, bicycle, travel.	"De inschrijver die de meeste punten scoort (volgens het gunningsmodel), wordt de volgende vervoerder. Het maximale bedrag per jaar voor de exploitatie (het laten rijden) van bussen staat vast (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 5)."
	Mobility-as-a-service	Codes that were applied to sentences and fragments pertaining to mobility-as-a-service, with keywords such as: shared, sharing, shared mobility, shared bicycles.	"MaaS is een met technologie ondersteunende dienstverlening, waarbij iemand simpel gezegd met één app een hele ketenreis van verschillende aanbieders kan plannen, boeken, reserveren, betalen en zo nodig real-time onderweg bijsturen (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 8)."
	Shared mobility	Codes that were applied to sentences and fragments pertaining to shared mobility, with keywords such as: shared, sharing, shared mobility, shared bicycles.	"Deelvervoer (deelfietsen, deelauto's, deeltaxi's) breidt zich uit, vooral via verhuurbedrijven in stedelijke gebieden. In steden is meer vraag (en daarmee eerder een sluitende business case) (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 8)."
	Bus lines/transport	Codes that were applied to sentences and fragments pertaining to bus lines or transport with keywords such as: bus, transport, bus lines, bus infrastructure.	"De inschrijver die de meeste punten scoort (volgens het gunningsmodel), wordt de volgende vervoerder. Het maximale bedrag per jaar voor de exploitatie (het laten rijden) van bussen staat vast (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 5)."

		Hubs	Codes that were applied to sentences and fragments pertaining to shared mobility, with keywords such as: hubs, Dutch: *knooppunten*, transfer.	"Momenteel wordt gezamenlijk onder meer gekeken hoe hieraan invulling kan worden gegeven in het stationsgebied Leiden Centraal, waarbij sprake is van een duurzame, toekomstbestendige gebiedsontwikkeling en waarbij de nadruk veel meer komt te liggen op de knooppuntfunctie van het gebied *Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 9)."
		Chain travel	Codes that were applied to sentences and fragments concerning chain travel including keywords such as: the chain, hubs, fast, transfer	"het het groeiende gebruik van elektrisch ondersteunde fietsen (e-bikes tot 25 km/h, speed pedelecs tot 45 km/h) kunnen mensen makkelijker en sneller grotere afstanden afleggen: van huis naar school/werk/winkel (directe rit) of naar halte/station om verder te reizen met bus/trein (voor- en natransport van een ketenreis) (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 25)."
COVID-19	Codes that were applied to sentences and fragments pertaining to, or mentioning the COVID-19 pandemic. Key words include: COVID-19, Corona virus, pandemic.			"De effecten van de coronapandemie zijn wellicht het eerste jaar van de concessie nog niet uitgewerkt (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 25)."
Environmental Planning Challenges	Codes that were applied to sentences and fragments discussing or concerning the environmental challenges that policy-makers and policy documents identify for the Netherlands or their respective provinces.	Environmental spatial planning developments	Codes that were applied to sentences and fragments concerning environmental spatial planning developments including keywords such as: the change, development, arial development.	"Momenteel wordt gezamenlijk onder meer gekeken hoe hieraan invulling kan worden gegeven in het stationsgebied Leiden Centraal, waarbij sprake is van een duurzame, toekomstbestendige gebiedsontwikkeling en waarbij de nadruk veel meer komt te liggen op de knooppuntfunctie van

				het gebied (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 9)."
Decision-making	Codes that were applied to sentences and fragments that discuss priorities or decisions by the governments or policy-makers. Key words include: prioritize, decide, wager, invest in.	Prioritization	Codes that were applied to sentences and fragments concerning priorities including keywords such as: goal, priority, objective.	"Dit hoofdstuk beschrijft hoe de provincie het busvervoer verduurzaamt, een ambitie in het Coalitieakkoord 2019-2023: Elke dag beter (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 23)."
		Policy goal	Codes that were applied to sentences and fragments concerning policy goals including keywords such as: goal, policy, objective.	"In dit beleidskader staat het beleid van de provincie om het openbaar vervoer te laten bijdragen aan de ambities en doelen (zie hoofdstuk drie) voor het concessiegebied Zuid-Holland Noord."
		Limits to policy goal	Codes that were applied to sentences and fragments concerning policy limitions including keywords such as: policy, not, is not able.	"De provincie kent daarmee als uitgangspunt voor het openbaar vervoer dat reizigers niet dermate beperkt zijn dat bij het openbaar vervoer hulpverlening door personeel nodig is (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 10)."
		Orientation to decision-making	Codes that were applied to sentences and fragments concerning orientation to decision-making including keywords such as: studying, looking at, perceiving.	"Momenteel wordt gezamenlijk onder meer gekeken hoe hieraan invulling kan worden gegeven in het stationsgebied Leiden Centraal, waarbij sprake is van een duurzame, toekomstbestendige gebiedsontwikkeling en waarbij de nadruk veel meer komt te liggen op de knooppuntfunctie van het gebied (*Beleidskader Nieuwe OV-Concessie Zuid-Holland Noord* 2023, 9)."

Appendix B. Interview Guide

Thesis [redacted] – Decision-making in Public transport concession areas
Interview guide

Consent

This is an interview that is part of a master thesis study. The master thesis researches the decision-making during the drafting of a public transport concession at the provincial level. The research is interested in what the key factors are for decision-making and setting priorities when it comes to a new concession at the provincial level.
For this study, I study and compare the measures and priorities in two regional concessions in the Netherlands: the province of South-Holland and the province of Utrecht
You are asked to participate in this research in the form of a short interview. This interview will last 30 minutes and asks questions about the priorities, decisions, and stakeholders during the draft of a public transport concession.
All of answers and information will be dealt with discreetly and confidently. Your name or position will not be publicly mentioned nor will it be mentioned in the study. Your answers will be deleted directly after completion of this research and thesis.
If you agree, this interview will be recorded.

General questions

What is your job title?
What is your role in the province of Utrecht/Province of South Holland and what is, more specifically, your role during the concession drafting period?

Lead questions

There are during each interview three leading questions, with several sub questions that can also be used as probing questions.
What – to you – are the elements with the highest prioritization in the new concession?
Try to name three.
Try to explain why these are important.
How are these priorities weighted against one another, and most importantly, what are the factors in decision-making?
What factors are used when studying/examining the priorities for the new concession?
What are, to you, the most important factors for the province?
To you, who do you consider the most important stakeholders of this process?
Can you identify what is important in the process to this stakeholder?
Are the issues of that particular stakeholder also important to the province? Why, or why not?

Closing

Is there anything else that you haven't shared yet, that you feel is relevant to this research? If so, please elaborate on what you think is a missing, yet important element in the process of drafting a concession?
Do you have questions for me regarding this research?