CAOILTE BASHFORD
6874312

M.SC SPATIAL PLANNING
UTRECHT UNIVERSITY

CONSTRUCTING LIGHT RAIL

Light rail discursive dynamics in the Amsterdam Metropolitan Area

2019/2020

MOTT MACDONALD

Universiteit Utrecht

Constructing Light Rail

Light rail discursive dynamics in the Amsterdam Metropolitan Area

Master thesis
M.Sc Spatial Planning 2019/2020
Faculty of Geosciences
Department of Human Geography and Spatial Planning
Utrecht University

Author:
Caoilte Bashford (6874312)
c.bashford@students.uu.nl

Supervisor:
Dr. Shaun Smith
Faculty of Geosciences
Utrecht University

Internship Supervisors:
Joost Bolck
Business Development Manager
Mott MacDonald NL BV

Elske Oltholf
Public Transport Consultant
Mott MacDonald NL BV

Image Source: https://www.uitp.org/news/the-european-outlook-on-track-with-light-rail-and-tram-systems/

ABSTRACT

This thesis engages with light-rail infrastructure development in the metropolitan area of Amsterdam to evaluate the use of light rail in spatial and socio-technical imaginaries, around the realisation of transport generally. It does so to interrogate regional governance processes and power-dynamics in the planning of transport infrastructure in the Netherlands.

Through the document analysis and key-informant interviews, this thesis evaluates the relations between imaginaries, light-rail infrastructure and the dynamics of the constitutive actors of the Metropolitan area of Amsterdam, paying particular attention to the city of Amsterdam and the municipality of Almere. Employing a discursive institutional analytical method, it is found that the success of imaginaries and light rail relies on the ministry of infrastructure and its institutional biases, adhering to technical and economic rationalities and justifications, favouring arguments towards heavy rail and particularly automobile infrastructure. This is due to the institutional practice of the MIRT which relegates regional and spatial development considerations. Furthermore, specific to the case of the metropolitan area of Amsterdam, the power of the city of Amsterdam itself acts as a barrier in the construction of regionally focused infrastructural imaginaries.

The overarching prescriptions are the re-evaluation of the MIRT process. Its inherent technical and economic rationality preclude the success of imaginaries coupled with light rail in the Netherlands. Increased regional accessibility in the metropolitan area of Amsterdam can only be solved with the reappraisal of this method. The prospective Omgevingswet will require further decentralisation to the lower authorities, which, this paper argues, will frustrate prospective large-scale infrastructural development, which the normative compass of polderen may not overcome.

Keywords: light-rail, imaginaries, metropolitan governance, discursive institutionalism, ideational power, polder-model.

ACKNOWLEDGEMENTS

Ar scáth a chéile a mhaireann na daoine.
Alone we go faster, together we go further.

Nowadays, assistance cannot be understated or underestimated. This thesis would not have been possible without the assistance of these few.

Firstly, I would like to thank Joost Bolck, Elske Olthof and all staff of Mott MacDonald NL b.v, as well as Dr. Shaun Smith of Utrecht University. Their invaluable guidance and immeasurable patience with me will always be greatly appreciated. Similarly, I would like to thank all interviewees for their time and knowledge.

Secondly, I would like to thank (and congratulate) all my fellow students of Spatial Planning, particularly Eoin O'Sullivan for the incredible assistance and the many nights spent conducting the *beer test*. I would also like to thank Kate O'Connor and Cami Morandi for their reading. And a special thanks my *petit chou* Vincent Sheridan and his firstborn Vincent Caoilte, and always Irina, who guided me throughout. All named have been an incredible support to me throughout this past year - to what extend, I can't describe.

Thirdly, I wish to thank my hometown of Bray in the greater metropolitan area of Dublin. With this thesis I hope to join the annals of its notable residents - somewhere between James Joyce and Hozier.

Fourthly, and finally, I extend my eternal thanks to my ever-loving and ever-loved family. My eternally loved parents; Teresa and Tómas, my siblings; Thomas, Martin, Áilin, Rúraidh, Faolán, Toiréasa and Doireann, their partners; Cathy, Ciara, Jenn, Karin and Munya, my nieces and nephews; Milo, Sadhbh, Aoibhín, Caolán, Ríona, Isobel, Sadie, Antonia, Aisling, *Nutmeg* (Ebba), Sinéad and Oliver. Special thanks must be extended to my brothers Faolán, who assisted me, and particularly Thomas, who has always offered me constant love and support throughout my life.

CAOILTE BASHFORD
Utrecht
November, 2020

CONTENTS

INTRODUCTION 5

1.1 SCIENTIFIC RELEVANCE 8

1.2 SOCIAL RELEVANCE 10

1.3 READING GUIDE 11

THEORETICAL FRAMEWORK 13

2.1 MOBILITY, INFRASTRUCTURES & SPACE. 14

MOBILITY & INFRASTRUCTURES. 14

SPACE & MOBILITY 17

2.2 IMAGINARIES, POWER & LIGHT RAIL. 19

IMAGINARIES & POWER 20

LIGHT RAIL 23

2.3 SPATIAL PLANNING AND GOVERNANCE 26

2.4 THE SYSTEM AND CULTURE OF PLANNING 28

2.5 RESEARCH QUESTION 31

METHODOLOGY 32

3.1 ANALYTICAL FRAMEWORK 32

3.2 RESEARCH DESIGN 36

RESEARCH METHODS 37

3.3 CASE STUDY DESIGN 46

THE CASE 47

LIGHT RAIL & METROPOLITAN REGIONALISM IN AMSTERDAM 52

4.1 ORGANISATIONAL CONTEXT OF LIGHT RAIL 52

THE STRUCTURE OF TRANSPORT PLANNING 53

PROVINCES 54

REGIONAL ORGANISATIONS 54

MUNICIPAL ORGANISATIONS 57

STAKEHOLDER INTEREST & INFLUENCE 58

4.2 INSTITUTIONAL CONTEXT OF LIGHT RAIL 61

DECISION MAKING PROCESSES OF METROPOLITAN-REGIONAL TRANSPORT INFRASTRUCTURE DEVELOPMENT. 62

4.3 IMAGINARIES OF LIGHT RAIL 69

MULTILEVEL TRANSPORT IMAGINARIES 69

CONCEPTIONS OF LIGHT RAIL 79

4.4 IMAGINARIES & POWER 82

CONCLUSION 92

5.1 LIMITATIONS 96

5.2 FUTURE RESEARCH 97

BIBLIOGRAPHY 99

APPENDICES 114

APPENDIX 1: INDICATIVE INTERVIEW GUIDE 114

APPENDIX 2: INDICATIVE CODEBOOK 118

LIST OF MAPS, FIGURES & TABLES

MAPS

MAP 1: THE CITY OF AMSTERDAM 6
MAP 2: AMSTERDAM IN RELATION TO ALMERE. 7
MAP 3: METROPOOLREGIO AMSTERDAM 48
MAP 4: VERVOERREGIO AMSTERDAM AND ITS CONSTITUENT MUNICIPALITIES 50
MAP 5: BLOKJESKAART 51
MAP 6: MAP OF TRANSPORT AUTHORITIES IN THE NETHERLANDS. 54
MAP 7: DEPICTION OF THE THE NATIONALE OMGEVINGSVISIE 70
MAP 8: VISUAL IMAGINARY OF NOORD-HOLLAND 72
MAP 9: AMSTERDAM'S REGIONAL TRANSPORT IMAGINARY 73

FIGURES

FIGURE 1: CRESSWELL'S (2006) CO-CONSTITUTIVE AND RELATIONAL ELEMENTS IN THE CONSTRUCTION OF MOBILITY 14
FIGURE 2: LEFEBVRE'S (1991) TRIPARTITE DIALECTICAL CONSTRUCTION OF SPACE 18
FIGURE 3: RELATIONSHIP OF CONCEPTS USED 36
FIGURE 4: BUILDING BLOCKS OF DISCURSIVE INSTITUTIONALISM 42
FIGURE 5: STAKEHOLDER MAP FOR THE NORDZUIDLIJN PROJECT 59
FIGURE 6: INDICATIVE STAKEHOLDER MAP FOR THE POTENTIAL IJMEERVERBINDING PROJECT 60
FIGURE 7: INDICATIVE DYNAMICS OF THE MIRT PROCESSE 65
FIGURE 8: STAKEHOLDER INFLUENCE DIAGRAM 88
FIGURE 9: POLICY, PROGRAMMATIC AND PHILOSOPHIC LEVEL UNDERPINNING THE NORDZUIDLIJN 90
FIGURE 10: POLICY, PROGRAMMATIC AND PHILOSOPHIC LEVEL UNDERPINNING THE IJMEERVERBINDING PROJECT. ... 91

TABLES

TABLE 1: RELATIONAL AND DIALECTIC ELEMENTS IN THE CONSTRUCTION OF MOBILITY AND EXAMPLES 15
TABLE 2: LEFEBVRE'S TRIPARTITE CONSTRUCTION OF SPACE 19
TABLE 3: WATKINS (2015) IDEALISED VARIATION OF SPATIAL IMAGINARIES 21
TABLE 4: LIST OF ORGANISATIONS AND CORRESPONDING LINKS TO THEIR WEBPAGES 39
TABLE 5: LIST OF DOCUMENTS ANALYSED 41
TABLE 6: LIST OF INTERVIEWEES. 46
TABLE 7: COMPOSITION OF THE VRA REGIORAAD 55
TABLE 8: INSTITUTIONS GOVERNING TRANSPORT INFRASTRUCTURE DEVELOPMENT 61
TABLE 9: LIST OF RECENT POLICY DOCUMENTS OF RELEVANT ORGANISATIONAL ACTORS AND IMAGINARIES PRESENT. 78
TABLE 10: COALITIONS PRESENT IN THE AMSTERDAM METROPOLITAN AREA 86

TABLE OF ABBREVIATIONS

ABBREVIATION	DEFINITION
BRT	BUS RAPID TRANSIT
BZK	MINISTERIE VAN BINNENLANDSE ZAKEN EN KONINKRIJKSRELATIES (MINISTRY OF THE INTERIOR)
EZK	MINISTERIE VAN ECONOMISCHE ZAKEN EN KLIMAAT (MINISTRY OF ECONOMIC AFFAIRS AND CLIMATE)
GVB	GEMEENTELIJK VERVOERBEDRIJF (AMSTERDAM MUNICIPAL TRANSPORT COMPANY)
HOV	HOOGWAARDIG OPENBAAR VERVOER (HIGH-QUALITY PUBLIC TRANSPORT)
MLG	MULTI-LEVEL GOVERNANCE
IenW	MINSTERIE VAN INFRASTRUCTUUR EN WATERSTAAT (MINISTRY OF INFRASTRUCTURE AND WATER-MANAGEMENT)
MIRT	MEERJARENPROGRAMMA INFRASTRUCTUUR, RUIMTE EN TRANSPORT (MULTIYEAR PROGRAMME FOR INFRASTRUCTURE, SPACE AND TRANSPORT)
MRA	METROPOOLREGIO AMSTERDAM (AMSTERDAM METROPOLITAN REGION)
OIS	ONDERZOEK, INFORMATIE EN STATISTIEK (THE RESEARCH, INFORMATION AND STATISTICS DEPARTMENT IN THE CITY OF AMSTERDAM)
OV	OPENBAAR VERVOER (PUBLIC TRANSPORT)
ROA	REGIONAAL ORGAAN AMSTERDAM (REGIONAL ORGAN AMSTERDAM)
VRA	VERVEOREGIO AMSTERDAM (AMSTERDAM TRANSPORT AUTHORITY)

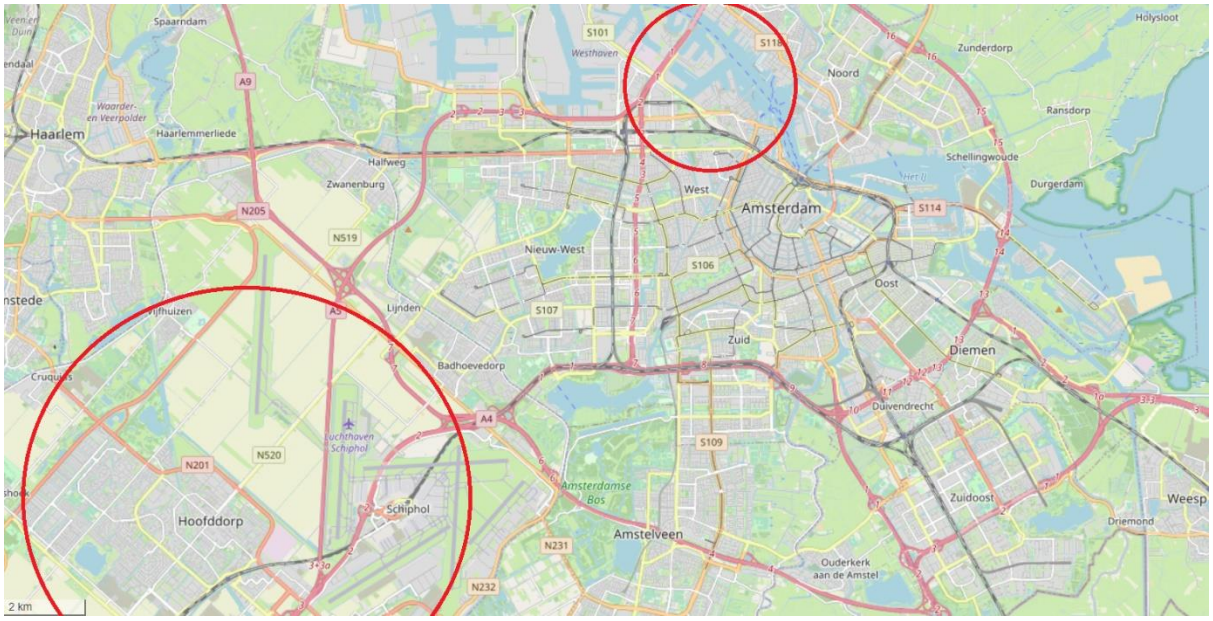
INTRODUCTION

Infrastructure exerts an incredible influence on the shape, structure, functionality, and coherence of a region. "No technological project is technological first and foremost "(Latour, 1996, p. 31), and the social study of infrastructure allows for the investigation of distributional and planning power in society (Star, 1999). The decision-making around and origin of infrastructure and its investment cannot be divorced from the socio-economic, institutional, and political landscape of a region, embedded and affected by global flows. Similarly, the understanding and perceptions of various urban and regional problems and solutions must be understood through its socioeconomic, institutional, and political realities. This thesis explores light rail infrastructural investment, and the spatial development considerations of light rail infrastructural investment, as a method to uncover and understand the regional governance and planning power in the Amsterdam metropolitan area.

The Netherlands has a rich planning tradition and culture. The Dutch *Ministerie van Infrastructuur en Waterstaat* (Ministry of Infrastructure and Water Management: IenW hereafter) describes itself as being committed to an accessible, safe, and sustainable Netherlands with goals to contribute to the prosperity and liveability of the country (Ministerie van Infrastructuur en Waterstaat [IenW], 2020). The *Wet ruimtelijke ordening* (Spatial Planning Act) requires every governance level to create a *Structuurvisie* (structural visions), a substantive guiding document for spatial development, indicating how policy will be implemented (Rijkswaterstaat, 2020). Additionally, the 1998 *Planwet Verkeer en Vervoer* (Planning law on traffic and transport) stipulates the construction of a national traffic and transport plan which gives direction to decisions taken, requiring the provinces or regional transport authorities to create a traffic and transport plan considering the overall national vision. While the municipalities are not obliged to construct a future vision pertaining to transport, they are expected to have a coherent and focused implementation of transport policy, particularly as it relates to spatial development, leading to the practice of constructing future-oriented municipal transport plans. The *Omgevingwet* (Environmental Law), is a recent policy of the national government which attempts at simplifying and streamlining the legislative spatial development environment, bundling 26 laws relating to transport, the environment, and

spatial planning (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties [BZK], 2020). Set to come into force in January 2022, it is an attempt to allow for faster and better decision making through creating better-coordinated plans while giving the lower tiers of governance, provinces and municipalities, further ability to adapt policy towards their specific objectives, and encouraging sustainable planning and citizen participation (*ibid.*).

At the same time, Amsterdam (pre-COVID-19) is undergoing intensive housing and transport pressures as a result of increasing residential growth - 11,000 residents a year (Amsterdam, 2011) - and tourist traffic - 18.4 million overnight stays in 2019 (OIS Amsterdam, 2020). The city of Amsterdam has several planning strategies to address this housing shortage, including the *Koers 2025* (Course 2025: Amsterdam, 2016) and *Haven-Stad* (Port-city: Amsterdam, 2017a) programmes. Transport planning is a key part of this. Amsterdam's 2017 survey *Mobiliteitsverkenning, voor een groeiend Amsterdam* (Mobility Outlook, for a growing Amsterdam), necessitated a '*scale leap*' in public transport in the city to accommodate this growth (Amsterdam, 2017b). The *Ringlijn* to assist with the realisation of the Haven-Stad, a roughly 20km^2 urban regeneration and development programme, while the extension of the *NordZuidlijn* to Schiphol and Hoofdorp, is considered in order open up the area to the south of the city for spatial development (see Map 1).



Map 1: The city of Amsterdam, with Schiphol and Hoofdorp (left) and the Havenstad development outlined (OpenStreeMap).

Additionally, the *IJmeerverbinding*, a proposed light rail connection from IJburg to the Almere Pampus (see Map 2) is proposed within policy-making circles as a solution to address the acute housing shortage of the metropolitan area. While it previously underwent a particularly intensive planning and lobbying phase in the 2000s, it is once again promoted by the governing coalition of Almere as a 'regional' project (Lieshout, 2020). Almere, a planned *new town* roughly 30km to the east of Amsterdam with a population of circa 200,000, is considered as a *groeigemeente* ("growth municipality") accommodating the residential 'overspill' from Amsterdam, its *sister city* (Map 2). The IJmeerverbinding project has received broad political support in the municipal council, with the coalition discussing the construction of this line in the same context as the realisation of up to 25,000 new housing units by 2030 as required by the central government (*ibid*.).

Map 2: Amsterdam, left, in relation to Almere, right, with Almere Pampus area outlined. (OpenStreeMap).

The aim of this thesis to analyse how light rail is mobilised as a tool in strategic urban development in the Netherlands, providing insight to the ideas which govern the decision to implement light rail and transport generally. These decisions must always be contextually understood, and it is for that reason that this thesis takes the form of a situated case study of the Amsterdam metropolitan region. Particularly, it focuses on the *Metropoolregio Amsterdam* (Metropolitan Region of Amsterdam – MRA hereafter) - an informal partnership made up by the organisation *Metropoolregio Amsterdam*, consisting of 32 municipalities, two provinces (North Holland and Flevoland) and the Vervoerregio Amsterdam (the transport authority of

Amsterdam). Due to the complex nature of governance, as it relates to transport planning in the Netherlands, it is also necessary to understand the multi-level governance structure of the case, including cities within the region (Amsterdam and Almere), the provinces and national transport policy.

Theoretically, this thesis emanates from the *mobilities paradigm* in social theory (Kaufmann, 2002; Cresswell, 2006; Sheller & Urry, 2006; Urry, 2007; Elliot & Urry, 2010). This approach argues that it is important to not only attend to the technical and physical aspects of mobility but the political, social and cultural relations in which mobility and its technologies are embedded and created. Therefore, this research will engage with light rail in the region as a representational and performative concept, which has different meanings for different actors. Specifically, this thesis will focus on the persuasive performativity of infrastructure as a socio-technical 'imaginary' in multi-scalar planning settings.

Conceptually, *imaginaries*, or future-oriented visions, are examined to uncover the normative visions of different actors and policies, in addition to their role as 'representational' and 'performative' concepts. This uncovers and helps to understand the power relations present in framing and shaping future-orientations of the organisations, orientations which are to be achieved through light rail investment. The analysis of *imaginaries* requires first examining the discourse of "action and performance or with materialization through technology" (Jasanoff & Kim, 2015, p. 20). Therefore, power relations are explored through an examination of regional policy processes and their dynamics in the planning of transport infrastructure, particularly in terms of how dominant imaginaries are framed. Through this analysis, this thesis progresses to evaluate the relations between these imaginaries, light-rail projects, the metropolitan area of Amsterdam and, specifically, the municipality of Almere.

1.1 SCIENTIFIC RELEVANCE

This thesis aims to contributes to the academic literature surrounding the rescaling of governance in the Netherlands and metropolitan regionalism in Amsterdam. It adds particularly to literature which engages with the socio-political factors which influence decision making in metropolitan regions (Salet, 2006; Savini *et al.*, 2016; Spaans, Zonneveld & Stead, 2019; Galland & Harrison, 2020; Harrison, Fedeli & Feriertag, 2020), specifically as it relates to

transport infrastructure (Krisch & Suitner, 2020). The conceptual approach which engages with the construction and mobilisation of imaginaries within planning as forms of power. This contributes a context-specific dimension to the growing body of literature relating to the social construction of ideas, and their inherent power dynamics in planning and policy (Jasanoff & Kim, 2015; Suitner, 2015; Hincks, Deas & Haughton, 2017; Davoudi, 2018; Galland & Harrison, 2020; Olesen, K. 2020). The research revolves around the socio-politically constructed idea of light-rail, adding a Dutch dimension to the international literature engaging with it and light rails use in strategic planning (Thompson & Brown, 2010; Olesen M., 2014; Olesen, M. & Lassen, 2016; Knowles & Ferbrache, 2016; Ferbrache & Knolwes, 2017; Olesen, K., 2020). Additionally, it adds to the current academic debate surrounding the prospective Omgevingswet (Evers, 2015; Korthals-Altes, 2016), specifically its efficacy in producing desired results regarding decentralisation of planning powers and the institutional blockages which impede its desired outcomes. Through engaging with this topic, this thesis adds to the debate regarding blockages and obstacles in developing an integration between the domains of land-use and transport planning, and discussions regarding transit-oriented development in the region (Straatemeier & Bertolini, 2020).

Overall, this research contributes to the *materialities turn* in the mobilities paradigm. It critically engages with infrastructure and mobilities, regarding both as politically and socially constructed. This approach questions technocratic positions, narratives and practices and questions uneven mobilities while engaging with the consequences of infrastructural development. This raises questions of *spatial capital* - the locational and mobility advantage through proximity to transport infrastructure (Rérat and Lees 2011) - *motility*- "the capacity of entities to be mobile in social and geographic space" (Kaufmann, Bergman & Jove, 2004, p. 750) – and *network capital* – the privileged capability to be mobile (Elliot & Urry, 2010). Adopting the institutional approach necessarily entails a context-specific investigation of the institutionalisation processes and practices surrounding transport development. This method allows the research to understand the contextual geometries of socio-technical power, in addition to the contextual conception of planning which exist. This research presents a critical account on planning and policy in the Netherlands, and it uncovers entrenched interests, institutional obstacles, and cultural impediments to change, from which the social relevance of this thesis develops.

1.2 SOCIAL RELEVANCE

This thesis, through engaging with the institutionalisation processes and practices surrounding transport development in the Netherlands and Amsterdam, uncovers the path dependencies, techno-rationalities and power dynamics present in this sector. The 2019 *Klimaatakkoord* (Climate agreement) aims to decrease carbon emissions in the Netherlands by 49% by 2030 (Ministerie van Economische Zaken en Klimaat, 2019.) Commuting within the Netherlands is predominantly by car, comprising almost 75% of commutes (Centraal Bureau voor de Statistiek, 2020), with passenger cars contributing to 37% of emissions in the transport sector in 2015, a proportion which isn't diminishing due to increased passenger car kilometres (*ibid.*; CROW, 2020). This research uncovers the inherent rationales, justifications and biases within transport development, particularly those employed by techno-rational actors, which inherently favour investment in road infrastructure. This raises questions regarding the ministry of infrastructures motives regarding sustainability goals. This research uncovers and engages with the inherently hierarchical nature of infrastructure development and the effects this has on developing a cohesive regional unit. Additionally, it raises questions concerning the efficacy of the democratisation of planning which is considered inherent in the upcoming Omgevingswet.

Accessibility is one of the core goals in the transport sector in the Netherlands and transport planning the world over. Defined as the ease of reaching destinations, it is recognised as a key goal in providing transport infrastructure as it is a "comprehensive performance measure […] [which] reflects the outcomes of land use and transport systems"(Boisjoly & El-Geneidy, 2017, p. 34). This research critically engages with the conception of accessibility employed by techno-rational organisations, questioning the commitment of the organisations towards environmental goals and considerations of transport poverty, overall arguing that it is necessary to construct mobilities and infrastructure which serve "the needs and aspirations of people and the creation of places" (Cervero, Guerra & Al, 2017: 1).

1.3 READING GUIDE

This thesis consists of four subsequent chapters which are: "Theoretical Framework", "Methodology", a results and discussion chapter entitled "Light Rail and Metropolitan Regionalism", and "Conclusion".

The ""Theoretical Framework" chapter will include information gathered from academic literature. This chapter will outline and discuss the various theoretical and conceptual understandings operationalised and employed in approaching the object of research itself. This chapter will provide a comprehensive synthesis of all these understandings throughout. It will conclude by presenting the research question structuring this thesis overall.

The methodology chapter will outline the empirical approach used in this research. It will first engage with the analytical approach, outlining the analytical framework employed in the research, giving a definition of imaginaries used and a visual representation of the relationship of the conceptual understandings outlined. It will then outline and clarify the research design and the data collection and analysis methods used, engaging with the limitations and quality throughout. The methods are a five-step adaptation of Hajer's structured 'ten steps in discourse analysis' methodological approach (2006), consisting of desk research, document analysis, stakeholder mapping, interpretation of discursive field and interviews with key informants. This chapter will conclude with a section which gives a contextual introduction to the case under analysis in the "Case Study Design" section, namely the Amsterdam metropolitan area, metropolitan regionalism within it, and Almere. This section will include information gained from non-academic sources accessed through engagement with the published materials of the various organisational actors made publicly available through their websites.

The "Light Rail and Metropolitan Regionalism" chapter will engage with the substantive content of this thesis itself, namely the research results. It will outline this in four sections: "Organisational Context of Light Rail", "Institutional Context of Light Rail", "Imaginaries of Light Rail in Amsterdam" and Imaginaries and Power". The key findings from the research and analysis are achieved through exploring the institutional context and the interpretation of the imaginaries within this context concerning light rail development in the Amsterdam

metropolitan area. This will be related to the power within the institutional context, assessing the role and extent to which imaginaries shape power in decisions making.

The final chapter will engage directly with the research question and sub-questions, clarifying the answers which were found through the research itself. This chapter will also propose policy and practice recommendations, particularly in light of the recent Omgevingswet, and relevant avenues and topics for research in light of the information and findings from the research contained herein.

THEORETICAL FRAMEWORK

"The social world is […] a kaleidoscope of potential realities, any of which can be readily evoked by altering the ways in which observations are framed and categorized."

(Edelman, 1993: 232)

This chapter outlines, reviews, and engages with the academic literature, constructing a theoretical framework and conceptual understanding which is utilised in approaching the research aims and objectives. It is first necessary to present *social constructivism*, the basic ontological and epistemological approach underpinning the theoretical and analytical framework within this research. Within a social constructivist approach, social reality is regarded as *constructed*; that is, perceived and experienced through relative and relational interactions mediated through discursive practices. This approach refutes universal generalisations and truths, arguing that reason is prejudiced, and knowledge is subjective, a product of actors' attempt at categorising and understanding the world. Knowledge is a matter of understanding rather than explanation (Davoudi, 2012), with the ability to only seek *the meaning of action* rather than *the cause of behaviour* (Hollis, 2003).

This chapter first engages with theoretical literature concerning the social construction of *mobilities,* infrastructures and *space,* as understood in social theory. Upon discussing these concepts, the concepts of future-oriented *imaginaries,* power, light rail, and governance will be introduced and examined, developing an understanding of how they relate to one another considering the aforementioned topics. Governance, the methods through which power is performed, is affected by various cultural and systemic factors, therefore, planning, its doctrine and culture in the Netherlands in particular, will conclude this theoretical framework. Finally, the research question and research objectives will be defined.

2.1 MOBILITY, INFRASTRUCTURES & SPACE.

MOBILITY & INFRASTRUCTURES.

"The modern individual is, above all else, a mobile human being."
(Sennett, 1994 via Cresswell, 2006, p. 15)

Mobility is an essential element under consideration in this thesis. Mobily as an theoretical concept possesses a prescient critical ability to uncover the meaning of forms of mobility such as light rail to different actors, in addition to inherent power dynamics present in its discursive and physical construction. The *mobilities turn* or *mobilities paradigm* is a sociological approach sensitive to the role of movement in society (Kaufmann, 2002; Cresswell, 2006; Sheller & Urry, 2006; Urry, 2007; Elliot & Urry, 2010). This approach contests the notion that mobility is *derived demand* (i.e. that the demand for mobility has its origins in the need to reach locations; Van Wee, Annema & Bannister, 2013), inviting us to pay attention *beyond* the physical aspects of movement and consider the economic, social and cultural organisation of distance (Urry, 2007, p. 54). Mobility is "imbued with meaning and power" (Cresswell, 2006, p. 3) cultural and social significance and ideology: *"All movements in space made by human beings are considered to be mobility; and all are considered as social constructions"* (Pucci, et al, 2015, p. 5).

Cresswell (2006) invites us to understand mobility as socially constructed through three constitutive and relational elements:

I. The empirical observable *brute fact* of physical movement.
II. As representational ideas of mobility embedded within practices.
III. As embodied practices (experiences) of mobility itself.

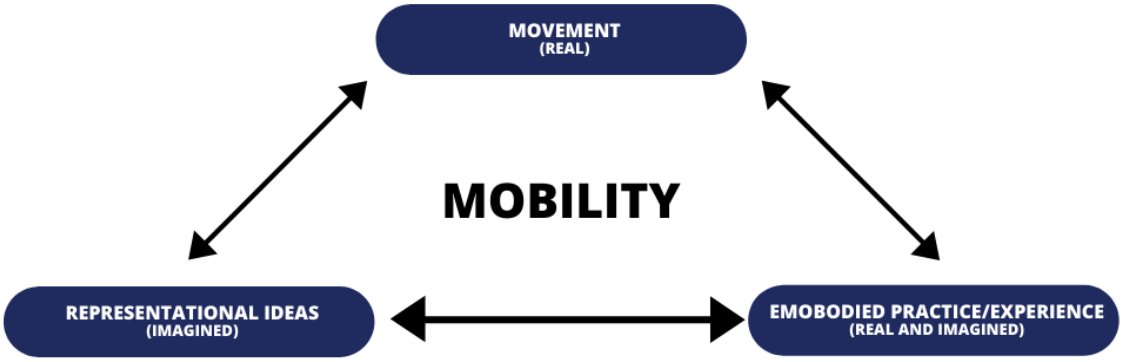


Figure 1: Cresswell's (2006) co-constitutive and relational elements in the construction of mobility (Own representation)

In attempting to understand the meaning of transport and its infrastructure, it is necessary to first uncover the significance the *brute fact* presents, the ideas this form of mobility represents, the possibilities it holds – economic or urban development, etc. – but also the ideas embedded in that mode of transport - freedom, beauty, etc. – through the experience of it. These ideas are affected by the broader social relations through which they develop, but also the social relations they (may) present, all existing within an intricate dynamic affecting and changing one another. This alludes to the social embeddedness and interplay of the technical artefacts through which mobility is performed in modern society: Social roles, institutions and practices which have been spawned by modernity give technical materiality its utility, appeal and meaning (Jasanoff & Kim, 2015).

TYPES OF MOBILITY	EXPRESSED THROUGH…
Brute Fact of Movement	Times, speed, frequency, distance, observable…
Representational ideas / Meaning	Planning, order, narratives about, discourse…
Embodied Practice / Experience	Emotions, feelings, practice, and performance…

Table 1: Relational and dialectic elements in the construction of mobility and examples. (Own representation via Cresswsell, 2006)

Therefore, mobility becomes an analytical tool "characterising relationships between space and social practices" (Kauffmann, 2002 via Pucci *et al.*, 2015, p. 6). It offers the possibility of *reading* a society through analysing the physical, spatial and institutional iterations of mobility and its construction (Kaufmann, 2014). Mobility, its capacity and potential – known as *motility* or "the capacity of entities to be mobile in social and geographic space" (Kaufmann, Bergman & Jove, 2004, p. 750) - offers us a prescient idea in the relationship of society to mobility, raising questions of *network capital* and privilege in the capability to be mobile (Elliot & Urry, 2010). Differential access to mobility and its infrastructures can amplify pre-existing disadvantages and differentials leading to geographical polarisation based on the degree to which these spaces are attractive to global and dynamic flows. This produces a vicious cycle where v*alued spaces* become hyper-connected at the expense of those previously disadvantaged spaces (Graham & Marvin, 2001).

> "*It cannot be denied that the creation of particular mobility systems and infrastructures, their connections to sites in the city, and not least the conditions of their accessibility –*

> *money, skills or other stratifying elements – determine the scope of how one's life can be led in the city and under what circumstances"* (Richardson & Jensen, 2008, p. 221).

Mobility is constructed through discursive dynamic interactions as outlined above. Technical infrastructure, the physical structure through which social flows are achieved, is, like mobility, socially produced (Star, 1999; Graham & Marvin, 2001). Infrastructure is culturally constructed, selectively assembled from the resources present in society. The variations in infrastructure exhibit the various contextual social, political, and economic arrangements (Hughes, 1987). Infrastructure networks are "materialised social relations" (Krisch & Suitner, 2020, p. 52) with their development depending on contextual place-based conditions including its techno-structures and built environment in a city, geography, resource availability and demand structures; the values, vested interests and established practices of local system builders; the regulatory systems and urban *political culture*; and local epistemic cultures, global flows of knowledge and development capacities.

Infrastructural networks are complex socio-technical configurations with far-reaching spatial and temporal dissemination which "guide and facilitate urban functioning and urban life in a multitude of ways" (Tarr & Dupuy, 1988, p. xiii) determining the figurative and lived city through enabling and mediating social and material flow, movement and exchange within and between localities and scales. They are the backbone of urban economic and social life, determining the functionality and performance thereof, composed of technical physical artefacts, but also complex social arrangements (Hughes, 1987). Technical infrastructures give access, connect, and integrate area. It is the organisational structure and facility governing the *space* of everyday life (Easterling, 2014) involved in "the social production and reconfiguration of urban space" (Graham & Marvin, 2001, p. 30). Infrastructure is the precondition and result of interactions between spatial, temporal, and social layers and one of the most effective mediums to access and give order to spaces.

Mobility and its infrastructure are often considered within policy and planning measurable to their benefit to society and in response to future contextual challenges (Cervero *et al*., 2017). However, 'policy' cannot be considered to be entirely value-neutral nor apolitical, but rather contested and shaped through a complexity of socio-political processes. From an institutionalist approach, it is understood that these challenges, and the choice of

interventions, is a result of an institutionalisation process, whose practices and discourses temper and influence actions and results (Sørensen, 2015, 2017). Infrastructural interventions are often obscured through technical and technocratic organisations, "legitimising technologised planning visions" (Krisch, 2020, p. 52). This favours interventions designed to meet demand through network improvements, basing these interventions on moving travellers as fast as possible through increasing speed and efficiency and reducing delays (Boisjoly & El-Geneidy, 2017). This approach in transport planning is termed *movement paradigm* herein and often emphasises a 'rational' or 'politically-neutral' response in interventions, leading to this demand-oriented movement paradigm.

SPACE & MOBILITY

As the previous section demonstrates, the production of mobility is inherently connected to socio-spatial production. Space is "is at once a precondition and a result of social superstructures" (Lefebvre, 1991, p. 85). Spatial development is then understood as a dialectical intersubjective relational process, achieved through social and networked interactions and understood through these. The social world is socially constructed and contextually created and can only be understood through these contextual understandings. It is necessary to delineate Spatio-temporal understandings and conceptions in order to investigate socio-spatial constructions of space, mobility and infrastructure.

Mobility and the infrastructure that support it are socio-spatial phenomena which are "also part of the process of the social production of time and space" (Cresswell, 2006, p. 5). Understanding space and its 'production', therefore, requires a substantive approach to its social, spatial and temporal aspects. The *mobilities paradigm* owes itself to the *spatial turn* in social theory which began with Henri Lefebvre's *Le Production de l'espace* (1974; 1991) (Sheller, 2017). This rejects the Euclidean conception of space as ''an entity in itself independent of whatever objects and events occupy it" (Agnew, 2005, p. 83). Space is physically lived, analytically conceived and culturally perceived (Davoudi & Strange, 2008), its properties are relational "and the position of any object is to be given in terms of its relation to any other objects." (Scruton, 1996, p. 362).

Lefebvre (1991) regarded space as existing within a tripartite dialectical relationship of:

I. *spatial practice* (perceived space).
II. *representations of space* (conceived space).
III. *representational space* (experienced/lived space).

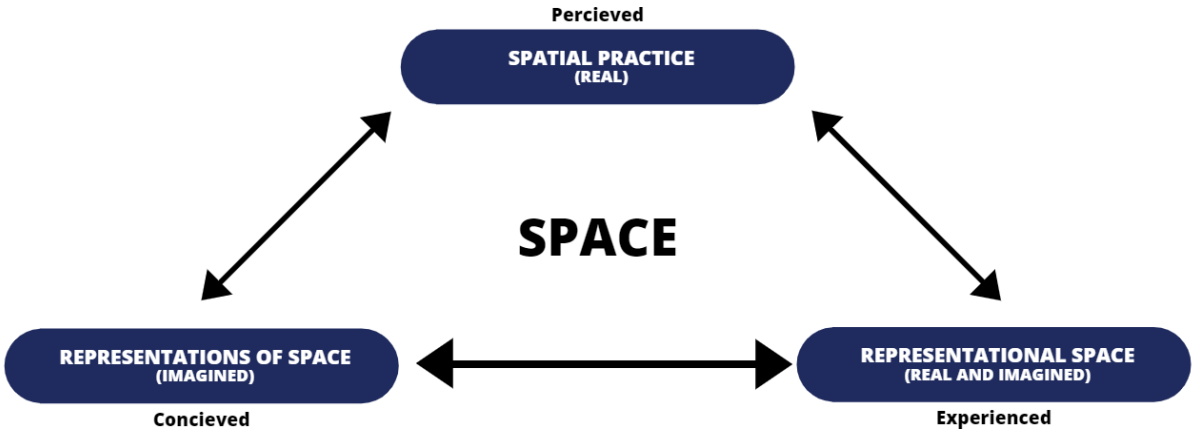


Figure 2: Lefebvre's (1991) tripartite dialectical construction of space (Own representation)

Spatial practice relates to the concrete actions and interactions within space, comprised of constellations of networks facilitated and supported by investment in the built environment forming the urban fabric defining the "material framework of daily activities and routines, the constraints and options people have in daily life, and the access to all sorts of material and social resources." (Schmid, Karamann & Hanakata, 2018, p. 29). *Representational Space* refers to the sociological subjective interaction with space related to socialisation and learned processes of urban experiences and everyday lives.

Representations of space are the various ways in which space is presented in society, the physical representations of it on maps, but also the performative future-oriented and imagined representations of it which exist. It relates to the various forms of regulations, representations, theories, rules, governance and strategies of space via several scales. It is complex and contextually specific involving relations leading to social constellations which pose questions such as "what are the power relations between various state agents, institutions, and social networks in terms of rules and regulations? What conceptions and representations of space and what kinds of urban strategies dominate the debates and how does the practical implementation of planning proceed?" (Schmid *et al.*, 2018, p. 30).

While one moment can be focused on in an analysis, these are dynamic and relational and *"contribute in different ways to the production of space according to their qualities and attributes, according to the society or mode of production in question, and according to the historical period*" (Lefebvre, 1991, p. 46).

PRODUCTION OF SPACE	***SPACE AS…***	***CONSTRUCTED THROUGH…***
Spatial Practice (Real)	Perceived	Daily Routines
Representations of space (Imagined)	Conceived	Planning, order
Representational spaces (real and imagined)	Experienced	Cognition, symbols

Table 2: Lefebvre's tripartite construction of space (Own representation via Lefebvre 1991)

Harvey (2006) develops on this, emphasising the importance of temporality in the production of space: it "is impossible to understand space independent of time […] and this mandates an important shift of language from space and time to space-time or Spatio-temporality" (*ibid*, p. 272). Urban processes "actively construct space and time and in so doing define distinctive scales for their development." (Harvey, 1996, p. 53). These processes consist of social and relational interactions and it is through the understanding of the social practices and interactions creating, existing within and emanating from space which give meaning to it: *"*[…] *there are no philosophical answers to philosophical questions that arise over the nature of space - the answers lie in human practice"* (Harvey, 2009, p. 13).

2.2 IMAGINARIES, POWER & LIGHT RAIL.

"It is the images of the future that shape present decisions."

(Beckert, 2013, p. 221)

As outlined in the previous section, the socio-spatial production of mobility and its infrastructures are shaped through relational and dynamic interactions. Representations are key in the socio-spatial construction of space, achieved through imaginaries. Imaginaries shape mobility and its infrastructures, in the same vein, that imaginaries are shaped by the idea of mobility and its infrastructures and their implicit or explicit value within society. Imaginaries are discursively shaped, underlying social constructions of space and mobility through shaping collective understandings and representations of space. Discursive practices are shaped within an institutional framework through power relationships. This section will discuss imaginaries in relation to power.

IMAGINARIES & POWER

"All forms of representation are abstraction from reality which bring some aspects forward to the attention and leave some in background or eliminate them completely."

(Peattie, 1987, p. 112 via Davoudi, 2012, p 438)

Imaginaries contain multiple definitions within the literature. Broadly conceived, imaginaries are defined as "a simplified, selective representation of a far more complex reality" (Harrison, Fedeli & Feiertag, 2020, p. 137) often consisting of discursive framings – *smart city*, *resilient city*, *world city, etc*. (*c.f.* de Jong, Joss, Schraven, Zhan & Weijnen, 2015) - or spatial framings – such as spatial visions of areas and a (re)imagining of forms and functions (Ong, 2011) – in spatial planning. They are discursive formations, socially created ideas structuring how certain topics are understood and discussed (Sharp 2009, p. 19).

Spatial imaginaries are "deeply held, collective understandings of socio-spatial relations that are performed by, give sense to, make possible and change collective socio-spatial practices" (Davoudi, 2018, p. 101) and can exist alongside other possible imaginaries, including economic, political, social and ecological imaginaries (Sum and Jessop, 2013). The Netherlands' *Groene Hart* (a sparsely populated area within the Randstad, which became a planning concept within which residential development was discouraged), for example, is a strong normative and spatially anchored imaginary within Dutch policy discourse, ostensibly guiding and directing planning and development (Van Eeten & Roe, 2000). *Sociotechnical imaginaries* are "collectively held, institutionally stabilized, and publicly performed visions of desirable futures, animated by shared understandings of forms of social life and social order attainable through, and supportive of, advances in science and technology" (Jasanoff & Kim, 2015, p. 4).

Imaginaries are mobilised within policy circles due to their ambiguity and fluidity in interpretation (Hincks, Dea & Haughton, 2017) allowing the construction of particular readings and/or solutions which can assist in the coalescence of adversarial interest groups (Sum & Jessop, 2013). They represent an act of *claims-making,* "a form of targeted simplification that benefits particular stakeholders by defining the city around sites in which they are invested" (Lauermann, 2016, p. 77). Spatial planning often strategically simplifies form and processes in order to define and mediate solutions, but this must be considered to be an act of *claims-*

making, which is "intentionally simplistic and acts as an ideological practice for justifying urban development projects" (*ibid.*).

Imaginaries help shape material practices through their circulation and embodiment, materialising into geographies when actors act in relation to, and through, such imaginaries. They spread ideas about the objects considered, linking themselves to socio-spatial orderings and *othering* – marginalisation of competing ideas and interpretations of *reality* (Watkins, 2015). They can become *naturalised* through this action and interaction, via images (Said, 2003), verbal communication (Wetzstein, 2013) and embodied in material practice, such as with the case of the *Groene Hart*.

Watkins (2015), reviewing academic conceptions of *spatial imaginaries*, identifies three different idealised analytical types: *place imaginaries*, *idealised spaces*, *spatial transformation imaginaries*. *Place imaginaries* communicate ideas about a broad variety of phenomena supposedly characteristic of that place. *Idealised spaces* are descriptions of kinds of places, specifically general stories about their universal characteristics which can be positive or negative. These become incorporated into future-oriented visions, where mobilised idealised imaginaries idealise certain place traits, which manifests in a corresponding drive to materialise these. Place and idealized space imaginaries often include narratives of how places have, should, or deterministically will evolve through processes of *spatial transformation*. All three present a different type of story and are disseminated as simplifying arguments, *othering* "nuanced or competing interpretations of the past, present, or future" (*ibid*, p. 514). All are produced dialectically and relationally in specific *space-times* which can reveal how deterministic ideas shape space. It assists in assessing the presence of certain socio-spatial anxieties, and how they shape the way specific actors imagine geographies (*ibid*).

IMAGINARIES	***AS…***
Place Imaginaries	Communicate 'characteristic' ideas about place
Idealised Space	Descriptions of place, positive or negative
Spatial transformation Imaginaries	Ideas of "what should be", sense of inevitability

Table 3: Watkins (2015) idealised variation of spatial imaginaries

Imaginaries, as representations of space, are '*representative*', signifying ways of communicating and thinking about space (Said, 2003). Imaginaries are also '*performative*'; "stories and ways of

talking about places and spaces that transcend language as embodied performances by people in the material world" (Watkins, 2015, p. 509). They are "a medium through which social relations are both reproduced and changed" (Martin & Simon 2008, p. 284) and perform "the future in the present, and by doing so they essentialise a specific imaginary of urban futures which has material consequences for how cities are planned, redeveloped, invested in and reimagined" (Davoudi, 2018, p. 103).

In assessing their '*performativity*', the concept produces a prescient analytical tool in understanding the interaction with social relations and material practices. It draws attention to actors' agency in developing and shaping imaginaries not only in language, texts and images but also through *living*, *citing*, and *reiterating* them (Watkins, 2015). Thus, it is possible to empirically verify imaginaries in material practices, which can be in the form of "continuous, repeated practices […] circulated through representation" (Watkins, 2015, p. 518).

The inherent selectiveness of different imaginaries in representing reality renders imaginaries deeply political. They are often "masked in the processes of de-politicisation, in which dominant imaginaries are essentialised and naturalised" (Davoudi et al., 2018, p. 98). "Power defines reality" (Flyvberg, 1998, p. 227) and imaginaries are purposively mobilised in order to establish political consent and depoliticise planning processes (Davoudi and Strange, 2009; Olesen, K. and Richardson, 2011) or avoid and camouflage conflict (Van Duinen, 2015).

This raises questions of power. Power in spatial planning is understood in instigating, mediating or restricting processes of change of space, or the use or modification of resources that are of shared interest. Through claims-making and selective representation of what should be, imaginaries present and favour certain future orientations. This means that the uneven capacity to produce, distribute and sustain certain imaginaries, while backgrounding alternative visions, can be viewed as a form of power. Delineating power in spatial planning draws attention to the distinction between c*ompulsory, structural*, *institutional,* and *ideational power*.

Compulsory power concerns relational interactions of direct control shaping the actions of another (Barnett & Duvall, 2005) – the ability to enforce decisions, typically understood to be based upon on material relations in addition to symbolic and normative ones (Barnett &

Duvall, 2005, p. 50) which can include values, attitudes and expectations (Dahl, 1968). *Structural power* is related to the capacity of actors in direct relation to one another (Barnett & Duvall, 2005), an understanding which is prominent concerning the power of actors in relation to policy, whereby governments are predisposed to adopt policies that promote firm investment (Cartensen & Schmidt, 2016). *Institutional power* is the control of actors over another through formal and informal institutions (Barnett and Duvall, 2005, p. 51), the *rules of the game*.

Ideational power is defined as "the capacity of actors (whether individual or collective) to influence actors' normative and cognitive beliefs through the use of ideational elements" (Cartensen & Schmidt, 2016, p. 320). It is an agency-oriented ability to problematise and provide a solution through the promulgation and possession of ideas, and is "a crucial power resource" (Blyth, 2001, p. 4). This concept gives agency to actors in their interaction when wielding resources and intuitional position, etc. These actors engage with their ideas and temper their interactions accordingly, (re)constructing the structures by which they may be constrained or appear to be determined (Schmidt, 2008). Three types of ideational power exist: *power through ideas*, the capacity of actors to persuade other actors to accept and adopt their views; *power over ideas*, the imposition of ideas and the power to resist the inclusion of alternative ideas; and *power in ideas*, the establishment of hegemony or institutions imposing constraints on what ideas are considered (Cartensen & Schmidt, 2016).

LIGHT RAIL

Light rail is, in many ways, a complex form of mobility. In comparison to heavy rail, its lower floors and lighter weight allow for more efficient service and lighter (and cheaper) infrastructure. It can be developed in city centres, and its service can be denser in terms of time and space, with speeds and stop distances being flexible. Its speed makes it particularly suitable for connecting medium-sized cities with their periphery and "contributes to a more cohesive metropolitan district" (de Bruijn & Veeneman, 2009, p. 351).

As an idea, light rail has long been a symbol of progress, once "the urban mode of transport *par excellence*" (Culver, 2017, p. 22). A prominent form of mobility in the early 20th century, it declined in popularity due to the predominance and promotion of *automobility* and its attendant cultural values and the corresponding economic, industrial and political relations

surrounding it and its production (Urry, 2004). Light rail has experienced a revival in Europe since the first modern light rail system was opened in Nantes, France in 1985 (Olesen, M., 2014, 2016) with a corresponding wave of *streetcar* projects noted in the United States (King and Fischer, 2016).

Light rail's particular technical benefits are related to connectivity (increased speed of travel) and to accessibility (more stations dropping users closer to their destinations). While BRT (Bus Rapid Transit - a form of bus transport on dedicated roads) is argued to bring higher performance at a lower cost, this has been contended by reviews which state that there is "*no meaningful difference in the capital expenses per passenger miles between cities choosing to invest in bus rapid transit facilities and those investing in light rail transit facilities*" (Thompson & Brown, 2010, p. 32). BRT is also argued not to bring the accessibility benefits on the regional scale due to the lack of stops and transfer opportunities (*ibid.*). Additionally, *"one of the important arguments justifying a light rail solution is the urban development potential that the dedicated infrastructure holds"* (Olesen, M., 2014, p. 37). By representing a permanent investment in the built environment, it brings the potential to induce residential and economic growth (Cervaro, 1984), bringing attendant transit-oriented development.

Therefore, light rail and its infrastructure are argued to be more than just *simple pieces of infrastructure* but rather "complex urban development projects (Olesen, M., & Lassen, 2016) where socio-political goals, such as economic development and city marketing, often take precedence over technical ones (expedited movement, *etc*.) (Olesen, K., 2020). Light rail infrastructure projects are often to be understood in the context of *image-led* planning (Higgins & Kanaroglu, 2016), used "as a means of re-envisioning the city" (Olesen, M., 2014, p. 11). Its development generates "a sense of place associated with modernism, prestige and the future" (Knowles & Ferbrache, 2016, p. 433). Light rail projects shape imaginaries about the city (Ferbrache & Knowles, 2017) often being used to fit political projects (King & Fisher, 2016). Therefore, light rail and the discursive practices which surround it, offers an excellent case to study in the construction of mobility and imaginaries due to the attendant values it embodies.

In discussing the desired and attendant development goals of light rail, a discussion of different *national light rail practices*, or *light rail models,* is instructive. The '*French model*' uses light rail projects as a tool in urban redevelopment and design, being associated with a spatial

redesign vision, in which the light rail corridor is transformed in totality. The '*German model*', in contrast, is associated with general urban development while the '*UK model*' is said to be more closely comparable to a "heavy metro system" (Olesen, M., 2014). These different 'models' of 'light rail emphasise the different situated social relations and material practices which produce light rail and the specific goals and rationalities surrounding these infrastructural projects.

While the reduced cost of construction and operation is often the perceived preeminent motivation in pursuing light rail investment, Bruijn and Veeneman (2009) argue that previous decision-making regarding light rail investment is economically irrational and that it *should* not be based solely on the performance of the transport technology itself, but rather the wider picture, and as a tool in improving regional transport options. Its widespread adoption throughout Europe is often based within this conception of light rail within the *wider picture* (Olesen, M., 2014).

In Denmark, for example, the city council of Aalborg had ambitions to transform the urban economy in response to industrial decline, a transformational imaginary operationalised through, and tightly coupled with, light rail infrastructural development. Light rail had been promoted through a persuasive narrative of the city transforming from an industrial to a 'knowledge' and 'culture' city (Olesen, K., 2020). It presented itself as the 'growth dynamo' of Denmark, with a corresponding 'growth axis' metaphor and spatial imaginary to act as a shared frame of reference, which was crucial in mobilising attention and support for the transformation agenda. The spatial imaginary's clear, concise, and simple message was important for gaining political support and revitalising political interest in Aalborg. A light rail transit system proposed was (re)framed within the concept of the 'growth axis', providing an '*infrastructural anchor*' for the 'growth axis' concept (*ibid*.). The imaginary of the city as the 'growth dynamo' of Denmark constructed a logic which linked itself necessarily with the realisation of the light rail project. It strategically simplified the justification, embedding it within the project which justified the complete urban development project.

Therefore, light rail projects, and the idea of light rail, can be understood as strategic spatial planning tools, boosting the image of the city while simultaneously assisting in urban, and national/regional, development goals (Ferbrache and Knowles, 2017; Higgins and Kanaroglou,

2016; King and Fisher, 2016; Olesen, M., 2014; Olesen, K., 2020; Marshall, 2013). They are mobilised through *performative imaginaries*, in response to contextual challenges, through an understanding of their attendant features and values, defined by the social relations which surround them. These social relations rationalise the possibilities through a network of capabilities, defined by power, tempering the idea of *what can be done*.

2.3 SPATIAL PLANNING AND GOVERNANCE

Imaginaries are central to the act and institution of planning. They assist in coalescing and steering networks of actors towards defined goals. Power is often present in forming and steering these networks. However, these power relationships are also shaped by the institutional settings under consideration, that is the regulative, normative, and cognitive rules and ideas surrounding action. Therefore, it is necessary to further explore the role of strategic spatial planning and governance and its relation to the dominant production of different imaginaries.

Spatial planning combines multiple, overlapping policy processes, pursuing multiple objectives and rationales, employing certain doctrines or paradigms concerning spatial patterns, future developments, and the longer-term legitimacy of planning action (Othengrafen & Reimer, 2013). It describes "a way of connecting planning knowledge and forms of action in the public domain" (Friedmann, 1993 via *ibid.*, p. 1269). It is "a set of governance practices" (Healey, 1997), an act of *strategic framing* (Healey, 2007, p. 2009) and a means by which certain *imaginaries* are *performed* (Murdoch, 2006, p. 156), legitimising certain specific future-orientations (Davoudi, 2015). Thus, imaginaries are an important principle within the planning domain.

Strategic Spatial Planning is a cooperative approach developed during the 2000s reflecting the reorganisation of the state, market, and society (Faludi, 2000). It provides a framework for accommodating project development and traditional planning approaches, characterised by an integrative and development-oriented approach (*ibid.*). Plans function to orientate, coordinate and motivate, providing a connection between different thoughts and ideas, based on synergies, interconnections, and intersectional implementation (Krisch, 2019). It is a form of *governance*, which can be understood to be a routed in a fundamentally normative

conception of governance; a set of rules and processes (Peters & Pierre, 2012; Obeng-Odoom, 2012).

As a normative idea, it attempts to produce collective, and collectively defined goals (Peters & Pierre, 2012) via a web of relations through political and administrative processes, often described as *good planning* (Nuissl & Heinrichs, 2011). It is entirely context-specific, with various institutional, economic, and political variables (Kearns & Paddison, 2000; Peters & Pierre, 2012). Governance operationalised through spatial planning can be considered as *the will to order* (Jensen & Richardson, 2004) *what can be done,* in the face of uncertainty, risk and complexity of future trajectories. Planning and its processes attempt to reduce socio-spatial complexity and are "the precise means by which rationalities can be implemented in practice" (Murdoch, 2006, p. 44).

The metropolitan scale is considered one key coordinative scale in dealing with contemporary planning problems (Galland & Harrison, 2020; Lester & Reckhow, 2012). The creation of governance networks at the metropolitan scale entails a strategic reorientation of state, province and local actions and policies. Multi-level governance (MLG) or "the dispersion of authority away from central government" (Hooghe & Marks, 2001, p. 3) is a simplified notion of pluralistic and dispersed policy-making activity, where multiple actors participate at various levels. It implies the mobilisation of a network of actors in response to modern problems (Aalbrechts, 2013). The network of actors, arguably, reflect power and resource imbalances which can be reflected in the "framing" of imaginaries, and indeed the problematisation of the issues in congruence to the powerful actors' concerns (Flyvberg, 1998). This framing of issues is often achieved through formal organisational and legal rules and procedures in addition to the informal norms, values and ideas which govern problematisation and action (Healey, 2004). Governance networks are a complex interactive process with an institutional structure of patterns and rules, within which interaction takes place. These spatial orders do not match the dynamic reality of social and spatial interdependencies. The allocations inevitably lead to some places gaining priority for future development and investment due to the political nature of these allocations and their social implications. Knowing the network of these orders is crucial to understand how network processes evaluate and to apply network management through the institutional frame.

Planning has an inherently normative orientation, delineating and defining future-orientations and what is to be considered progress within the relational, networked and institutional interaction of what constitutes good planning. Imaginaries are a key part of planning's function within governance. Governance, itself, incorporates multiple actors, interests and institutional settings which influence imaginaries and the planning of mobility, therefore influencing what is achievable and what is considered to be good to be achieved. It is, therefore, important to identify the (institutional) setting of governance and evaluate its effects in terms of the production, and effects, of dominant imaginaries.

2.4 THE SYSTEM AND CULTURE OF PLANNING

Spatial planning as a form of governance in any environment is tempered by institutional systems and cultures which contextually exists. Therefore, it is necessary to outline this and its effects on decision-making and imaginary construction overall. The concept of *planning doctrine* was introduced by the Dutch academic Faludi, to conceptualise and attest for spatial planning in the Netherlands (Roodbol-Mekkes, van der Valk & Korthes Altes, 2012). The *planning doctrine* considers "the ways, both formal and informal, that spatial planning […] is conceived, institutionalized and enacted" (Friedmann, 2005, p. 184). This focuses on institutional, legal, and administrative contexts in order to create contextual typologies of planning.

The Dutch spatial planning system, i.e. its organisational context as a social system of interlinked organisations, enjoys an almost mythical status in academic literature (Hajer & Zonneveld, 2000). The successful implementation of various *imaginaries,* such as the *Groene Hart*, are argued to attest to its capacity and success (*ibid.*). It is argued to be a system reinforced by this success narrative, driven by the modernist belief of a *scientifically prescribed ideal spatial organization* (Van Assche, Beunen & Duineveld, 2011). While it was considered to be a system open to the wider public, beyond the technocratic sphere of the planning community (Kunzmann via Roodbol-Mekkes, *et al.*, 2012), critiques have defined it as a costly and expert-driven system which depoliticises spatial development (Van Assche, *et al.*, 2011). Spatial interventions are argued to be legitimised through self-legitimising and self-reproducing problematisations and prescriptions:

> *"The answer to planning problems is more planning, and this necessitates the constant finding [and hence discursive creation] of planning problems […] These legitimisations occur through performative analyses of successes and failures, which serve to reaffirm and reinforce the spatial planning system itself, in addition to specific trajectories"* (*ibid.*, p. 579).

As a social, interactive, and relational activity, spatial planning is dynamic and specific to local (cultural) contexts (Othengrafen & Reimer, 2013), as are the definition of issues and objectives and the attendant norms, strategies and instruments. Therefore, the concept of *planning culture* which focuses on the deeply embedded local cultural aspects of planning and its associated political, professional, and administrative cultures and structures is relevant. It relates planning to the wider culture of society (and its desires) offering a conceptual frame to approach and analyse local ideas about *good planning* which guide planning practice in a specific local context (Roodbol-Mekkes, *et al.*, 2012). This produces *traditions* or styles of planning related to the different distinctive sets of practices, particularly policy responses and instruments.

Due to the increasing complexity in governance networks and their features as they relate to spatial planning, it is argued that *planning culture* is more relevant (Roodbol-Mekkes *et al.*, 2012). The situated idea of 'good planning' coalesce the many actors involved in the process of planning, uniting and consolidating their problematisation and future-orientations. This focus allows research to discern the "implicit assumptions, doctrines or ideologies of planning" (Allmendinger and Gunder, 2005 via Roodbol-Mekkes *et al.*, 2012, p. 379). This can be utilised in order to uncover power relations veiled behind consensus - often critiqued as *illusory* or *shallow* concealing, repressing and othering differences (Sage, 2009 via Roodbol-Mekkes *et al.*, 2012).

The planning system and its organisational features emerged due, and in response, to the specific contextual structures. The Netherlands is a *decentralised unitary state*, based upon the notion of *co-government* between the levels of government in the formulation and execution of policy (Zonneveld & Evers, 2014). Policymaking in the Netherlands concerning transport is claimed to revolve around three linked concepts (Alpokin, 2010): *Polderen* (Polder-Model);

Decentralise if possible, centralise if necessary; Transparency. These are normative ideas which are present in the policy-process of the construction of imaginaries.

The cultural concept of the *polderen*, or polder-model, organises social relations around consensus building. It is argued to be *diagonal policymaking,* originating from the economic crisis experienced in the early 1980s, where cooperation and consensus between capital, labour, and the government were deemed necessary for economic recovery (Schreuder, 2001). The name refers to the predominant physical feature of the country - low-lying reclaimed land protected by dykes – reminding us of the oft-repeated quote *God created the world, but the Dutch created the Netherlands*. This is argued to be the *essence of Dutch culture and tradition* creating a *moral geography* where principles of self-reliance, consensus, cooperation, and trust prevail in response to crises of common interest (Schama, 1988 via Schreuder, 2001). Related to the above, lower authorities are given authority to develop and implement plans independently while the central government takes responsibility concerning large infrastructure projects and setting strategic policy targets (outlined in Section 4.1 Organisational Context of Light Rail). While, the system works well for the central government, its effectiveness is questionable (Alpokin, 2010). The tax structure is particularly centralised in the Netherlands concerning transport planning – receiving incentives through transfers and subsidies. While this arguably increases cooperation among the tiers of government, this also limits the effectiveness of decentralisation efforts particularly in relation to meeting local needs (*ibid.*). When constructing planning policy all levels are required to submit plans for comments from the relevant and affected organisation and authorities. This produces a lengthy process, where land speculation possible. Responses from each level are collected for approval by the lower house of parliament which continues until an amenable decision for all is made and can be frustrated through recourse by any actor (*ibid.*).

2.5 RESEARCH QUESTION

The central research question of this thesis is:

What is the role of imaginaries in shaping regional light rail development in the metropolitan area of Amsterdam?

This thesis interrogates and interprets the dynamics behind the co-constitutive processes of discursive practices (imaginaries) as situated within institutionalisation processes surrounding light rail development. It uncovers the rationales and justifications in the presentation of policy and programmatic problematisations, tempered in their success through deep-seated philosophical ideals, both of which can stabilise the institutional order. This thesis explicitly considers the metro in its analysis and, therefore, a definition of light rail as *a rail-bound form of public transport, including trams and metros, which is used on the scale of the urban region and the city* is used. This question aims to understand what conceptions of light rail exist, and the power-relations surrounding them. The research will explore this question through three specific objectives:

I. Outline and explore the institutional context of light rail development.
II. Identify and examine the dominant *imaginaries* surrounding light rail investment.
III. Assess the role and the extent to which *imaginaries* shape power in decision-making and the reordering of institutional responsibilities.

METHODOLOGY

This chapter will first outline the analytical approach and also define the concept 'imaginary' as used in approaching analysis. This chapter will then outline the general research strategy used in empirical data collection, which will stipulate the criteria used in identifying 'imaginaries' and how an imaginary and non-imaginary are distinguished. Throughout, details regarding the methods and materials are provided - summarising strengths, weaknesses, validity, and reliability – in addition to a consideration of the positionality of the researcher.

The methodological approach seeks to critically analyse the dominant rationalities and justifications surrounding light rail between various actors in the metropolitan area of Amsterdam. This is a qualitative and interpretative exercise describing, explaining, and exploring the organisational and institutional context of public transport infrastructure in the metropolitan area of Amsterdam. This exercise additionally assists in understanding the power relations at play within the metropolitan area with regards to light rail infrastructure development.

3.1 ANALYTICAL FRAMEWORK

Spatial planning is dynamic, multilevel, relational, and contextual. It is "an active arrangement of the focus within frameworks of multi-actor and multi-governance" (Salet, 2018, p. 3). What is required in analysing planning is a relational analysis that undertakes "a radical contextualisation of the planning subject" (*ibid.*), or the "agency with planning powers" (Faludi, 2000 via Roodbol-Mekkes *et al.*, 2012, p. 382), i.e. the multi-actor governance arrangements. This creates possibilities in uncovering the rationales and justifications driving action, presenting the *meaning of action*. This *radical contextualisation* is achieved through the analytical framework as outlined below the *discursive institutionalism* approach, a constructivist ideational research approach.

Discourse is an internally consistent way of speaking and thinking about a topic (Putnam 1987; Jørgensen and Phillips, 2002). It is structured language, a "specific ensemble of ideas, concepts and categorisations that are produced, reproduced and transformed in a particular set of

practices and through which meaning is given to physical and social realities" (Hajer, 1995, p. 44). Discourse can be analysed to understand the world, and positions of actors within it, with the rules which constitute the social order being constantly reproduced and reconfirmed through and in discourses (*ibid*.).

'Imaginaries', like 'discourse', are discursively formed collective and systemic structuring practices. Likewise, imaginaries give meaning to space and social reality, structuring legitimacy, action, and interaction. However, imaginaries extend beyond discourses' focus on text, containing visual elements and "tackle head-on, and more symmetrically, the complex topographies of power" (Jasanoff & Kim, 2015, p. 22). Imaginaries present a sharper focus on performance and materialisation of practice in space due to imaginaries inherent normative and prescriptive focus as future-orientations. Furthermore, and in contrast to 'policy', imaginaries are useful in uncovering the underlying rationale and justification of future-orientations. Similarly, while 'plans' possess the intentionality of imaginaries, they are short-term and not considered to be the product of cultural values like imaginaries (*ibid*.). Following from theoretical definitions above, imaginaries in this research are considered to be *durable and long-term collectively held and institutionally stabilised visions of desired futures. They exhibit shared understandings of forms of social life and order and are performed by, give sense to, make possible and can change collective socio-spatial practices.*

Imaginaries are considered to be long-term development strategies. They are a future-oriented visions of socio-spatial relations, thus not only the physical aspects of space and mobility, but the social relations surrounding long-term development, such as liveability and 'city-building'. In this case, imaginaries are considered to be constructions of space and mobility surrounding light rail which is advocated by the tiers of governance. These are tempered by the socio-political relations present in the specific context. Imaginaries are combined with the analytical method of discursive institutionalism to uncover the rationales and justifications behind future orientations and uncover power-dynamics in construction and use of imaginaries surrounding light rail in the case.

The concept of *discursive institutionalism* serves as an approach to determine the institutionalisation of imaginaries as collectively held and institutionally stabilised visions of desired futures. This approach reveals how and when ideas (such as light rail) prevail by

focusing on agency within specific institutional relations. Generally, discursive institutionalism explains the "change and stability in planning policies, practices and institution" (Davoudi, 2018, p. 72). Therefore, the approach of this research is to utilise interpretative discourse analysis of future-oriented planning policies (imaginaries) related to light rail infrastructure development. This approach helps to uncover the formation of social, urban, and planning ideas and their transmission into material urban infrastructures.

Institutions matter in social and political processes. Institutions are defined as "the humanly devised constraints that shape human interaction" (North 1990, p. 3). They are either *formal* (rules, procedures and norms) or *informal* (values, conventions, codes of behaviour, *etc*.). They are multifaceted and durable, "made up of symbolic elements, social activities, and material resources" (Scott, 2001, p. 49). They are *regulative*, laws, rules and protocols which enable power relations; *normative*, norms and values which enable justification; and *cultural-cognitive*, internalised social messages such as meanings, ideas, and interpretations about the social world (*ibid.)*.

Institutions and discursive practices, such as imaginaries, are dialectically co-constituted. Imaginaries are operationalised through practices by actors rationalising their actions and desires. In spatial planning, this plays an important role in mobilising the attention of different actors within their institutional frames. By affording many interpretations, ideas often invite engagement, yet this flexibility can also become its greatest weakness. The tight coupling of imaginaries with technical infrastructure is often important for maintaining support for ideas and their success. Infrastructures, especially, afford specific imaginaries the ability to build the needed coordinative capacity to achieve shared desired outcomes across actor preferences. This is directly comparable to the examples of the projects used, where the light rail infrastructural connections are presented as being essential in allowing the various relevant actors to reach their strategic development goals.

An analysis of imaginaries in their institutional context is operationalised through this analytical method which provides a tool to investigate, uncover and understand the dialectical relationship of transport and discursive political practices within the organisational context of the metropolitan area of Amsterdam. This also allows the research to engage with the methods

in which imagination is enabled and constrained through the *interdependent webs of an institutional matrix* mobilised in transport planning.

Engaging with the 'interdependent webs of the institutional matrix' in this context, it is useful to discern certain 'coalitions' to assess how imaginaries affect decision-making. This is assisted through an adaption of Hajer's concept of 'discourse coalitions' (1995). This will determine the constituent actors of the coalition; the promulgated imaginary; the definition of this imaginary; and the practice through which it is institutionally stabilised. Imaginaries, and the actors which use them, must be understood in the context in which they exist and in which they are stabilised through specific institutional practices, which give meaning to future-orientations. This analyses social interactions, positions, and practices. Through conceptualising social interactions, positions and practices as coalitions, this enables the analysis of the rationales and justifications embedded within practices which determine imaginaries of the relevant organisations in the institutional context.

Within the discursive institutional approach, ideas are differentiated by type (cognitive and normative), level of generality (policy, programme, and philosophy) and form. *Background ideas* are widely held beliefs and courses of action, they are the core principles of governance and society. They guide action and interaction within the institutional framework "the unquestioned assumptions of a polity, the deep philosophical approaches that serve to guide action […]" (Schmidt, 2016, p. 320). They are at the deepest level of generality in terms of ideas and discursive practices, with the slowest rate of change. Policy and programmatic ideas are the *foreground ideas*, which often reflect or are infused by the background ideas. The *policy* level under consideration in this thesis is that of light rail. It is left for this research to discern the *programmatic* ideas which define problems, issues and solutions and temper realisation imaginaries and realisation of light rail. Institutions are constructed by networks of actors working within an institutional context. This approach assists in uncovering the ideas behind policy, drawing an understanding of the institutional blockages, lock-in mechanisms, and path dependencies which are rearticulated and embedded in institutions through discursive practices.

Discursive institutionalism offers a perceptive tool to uncover the effects of and the power-relations surrounding imaginaries within actor-networks. Imaginaries are future-oriented and

inherently normative. They are collective and performed products and instruments of relational processes of co-production between coalitions of actors in a specific institutional setting. They are tied to goals for society and designed to guide long-term action. Imaginaries are often tied to a specific element within society, which gives them a revelatory element in their use when engaging with light rail in this thesis. A graphic representation of the relationship between imaginaries and the concepts explored in Figure 3.

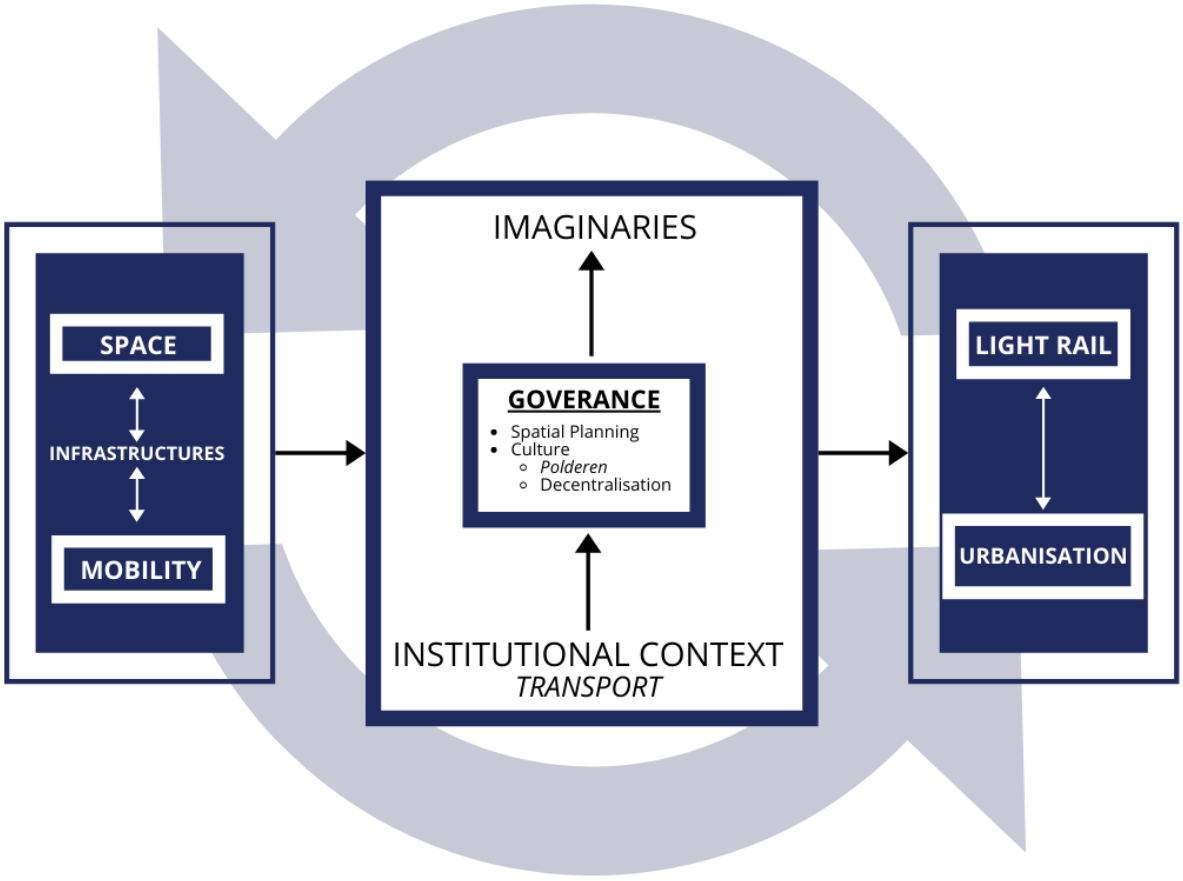


Figure 3: Relationship of concepts used (Own representation)

3.2 RESEARCH DESIGN

This research is an interpretive analysis of qualitative empirical data gathered with consideration to the aforementioned analytical framework and will structure the empirical data accordingly. It takes the form of a situated case study of the Amsterdam metropolitan area, assessing the construction of imaginaries and the power within the metropolitan scale, and considering the organisational governance structure as it relates to future orientations in light rail infrastructural development.

RESEARCH METHODS

To analyse and assess the imaginaries mobilised within the institutional framework under consideration, it is first necessary to understand the organisational network of actors. This will be achieved through of Koppenjan & Klijn's (2004) ten-step analytical approach for governance networks consisting of actor analysis; reconstructing problem perceptions; position determination; identification of relevant arenas; identification of rounds and reconstructing of actions; evaluation of process and outcomes; identification of network management attempts; identification of interaction patterns; identification of perception and trust; identification of institutional rules.

This approach is supplemented by an adapted version of Hajer's structured 'ten steps in discourse analysis' methodological approach (2006, p. 73-74), developing five steps:

I. Desk research.
II. Document analysis.
III. Stakeholder mapping.
IV. Interpretation of discursive field.
V. Interviews with key informants.

These steps offer an iterative approach in order to interpret the discursive formations surrounding public transport infrastructure in the Netherlands. This allows the analysis to provide insight into the relationship between actors, determine central actors and the institutional forces which determine relationships and interactions. Both methods mentioned above emphasise the 'settings' which regulate actions of actors and are, therefore, useful for the institutional analytical framework.

These methods were deemed most relevant to the questions under consideration due to the nature of Dutch planning and policy typified by coordinative and consensus-building interactions, which are a prevalent consideration in the metropolitan area. The steps are outlined below, with elaboration regarding the design the materials and methods used within each step, in addition to the strengths, weaknesses, validity and reliability.

I. Desk Research

Desk research entailed a general survey of academic databases (Scopus, WorldCat, GoogleScholar) to compile readily available literature related to the topics and theories under investigation. Additionally, appropriate future-oriented white paper documents from relevant organisations (political, governmental, and administrative) was sought and compiled. In order to assist with the quality and credibility of the information being researched, only published documents from relevant organisations was considered. These were found on their openly accessible databases, outlined in Table 4. The documents gathered are outlined in Table 5 below. Only the most recent documents were analysed, due to their relevance in structuring action, as older documents are subsumed and made irrelevant due to continually changing political and policy circumstances and requirements to create up-to-date and relevant analyses and prescriptions. Specific focus was paid toward future-oriented documents, particularly white papers such as *Struucturvisie* and *Omgevingsvisie*, which are required to be produced by all levels of government regarding their long-term future development requests.

In preparing an analysis to understand the social world within the case study area under consideration, a narrative literature review was carried out. This method allowed for the gathering of knowledge of others. Following this, an analysis of policy documents related to the case of light rail in the relevant actors for the case of the Amsterdam metropolitan area will be undertaken.

II. Document Analysis

Despite an encountered language gap, document analysis was a favoured mode of information gathering due to being more manageable and practical with regards access to material and data, particularly considering the COVID-19 pandemic. Document analysis is a process of "evaluating documents in such a way that empirical knowledge is produced, and understanding is developed" (Bowen, 2009, p. 33). Documents identified in the preceding desk research were analysed to identify structuring concepts, ideas, and categorisations as they relate to transport generally, and light rail specifically. This step attempted to understand the positions present in the policy which can affect the planning context of light rail infrastructure provision in the Netherlands, along with identifying the relevant actors and their interactions.

This assisted in identifying and defining the structuring ideas used in pursuit of transport infrastructure investment overall, and light rail infrastructure in particular.

The Structuurvisie and Omgevingvisie, legislatively required by governance actors of the Netherlands, gives a pre-ordained entry point in engaging with long-term visions in the case. The documents (see Table 5 below) offer an understanding/representation of the social world involving, why the plans were produced in the first instance and who the authors behind the plans are. These offer an understanding of the institutional context as it is understood by the participant actors - or how they interpret, problematise and find solutions for the built environment (Farthing, 2016).

More than one document from each of the organisational actors relevant to the case was analysed to assist with triangulation to corroborate findings across sources and, therefore, increase the credibility of the empirical information gleaned (Bowen, 2009). The authenticity of the documents was never in doubt due to the consistent publication of policy documents being made publicly available on the sites of governing organisations. A list of the websites used can be found below.

ORGANISATION	PUBLICATION PAGE LINK
Geemente Amsterdam	https://www.amsterdam.nl/
Gemeente Almere	https://www.almere.nl/
Provincie Noord-Holland	https://www.noord-holland.nl/Home
Provincie Flevoland	https://www.flevoland.nl/home
Ministerie van Infrastructuur en Waterstaat	https://www.rijksoverheid.nl/ministeries/ministerie-van-infrastructuur-en-waterstaat/documenten
Rijksoverheid (Central Government)	https://www.rijksoverheid.nl/documenten
Metropoolregio Amsterdam	https://mraduurzaam.nl/rapporten-en-onderzoeken/
Vervoerregio Amsterdam	https://vervoerregio.nl/

Table 4: List of organisations and corresponding links to their webpages where documents are publicly available for download.

While some relevant English language documentation was found, particularly from the city of Amsterdam and the central state, this was deemed insufficient to carry out a thorough analysis required of the research. Therefore, in exploring the content it was required to develop a dictionary of the most important words as they relate to transport and light rail and use a variation of a content analysis technique – whereby instances and occurrences of certain words

were sought, noted and the surrounding corresponding text translated via Google Translate. While the efficacy of this website may be precarious, the viability of all translations made and used was supplemented by assistance from the researcher's internship supervisors, who are native speakers, regarding specific contextual translations.

This initial method acted as a "first-pass document review" (*ibid.*, p. 32), identifying meaningful and relevant passages. In order to find the attendant *meaning of action*, the dictionary of relevant words was expanded with the reading of each translation, and a subsequent search of the corresponding document was made for these words. Multiple readings developed a collection of relevant and meaningful passages as they relate to these *meanings of action* within policy generally, and specifically regarding public transport and light rail infrastructure planning. This was particularly usefully in developing a broad contextual picture of the rationales and justifications behind public transport infrastructure provision from the various organisational perspectives. Additionally, this was useful in uncovering relevant relative interactions between the studied organisations, which assisted in constructing a stakeholder analysis (see step IV below). Subsequently, a thematic analysis of the collected passages was undertaken. This entailed categorising the various themes identified. The themes considered were understood to be related to the specific dictionary of terms used in the search and adapted accordingly. This categorisation assisted the researcher in building up an interview guide (see step V below).

DOCUMENT	AUTHOR	TYPE
Structuurvisie Amsterdam 2040 Economisch sterk en duurzaam (2011)	City of Amsterdam	Future Vision
Rijksstructuurvisie Amsterdam - Almere - Markermeer (2013)	RAAM: Rijk-regioprogramma Amsterdam - Almere - Markermeer	Structural Vision
Mobliteitsvisie Flevoland 2030 (2016)	Province of Flevoland	Strategic Transport Vision
Strategische Visie Mobiliteit (2016)	VRA	Strategic Transport Vision
Omgevingsvisie Flevoland Straks: Samen maken we Flevoland (2017)	Province of Flevoland	Structural Vision

Omgevingsvisie Almere: Structuurvisie Almere conform Wro (2018)	Municipality of Almere	Structural Vision
Een nieuwe lente en een nieuw geluid: Coalitieakkoord (2018)	Local political parties of Amsterdam: *GroenLinks/D66/PvdA/SP*	Coalition agreement
Beleidskader Mobiliteit (2019)	VRA	Future Vision
Toekomstbeeld Openbaar Vervoer 2040 (2019)	The Ministry of Infrastructure and Water Management	Strategic Transport Vision
Omgevingsvisie voor mobiliteit (2019)	Province of North-Holland	Future Vision
Startnotitie Omgevingsvisie Amsterdam 2050 (2019)	City of Amsterdam	Purpose Statement
Agenda Mobiliteit: Discussienota (2019)	Province of North-Holland	Strategic Document
Coalitieakkoord Almere 2020-2022: Eeen Frisse start (2020)	Local political parties of Alemere: VVD, D66, *GroenLinks*, *Leefbaar Almere*, *ChristenUnie* and CDA	Coalition Agreement
Nationale Omgevingsvisie (2020)	The Ministry of the Interior and Kingdom Relations	Structural Vision

Table 5: List of Documents Analysed organised by publish data specified by Authors and Type

III. Stakeholder Mapping

Through document analysis, relevant stakeholders of light rail investment were identified and analysed. A simple diagram of concentric circles was constructed in identifying core, direct and indirect stakeholders as they relate to two specific prospective light rail projects under consideration here, namely the NordZuidlijn extension, and the IJmeerverbinding. This assists in indicating and illustrating the relevant actors in the construction of light rail in the metropolitan area of Amsterdam. Additionally, it will assist in understanding the implementation of imaginaries' as they relate to light rail development. Analysing stakeholders focused on describing the characteristics, circumstances, and interests of stakeholders.

Additionally, an indicative 'power and influence grid' was created to assist in understanding the level of *power versus influence* of each relevant stakeholder affecting light rail in the case. Stakeholders' power and interest were identified as either "low" or "high", particularly making use of the typology of power found in the analysis. This method will assist in discerning the

influential actors beyond the scope of the case and assist in answering who is in control concerning the success of future imaginaries in relation to successful light rail infrastructural development.

IV. Interpretation of Institutional Context and Discursive Field.

Through document analysis, a provisional discursive order of imaginaries of the organisations in their interactions with light rail is defined. This is outlined in Section Multilevel Transport Imaginaries Section 4.3 below and in Table 9. Furthermore, this began the process of constructing the institutional context of light rail development. This utilised the "Building blocks of Discursive Institutionalism" as outlined in Krisch & Suitner (2020,p. 54), visually represented in Figure 4.

In order to interpret the institutional context, it is necessary to engage with the ideas, agents, discursive rationales and justifications surrounding these ideas, and realities of collective action. This uncovers the coalitions present surrounding the discursive construction of imaginaries, their foreground ideational abilities, and the structuring background ideas within the institutional context. The construction of this institutional context through document analysis is significantly assisted through Interview with key informants. The analysis contained within the construction of the institutional context was also revisited after the analysis of the interviews, in order to corroborate information.

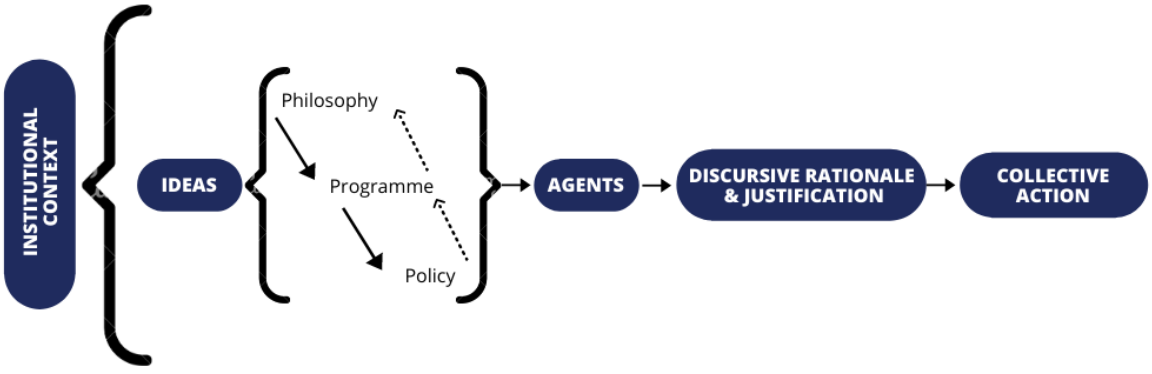


Figure 4: Building Blocks of Discursive Institutionalism (Own representation adapted from Krisch & Suitner, 2020, p. 54)

The policy idea under consideration is the developmental imaginaries of the actors within the metropolitan area of Amsterdam, particularly as they relate to light rail. Programmatic ideas

define problems and issues specifically and were understood to be coupled with developmental imaginaries which can include infrastructural development. These were encountered and interpreted through this analysis and engaged with more thoroughly in the interview process. Philosophy within the institutional context, while encountered through the conducted literature review, was engaged with directly in interviews, and interpreted thereafter. The documentary analysis step allowed the identification of the most relevant agents within the context of light rail infrastructural development, which was engaged more precisely in the interviews. The interpretation of the relevant actors within the web of relations surrounding light rail infrastructural development was assisted through the Stakeholder exercise described in the above step. In engaging with the discursive field, a mapping of the coalitions and the imaginaries and practices which they use was constructed (Table 10) uncovering the discursive relations which exist in and between actors. The exercise of interpreting and constructing coalitions allows a clearer interpretation of the collective action possible, and the potential resultant institutional blockages, lock-in mechanisms and path dependencies.

Imaginaries

For this study, the criteria in assessing imaginaries was predominantly concerning the time scale of the socio-spatial development, representing medium to long-term strategies. Delineating imaginaries as shared understandings of social life which give sense to collective socio-spatial practices, and particularly as durable visions, triangulation of these visions across documents and their interaction within the institutional context was vital. In the case of light rail development in the Amsterdam metropolitan area, this was particularly relevant due to imaginaries as institutionally stabilised. Non-imaginaries were those development visions understood not to relate to socio-spatial relations and considerations. This proved difficult in this case due to the ontological underpinning of this thesis being based within social-constructivism. However, those prescriptions relating to purely technical network improvements, such as technical upgrading of signalling *etc.*, in addition to short term visions, those of under 10 years, were considered to be non-imaginaries.

V. Interview with key informants

The research design is particularly complemented with key-informant interviews seeking to "obtain descriptions of the life-world of the interviewee with respect to interpreting the meaning of the described phenomenon" (Kvale, 2011, p. 51), i.e. the construction and influence of imaginaries among relevant organisations, and the power dynamics between these organisations.

This step entailed conducting semi-structured interviews with several knowledgeable actors with different positions and of different expertise from organisations identified through the preceding desk research and document analysis. Eleven actors were interviewed, consisting of members of policy- and decision-making fields (politicians, planners, civil servants) as well as professionals (experts, consultants) and one representative of a consumer-representative organisation (ROVER – the association for travellers). A full list of interviewees and their positions can be seen in Table 6 below. Initially, face-to-face interviews were to be the main method of information gathering, however, the outbreak of COVID-19 required the use of online integrated communication platforms, particularly Skype and Microsoft Teams, to carry out the interviews.

The interviews allowed the researcher to gain an overview of the domain of public transport in the case, particularly as it relates to infrastructure provision and the perceptions and interpretations of various sectoral interests, i.e. what are the rationales and justifications, revealing the circumstances of actions and values behind ideas and imaginaries. These interviews were also used in order to corroborate the information obtained through the preceding document analysis method. These actors are representatives of organisations involved in and relatively powerful in the creation of imaginaries. Similarly, they are aware and partaking of the underlying rationales and justifications in the creation of the various imaginaries which exist. These interviews took the form of a semi-structured *focused interview*, to allow for more flexibility, following the indicative interview guides as can be found in Appendix 1: Indicative Interview Guide. This entailed a more conversational style with open-ended questions to give respondents more options in responding and in the hope of eliciting impartial responses. Questions focused on the power-dynamics within the case, and the

construction and mobilisation of imaginaries as they were presented in various relevant and applicable documents.

Interviewees were requested to interview for 45 minutes to 1 hour and lasted, on (mean) average, 58 minutes and 33 seconds, with the shortest lasting circa 40 minutes, and the longest circa 1 hour and 20 minutes. Interviews were recorded (with permission) to allow for more consistent transcription (Creswell, 2012), and thereafter were manually transcribed and coded (see Appendix 2: Indicative Codebook using Microsoft Word software according to the identified discursive fields in addition to the key concepts under consideration by the research.

Generally, and like the limitations identified and confronted in the documentary analysis, a language barrier affected some of the fluency and ease with which the interviewees imparted their information. This would limit, in some cases, the ability to discern inferences or allusions to concepts, in addition to limiting information due to an inability to express themselves to the greatest extent verbally.

CODE	INTERVIEWEE	SHORT DESCRIPTION	DATE	MEDIUM	LENGTH
Ex-Civil Servant	Bart Teulings	Ex-program-manager *Schaalsprong Almere 2030* with the municipality of Almere. Planning Consultant.	23/07/2020	Skype	01:09:10
Civil Servant 1	Dirk-Jan de Vries	Coordinating policy officer for Public Transport and Rail in the Ministry of Infrastructure and Water Management.	05/08/2020	WebEx	00:52:57
Expert 1	Rob van der Bijl	Independent urban planner, researcher and consultant. Expert on light rail in the Netherlands.	19/08/2020	Microsoft Teams	01:11:01
Politician 1	Joeren Olthof	Deputy for Accessibility and Mobility, Environment, Quality of Life and Aviation with the Province of North Holland. Member of the MRA platform on mobility.	19/08/2020	Microsoft Teams	00:46:22

Expert 2	Marinus de Jong	Chairman of Amsterdam regional section with ROVER (The association of travellers of public transport)	20/08/2020	Microsoft Teams	01:08:32
Planner 1	Boris Buffing	Program Director of Almere 2.0 with the municipality of Almere	25/08/2020	Microsoft Teams	00:58:28
Civil Servant 2	Machteld Hooyman	Manager of 'Strategy, Quality, Organization & Resources' and *Programma Lightrail 2020 – 2040* with the Metro and Tram Department at Amsterdam	26/08/2020	Microsoft Teams	01:20:21
Civil Servant 3	Ruben den Uijl	Policy Advisor for Smart and Sustainable Mobility with the Province of North-Holland	27/08/2020	Microsoft Teams	00:58:38
Politician 2	Jan Hoek	Alderman for Sustainability, Mobility & Democratic Renewal at the Municipality of Almere. Member of the MRA platform on mobility.	28/08/2020	Microsoft Teams	00:40:08
Civil Servant 4	Robert Jan ter Kuile	Strategy Manager with GVB	28/08/2020	Microsoft Teams	00:42:38
Planner 2	Bart van der Heijden	Program director of Space & Economy cluster with the Municipality of Amsterdam	01/09/2020	Microsoft Teams	00:58:34

Table 6: List of Interviewees, information pertaining to them, the interview undertaken, and the codes as they appear in the following chapters.

3.3 CASE STUDY DESIGN

This section details the case under consideration for the empirical research. A case study is "as an intensive study of a single unit or a small number of units for the purpose of understanding a larger class of (similar) units" (Gerring 2004, p. 342). The aim is a "precise description or reconstruction of cases" (Flick 2014, p. 121), in order to be an "instructive example of a more general problem" (*ibid,* p. 122). Following on from social constructivist ontology, which

understands that is only possible to understand the situated *meaning of action*, a situated case-study allows an investigation of these meanings (Flyvbjerg 2006; Gerring, 2004). It allows the investigation to "retain a holistic and real-world perspective" (Yin 2014, p. 4) producing context-specific and dependent knowledge which is of "strategic importance in relation to the general problem" (Flyvbjerg 2006, p. 229).

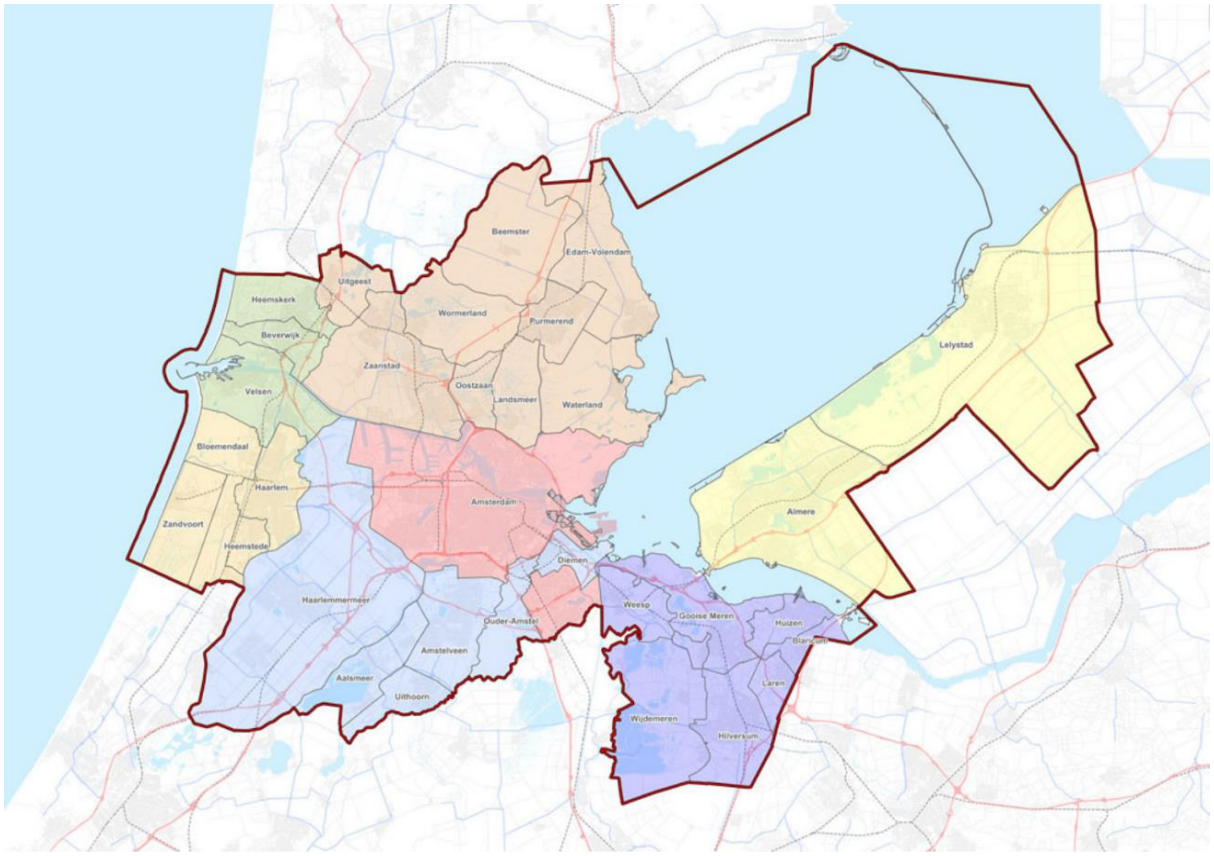
THE CASE

The case under consideration is the metropolitan area of Amsterdam, and metropolitan regionalism within that area. This thesis focuses particularly on Amsterdam as the predominant central actor of the region, Almere, and the other relevant constituent organisations of the metropolitan area in relation. It engages with two specific (prospective) regional light rail projects in order to engage with light rail imaginaries within the regional context. These light rail lines are the NordZuidlijn and the IJmeerverbinding. The specific 4.1 Organisational Context of Light Rail will be given in the first section of Chapter 4. The general context of the metropolitan region of Amsterdam and Almere will be given below.

The Metropolitan Area of Amsterdam

The metropolitan area, as defined by the borders of the MRA, has a population of circa 2.5 million inhabitants (Deloitte, 2018: see Map 3). The city of Amsterdam itself is the largest municipality in the Netherlands, with a population of 872,757 (Deloitte, 2020a). The modal split of transport movements within the city as defined by the borders of the VRA (Map 4) is found to be by 34% by car and 13% by public transport (*ibid*), and 42% by car and 19% by public transport within the metropolitan area (Deloitte, 2018).

Beginning in 1960, and in line with the majority of advanced capitalist countries, there was a flight of population, along with employment opportunities. This resulted in a population decline of 200,000 along with half of the employment opportunities in Amsterdam till 1985, with residents moving towards the suburbs or new towns (Musterd, Jobse and Kruythoff, 1991: Terhorst and Van de Ven, 1997). Beginning in the 1980s this trend began to reverse, with



Map 3: Metropoolregio Amsterdam: MRA (metropoolregioamsterdam.nl/over-mra/)

Amsterdam experiencing a rapid re-urbanisation, in addition to dominant patterns of suburbanisation of middle-class families (Boterman, Karsten & Musterd, 2010). This re-urbanisation is predominantly endogenous, however increasing mobility of suburb families to the city is noted (Tzaninis, 2016; Boterman *et al*., 2010).

The administrative coalescence of the region gained consensus due to a strong impulse for infrastructural and environmental investment from the central government (Salet, 2006). Regional governance was, therefore, a means to ensure that all public stakeholders involved could share a piece of the wealth (Savini, Boterman, van Gent & Majoor, 2016). While regional governance in Amsterdam has been "particularly successful in its capacity to focus on specific issues" (*ibid.*, p. 111), successful cooperation between municipalities was deemed limited due to competition for spatial resources within the formal organisation (*ibid.*).

The first step in regional cooperation in the Amsterdam Region was taken in 1986 with the establishment of the informal consultation platform for administrators known as the 'Regional Consultation Amsterdam' (*Regionaal Overleg Amsterdam*) (van der Lans, 2006). This

established an organisation of civil servants with regular meetings exchanging information relating to several policy areas including public housing and traffic. A 1988 evaluative study entitled *De grenzen verkend* (Exploring the borders) developed a set of rules under which cooperation could be performed with the inclusion of elected representatives. This led to the creation of a more formal platform, the 'Regional Organ Amsterdam' (*Regionaal Orgaan Amsterdam:* ROA hereafter) in 1992, *institutionalising cooperation* in the Amsterdam Region (*ibid.*).

This informal voluntary organisation was deemed to be insufficient by the central government, leading to the investigation into "more effective cooperative structures" (Hulst, 2005) and the creation of a temporary law called the Framework Law on Changing Governance (*Kaderwet Bestuur in Verandering*; known as WGR+ Act), mandating cooperation between municipalities of the city-region (*stadsregio*) on spatial planning, transport and economic development issues (OECD, 2017). The WGR+ gave permanent status to the city-region, prescribing regional co-operation among municipalities for the provision of specific public services, emphasising transport. Taking the form of the ROA, this allowed actors operating on the city-region scale to make binding policy decisions (*ibid*).

The ROA was reorganised in 1997, following the failure of the creation of a new formal administrative level of *stadsprovincie* or city province (Depla, te Grotenhuis & Pans, 2019: van der Lans, 2006). This created two tracks for regional cooperation; the formal track, maintaining the ROA name, was a form of so-called 'extended local government' legislating for traffic and transport, infrastructure, spatial planning, housing and youth care in the region, eventually becoming the *Stadsregio Amsterdam* (City-Region Amsterdam); and an informal form engaging in collaboration and consultation between the formal governance levels within the extended region, congruous with and becoming the MRA following the cessation of the WGR+ in 2015 (Depla, *et al*., 2019).

Map 4: Vervoerregio Amsterdam and its constituent municipalities (Source: amsterdam.nl)

The *Stadsregio Amsterdam* (City-Region Amsterdam) was established in 2006, composed of 15 municipalities in the *Noord-Holland* province. It focused on formal cooperation concerning regional housing, economic growth, and transport. It became *Vervoerregio Amsterdam* (Transport Authority Amsterdam - VRA hereafter, see Map 4) in 2017, focusing solely on transport, maintaining its former composition splitting these into four public transport concession areas for the implementation of urban and regional transport.

Almere

Almere is a city 30km east of Amsterdam (see Map 2). It is a "state-engineered, socio-spatial, political scheme" (Tzaninis, 2016, p. 84) developed in the 1970s and settled from 1976, considered to be "the pinnacle of the Dutch welfare state" (*ibid.*). Almere is the result of a strong imaginary in Dutch culture, land-reclamation .

The *Structuurplan voor de Zuidelijke IJsselmeerpolders* (structure plan for the IJsselmeerpolders) mapped out "the foundations… for a planning and sociological challenge" (Almere, 2011)

which is Almere, imagining a multinucleated town of 100,000, consisting of Stad, Poort and Buiten.

Map 5: Blokjeskaart (Ministry of Infrastructure & Environment, 2012, p.36)

The *Blokjeskaart* (Map of building blocks; see Map 5Map 5) which accompanied the Second National Spatial Planning Policy Document (1966), substantiated the form, area and density of the new town (Ministry of Infrastructure and the Environment, 2012). It was designated as a *groeikern* or *groeigemeente* (growth point, growth municipality) in the Third Report on Spatial Planning (1976/77). This was an official status which designated and subsidised the residential growth of certain municipalities to combat the 'overspill' from traditional urban centres of Amsterdam, Rotterdam, and the Hague (*ibid.*). While this strategy was abandoned in the Fourth Report on Spatial Planning and its subsequent VINEX, it remains a strong determinant for some areas.

The town was designed along the predominant contemporary planning ideal of "concentrated deconcentration" (Bontje, 2003), retaining a strong suburban quality. Upon abandonment of this idea in the early 1990s and continued population growth, Almere's character has undergone multiple fluctuations between "the typical suburbia of houses, picket fences and garages, and the new urbanity of experimental architecture, focus on consumerism and 'smart growth'" (Tzaninis, 2016, p. 20). Almere had become one of the fastest-growing new cities in North-Western Europe. Beginning with 25 families in 1976, the city's population is now 213,840 persons, making Almere the 8th largest city in the Netherlands (*ibid.*).

LIGHT RAIL & METROPOLITAN REGIONALISM IN AMSTERDAM

This chapter will explore the data gathered through document analysis and key informant interviews. Additionally, it will interpret this data as it relates to the research question through the application of the analytical approach. Approaching light rail development within the Amsterdam metropolitan area from an institutional approach, it is first necessary to outline the specific actor-networks relevant to the case of the metropolitan region of Amsterdam. Following, as imaginaries are considered to be institutionally stabilised, it is necessary to discuss the institutional context encountered. Following this, the multilevel imaginaries of the actor networks within the case will be defined, specifically as they apply to light rail. Additionally, particular attention will be paid to Almere and Amsterdam, the conceptions of light rail exhibited by these organisations and the attendant imaginaries surrounding light rail in their case. The interpretation of imaginaries was achieved through interpretive analysis of the documents and interviews. This related the goals and tasks as outlined in their documentation and supplemented this with the information provided by the informants in order to uncover the rationales and justifications for transport infrastructure generally, and light rail specifically. Finally, the power of various actor-networks in discursive capabilities is outlined and assessed.

4.1 ORGANISATIONAL CONTEXT OF LIGHT RAIL

This section outlines the actor-networks relevant to the case of the Amsterdam metropolitan. It engages with the organisational and regulative environment present in the case of Amsterdam, advancing an emerging understanding of one of the constituent elements relevant in understanding the institutional context. This is necessary in constructing a picture of and engaging with power-dynamics present in the case. While the current and future regulative framework requires each level of governance to create long-term future visions related to spatial and transport development, the power of these visions within the institutional context is uncertain. Furthermore, there has been a failure in the emergence of a specific

metropolitan-scale actor within the existing organisational context. This failure, and the failure of the development of a cohesive metropolitan scale imaginary, is further elaborated upon and engaged with in the succeeding sections of this chapter.

THE STRUCTURE OF TRANSPORT PLANNING

The three-tiered governmental system in the Netherlands consists of, the state (*Rijk*); provinces (*provincies*); and municipalities (*gemeenten*). All levels must create regular indicative *structuurvisies* (vision documents) for future spatial development. The state, specifically the IenW, determines infrastructure plans for national roads and railways. Additionally, it commissions the *Meerjarenprogramma Infrastructuur, Ruimte en Transport (Multi-Year Program for Infrastructure, Space and Transport*: MIRT hereafter) which lists the projects utilising or approved to utilise national funds.

Since the Passenger Transport Act 2000 (*Wet Personenvervoer 2000*), provinces and regional transport authorities issue concessions for local public transport (Ministry of Infrastructure and the Environment, 2018). They are financed by the central government for this purpose through a grant funding structure known as the *Brede Doeluitkering* (BDU). The Local Rail Act (*Wet Lokaal Spoor*) places ultimate responsibility for the construction, management, and maintenance of local rail infrastructure with the provinces and regional transport authorities. Municipalities do not have to financially contribute to infrastructure but are free to do so if it matches their spatial development priorities.

Municipalities are responsible for the spatial development of their territory and for pursuing a coherent traffic and transport policy, with the legal basis of the Spatial Planning Act (Ministry of the Interior, 2006), which will be eventually replaced by the *Omgevingswet* (Environmental Act). The *Omgevingswet* aims to simplify spatial planning in the Netherlands to allow for more effective decision-making. Instead, it stipulates that each level of government must produce coherent long-term vision in the form of an *Omgevingsvisie* (Environmental vision), listing strategic choices of policy regarding spatial development, and an *Omgevingsplan* (Environmental plan), which assigns functions to the territory.

PROVINCES

The provinces have the coordinating task in various policy areas, particularly regional public transport. They undertake policy arenas and tasks for which the state is *te groot* (too big) and the municipality *te klein* (too small), for which they make and manage policy and provide grants and waivers (IPO, 2020). Provinces act as the public transport authority when there is no regional transport authority (see Map 6).

Map 6: Map of Transport Authorities in the Netherlands. 7- Flevoland, 10- Noord-Holland, 11- Amsterdam (Wikimedia Commons)

Provinces are organised similarly, consisting of the administrative directorate, the provincial civil servants, and the elected representatives of the States-Provincial (*Provinciale Staten)* and the Provincial Executive (*Gedeputeerde Staten*). The Provincial Executive is the executive body tasked with translating the ambitions of the coalition agreement into concrete policies and projects, with the assistance of the civil servants.

The two provinces relevant for this investigation are the provinces of Noord-Holland and Flevoland. The administrative structures of the two provinces are as follows: Noord-Holland, with approximately 1400 staff, is split into three directorates, with the Policy-Directorate in charge of policymaking (Civil Servant 3, personal communication 24.09.2020); Flevoland, with approximately 450 staff in total, is organised into 7 departments (Flevoland, 2020).

REGIONAL ORGANISATIONS

Vervoerregio Amsterdam

The *Vervoerregio Amsterdam* (Transport Authority Amsterdam; VRA hereafter) was established in 2017, composed of 15 municipalities split into four public transport concession (see Map 4) areas for the implementation of urban and regional transport. It is the legal entity responsible for commissioning public transport (bus, tram and metro) with a budget of circa €400 million

a year provided through grants from the national government to carry out the operation, maintenance and management tasks (Vervoerregion Amsterdam [VRA], 2019).

The VRA's main goals are to promote the *connectivity, intermodality* and *liveability* of the region in line with the overarching central government goals (VRA, 2016) accordingly presenting visions of compact urban spatial development and intermodal transport hubs (VRA, 2018). It creates policy in the field of traffic and transport, in coordination with other authorities and other policy areas, and grants concessions and subsidies to providers for the operation of public transport. It is also responsible for the financing of infrastructural investment for public and private transport (VRA, 2017; 2018). It admits having a pulling or guiding role in mobility policy in the region, with its operational employees preparing local policy on behalf of the municipalities, regional policy, initiating and implementing projects and establishing cooperation (VRA, 2017*)*. It also initiates and creates planning studies for regional infrastructure projects and coordinates regional plans from the central government (VRA, 2018).

Municipality	No of seats
Amsterdam	12
Aalsmeer	2
Amstelveen	5
Beemster	1
Diemen	2
Edam-Volendam	3
Haarlemmermeer	7
Landsmeer	1
Oostzaan	1
Ouder-Amstel	1
Puurmeren	4
Uithoorn	2
Waterland	1
Wormerland	1
Zaanstad	7

Table 7: Composition of the VRA Regioraad (Own Representation)

Decision-making and consultation occur in the *regioraad* (regional council), consisting of 51 members, allotted by the relative population of the municipality and delegated by the municipal council, comprising of members of the municipal council and/or the mayor of the municipality (see Table 7). It meets five times a year in Amsterdam's city-hall with the councillor of traffic and transport of the fifteen constitutive members meeting simultaneously as the regional council (VRA, 2019). The daily management of the VRA is based on a balanced representation consisting of 1 board member of each of the 3 sub-regions (Amstelland-Meerlanden, Zaanstreek-Waterland and Amsterdam: *ibid*).

Metropoolregio Amsterdam

The *Metropoolregio Amsterdam* (MRA) is an informal partnership focusing on agenda-setting, coordination and implementation concerning regional developmental issues (MRA, 2016). It is composed of 35 governmental organisations : 32 municipalities, clustered together to create 7 sub-regions, two provinces (North Holland and Flevoland) and the VRA (see Map 3). It operates voluntarily, on the assumption that the members share a common interest in constructing a cohesive region as it ensures economic prosperity (MRA, 2016), with the mandate for decision-making operating at the constituent administrative levels (Depla, *et al*. 2019).

The constituent aldermen are organised along, and work in three platforms; Economy, Space and Mobility, to discern a strategic agenda. This strategic agenda sets a framework for the desired development of the region (MRA, 2016). The *MRA Bureau*, located in Amsterdam, is the operational support structure of the platform, comprised of 6 permanent staff (as of 04.09.2020).

While the necessity for cooperation within the regional context of the MRA is found to be *self-evident* among its members, and that interests of members are well represented and recognised in the MRA platform, a recent independent evaluative report found that members believe that the results of cooperation are not in proportion to the nature and urgency of regional challenges (Depla, *et al*, 2019). This report, entitled *Meer richiting en resultaat* (More direction and results; *ibid*), underlines the importance of effective cooperation within the metropolitan region: "[t]he MRA contributes one fifth to the economy of the Netherlands […] If the MRA collaboration performs sub-optimally, this will have consequences for the rest of the Netherlands." (*ibid.*, p. 13). While the MRA declares its visions ensures better coordination and faster decision-making while presenting a stronger voice towards '*The Hague*' (MRA, 2017), it is, however, found that the collaborative efforts are insufficient and ineffective (Depla, *et al.*, 2019). This is particularly the case regarding the 2017 *MRA Covenant (Convenant versterking samenwerking Metropoolregio Amsterdam)* which outlines the goals of the MRA to be: intensification of regional cooperation; decisive organisation; and the promotion of the profile the region nationally and internationally (MRA, 2016).

MUNICIPAL ORGANISATIONS

The legislative and executive features of municipalities, regulated by the *Gemeentewet* 1992, are the same in the two municipalities under consideration. The municipal council is the legislative arena of the municipality, while the *College van Burgermeester en Wethouder* (Board of the mayor and aldermen) is the executive board responsible for the municipality (Almere, 2020).

The organisational administrative structure of the city of Amsterdam consists of 5 clusters, a board and group of 7 separate management districts, consisting of 15,670 employees, excluding political representatives, making it the largest single employer in the city of Amsterdam (Jong, Kuyvenhoven, Zethof & Huijzer, 2019). Particularly of relevance is the "Space and Economy" cluster (*Rumite en Economie*), responsible for spatial and economic development, which comprises of 12 departments. This cluster has, in total, 3,005 employees (Jong et al., p. 29). Concerning policy and planning of light rail, and also relevant for this investigation, there are several departments within this cluster which should be brought to attention: 'Metro and Tram' (*Metro en Tram*), with 191 employees, a technical body responsible for the feasibility studies and asset management of light rail infrastructure in Amsterdam, founded to engage specifically with the NoordZuidlijn project; the 'Mobility and Public Space' department (*Verkeer en Openbare Ruimte*), with 315 employees and responsibility for policymaking regarding mobility and public transport (Civil Servant 2, personal communication, 26/08/2020); the Planning and Sustainability (*Ruimte en Duurzaamheid*), 530 employees developing and designing concrete proposals and designs for sustainable urban development and for compiling the Structuurvisie and Omgevingvisie (*ibid*; Amsterdam, 2020b; Civil Servant 2, interview, 26/08/2020).

The organizational administrative structure of the municipality of Almere consists of a small team of directors/managers (*concerndirectie*), 19 departments and 5 programs with circa 1,800 employees, (Planner 1, personal communication, 14.09.2020). Particularly of relevance are the departments of area development (*Gebiedsontwikkeling*: which develops the *Structuurvisie* and *Omegevingsvisie*) and the Almere 2.0 program.

STAKEHOLDER INTEREST & INFLUENCE

Figure 5 and Figure 6 visualise the interactive relationships of stakeholders considering the case study projects, the NordZuidlijn and the IJmeerverbinding. These figures outline the interest and influence of the organisations in this organisational context around these projects, giving a nascent understanding of power-dynamics in the institutional context. Interest and influence in affecting the projects are differentiated by 'core', 'direct' and 'indirect' stakeholders through concentric circles. This description is defined dependent on two criteria, the resource and legitimate interest and influence of the actors considered. Those considered to have a central legal or regulative (legitimate) interest in the project, with the power to veto the project, are those considered to be core stakeholders, with the other descriptions allocated accordingly. Similarly, those stakeholders with a predominant material resource and non-material resource-based interest and influence in determining the success of the project are considered in determining their position. This exercise brings attention to the power of these actors in this context in setting and modifying the projects, and the possibilities of successful implementation of light rail imaginaries, which will be discussed and elaborated upon in the next section.

In the case of the NordZuidlijn extension (see Figure 5), the actors and their roles are defined in the *Programma LightRail* (Leermakers, & Hillege, 2019). The city of Amsterdam and the municipality of Haarlemmermeer are responsible for the route and costs of the line. While the ministry of infrastructure is not mentioned as having an interest regarding cost in this document, it holds influence and interest in the project through its defining position within the MIRT investment process, which is further discussed below. While the VRA is defined as having only an interest in the project concerning engineering details (along with ProRail: the state-owned asset manager of heavy rail infrastructure; and NS: *Nederlandse Spoorwegen;* the semi-state rail operator), its influence is arguably considerably more, due specifically to its position as the transport authority of the region. Schiphol and KLM (as the companies most involved with the airport), the NS (as the national carrier), and ProRail (as the organisation accountable for heavy rail infrastructure), hold interest due to the projects role in alleviating and assisting with the heavy rail congestion expected at the airport, and the requirements in accommodating this light rail project itself.

The MRA, the municipality of Almere and the provinces are the indirect stakeholders in this project. The latter, in their capacity as the neighbouring substantive transport authorities, are required to engage with the project in so much as it affects traffic their regions, and particularly due to the governance interactions which take place, as will be elaborated upon in the following sections. The municipality of Almere, as one of the predominant municipalities in the region, similarly has to engage with the project and its implications. The MRA, is considered a peripheral actor within this project, functioning as one of the arenas of interaction among its constituent interested members.

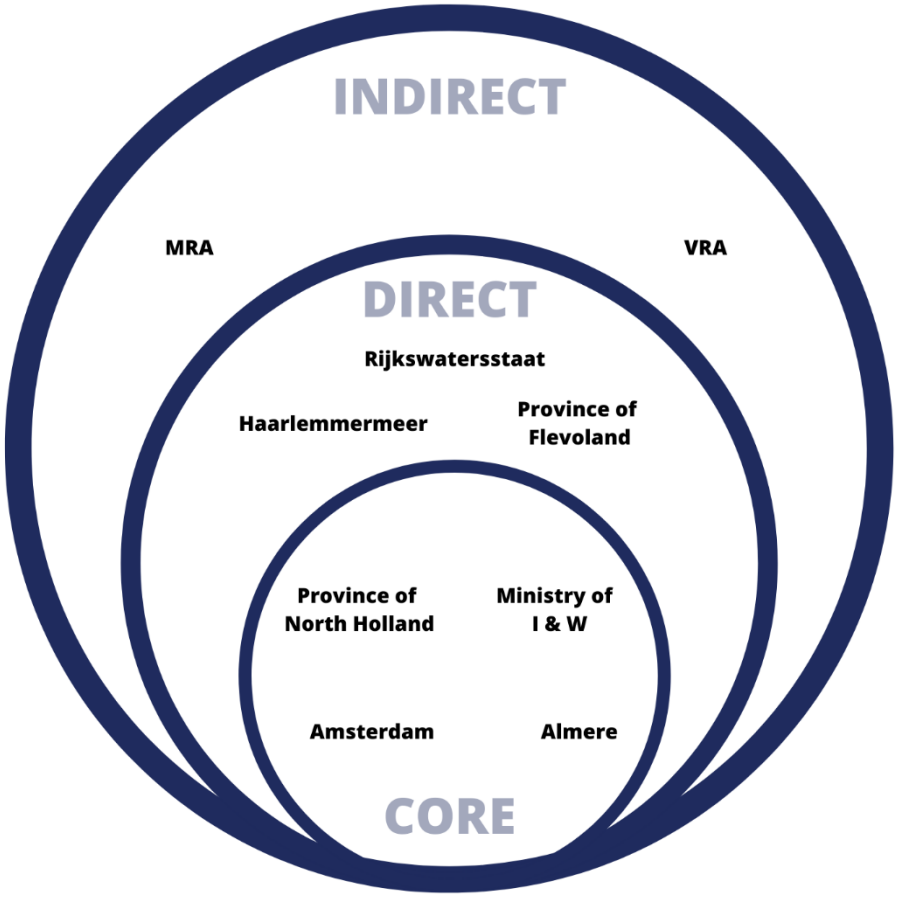


Figure 5: Stakeholder map for the NordZuidlijn project identifying core, direct and indirect stakeholders (Own representation)

The potential IJmeerverbinding project presents a similar nested interaction among the various organisations (see Figure 6). The MRA is one of the peripheral stakeholders, one of the arenas in which regional policy is defined among the actors. The VRA, as a neighbouring transport region, also has a somewhat peripheral interest in the project. It does, however, influence the project itself, due to this role and its internal dynamics and composition, being able to be swayed by its *regioraad*. The municipality of Haarlemmermeer, as one of the more 'important'

municipalities in the metropolitan area, possesses influence in its ability to frustrate the project on account of its own interests in infrastructural development. Similarly, Flevoland possesses this influence, as the overarching transport authority for the area. However, its limited organisational capacity, and its consistent stated support of this project, limits this possibility. Rijkswaterstaat, has a particular influence in this project in its position as the conservation agent of the central government. Due to the project passing over, or under, the IJmeer (and affecting its ecological environment), its consent is required in any development, something which has frustrated the project thus far (Almere 2.0 Administrative Council, 2018).

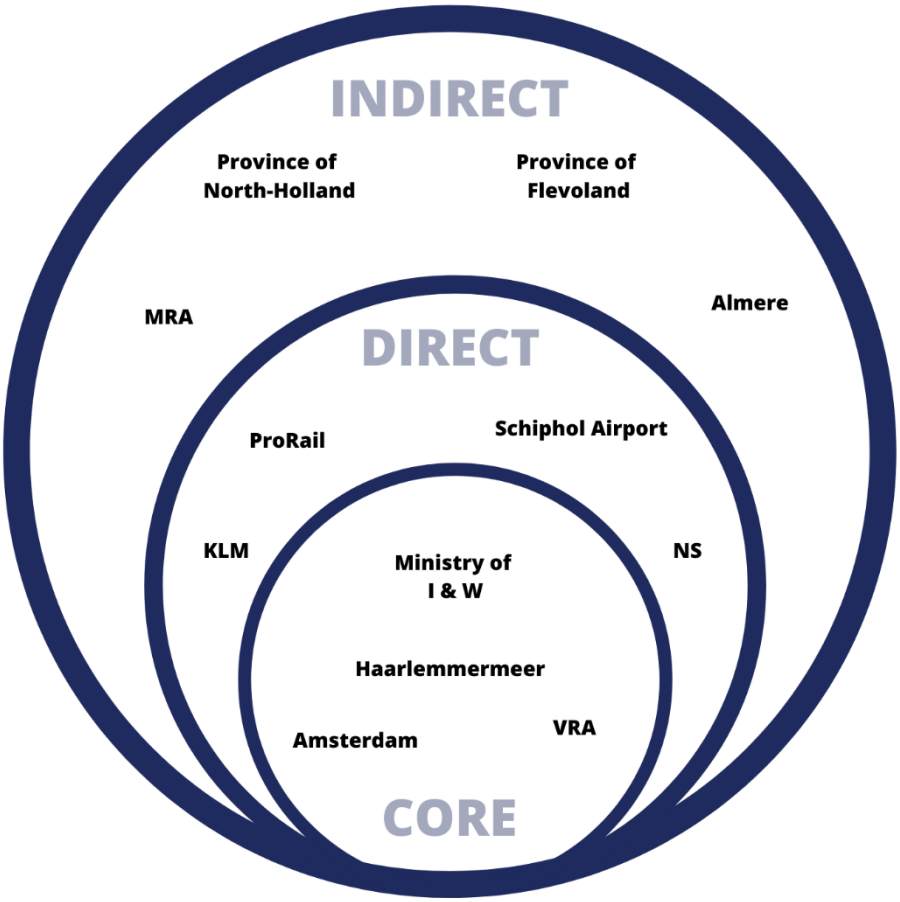


Figure 6: Indicative stakeholder map for the potential IJmeerverbinding project identifying core, direct and indirect stakeholders (Own representation)

The core stakeholders for this project are Noord-Holland, as the necessary neighbouring transport authority; the city of Amsterdam, IenW and the municipality of Almere. The city of Amsterdam is particularly influential due to its central position and due to its central presence in the discursive formation of rationales and justifications of development of the central government and other organisations as they relate to the case of the Amsterdam metropolitan region. Any funding diverted away from the city of Amsterdam's preferred projects, without

its explicit consent, and towards the IJmeerverbinding is unlikely. Similarly, IenW, as the fundamental funding agent and legitimate authority, is ultimately in control regarding successful implementation of any infrastructural intervention. Almere, the most interested organisation, may be free in presenting this project within its imaginaries. However, it fundamentally understands that the successful implementation of this project is dominated by the other interested and influential organisations (*ibid.*).

4.2 INSTITUTIONAL CONTEXT OF LIGHT RAIL

This section outlines and discusses the institutional context of rail infrastructural development for this research, considering the organisational structure as outlined above. It was found that light rail infrastructure development exists within the overall institutional context of transport infrastructure development. Therefore, this section will outline the institutional context of transport infrastructure development, making specific reference to light rail when and where applicable.

A broad outline of the institutional context is presented Table 8, split into the *regulative, normative* and *cognitive* typology á la Scott (2001). The regulative environment in the Netherlands concerning infrastructure investment is the MIRT process. Interactions among actors at all levels are driven by the *polder-model*, based on horizontal relationships and consensus-building. The cognitive level describes and discerns the ideas which propel organisations within the institutional context, and which ideas and organisations hold sway, is what is predominantly discussed below.

TYPE	DEFINITION	INSTANCE
Regulative	Laws, Rules and Protocols	MIRT
Normative	Norms and Values	Polder-model, horizontal relationship, consensus-building, Economic Competitiveness
Cognitive	Meanings, Ideas and Interpretations	Congestion, Speed, Connectivity, Regional Network.

Table 8: Institutions governing transport infrastructure development (Own representation)

DECISION MAKING PROCESSES OF METROPOLITAN-REGIONAL TRANSPORT INFRASTRUCTURE DEVELOPMENT.

The Ministry of Infrastructure and Water Management has the national responsibility for infrastructural development related to transport. It is unanimously regarded by all informants to be one of the key actors to achieving infrastructure development (Ex-Civil Servant, interview, 23/07/2020; Civil Servant 1, interview, 05/08/2020; Expert 1, interview, 19/08/2020; Civil Servant 2, interview, 26/08/2020; Civil Servant 3, interview, 27/08/2020; Planner 2, interview, 01/09/2020). Its directorate of public transport and rail is responsible for the general national strategy for public transport, with specific responsibilities for the national heavy rail, national highways, and their infrastructure networks. The main tasks are the maintenance of the railroads and roads, their improvement, and working towards the *Toekomstbeeld Openbaar Vervoer 2040* to be replaced by the *Nationale Omgevingsvisie*. The ministry maintains a close relationship with ProRail, NS, and transport concession operators, including Amsterdam's GVB, as a result of its responsibilities (*ibid.*).

Key priorities for the ministry are capacity, increased use of service, intercity connectivity, traveller satisfaction, quality of service and safety (*ibid.*). The ministry's role is to discuss and agree on infrastructural projects with the lower tiers of government and local transport authorities via the MIRT process. This role is intended to be in line with the polder-model and the decentralisation which are supposedly central to Dutch transport governance. The ministry, as a technically-focused body provides budgets to these various transport authorities for the maintenance and upkeep of transport infrastructure, and to investigate developments, particularly when they are presented by the lower-tiers of governance regarding their key local responsibilities (*ibid.*). The ministry works along a technical-orientation, reflected in its significant interaction and relationship with the metropolitan transport authorities (rather than the local or provincial government), focusing particularly on technical safety and upkeep aspects, as well as capacity (Expert 1, interview, 19/08/2020).

The political agenda of the minister, tempered by the coalition agreement, has sway over what is put into policy documents (Civil Servant 1, interview, 05/08/2020). These documents are sent to the lower relevant and affected levels of government and the transport authorities, who are

asked for a reflection on these documents. While municipalities are responsible for spatial development within their borders, and transport authorities and provinces responsible for transport, large infrastructural development requires cooperation with the central government due to the financial requirements and obligations.

As a result, the ideas of the central government are influential, due to the centralised structural power and financial granting process. The ministry, as described by one informant, "have their own ideas about where to put money" (Planner 2, interview, 01/09/2020), and the lower tiers of government must be cognizant of this, adapting their ideas and projects to be in line with the overarching orientation and perspectives of the ministry in order to be successful (*ibid*.). Due to the responsibilities of the government in heavy rail and automobile infrastructure and networks, the focus on these mobility modes comes at the expense of considerations of light rail in the construction of imaginaries.

The MIRT process is the arena in which infrastructural investment decisions are made by the ministry (Planner 1, interview, 28/08/2020). The MIRT is a multiannual process which begins with an official strategic working visit of the minister to each of MIRT regions, during which the various regional actors present their previously agreed-upon infrastructural wishes to the minister. If agreed upon with the minister, these are presented, with the ministry budget, to a joint sitting of parliament on *Prinsjedag*, which is followed up with investment agreements with the various regional authorities afterwards (IenW, 2016).

The MIRT is described as a 'research process' (Civil Servant 1, interview 05/08/2020) in which the ministry collaborates with the lower tiers of government on a regional basis to discern and agree upon the infrastructural agenda. In white papers, it describes itself as a broad, collaborative approach where everyone agrees on the solution (IenW *et al.*, 2019). These documents describe the MIRT's overarching ambition as the maintenance and enhancement of the "competitiveness, liveability and accessibility" of the Netherlands (IenW, 2016, p.1). It presents specific regional rationales for infrastructural investment, which in the case of the North-West region (within which the Amsterdam metropolitan area is situated) is "to strengthen its international competitive position and to create a good living and working environment" through a cohesive urban transport network (IenW *et al.*, 2019). This is a process which is described by interviewees as an "almost scientific approach", basing its decisions on

technical inputs focusing on demand forecasts (Planner 1, interview, 25/08/2020). The analysis carried out in the MIRT process is considered to be of financial orientation (Ex-Civil Servant, interview, 23/07/2020), focusing predominantly on cost, without consideration towards attendant benefits particularly to the rationales of municipalities (*ibid.*; Expert 1, interview, 19/08/2020).

The predominant consideration in the MIRT process and its studies are expediency of movement and demand-based interventions, particularly regarding traffic congestion and bottlenecks. According to one expert, considerations beyond this, such as economic and spatial development considerations, or potential of such, are not assessed (Expert 1, interview, 19/08/2020). Infrastructural interventions are ratified to increase speed of connection, linked to forecasted increase in demand and congestion of network, which is based on ticketing returns for public transport (Civil Servant 3, interview, 27/08/2020). This imaginary considered by these analyses are ones which assist in economic competitiveness through increasing expediency of movement and diminishing delays, and overall socio-economic outcomes are deemed to be achieved through these measures (*ibid*.). This resonates throughout the focus of the MIRT generally: "their models and long-term visions […] only focus on congestion problems […] [ruling] out the environment, social equity and most of the economic effects […]" (Expert 1, interview, 19/08/2020). This excludes successful considerations of light rail development due to the up-front investment cost, and specifically due to the social construction of mobility embodied in and exhibited by the practice. The MIRT was formally institutionalised in the late 1980s, shaped by a preference for automobility. This preference subsequently became entrenched in the responses of the central government through the practice of the MIRT. It focuses on cost-benefit analyses and demand, which favours automobility and road infrastructure, particularly as it remains a favoured mode of the infrastructure minister's party, the centre-right VVD (Civil Servant 3, interview, 27/08/2020: Planner 1, interview, 25/08/2020). This MIRT process is strictly enforced and once the decision is made it takes four to five years until implementation (Civil Servant 2, interview, 26/08/2020; IenW, 2018,p. 2).

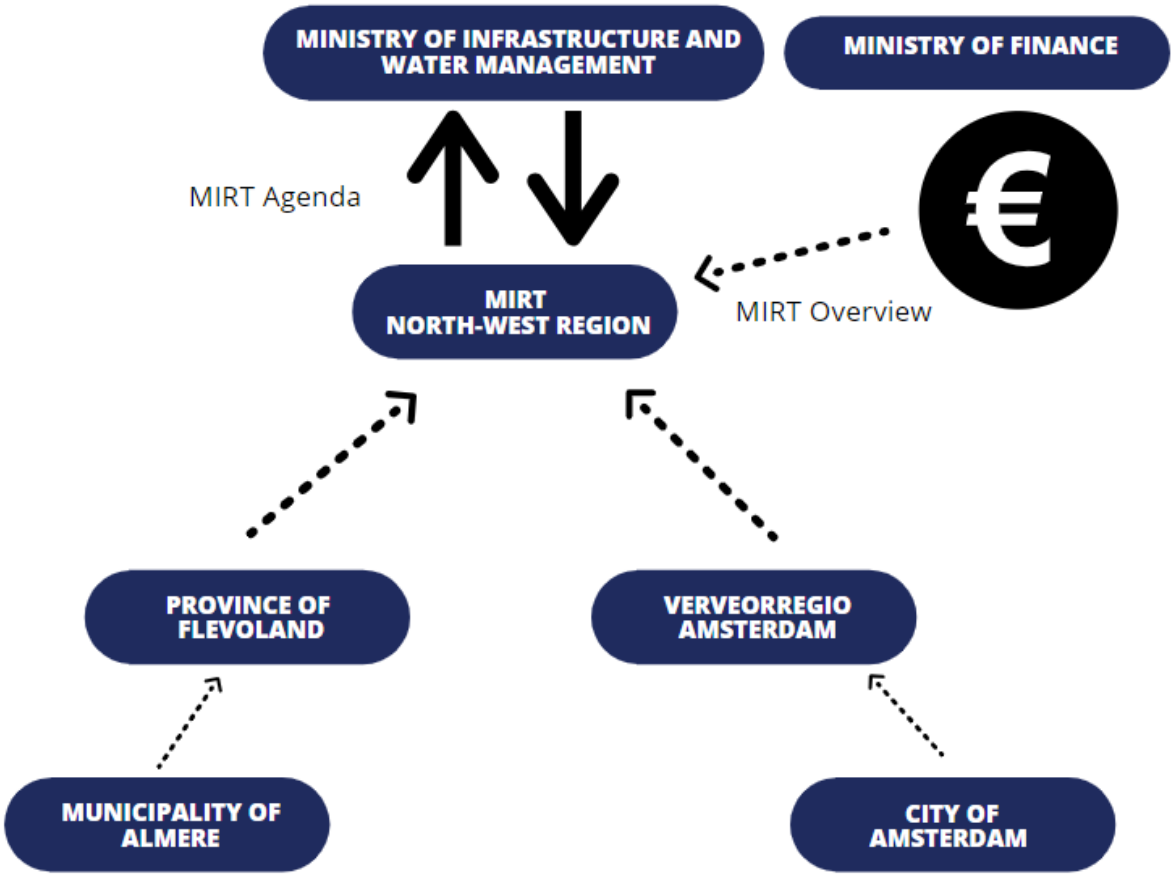


Figure 7: Indicative dynamics of the MIRT processes. (Own representation)

Decisions around large infrastructural investment occur through "big round of negotiations", which occur every 5-10 years (Planner 1, interview, 25/08/2020). Officially, decisions for the MIRT Agenda are made through formalised meetings with the various relevant spatial stakeholders, particularly with transport authorities (see Figure 7). However, agreements occur across multiple arenas prior to the two meetings in the MIRT regional group, of which the MRA is just one:

> " [...] *it's hard to pinpoint where you have to be at that table [...] you have to play chess at a lot of different tables, and you have to make sure that all those chess boards line-up and then you can force a decision*." (*ibid.*)

It is through these various round tables and working groups of civil servants and/or political representatives at the regional level that cases can be disclosed, agreed upon and then

subsequently presented to the central government in the MIRT agenda (Civil Servant 3, interview, 27/08/2020; Planner 1, interview, 25/08/2020).

> "*They can decide what they want to dream or not, but whether it becomes reality is up to other parties*." (Ex-Civil Servant, interview, 23/07/2020)

While municipalities are free to construct their rationales and justifications, and in constructing their imaginaries, decisions are dependent on the interaction and agreement with other parties, implicating power and power relations in these interactions. When it comes to realising light rail infrastructure, the MIRT process is the ultimate decisional factor, which is considered to strictly adhere to cost-benefit analyses (Ex-Civil Servant, interview, 23/07/2020).

The central government desires and necessitates coherence and agreement among the constituent actors within the region when presenting prospective projects, particularly of the financial magnitude required of light rail infrastructure (Ex-Civil Servant, interview, 23/07/2020; Civil Servant 3, interview, 27/08/2020; Planner 2, 01/09/2020). This is a general requirement for policy formation on any level and is central to the cultural idea of *polderen* (Ex-Civil Servant, interview, 23/07/2020; Civil Servant 1, interview, 05/08/2020; Expert 2, interview, 20/08/2020; Politician 1, interview, 19/08/2020; Politician 2, interview, 28/08/2020). Polderen was described by one informant as "[t]he Dutch way", purportedly based within consensus, cooperation, trust, and horizontal relationships: "*[w]e managed to keep the land dry because we cooperated*" (Ex-Civil Servant, interview, 23/07/2020).

Agreements at the regional scale are made between the constituent actors on a quid-pro-quo basis (Planner 1, interview, 25/08/2020). It is necessary for the representatives of the organisations to constantly petition for their own desired outcomes (Politician 2, interview, 28/08/2020). While there is considered to be an overarching agreement in the desired long-term imaginary of transport development in the metropolitan area by the constituent organisations (Planner 1, interview, 25/08/2020), conflict occurs specifically over the sequence and order that the infrastructural development occurs (*ibid.*; Planner 2, interview, 01/09/2020). In interviews, reference and inference were made to the influence and power of the three 'major municipalities' - Amsterdam, Almere, and Haarlemmermeer – by respondents, with particular reference to Amsterdam. Amsterdam's agreement is deemed necessary for any

infrastructural development within the administrative borders of the others (Ex-Civil Servant, interview, 23/07/2020; Civil Servant 1, interview, 05/08/2020; Expert 1, interview, 19/08/2020; Politician 1, interview, 19/08/2020; Expert 2, interview, 20/08/2020; Planner 1, interview, 25/08/2020; Civil Servant 3, interview, 27/08/2020; Politician 2, interview, 28/08/2020).

Amsterdam, by the fact that it is the central axis around which the metropole functions, is, therefore, the predominant force in the area. Haarlemmermeer has a population of over 150,000, Schiphol airport within its borders, and offers the potential for further development. Similarly, Almere has growth potential in terms of residential numbers, to accommodate the *overspill* of Amsterdam. Amsterdam, due to its centrality in the metropolitan region, can present many different development trajectories, one of which is towards and in Almere, namely the IJmeerverbing and the development of Almere Pampus (Ex-Civil Servant, interview, 23/07/2020). The other two are; the Havenstad project, an exercise in concentration, and towards Hoofddorp/Schiphol. Havenstad, and its prospective linked light rail development of the Ringlijn, is situated entirely in administrative boundaries of the city of Amsterdam, while the prospective NordZuidlijn to Schiphol/Hoofddorp is between the administrative boundaries of the city of Amsterdam and municipality of Haarlemmermeer, both members of the VRA.

The VRA is considered the actor to deal with for the central government and is considered particularly effective in achieving its desired projects and goals (Expert 1, interview, 20/08/2020; Planner 2, interview, 01/09/2020). Its adheres to a technical and economic rationality (Expert, 1, interview, 19/08/2020), providing transport and infrastructure within the region to meet demand, related to congestion and speed of connection, and assist in resolving bottlenecks (Planner 1, interview 25/08/2020). The VRA is acutely aware of costs, particularly surrounding operation (Expert 1, interview, 19/08/2020; Planner 1, interview 25/08/2020). This precludes internal considerations of light rail infrastructure investment due to the large upfront investment, with the VRA focusing more so on BRT in order to assist in regional connectivity issues. The BDU, through which it receives its funding, has not increased despite the recent extension of its responsibilities in terms of lines (Civil Servant 2, interview, 26/08/2020), leading to a situation where authorities are required to provide '*Meer OV voor minder geld*', more public transport for less money.

> *"It is hard to consider schemes on the level of the VRA without the implicit positive assessment of Amsterdam"* (Expert 1, interview, 19/08/2020)

While the VRA recognises the relation of spatial planning to public transport and consider this when constructing their visions (Civil Servant 4, interview, 28/08/2020), they are fundamentally reactive towards demand and bottlenecks (Expert 2, interview, 20/08/2020) and are limited in their imaginaries. Amsterdam is considered to be "the real power" within its decision-making processes within the VRA (Expert 2, interview, 20/08/2020). However, Amsterdam must maintain trust among the regional neighbours to expedite decision-making with the national government via the MIRT processes (Expert 1, interview, 19/08/2020; Politician 1, interview,19/08/2020).

The VRA is the main partner in the projects of the NordZuidlijn and Ringlijn, charged with stakeholder management (Leermakers, & Hillege, 2019). There is deemed to be a "cultural thing" within the VRA, according to one expert, concerning light rail development according to one expert (Expert 1, interview, 19/08/2020). This favours light rail infrastructural development comparable to a heavy metro system (*ibid*.; Ex-Civil Servant, interview, 23/07/2020). This is the *a priori* preferred mode of infrastructure development within the technically focused actors of the VRA in conjunction with the department of metro and tram in the city of Amsterdam (Expert 1, interview, 19/08/2020). When this mode, i.e. light rail infrastructural development comparable to a heavy metro system, is prohibitively expensive or unfeasible, BRT is considered to be the second *a priori* choice (*ibid*.).

This section has outlined the complex governance and institutional context which exists around transport infrastructural development. Through key informant interviews and document analysis, the strong cognitive idea underpinning and defining decisions and decision-making, namely that of stimulating economic growth and ensuring the economic competitiveness of the region, has been made clear. This defines the discursive rationales and justifications and collective action in the region. While the cultural norm of polderen is presented to be a model of horizontal interaction and decision-making between and among the tiers of governance, thus far this analysis has uncovered the unequal power in setting agendas, future visions and imaginaries.

4.3 IMAGINARIES OF LIGHT RAIL

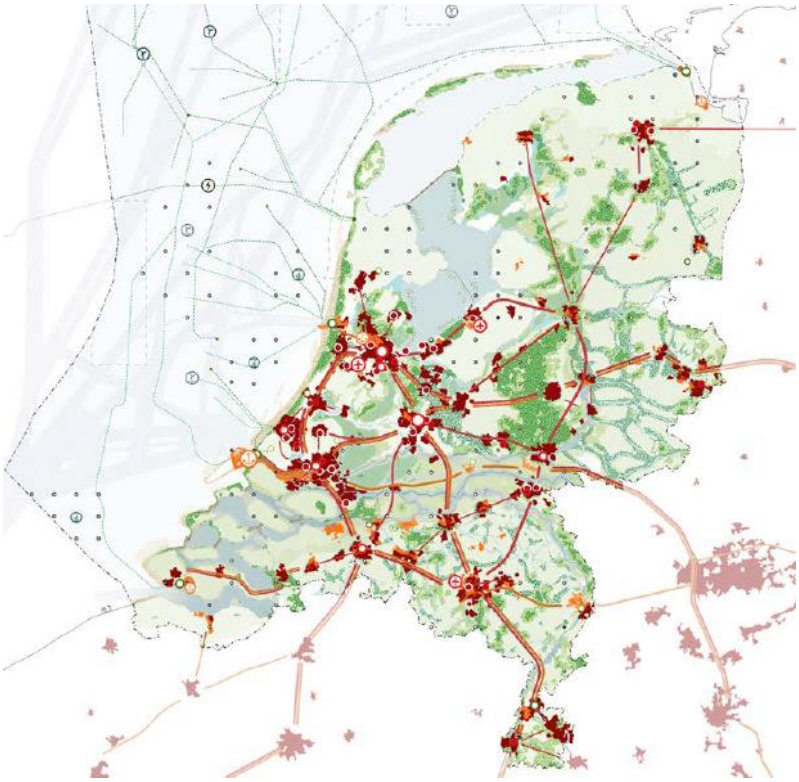
This section will outline and elaborate further on the dominant imaginaries uncovered in the research relating to the institutional context of transport development within the institutional context of mobility/transport planning outlined in the previous section. This section will first outline the multi-level imaginaries present in the region before moving on to the specific imaginaries of the city of Almere and the city of Amsterdam and the meanings of light rail to these specific actor-networks. These are surmised in Table 9 at the end of this section. There are multiple different, multi-level and sometimes overlapping visions and imaginaries present within the metropolitan area regarding spatial and transport development. These overlapping visions and imaginaries are to some extent 'coordinated' through overarching central government visions.

MULTILEVEL TRANSPORT IMAGINARIES

The central governments' imaginaries regarding public transport and its provision are succinctly surmised in a 2016 position paper entitled *Switching to 2040: flexible and smart public transport* (Overstappen naar 2040: flexibel en slim OV: Djiksma, 2016). It declares that by 2040 there will be an end to "the distinction between public transport… and individual transport…" (*ibid.*, p. 1), focusing "on the speed, convenience, reliability and affordability with which travellers can get from A to B" (*ibid.*). The *Nationale Omgevingsvisie* (BZK, 2020) and the *Contouren Toekomstbeeld OV 2040* (IenW, 2019) echoes this. The *Nationale Omgevinsvisie* is the government's long-term vision on the future development of the Netherlands. It creates an overview and visualises the shared tasks (see Map 7), presenting an "an area-oriented, integrated, and collaborative approach" (*ibid.*, p.7), in its words. It presents four integrated priority tasks: Climate Adaptation and Energy Transition; Sustainable Economic Growth; Strong & Healthy Regions and Cities; and Future Proof Development.

The document underlines the current and expected importance of urban and metropolitan regions for the competitiveness of the Netherlands. It advocates for 'proximity' through the clustering of urbanisation, focusing on the *Stedelijk Netwerk Nederland* (Urban Network of the Netherlands, see Map 7) - the densely urbanised areas of Amsterdam, Utrecht, Zwolle, Arnhem/Nijmegen, Breda, Rotterdam/The Hague. This is presented in order to consolidate the

necessary agglomeration advantages for an internationally competitive '*knowledge economy*'. This network is to be facilitated through the consolidation of the transport network connections, and the spread of this network to other urban areas (*ibid.*, p. 108). This specifically focuses on heavy rail connections between large cities (see Map 7). Despite focusing on compact urban development, integrated with the development of multi-modal transport hubs, it does not include light rail within these imaginaries, presenting a keener focus on smart mobility in terms of demand-driven automobility (*ibid.*, p. 127). Compact development is sought to decrease pressure on infrastructure (particularly automobile) networks, in addition to assisting in increasing the quality of life and the attractiveness of urban areas to entice the increasingly global mobile flows of capital and labour (*ibid.*, p. 96). It is left to the lower tiers of governance to devise the necessary *area-based* solutions for mobility types (light rail) through *coordinated choices* facilitated through the MIRT process within this imaginary (*ibid.* p. 129).



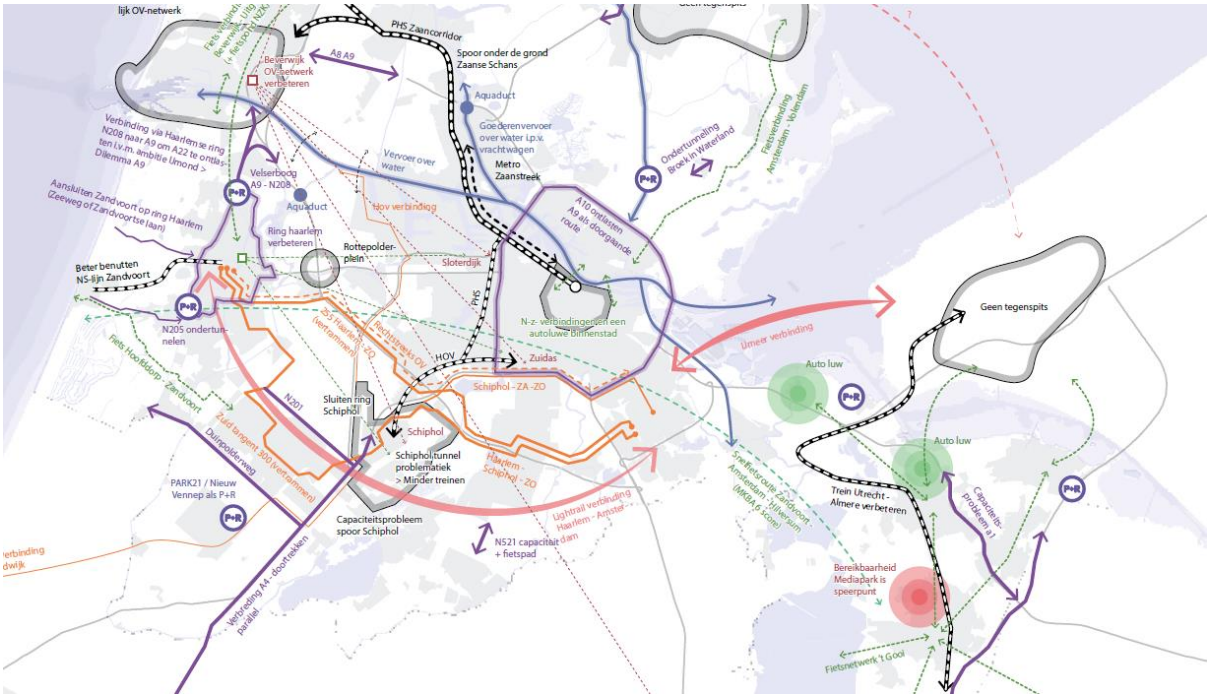
Map 7: Depiction of the wishes and ambitions contained within the Nationale Omgevingsvisie. (BZK, 2020, p. 38)

The Ministry of Infrastructure's *Contouren Toekomstbeeld OV 2040* (Contours for the future vision of Public Transport; 2019) creates 3 pillars for the development of public transport in the Netherlands to increase accessibility, which is described as a necessary to maintain the Netherlands' position as "one of the most competitive, liveable and sustainable countries in the world" (*ibid.,* p. 7). These pillars can be defined as being integrated with the overarching urbanization task and are, increased reliability and connectivity; increased intermodality; sustainability and efficiency. It focuses on compact development and connectivity to increase 'liveability' within urban

regions. Apart from once mentioning the use of public transport and light rail (in this case metro and tram) in assisting with the urbanisation task (*ibid.*, p. 11), there is little mention of light rail with the presentation of light rail projects left to the lower tiers of governance within their imaginaries. Arguably, this document presents an understanding of the social attraction of the automobile, advancing increased and intense investment in public transport and its network and infrastructure to diminish carbon-emissions (*ibid.*, p. 24).

The central governments' imaginaries recognise the need to cope with the growth of mobility due to the urbanization task required of the Netherlands. It also recognises the utility of public transport in this and in achieving emissions goals. It argues for a '*schaalsprong*' or 'scale-leap', related to higher capacity, with a particular focus on heavy rail, reflecting the specific transport tasks of the central government and the role of lower tiers of governance in addressing local mobility needs. These imaginaries present rationales deemed appropriate by the central government considering these urbanisation and mobility tasks, namely transport hub development and intermodality with noted attention on *smart* and demand-driven automobility. Mentions of light rail as they relate to central government imaginaries are basically excluded. The MIRT process is mentioned as the facilitating practice in achieve the scale-leap in transport and any particular desired light rail projects on the part of the provinces, transport authorities, and municipalities. However, as is argued in this thesis, the MIRT is a fundamentally conservative practice, which precludes the realisation of imaginaries coupled to light rail infrastructure in the case of these lower tiers.

In a jointly commissioned report entitled *"Promising Need: Scale leap towards tomorrow's mobility system"* (Goudappel Coffeng & Movares, 2019), the provinces of Noord-Holland and Flevoland present an ambition for "integrated and emission-free [transport] system"(*ibid.*, p.), particularly outlining intermodal and door-to-door accessibility, in line with the central government. Its task and goals are solving congestion bottlenecks, contributing to economic growth, increasing accessibility and liveability. This is elaborated into a Preferred Network 2040, visualised in Map 8, outlining a need for a €15.4 billion investment for the realisation of the required infrastructure. Light rail holds a central place within the transport network in this document, with two lines prominently placed as "promising connections" within this visual imaginary, with a specific reference to the IJmeerverbinding.

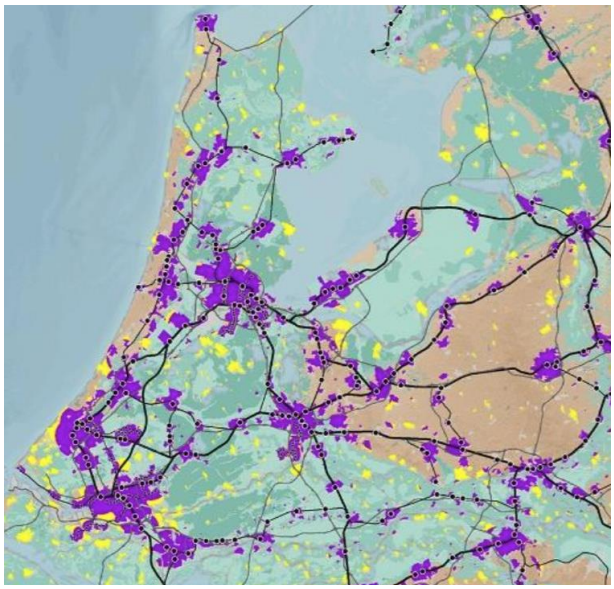


Map 8: Visual Imaginary of future transport in Noord-Holland as depicted in its Mobility Agenda. Pink arrows: "Promising Connection", Purple: Road, Black: metro/light rail, Black & White: heavy rail Provincie Noord-Holland, 2019, p. 36)

Noord-Holland aims to increase agglomeration advantages of the province through transport development with *effective*, *sustainable,* and *efficient* mobility. Its vision argues for connectivity, intermodality and *'smart mobility'*, in addition to clustering and nodal development regarding spatial development (Provincie Noord-Holland, 2018, p.2-10). It presents a particularly ambitious and regionally focused vision in comparison to other organizations (Provincie Noord-Holland, 2018, 2019). While recognising and promoting public transport, declaring that "public transport contributes to an economically strong and socially vital region" (*ibid.*, p. 9), investment in public transport, however, is often presented only in its utility in solving bottlenecks and assisting with traffic congestion (*ibid.)*.

Flevoland overtly links accessibility to travel time, proclaiming that "*Bereikbaarheid heeft te maken met snelheid*"; accessibility has to do with speed (Provincie Flevoland, 2016, p.12). It argues for a focus on this conception of accessibility along with increased reliability and diminished congestion to increase liveability. This focuses on automobility and optimizing infrastructure, with public transport considered secondly, arguing for a '*cost-effective*' system and compact nodal development in line with national policy (*ibid.*).

The future visions of Amsterdam, as laid out in its *Omgevingsvisie Amsterdam 2050* preliminary policy document (Amsterdam, 2020b), is for a compact and mixed-use city particularly to



Map 9: Amsterdam's regional transport imaginary. purple areas within 10 minutes by bike from a train station or within 10 minutes on foot from a metro/light rail station. (Amsterdam, 2020b, p. 9)

achieve sustainability and to "reinforce urban functions and ensures a lively and varied public space" (*ibid.*, p. 7). Similarly, it calls for *a scale leap in public transport*, in line with its 2017 mobility survey which found that the number of trips is set to increase by 20%. It presents a visual imaginary of the city within the central governments *Stedelijk Netwerk Nederland* (see Map 9), where the network is presented in line with this, with the mention of light rail being in reference to existing lines. Despite stating that the city and its region will be "inevitably more interdependent" (*ibid.*, p. 15) as a result of urbanisation, and that "the city and the region need each other more than ever to guarantee sustainable and responsible growth" (*ibid.*, p. 32) its imaginaries focus predominantly on the city centre in its transport prescriptions. Additionally, it outlines a reduction in polluting vehicles, in line with its *Agenda Autoluw* (car-free agenda) and *Smart City* initiatives (*ibid.*; cf. Amsterdam, 2019a; 2020a) without any regional focus or consideration. The coalition agreement for the municipal executive similarly focuses on a car-free agenda and MaaS (GroenLinks/D66/PvdA/SP, 2018).

Almere outlines its overarching imaginary for the city in a set of principles, defined as "an ecologically, socially and economically sustainable future" (Almere, 2013). They continue "*Almere, a new city, will be liveable and healthy by 2030. It will continuously renew and transform itself, thereby strengthening the qualities of its multi-core structure and environment. Almere will be a vital community with a rich variety of living and working opportunities, in an abundance of space, water, nature and cultural landscapes that can grow and change over time…*" (*ibid.*). The Almere Principles are a performative imaginary, with the second principle, "connect people and area", presenting a vision to "anchor and strengthen [Almere's] identity" while maintaining "relations with its surrounding communities in its broadest sense from its own strength and to mutual benefit" (*ibid.*).

Almere is regionally focused in both political and programmatic documentation. The 2020 renewed coalition agreement, "*Een Frisse start*", displays a clear understanding of Almere's reliance on its neighbour. It states that the municipal task of increasing the attractiveness of the city (for both humans and capital) is understood in the regional context, requiring an enhancement of the profile of the city through increasing its accessibility accordingly (VVD, D66, Leefbaar Almere, CDA, GroenLinks & ChristenUnie 2020). The *Almere 2.0* programme also frames its visions within a regional perspective, situating Almere as an area which can "provide human capital" (Almere 2.0 Administrative Council, 2018, p. 12) to the knowledge economy of the Northern Randstad, which it describes as "one of the most important engines of the Dutch economy" whose "top position cannot be taken for granted" (*ibid.*, p. 11). It argues that this position is only held through the development of infrastructure and regional connections, primarily focusing on automobile infrastructure.

The regional imaginaries presented by the VRA are focused within technical paradigms, relating its considerations of light rail to considerations of 'greatest mobility value regarding the use of space' (VRA, 2019). It's considerations are due to its *"apolitical"* nature as a technical transport authority, which is argued in this thesis to be misleading posture. As a technically-oriented body it focuses particularly on technological innovation in reducing environmental impact and efficiency of the system and network, in line with the movement paradigm which directs it. The MRA recognises the use of light rail in assisting with its goals of intermodality, nodal development and fast connections, in addition to its ability to assist with congestion issues and bottlenecks in road and heavy rail infrastructure (Movares, 2016). The justifications relate to demand-oriented solutions, in line with the overarching movement paradigm, arguing for a focus on data in order to increase accessibility and decrease congestion (*ibid.*).

DOCUMENT	TYPE	GOALS	IMAGINARIES
NATIONAL			
Toekomstbeeld Openbaar Vervoer 2040 (2019)	Strategic Transport Vision	Increased connectivity between major cities with heavy rail. MaaS and demand driven mobility solutions in regional/local connections.	Movement paradigm
Nationale Omgevingsvisie (2020)	Structural Vision	*General*: Water-Resilience, Climate proof, energy transition, economic competitiveness, and attractiveness. Compact multi-nodal urbanisation, Circular agriculture. *Transport: MaaS, 'Stedelijk Netwerk Nederland'*: International high-speed rail with intercity connections heavy rail.	Resilience, Sustainable, Liveable, Future-proof, Polycentric, Compact.
PROVINCIAL			
NOORD-HOLLAND			
Omgevingsvisie NH2050. Balans tussen economische groei en leefbaarheid (2018)	Future Vision	"*Strong cores, strong regions*": Clustering of spatial and economic development. *"Metropolis in development":* Increase agglomeration power by developing a coherent internationally competitive metropolitan system.	Polycentric, Liveable, Regional.
Agenda Mobiliteit (2019)	Strategic Transport Vision	Substantiates current transport programs *viz. Omgevingsvisie* (2019). Door-to door accessibility, intermodality, user experience. HOV investment in addition to automobile transport, Nodal connections, Zero emissions in infrastructure and public transport. Area-oriented collaboration. Intensive cooperation. Transition from automobility. IJmeerverbinding.	Intermodal, Door-to door, demand-oriented.

FLEVOLAND			
Omgevingsvisie Flevoland Straks: Samen maken we Flevoland (2017)	Structural Vision	*Genera:* Renewable energy production, energy-neutral buildings, specialisation of towns/cities for regional economic growth *Transport:* Energy-neutral construction, management, and maintenance of infrastructure. Further incorporation with supra-regional centres through infrastructural investment.	Entrepreneurial, Cooperative (Inter- & Intra-regional), Circular, Low-Carbon, Sustainable
Mobliteitsvisie Flevoland 2030 (2016)	Strategic Transport Vision	Increased cohesion through increased. Speed and reliability of road network. Transport hub development. Cost-effective public transport	Nodal, Intermodal, movement paradigm.
METROPOLITAN/REGIONAL			
VRA			
Beleidskader Mobiliteit (2019)	Transport Agenda	Economic and social development, quality of life and durability in line with decreasing finances and increasing network pressure. Increased demand-oriented sustainable intermodality, greatest mobility value regarding use of space, MaaS.	Movement paradigm, Sustainable, door-to-door.
Strategische Visie Mobiliteit (2016)	Strategic Transport Vision	*Connect:* stimulate optimal use of networks and services, improve intermodal connections. *Innovate:* reduce, change and make more sustainable transport *Effective:* safe, reliable, and accessible for users *Guiding:* stimulate function mixing in spatial developments, stimulate concentration activities around nodes, remove infrastructural barriers	Movement paradigm, Liveability, Sustainable, Demand-oriented.
MRA			

Regionaal OV Ambitiebeeld 2040 voor Noord Holland en Flevoland (Movares, 2016)	Strategic Transport Vision	Demand-oriented intermodality, "speed, convenience, reliability, density of nodes, nodal connection, faster connection to core economic areas, Increased integrated public transport	Movement paradigm, Compact, Demand-oriented.
Internationale topregio met hoge leefkwaliteit (2019)	Organisational Agenda	*General:* "Future-proof & Balanced metropolis": Clean economy and regionally balanced economic development. *Transport:* '30 minutes accessibility', Priority connection of economic nodes, intermodality (specifically automobility). MaaS. Alternative and innovative funding.	Future-proof, Compact, Sustainable, Balanced.
MUNICIPAL			
AMSTERDAM			
Structuurvisie Amsterdam 2040 Economisch sterk en duurzaam (2011)	Structural Vision	*General:* The provision of 70.000 homes by 2040 facilitated by a *system leap*. Densification and mixed-use development (Zuidas and Havenstad) *Transport:* Development and integration of regional-metropolitan transport network to assist with *system leap*. IJmeerverbinding.	Attractive, Smart-city, Compact City.
Een nieuwe lente en een nieuw geluid: Coalitieakkoord (2018)	Political Agenda (coalition agreement)	*General:* Densification, mixing and sustainability with increased accessibility and connections. Increased cooperation and agreements with the region for housing and transport. *Transport*: Emphasise on MaaS, car-free city and research into light rail and metro connections.	Compact City, Car-free, Demand-driven mobility
Startnotitie Omgevingsvisie Amsterdam 2050 (2019)	Structural Vision	*General:* Economic competitiveness, Increased density, and mixed-use developments.	Resilient, Carbon-free, Circular, Compact, Liveable, Healthy.

		Transport: Scale leap in public transport. Cycling infrastructure, Car-free, Intermodality.	
ALMERE			
Rijksstructuurvisie amsterdam-almere-markermeer (RRAAM, 2013)	Structural Vision	*General: S*trengthen agglomeration, economic competitiveness. *Transport:* Full integration into the regional mobility network. Increased road and heavy rail capacity (Scale-leap). IJmeerverbinding	City-Building, Accessibility.
Omgevingsvisie Almere: Structuurvisie Almere conform Wro (Almere, 2017)	Structural Vision	*General:* "Green City": Multinucleated development, Green blue development. Cultural development of city centre. *Transport:* Densification of centre station as a node. Call for IJmeerverbinding. Increased accessibility by individual transport modes, road development (A6).	Green-City, *City-building, Densification*.
Coalitieakkoord Almere 2020-2022: Een Frisse start (VVD, D66, Leefbaar Almere, CDA, GroenLinks & ChristenUnie, 2020)	Political Agenda (coalition agreement)	*General*: Expansion and densification of housing: between 17,500 and 24,500 homes by 2030. Strengthening economic capacity. Increasing Almere's attractiveness as a business location. Marketing of Almere through the 'Almere City Marketing'. *Transport:* Regional accessibility: IJmeerverbinding, Expansion and improvement of regional/metropolitan connections.	City-building, City-marketing. Accessibility.

Table 9: List of recent policy documents of relevant organisational actors, separated by governance layer, specifying between general and transport specific goals were applicable, and imaginaries present.

CONCEPTIONS OF LIGHT RAIL

Almere

Almere is inextricably tied with Amsterdam. Almere was designed to accommodate the housing need of the city's region, including Amsterdam and the broader Randstad area (Ministry of Infrastructure and the Environment, 2012: Ex-Civil Servant, interview, 23/07/2020). The concept of 'growth municipality' remains a strong determinant for the development of Almere within professional and political mindsets and framings. Almere continues to be considered a growth municipality, developed to accommodate the growth of the city of Amsterdam (*ibid.*).

The *Almere 2.0* programme, like its predecessor *Schaalsprong Almere*, wishes to develop Almere into the Netherlands 5th largest city, with 350,000 inhabitants (Almere 2.0 Administrative Council, 2018). Moreover, it envisions a strategic development of Almere through infrastructural and city-development, including a focus on human capital through cultural and educational amenities (*ibid.*, Planner 1, interview, 25/08/2020). The imaginary motivating the planners, civil servants and politicians is city creation, or in the words of the informants, "a sound reliable, and durable city" (Expert 1, interview, 19/08/2020), "a balanced, cohesive city" (Planner 1, interview, 25/08/2020) and "to make Almere complete" (Ex-Civil Servant, interview 23/07/2020). The citizens of Almere trust that this growth is in their interest (*ibid.*), however, it is a growth which was initially driven by the imaginaries of civil servants and politicians. This imaginary runs deep through the history of Almere particularly within the administrative and executive organisations, recognising the "history of the city" (*ibid*; Politician 2, interview, 28/08/2020) regarding spatial development and continuous growth, which has been tied with Amsterdam.

> *"We weren't talking about money, we were talking about freedom, we were talking about people, about social and spatial. We were trying to make the conversation not about figures but about conditions* […]*"* (Ex-Civil Servant, interview, 23/07/2020).

The IJmeerverbinding essentially plays into this imaginary of city-building. It as a project is an attempt at consolidating Almere's position and relevance within the metropolitan scale while developing independently from the city of Amsterdam itself. It is an attempt to bring urban

qualities to the planned city which was envisioned as a 'green paradise' in the 1970s, to attract mobile capital and socially mobile populations (*ibid.*). Regionally, and particularly in the context of Amsterdam's *Autolouw* policy and other counter automobile policies within cities of the Randstad (e.g. Utrecht), it presents options to Almeerder's in keeping connections open where automobility is no longer possible in the future (Politician 2, interview, 28/08/2020). Almere justification of this project is to assisting with the urbanisation task required of the metropolitan area (*ibid.*; Almere 2.0 Administrative Council, 2018), i.e. linking it to congestion concerns regarding the heavy rail network.

In line with national policy and policy of the other organisations this project is presented as an opportunity to develop a polynucleated metropolitan area, attract human capital and strengthen the agglomeration advantages to be achieved by the city as a part of a regional cohesive urban transport network, thus increasing the economic competitiveness of the region as a whole (RRAAM, 2013; VVD, D66, Leefbaar Almere, CDA, GroenLinks & ChristenUnie, 2020). It is asserted that the IJmeerverbinding increases the attractiveness and liveability of the city while also diminishing its reliance on polluting automobility, thus achieving the goals set forth by the central government, this justification is presented to the central government in order to illicit a successful response in achieving the project. It tightly couples the urbanisation of Almere Pampus to the realisation of the line. However, the fundamental rationale of the line on the part of the municipality of Almere is to assist in the cultural development of city centre in order to attract a more educated citizen due to the urban qualities which it will bring. This is a long-term imaginary of the city, in recognition of the national imaginary of a knowledge economy in the Netherlands, and particularly in the Amsterdam metropolitan area.

Amsterdam

Amsterdam's prospective NordZuidlijn and Ringlijn projects are for "a future-proof Amsterdam - Schiphol mobility system" (Leermakers, & Hillege, 2019, p. 4). Both projects are proclaimed to be an effort in "problem-solving" for the transport network on the west side of the city, with "positive effects for regional transport network" (*ibid.*). The NordZuidlijn is to assist with capacity issues of the airport's heavy rail station which is forecasted to be at capacity by 2028 (Civil Servant 2, interview, 26/08/2020). This project is of national importance with Schiphol airport being the Netherland's 'Mainport' for entry into the country (Politician 1, interview,

19/08/2020), and is of national importance in creating a high-speed train corridor to facilitate international heavy rail travel through reducing capacity on the network with regards regional and local trains (Expert 2, interview, 20/08/2020; Planner 2, interview, 01/09/2020). It allows for greater connectivity of the economic and business areas around Schiphol and in the South of Amsterdam to the Amsterdam metro network. Extending towards Hoofddorp, a city south of Schiphol airport, this project opens up this area for residential, but particularly economic development in terms of business parks (Civil Servant 2, interview, 26/08/2020.)

The NordZuidlijn is tightly coupled with the realisation of the Ringlijn: "[t]he strength of the hypothesis research [problem-solving effects of this infrastructural interventions] lies precisely in the combination of both routes" (Leermakers, & Hillege, 2019, p. 7). This extension is to accommodate the development of the Havenstad on the banks of the IJ, a development of 70,000 housing units. The realisation of these units is of importance to development concerning its housing need and to develop according to its compact city *imaginary* (Amsterdam, 2011; Amsterdam, 2019b).

The coupling in the realisation of these projects is a political act (Civil Servant 2, interview, 19/08/2020). The NordZuidlijn is to assist with the international competitiveness of the Netherlands itself, in addition to the region, while the Ringlijn is the preference of the city of Amsterdam in order to ensure its spatial goals. Additionally, in conjunction with the heavy rail, the NordZuidlijn assists in the national and regional goals in preparing for more high-speed international heavy rail.

It is an infrastructural intervention to meet demand and expedite movement through network improvements. These projects are an effort to reduce congestion within the city and the immediate surroundings, and to develop high concentrations elsewhere to create "a liveable city" through deconcentrating economic activity in the centre (Planner 2, interview, 01/09/2020). The Amstelveenlijn upgrade and its Uithoornlijn extension are "an experiment" in order to satisfy the (Expert 2, interview, 20/08/2020; Expert 1, interview, 19/08/2020). This is a compromise on the initial goals of an extension, brought about due to budgetary constraints. This light rail connection is an upgrade of a heavy rail track and further assists with road congestion to the South of Amsterdam, allowing regional access (Expert 2, interview, 20/08/2020).

4.4 IMAGINARIES & POWER

After exploring the institutional context and some of the dominant imaginaries surrounding light rail development, the following sections now turn to questions of power. In interpreting the power of various rationales and motivation in relation to the institutional context as outlined above, it is necessary to briefly bring attention back to the typology of *ideational power* as outlined in the analytical framework. Specifically, these are *power through ideas* (the capacity to persuade others through ideas), *power over ideas* (the ability to impose ideas and to resist the inclusion of alternative ideas) and *power in ideas* (the hegemony or institution constraining what is considered).

"*You don't feed pearls to the swine*"

(Expert 1, interview, 19/08/2020)

Typifying ideational power in the Amsterdam metropolitan area, the most discerning characteristic is the *power in ideas* possessed by the ministry of infrastructure and the central government. This is achieved through the practice of the MIRT, and specifically its technical basis. Successful justifications for infrastructural interventions must be tied to demand and capacity, as stated by two key informants (Expert 1, interview, 19/08/2020; Civil Servant 3, interview, 27/08/2020) and the framing of five others (Civil Servant 1, interview, 05/08/2020; Politician 1, interview, 19/08/2020; Expert 2, interview, 20/08/2020; Civil Servant 2, interview, 26/08/2020; Planner 1, interview, 28/08/2020). Infrastructural interventions are noted to be skewed towards road infrastructure (Expert 2, interview, 20/08/2020; Civil Servant 3, interview, 27/08/2020) due to this rationality. This is related to the fundamental ideological attraction of automobility and its attendant values in addition to the economic rationality which is present in the practice of the MIRT process.

The ministry, under the centre-right VVD, focuses on road infrastructure, due specifically to the demand-oriented cost-benefit analyses contained within the MIRT process (Civil Servant 3, interview, 27/08/2020). This is not a case of wilful ignorance, but merely meeting demand where it is growing. Road infrastructure is still considered to be highly congested and lagging when it comes to infrastructural investment and is coupled to any potential investment in public transport and its infrastructure (*ibid.*). This misunderstands the general social

construction of mobility and mobility choices, with congestion and connectivity issues being met by blanket infrastructural upgrading, or, indeed, the rhetoric espoused by the IenW to "optimise developed infrastructure" (Civil Servant 1, interview, 05/08/2020). Overall, this relegates the potential successful construction of light rail to specific circumstances such as the construction of the Amstelveenlijn upgrade and its Uithoornlijn extension. The VRA, acting along similar rationalities, promoted this project due to its travel time benefits compared to BRT, similar operating cost, and minimal external costs in terms of air pollution, safety and congestion (VRA, 2016).

"*Mobility is a pretty conservative sector***"**

(Civil Servant 3, interview, 27/08/2020)

The actors discussed, apart from Amsterdam, are wholly dependent on the central government for financing, which is achieved through grants. This structural power possessed by the IenW further solidifies the ideational power of the central government and its departments, specifically through *power over ideas*. While Amsterdam could raise funds separately, this would diminish its trust with its regional neighbours (Civil Servant 1, interview, 05/08/2020). "The reflex is to be conservative" (Planner 1, interview, 28/08/2020) regarding public transport infrastructural investment overall as noted by two interviewees (Civil Servant 1 & Civil Servant 3). This power ensures the strength of the economic rationality within the successful realisation of imaginaries coupled with infrastructural and transport investment. This leads to a pervasive understanding, as indicated by one respondent, that "there is too little money" (Civil Servant 2, interview, 26/08/2020). This is specifically due to the inability of the demand-oriented and technical/financial studies contained and processed via the MIRT. This economic rationality is inherently conservative, and when coupled with the power in ideas outlined above, necessarily ensures the predominance of automobility within transport development. This precludes the construction of light rail infrastructure due to financial cost of the construction.

"*This is a strange, strange country. We have to deal with each other. "*

(Politician 1, interview, 19/08/2020)

The overarching philosophical idea propelling interaction in governance is the polder-model. While the polder-model is a strong institutionalised method of decision-making within the

Netherlands, some municipalities are more equal than others (Ex-Civil Servant, interview 23/07/2020). The difficulty relating in achieving regional light rail infrastructural interventions is due to be the complexity of governance in the region (Expert 1, interview, 19/08/2020), creating a situation in transport where there is not one actor accountable for regional transport (*ibid.*). Ideally, the task at the political level in dealing with this cultural necessity for cooperation and consensus is met through bringing the ideas of each tier together and fitting them into the imaginaries of their respective tier (Politician 1, interview, 19/08/2020). This is considered to ensure fairness and foster mutual dependence, minimise competition in decisions, and create and context leading to consistent mutually beneficial outcomes (Civil Servant 1, interview, 05/08/2020; Politician 1, interview, 19/08/2020; Politician 2, interview, 28/08/2020). However, it creates a situation in which there is a vacuum regarding a cohesive regionally oriented imaginary for transport (Expert 2, interview, 20/08/2020). This vacuum is further facilitated by the conservative funding practice of the MIRT.

Furthermore, as outlined above, the horizontality of the polder-model cannot be said to be fundamentally true, specifically regarding the realisation of local and regional imaginaries. The power over ideas and in ideas within the institutional context is wholly possessed by the central government due to the structural power and institutional arrangements. Almere, in its *Omgevingsvisie,* asserts that it is the responsibility of other actors to initiate the IJmeerverbinding (Almere, 2017). It tightly couples the central governments' ambition of the spatial development of the Pampus to the realisation of the project regarding its urbanisation task. It states that it is the responsibility of the central government to initiate the MIRT procedure (having been in multiple MIRT overviews in 2010 and 2011), and the *Rijkswaterstaat*, the government body responsible for conservation. They are conscious and frustrated by the central government's approach, but unaware of the central issue being with the programmatic idea of their problematisations.

"*Amsterdam always gets what they wanted […] it's impossible for the central government to ignore the city of Amsterdam […]*" (Civil Servant 3, interview, 27/08/2020)

Multiple informants described the situation in which highly regarded experts/civil servants within the relevant organisations of the metropolitan area construct regional plans independently and disparately (Expert 1, interview, 20/08/2020; Expert 2, interview,

20/08/2020; Civil Servant 3, interview, 27/08/2020). This is particularly considered the case for Amsterdam, whose sheer organisational power and national importance create a situation in which its staff are connected with the national government in the Hague (Politician 1, interview, 19/08/2020; Civil Servant 2, interview, 26/08/2020; Civil Servant 3, interview, 27/08/2020; Planner 1, interview, 28/08/2020). This creates a situation described by one respondent as being that "Amsterdam always tries to make its own problems, the problems of the Hague" (Civil Servant 3, interview, 27/08/2020). This power through ideas allows the city of Amsterdam to include its ideas into the infrastructural debate and couple them with the preferred interventions of the national government, *viz.*, the Ringlijn and the NordZuidlijn. Amsterdam, and its importance for the national economy, creates a situation in which the municipality has the capacity to ensure the success of its imaginaries.

"*the visions of the municipalities, even when they are valid, are not successful. Because of this lack of success, there is an attitude at these local levels that there is a lack of agency, and they are dependent on Amsterdam*." (Expert 1, interview, 19/08/2020)

As a voluntary informal organisation, the MRA is dependent on other actors. It serves as one of the arenas for the various organisations to discuss and agree upon regional imaginaries to present in the MIRT process. The MRA is, in the most extreme case, considered to be a talking shop, dependent on, and swayed by, the organisational power of Amsterdam and its imaginaries (Expert 1, interview, 19/08/2020). Its power and success are considered to be in its informality, due to the specific monopolistic make-up of the metropolitan area, in comparison with the duopoly present in Rotterdam-The Hague (Expert 2, interview, 20/08/2020). However, Amsterdam is considered (negatively) to be the "force to be reckoned with" according to one planner active in regional development (Planner 1, interview, 28/08/2020). In relation to public transport, there are too many actors to achieve cohesive regional development, the MRA bases its visions and plans on those of its most powerful and active members (Expert 2, interview, 20/08/2020). The inclusion of the IJmeerverbinding, and to some extent the NordZuidlijn, in its documents occur due to the Amsterdam recognising the ability of other actors to frustrates its desires, particular through the necessities of the governance system. These inclusions fulfil the desires of the next most powerful actors, and therefore, the MRA and its prescriptions exhibit a horizontal structure. The lower-level actors within this structure are aware of this and

temper their desires and imaginaries accordingly. These actors are aware of the fact that successful fulfilment requires the acquiescence, in some way, of Amsterdam and the two other powerful municipalities.

ACTORS	IMAGINARY	DEFINITION	PRACTICE	COALITION
IenW, VRA, Depsartment of Metro and Tram within the city of Amsterdam	*Connectivity*	Movement paradigm, demand-oriented, MaaS	MIRT	**Technocracy**
City of Amsterdam, Haarlemmermeer	*Compact city*	Mixed-use transport hubs	Policy & Programmes, Informal connections.	**Densification**
Almere, MRA, Flevoland, Noord-Holland	*Accessible and cohesive metropolitan region*	Residential development	Policy & Programmes	**Spatial Development**

Table 10: Coalitions present in the Amsterdam metropolitan area. (Own representation)

The ideas and representations contained within discursive practices summarised affect the material construction of mobility and its infrastructure. Discursive practices present in the region are outlined in Table 10 above. This exercise assists in uncovering the power-dynamics present in the metropolitan area regarding discursive rationales and justifications in imaginaries and the success of these imaginaries overall. The research noted three coalitions present within the institutional context of transport development in the case under consideration: termed technocracy, densification, and spatial development. Imaginaries are a process of problematisation. They are tools attempting to coalesce actors in engaging with future challenges, to restructure space through mobility. It is possible to interpret the problematisation of the actors, the envisioned future, and the rationales for reaching these goals through these coalitions.

The technocracy coalition is that of most importance in this institutional context. The actors and its practice are the most relevant and important in the pursuit of successful infrastructural intervention: namely, the ministry of infrastructure and the MIRT. The coalition works along an economic, technical, and demand-oriented paradigm which favours expedited movement to decrease congestion in all transport types. The densification coalition is mobilised through the

shared imaginary of an economically competitive Amsterdam facilitated through multi-nodal developments of increased density and mixed-use. Additionally, this coalition pursues a car-free agenda in the city centre to be facilitated through increased intermodality and a *scale-leap* in public transport provision. The spatial development coalition imaginary related to metropolitan development and the expansion and improvement of the regional metropolitan connections as a whole. This is to ensure cohesive metropolitan development, based within cooperative development, basing and defining their goals among each other.

Undeniable similarities exist between the various policy goals of all organisations within each of the various coalitions. Numerous organisations refer to demand- and area-oriented mobility, MaaS, and intermodal transport hubs within their policy and white papers. Area-oriented mobility and intermodal transport hubs can be understood to relate to the rural constituents of the organisations in question (Noord-Holland and Flevoland), but moreover as an acknowledgement of the overarching goals of the central government, and in recognition of the successful problematisations and justifications for organisations when attempting to achieve infrastructural investment. The members of the technocracy coalition act within an economic and technical rationality, rationalities which are facilitated in the MIRT process. The ultimate goals of this coalition is to decrease congestion and expedite the speed of connection, which they consider to increase the economic competitiveness of the region as a whole. Stimulating economic growth and ensuring the economic competitiveness of the region is the fundamental problematisation of all organisations and all coalitions. However, due to the various perspectives and interpretations, and inherent organisational biases, the definition of achieving this goal is different.

The interpreted relative power and influence of the constituent actors of these coalitions is, represented in Figure 8, below elucidates as to the overall power of and between the actors. This gives us an understanding of the reasons behind the actions of different actors in tempering their problematisations and justifications when presenting them within the MIRT process. The resource-based influence (financial) of the municipalities is noted to be much larger relative particularly to their provinces, particularly in the case of Amsterdam. The resource-based power of Amsterdam was an issue which was repeatedly mentioned throughout multiple interviews.

The non-resource-based influence represented in this figure is considered the capacity in organisational capabilities and the advantages possessed by the organisation in achieving its goals and desires, particularly in terms of personnel and power in discursive capacities. Amsterdam, with a staff, was mentioned by multiple respondents to have a particular advantage is creating and structuring its goals and justifications culminating in successful results. Similarly, as the central point of interaction, the discursive idea of Amsterdam itself holds considerable influence over the other organisations, particularly the central government (represented through the IenW) due to being an economic centre, around which the future trajectory orbits.

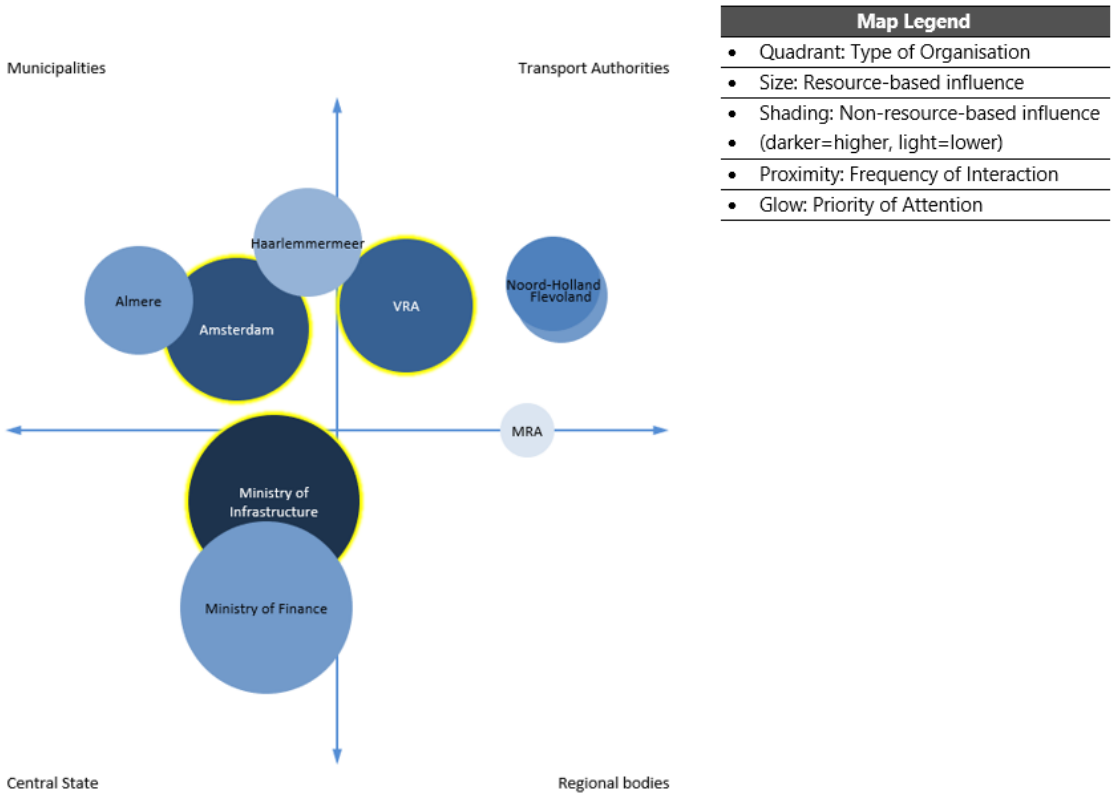


Figure 8: Stakeholder Influence diagram. (Own Representation)

The two provinces under consideration were found to frequently interact in constructing planning documents regarding transport, often presenting congruous transport imaginaries, however, the documents of Flevoland were found to be sparse in comparison to its larger neighbour. This can be regarded as a wholesome engagement with horizontal decision-making as contained with the ideal of the polderen. The two provinces bring together their ideas regarding transport and fit them into their respective ambitions and long-term goals,

through an understanding of their mutual reliance and dependence regarding their transport and spatial development goals.

Success in achieving desired infrastructural interventions is based on successful problematisations. As outlined above, and will be elaborated below, problematisations in achieving the desired infrastructure must be brought to attention. IenW, due to its structural, institutional, and ideational power, and the VRA, through sharing discursive order. Amsterdam possesses significant ideational power of its own and is similarly successful in achieving its desired results.

Figure 9 visualises the successful mobilisation of imaginaries within the region in the construction of successful justification for light rail infrastructural intervention in the case of the NordZuidlijn and Ringlijn. The underpinning problematisation of the NordZuidlijn project was mutually compatible, underpinned by the philosophical idea (3) of a competitive Amsterdam as the economic powerhouse of the region and the country on an international scale, facilitated through the importance of Schiphol as an international transport hub. The problematisation of the technocracy coalition (1), is related to the congestion and increased demand on the transport network in the region, in addition to the increased speed and capacity met by a subterranean light rail connection. This project is tightly coupled with the Ringlijn extension. However, this project also meets the same successful problematisation due to the increased capacity required to meet the development of 70,000 housing units in the Havenstad development. The programmatic idea of the city of Amsterdam (2), i.e. it's problematisation, is related to the lack of space for development within its boundaries. This leads to the goals of densification of residential development in the city, and the attempt to create mixed-use development through the scale leap in public transport development. Light rail projects are able to mobilise support from many different actors within the institutional context, most importantly with the technocracy coalition which tempers the all-important MIRT instrument. A powerful coalition was able to form for which the projects functioned as a binding agent and could form a bridge between problems at various scale levels.

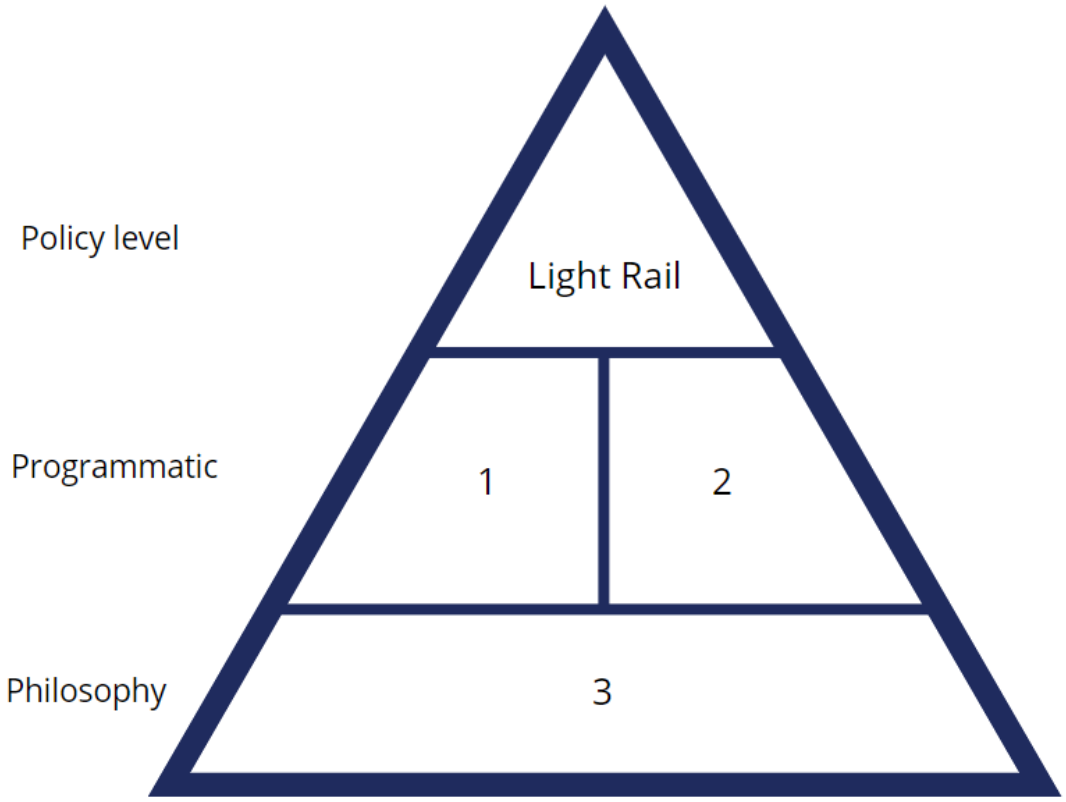


Figure 9: Policy, Programmatic and Philosophic Level underpinning the NordZuidlijn. (Own representation adapted from van Duinen, 2013)

The relegation of the IJmeerverbinding is related to the inability in mobilising the relevant coalitions in pursuit of the project (see Figure 10). The underlying philosophical idea of the technocracy remains the same, namely the economic competitiveness of the region facilitated through an attractive transport network (3). Similarly, the problematisation of this coalition also remains the same, namely, the movement paradigm (1). However, this project will not be realised (yet) due to the inability of the creation of a strong network coalition among the two coalitions. The underlying philosophical idea of this coalition (4) is the increased competitiveness of the metropolitan region as a whole, inclusive of Almere. While this is relevant in negotiations, and allusion to increased regional cooperation are made, the economic competitiveness of Almere or the disparate members of the MRA is not considered essential for the economic competitiveness of the area, specifically Amsterdam itself. The problematisation (2) is related to this. Light rail is desired in order to construct an attractive and integrated city in Almere, and the construction of the Pampus development is tightly coupled to this realisation in attempt to induce a response from the relevant and powerful technocracy coalition. This is further complicated by the limited amount of demand on the

project if completed, which does not meet the financial demand-oriented outlook mobilised via the MIRT practice and its relevant coalition. The fact that the construction of the visualisation represented in Figure 10 does not necessarily seem unstable is intentional. The overarching cultural of networked governance and *polderen* constructs a situation in which the construction of the IJmeerverbinding is a matter of time (Planner 1, interview, 28/08/2020). It is a dot in the distance; however, this distance is unknowable in the current institutional context, due specifically to the weak programmatic and philosophical level which supports it.

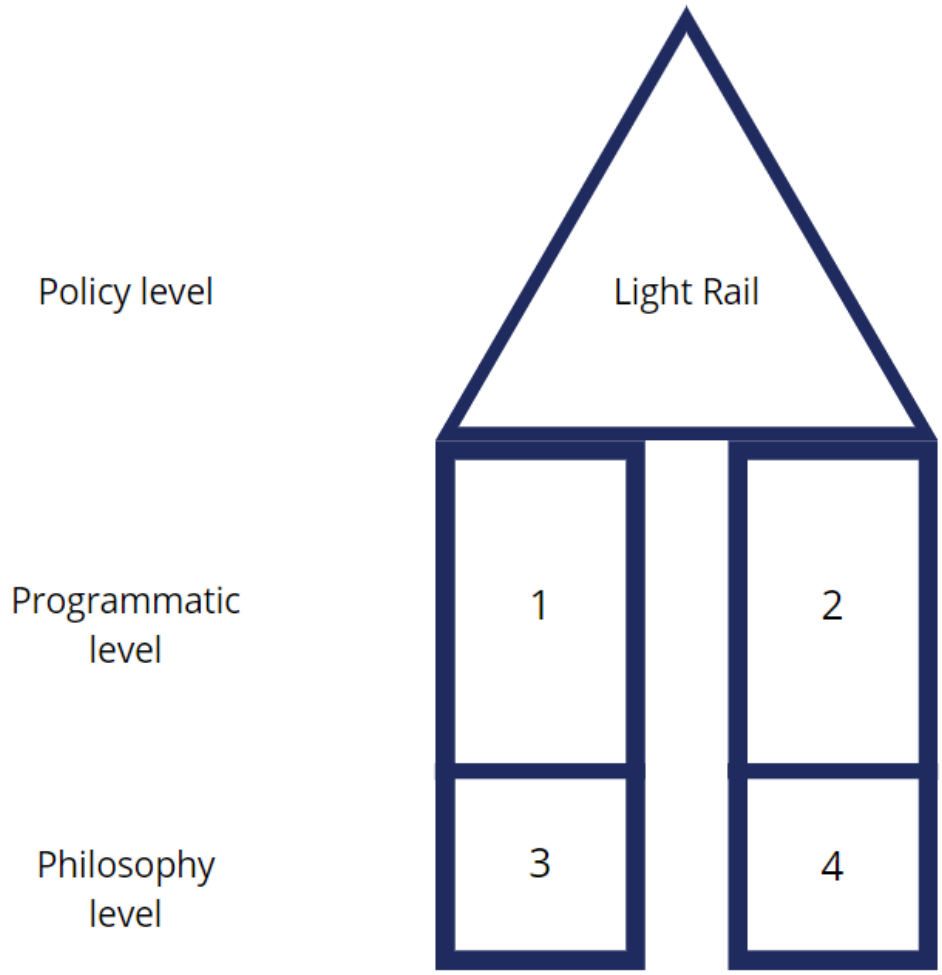


Figure 10: Policy, Programmatic and Philosophic Level underpinning the IJmeerverbinding project. (Own representation adapted from van Duinen, 2013)

CONCLUSION

This thesis set out to answer the central research question of:

What is the role of imaginaries in shaping regional light rail development in the metropolitan area of Amsterdam?

It engaged with this through the operationalisation of three research objectives which will be directly addressed below.

I. Understand and explore the institutional context of light rail development in the metropolitan area of Amsterdam.

The institutional context of light rail development in the metropolitan area of Amsterdam was found to be situated within the overall institutional context of mobility planning and policy. The overarching regulative environment is enforced though the MIRT investment process, administered by the central government via the ministry of infrastructure and water management. This thesis has argued that the MIRT process is the practice of a specific coalition in the institutional context, namely that of the *technocracy* coalition as referred to above. This coalition operates along a movement paradigm, with infrastructural interventions tied to congestion and demand-oriented justification, which, overall, favours automobile infrastructural interventions. While other coalitions exist within the metropolitan area, their power and success vary.

II. Identify and examine the dominant imaginaries surrounding light rail investment.

The dominant imaginaries as they relate to light rail in the case under consideration were considered to be tied with a compact city imaginary in the case of the city Amsterdam, and a city-building imaginary in the case of the municipality of Almere. The compact city imaginary envisions increased intermodality on the part of transport users, particularly in conjunction with the overarching policy goal of a car-free city. The light rail imaginary is tied to subterranean infrastructural development, considered to be the *a priori* choice of mode for the city of Amsterdam. This is related to limited space available within the city, due to its historic morphology, but moreover interpreted to be related to the values associated with this

form of mobility. Specifically, this mobility mode can be partly considered a city marketing exercise - an effort to solidify Amsterdam's place within the international scale, and to ensure its economic competitiveness into the future. Almere tightly couples the extension of Amsterdam's light rail network to its territory with further spatial development. This is related to its initiative in creating a more independent, and metropolitan city, in an effort to attract the mobile capital making its way to the Amsterdam area and also an attempt at attracting internationally mobile human capital attracted to Amsterdam's knowledge economy.

III. Assess the role and the extent to which imaginaries shape power in decisions making and the reordering of institutions and institutional responsibilities

It is understood that the overarching successful imaginary present in the metropolitan area is mobilised particularly by the technocracy coalition. This coalition shares the fundamental philosophical level and core ideas with the city of Amsterdam and the densification coalition, namely the maintenance and expansion of the area's economic competitiveness on the international scale. This is problematised in different ways, however, finds the same solution. The institutional order is predominantly centralised towards the central government and the ministry of infrastructure. This is due to the structural power of these organisations and ability to effectively expresses their problematisations and ideas through control of the MIRT process, and the overarching and fundamental significance of this practice in achieving desired outcomes on the part of other actors. This presents a situation in which the ideational power of the ministry is predominant, tempering many other organisations. Amsterdam, due to its structural importance to the underlying philosophical justifications of the ministry and central government, possesses similar power. However, it does also adhere to similar justifications.

On beginning this research, the concept of light rail, its provision, and the discursive formations surrounding it were approached from the perspective of the attendant benefits (city-building, marketing and economic benefits, urban regeneration). These were considered to be mobilised through coalitions made up of various institutional and organisational constellations. It was intended to uncover the (successful) rationales and justifications for the various actors, hypothesising that successful investment was mobilised through similar rationales. This process was operationalised in order to uncover regional power dynamics which may undermine the purported horizontality of the polder-model.

This thesis was considered to have engaged with "dangerous areas of thinking in decision-making and politics" (Expert 1, 19/08/2020) regarding spatial development in the Netherlands according to one interviewee. This is due to the interrogation of the underlying philosophical ideas and principles which propel interaction within governance networks in the Netherlands, in addition to an interrogation of the institutional context of transport development. The fundamental culture of planning which exists, based within the polder-model, cannot be said to be without fault. This is particularly the case as this model purportedly bases itself within an imaginary of horizontal relationships. This thesis has uncovered a hierarchical relationship with regards to the successful realisation of imaginaries when coupled with light rail infrastructural development. This is evident through the successful implementation of the connectivity bias and its power in tempering rationales of actors in the presentation of their imaginaries. For Example, Almere links its justification for the IJmeerverbinding with the central government's urbanisations concerns and the requirement to increase connectivity to the (prospectively) urbanised Pampus area, relegating its internal rationales of city-building.

Despite a legal framework in place which decentralises decision-making to the lower tiers of government – namely the transport authorities - ultimate decisional power remains with the national government concerning large-scale infrastructural development. These decisions are connected to technical and economic rationalities. While this may "*make sense*", as pronounced by one informant (Politician 2, interview, 28/08/2020), due to fiscal constraints and the scale of the financial obligations, successful infrastructural interventions are fundamentally tied to the problematisation of the central government, and the programmatic ideas with which it and its staff problematise issues and construct solutions. Transport issues are tied to demand and related congestion issues, with solutions constructed around increasing speed and minimising delays. This fundamentally limits the ability of the actors to construct bold and independent imaginaries, specifically when coupled with infrastructural development. While two respondents argue that change can occur through elections and that the citizens are ultimately in charge (Politician 1, interview, 19/08/2020; Civil Servant 2, interview, 26/08/2020), this does not consider the intrinsic bias of the MIRT instrument, the bias of the organisational characteristics of the relevant actors, and the institutional context generally, in addition to the social construction of mobility overall.

The prospective Omgevingswet, which hopes to further decentralise and democratise decision-making specifically for municipalities, will not surmount this issue. While financial independence would diminish the structural power of the central state, assisting in more efficient decision-making and the realisation of large-scale infrastructural projects, this is not possible in the metropolitan area of Amsterdam. While it is alluring to state that the normative compass of *polderen* would remain unaffected by increased financial independence and an ability to raise taxes on the part of the municipalities, the researcher would not be so naïve. The organisational power of the city of Amsterdam, even relative to its two most dominant regional neighbours (Almere and Haarlemmermeer), would easily subsume all other constituent members. This would present a very real possibility of diminishing trust within the governance network, which would necessarily decrease the likelihood of integrated and regionally focused projects and development.

The conservative practice of the MIRT and the connectivity imaginary of the technocracy will arguably maintain the predominance of automobility in the Netherlands, despite local initiatives (*vis-à-vis* Amsterdam's *Agenda Autolouw*). This presents a vicious circle. Provinces and transport authorities are required to respond to the required residential development with the construction of local servicing roads. This inevitably leads to a situation of increased demand and congestion on highways, playing into the technical and economic rationalities of technocracy coalition and its instruments. This supply-induced demand increases consumption rates, bringing to mind the 'induced demand' concept which argues that "any policy that [attempts to] reduce congestion without otherwise making driving more expensive[…] will tend to attract new traffic that at least partially offsets the policy's effect on congestion" (Hymel et al, 2010).

The characteristics of mobility in the metropolitan area of Amsterdam level requires engagement to meet present and future urbanization challenges. Automobility within cities and regions creates congestion, environmental, and social concerns, specifically concerning the liveability indicators employed by the organisations considered above. Targeted investment into regional light rail, holds possibilities in creating accessible and liveable and sustainable regional communities. However, the ministry must re-evaluate the MIRT process, and its internal biases in favouring connectivity over regional accessibility facilitated through

targeted investment in light rail. Additionally, there is a requirement for the creation of a separate administrative body focused specifically on regional transport in the broader scale. Increased regional accessibility in the metropolitan area of Amsterdam can only be solved with these two prescriptions in conjunction with another. The prospective Omgevingswet will require further decentralisation to the lower authorities will frustrate prospective large-scale infrastructural development.

Imaginaries are mobilised by actor-networks in order to build consensus around future-orientations. Both the imaginaries and their success are deeply affected by the institutional context of transport development and its practices. The technocracy coalition, promulgating a connectivity imaginary in order to maintain and build the economic competitiveness of the region, is found to be most dominant through its power in ideas. Amsterdam and its coalition, due to its centrality regarding economic competitiveness and its power over ideas, can similarly achieve its desired outcomes when combined with light rail through building alliances with the technocracy coalition. For Almere, and regional light rail development generally, this relegates the possibilities of the successful realisation of its imaginaries tied to light rail development. This is caused by the inherent technical and economic rationality of the dictating practice of the MIRT. Nevertheless, due to the, arguably flawed, normative compass of *polderen* the realisation of regionally-focused light rail development remains a possibility. However, the MIRT as a practice needs to be fundamentally engaged with to promote regional light rail development and to give more power to the lower tiers of governance in achieving their desired imaginaries.

5.1 LIMITATIONS

By engaging with the limitations of the research herein, future avenues of research and inquiry will prove forthcoming. The limitations of this research emanated from the complexity of governance networks exhibited by the case under consideration. The numerous and overlapping body of organisations which should or could be considered proved inhibitive for the conduction of a succinct research project. Therefore, by engaging with a network of actors of such complexity, comprehensive engagement with each organisation as required proved difficult.

The employment of the concept of imaginaries proved insightful for engaging in analysis. However, the future-orientation of this concept and the presentation of the considered imaginaries in policy as merely aspirational presents limitations regarding the substantive outcomes and implications of these statements. Similarly, the process of gathering information around prospective projects proved difficult, as perspectives around the implementation of these projects are still under construction.

Engaging with socio-political and cultural processes of a foreign country (from the researchers perspective) was useful, in that the inherent subjective cultural and social biases which may be present in addressing one's own country, were not, necessarily, present. However, this did present difficulties in engaging with data-gathering, due to the language barrier.

5.2 FUTURE RESEARCH

This research has uncovered and illuminated the inherent ideational power dynamics in the metropolitan area of Amsterdam regarding the construction of imaginaries revolving around infrastructural development. This research can be used with pre-existing literature concerning metropolitan regionalism particularly related to the case of Amsterdam and in relation to institutionalisation process in the transport sector and ideational power in the Netherlands as a whole.

The findings of this research can be particularly insightful towards further research engaging with transitions or "major, long-term technological changes in the way societal functions are fulfilled" (Geels, 2012, p. 1257). The conclusions of this research can prove useful for research engaging with the institutional blockages in the transport sector in the Netherlands. The research illustrates the stability and social relations within this sector which may inhibit the success of transitions. The notion of ideational power proved particularly useful in analysis and could be used in different domains such as land-use to uncover lock-in mechanisms inhibiting transit-oriented development.

Additionally, there is a need for increased study into the contextual effects of land-use as it relates to transport, and the potential negative effects such as gentrification. The actors considered in this thesis presented an entrepreneurial character in their developmental

policies (c.f. Harvey, 1989). It is necessary to uncover the real existing effects of this, in the case and particularly as it relates to the provision of transport in the Netherlands' generally.

This research uncovered factors inhibiting the democratisation of planning within the Netherlands. Future research into the power of the ideas of citizens in contention with those of planners and politicians concerning desired futures would prove interesting. The power of Amsterdam, it's internal organisation (powerful politicians and civil servants) was also uncovered. Direct analysis of this ideational and organisational power would prove particularly interesting and useful for research into the region and the construction of a cohesive regional imaginary.

BIBLIOGRAPHY

1. Aalbrechts, L. (2013). Reframing strategic spatial planning by using a coproduction perspective. *Planning Theory, 12*(1), 46–63. https://doi.org/10.1177/1473095212452722
2. Agnew, J. (2005). Space: place. In P. Cloke & R. Johnston (Eds.), *Spaces of geographical thought: Deconstructing human geography's binaries* (pp. 81-96). London: SAGE Publications Ltd. http://dx.doi.org/10.4135/9781446216293.n5.
3. Almere 2.0 Administrative Council. (2018). *Jaarverslag Almere 2.0 2018*. https://almere20.almere.nl/fileadmin/user_upload/LR_Jaarverslag_Almere_2.0_2018.pdf
4. Almere. (2013, August 31). *Almere Principles.* Gemeente Almere. https://www.almere.nl/bestuur/almere-principles/
5. Almere. (2017). *Omgevingsvisie Almere, structuurvisie Almere conform Wro* [White paper]. https://almere.notubiz.nl/document/5879998/1/Vaststelling_omgevingsvisie_Almere_OMGEVINGSVISIE
6. Almere. (2020). *College van B en W.* Retrieved August 20, 2020, from https://www.almere.nl/bestuur/college-van-b-en-w.
7. Alpokin, P. (2012). Historical and critical review of spatial and transport planning in the Netherlands. *Land Use Policy, 29*(3), 536–547. https://doi.org/10.1016/j.landusepol.2011.09.007
8. Amsterdam. (2011). *Structuurvisie Amsterdam 2040 Economisch sterk en duurzaam* [White Paper]. https://assets.amsterdam.nl/publish/pages/867639/structuurvisie_amsterdam_2040_2011.pdf. Accessed: 11/05/2020
9. Amsterdam. (2016). *Koers 2025, Ruimte voor de stad* [White Paper].
10. Amsterdam. (2017a). *Haven- Stad, concept ontwikkelstrategie* [White Paper].
11. Amsterdam. (2017b). *Mobiliteitsverkenning, voor een groeiend Amsterdam* [White Paper]. https://openresearch.amsterdam/nl/page/62049/mobiliteitsverkenning-van-een-groeiend-amsterdam
12. Amsterdam. (2019a). *Programma Smart Mobility 2019-2025* [White Paper]. Geemente Amsterdam.

https://assets.amsterdam.nl/publish/pages/924184/programma_smart_mobility_2019-2025_web_nw_1.pdf.

13. Amsterdam. (2019b). *Startnotitie Omgevingsvisie Amsterdam 2050* [White Paper. Geemeete Amsterdam. https://assets.amsterdam.nl/publish/pages/929375/startnotitie_omgevingsvisie_amsterdam_2050_10_mb.pdf
14. Amsterdam. (2020a). *Amsterdam maakt ruimte: Amsterdam Agenda Autoluw* [White Paper]. Geemeente Amsterdam. https://assets.amsterdam.nl/publish/pages/956711/agenda_autoluw.pdf
15. Amsterdam. (2020b). *Organisatie.* Amsterdam.nl. Retrieved August, 20, 2020, from https://www.amsterdam.nl/bestuur-organisatie/organisatie/.
16. Barnett, M. & Duvall, R. (2005). Power in International Politics. *International Organization*, *59*(1), 39-75. https://doi.org/10.1017/S0020818305050010
17. Beckert, J. (2016). *Imagined futures : fictional expectations and capitalist dynamics*. Harvard University Press.
18. Blyth, M. (2001). The transformation of the Swedish model: economic ideas, distributional conflict, and institutional change. *World Politics, 54*(1), 1-26. https://doi.org/10.1353/wp.2001.0020
19. Boisjoly, G. & El-Geneidy, A. M.. (2017). How to get there? A critical assessment of accessibility objectives and indicators in metropolitan transportation plans. *Transport Policy, 55*(C), 38-50. https://doi.org/10.1016/j.tranpol.2016.12.011
20. Bontje, M. (2003). A 'planner's paradise' lost? Past, present and future of Dutch national urbanization policy. *European Urban and Regional Studies*, *10*(2), 135-151. https://doi.org/10.1177/0969776403010002003
21. Boterman, W., Karsten, L. & Musterd, S. (2010). Gentrifiers Settling Down? Patterns and Trends of Residential Location of Middle-Class Families in Amsterdam. Housing Studies, *25*(5),693-714. https://doi.org/10.1080/02673037.2010.483586
22. Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, *9*(2), 27-40. https://doi.org/10.3316/QRJ0902027
23. Butler, J. (1993). *Bodies that matter: on the discursive limits of "sex".* Routeledge.

24. Canon van Almere (2011, May 11). *Planologie.* Gemeente Almere. https://canonvanalmere.nl/planologie

25. Carstensen, M. & Schmidt, V. (2016). Power through, over and in ideas: Conceptualizing ideational power in discursive institutionalism, *Journal of European Public Policy, 23*(3), 318-337. https://doi.org/10.1080/13501763.2015.1115534

26. Cervaro, R. (1984). Journal Report: Light Rail Transit and Urban Development. *Journal of American Planning Association, 50* (2), 133-147. https://doi.org/10.1080/01944368408977170

27. Cervero, R., Guerra, E., & Al, S. (2017). *Beyond mobility : planning cities for people and places*. Island Press.

28. Cresswell, T. (2006). *On the move : mobility in the modern western world*. Routledge.

29. Culver G. (2017). Mobility and the making of the neoliberal 'creative city': The streetcar as a creative city project? *Journal of Transport Geography, 58*(1), 22–30. https://doi.org/10.1016/j.jtrangeo.2016.11.005

30. Dahl, R.A. (1968). Power. *International Encyclopedia of the Social Sciences.* Vol. 12. Free Press.

31. Davoudi, S. (2012). The legacy of positivism and the emergence of interpretive tradition in spatial planning. *Regional Studies*, *46*(4), 429–441. https://doi-org.proxy.library.uu.nl/10.1080/00343404.2011.618120

32. Davoudi, S. (2015). Planning as practice of knowing. *Planning Theory, 14*(3), 316–331. https://doi.org/10.1177/1473095215575919

33. Davoudi, S. (2018). Policy and practice spatial imaginaries: Tyrannies or transformations? *Town Planning Review*, *89*(2), 97–124. https://doi-org.proxy.library.uu.nl/10.3828/tpr.2018.7

34. Davoudi, S., & Strange, I. (2009). *Conceptions of space and place in strategic spatial planning* (Ser. The rtpi library series, 17). Routledge.

35. de Bruijn, J. A., & Veeneman, W. W. (2009). Decision-making for light rail. Transportation Research. Part A: Policy & Practice, 43(4), 349-359. https://doi.org/10.1016/j.tra.2008.11.003

36. Deloitte. (2018). Amsterdam metropolitan area. *Deloitte City Mobility Index*. (Ser. Deloitte Insights).

37. Deloitte. (2020). Amsterdam. *Deloitte City Mobility Index*. (Ser. Deloitte Insights).

38. Depla, S., te Grotenhuis, H. & Pans, R. (2019). *Meer richting en resultaat: Evaluatie bestuurlijke samenwerking Metropoolregio Amsterdam*. https://www.metropoolregioamsterdam.nl/wp-content/uploads/2019/11/Meer-richting-en-resultaat-Evaluatie-bestuurlijke-samenwerking-Metropoolregio-Amsterdam.pdf

39. Dijksma, S. (2016). *Overstappen naar 2040: flexibel en slim OV* [White Paper]. https://www.tweedekamer.nl/downloads/document?id=c39ed666-89b7-4dfd-8437-cff30a360866&title=Toekomstbeeld%20Openbaar%20Vervoer%20%E2%80%9COverstappen%20naar%202040%3A%20flexibel%20en%20slim%20OV%E2%80%9D.pdf

40. Dodson, J. (2009). The 'infrastructure turn' in Australian metropolitan spatial planning. *International Planning Studies*, *14*(2), 109–123. https://doi-org.proxy.library.uu.nl/10.1080/13563470903021100

41. Easterling, K. (2016). *Extrastatecraft : the power of infrastructure space*. Verso.

42. Edelman, M. (1993). Contestable categories and public opinion. *Political Communication*, *10*(3), 231–242. https://doi-org.proxy.library.uu.nl/10.1080/10584609.1993.9962981

43. Elliot, A. & Urry, J. (2010). *Mobile Lives.* Routledge.

44. Faludi, A. (2000). The performance of spatial planning. Planning Practice & Research, *15*(4), 299-318, https://doi.org/10.1080/713691907

45. Farthing, S. (2016). *Research Design in Urban Planning*. SAGE.

46. Ferbrache F. & Knowles R. D. (2017). City boosterism and place-making with light rail transit: A critical review of light rail impacts on city image and quality. *Geoforum,* 80, 103–113. https://doi.org/10.1016/j.geoforum.2017.01.013

47. Flyvberg, B. (1998). *Rationality and power: Democracy in practice.* University of Chicago Press.

48. Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry*, *12*(2), 219–245. https://doi.org/10.1177/1077800405284363

49. Friedmann, J. (2005). Globalisation and the emerging culture of planning. *Progress in Planning*, *64*(3), 183-234. https://doi.org/10.1016/j.progress.2005.05.001

50. Galland D. & Harrison J. (2020). Conceptualising metropolitan regions: How institutions, policies, spatial imaginaries and planning are influencing metropolitan development. In K. Zimmermann, D. Galland & J. Harrison (Eds). *Metropolitan Regions, Planning and Governance*. Springer.
51. Gerring, J. (2004). What is a case study and what is it good for? *The American Political Science Review, 98*(2)., 341-354.
52. Graham, S., & Marvin, S. (2001). *Splintering urbanism: Networked infrastructures, technological mobilities and the urban condition*. Routledge.
53. Granqvist, K., Humer, A. & Mäntysalo, R. (2020). Tensions in city-regional spatial planning: the challenge of interpreting layered institutional rules, *Regional Studies*. 1-13.
54. GroenLinks/D66/PvdA/SP (2018). *Een nieuwe lente en een nieuw geluid: Coalitieakkoord*. Available at: https://www.amsterdam.nl/bestuur-organisatie/volg-beleid/coalitieakkoord-uitvoeringsagenda/.
55. Hajer, M. & Zonneveld, W. (2000). Spatial Planning in the Network Society – Rethinking the Principles of Planning in the Netherlands. *European Planning Studies, 8*(3), 337 – 355.
56. Hajer, M. (1995). *The Politics of Environmental Discourse: Ecological Modernization and the Policy Process*. Oxford University Press,
57. Hajer, M. (2006). Doing discourse analysis: coalitions, practices, meaning, Words matter. In *Policy and Planning: Discourse theory and method in the social sciences* (pp. 65-76). Netherlands Geographical Studies.
58. Harrison J., Fedeli V., Feiertag P. (2020). Imagining the Evolving Spatiality of Metropolitan Regions. In: Zimmermann K., Galland D., Harrison J. (eds). *Metropolitan Regions, Planning and Governance*. Springer, Cham.
59. Harvey, D. (1996). *Justice, Nature and the Geography of Difference*. Wiley.
60. Harvey, D. (2006). *Spaces of Global Capitalism*. Verso.
61. Harvey, D. (2009). *Social justice and the city* (Revised, Ser. Geographies of justice and social transformation, 1). University of Georgia Press.
62. Healey, P. (1997). *Making strategic spatial plans : innovation in Europe*. UCL Press.

63. Healey, P. (2004), The Treatment of Space and Place in the New Strategic Spatial Planning in Europe. *International Journal of Urban and Regional Research, 28*, 45-67. https://doi.org/10.1111/j.0309-1317.2004.00502.x

64. Healey, P. (2007). *Urban complexity and spatial strategies: towards a relational planning for our times* (1st ed., Ser. The rtpi library series). Routledge.

65. Higgins C.D. & Kanaroglou P.S. (2016). Infrastructure or attraction? Image-led planning and the intangible objectives of rapid transit projects. *Journal of Planning Literature* 31(4), 452–462.

66. Centraal Bureau voor de Statistiek. (2020, October 9). *Hoe reizen we van en naar het werk?* https://www.cbs.nl/nl-nl/visualisaties/verkeer-en-vervoer/personen/van-en-naar-werk

67. Ministerie van Economische Zaken en Klimaat. (2019, August 29). *Wat is het doel van het Klimaatakkoord?* Klimaatakkoord. https://www.klimaatakkoord.nl/klimaatakkoord/vraag-en-antwoord/wat-is-het-doel-van-het-klimaatakkoord

68. Hincks, S., Deas, I. and Haughton, G. (2017)., Real Geographies, Real Economies and Soft Spatial Imaginaries: Creating a 'More than Manchester' Region. *International Journal of Urban and Regional Research*, 41: 642-657. doi:10.1111/1468-2427.12514

69. Hollis, M. (2003). *The Philosophy of Social Science: An Introduction*. Cambridge University Press, Cambridge.

70. Hooghe, L. & Marks, G. (2001). Types of Multi-level Governance. *European Integration Online Papers*.

71. Hughes, T. P. (1987). *The evolution of large technological systems*. (Ser. Wzb-papers, p 86,9). WZB.

72. Jasanoff, S., & Kim, S.-H. (Eds.). (2015). *Dreamscapes of modernity : sociotechnical imaginaries and the fabrication of power*. University of Chicago Press

73. Jensen, O.B. & Richardson, T. (2004). *Making European Space: Mobility, Power and Territorial Identity*. Routledge.

74. Jørgensen, M., & Phillips, L. (2008). *Discourse analysis as theory and method* (Repr). Sage

75. Kaufmann, V. (2002). *Re-thinking mobility : contemporary sociology* (Ser. Transport and society). Ashgate.

76. Kaufmann, V., Bergman, M., Joye, D., (2004). Motility: mobility as capital. *International Journal of Urban and Regional Research,* 28 (4)., pp. 745–756.

77. Kearns, A., & Paddison, R. (2000). New Challenges for Urban Governance. *Urban Studies*, 37(5–6)., pp. 845–850. https://doi.org/10.1080/00420980050011118.

78. King D.A. & Fisher L.A. (2016). Streetcar projects as spatial planning: A shift in transport planning in the United States. Journal of Transport Geography 54, pp. 383–390.

79. Knowles R. D. & Ferbrache F. (2016). Evaluation of wider economic impacts of light rail investment on cities. *Journal of Transport Geography* 54, pp. 430–439.

80. Koppenjan, J. & Klijn, E.-H. (2004). *Mangaging Uncertainties in Networks: A network approach to problem solving and decision making*. Psychology Press.

81. Krisch A. (2019). Examining Cultural Planning in Vienna: The Discursive Institutionalization of Social Infrastructure in Strategic Planning. plaNext – next generation planning. 9, pp. 26-44. DOI: 10.24306/plnxt/58.

82. Krisch, A. & Suitner, J. (2020). Aspern Explained: How the Discursive Institutionalisation of Infrastructure Planning Shaped North-Eastern Vienna's Urban Transformation, The Planning Review, 56:2, pp. 51-66, DOI: 10.1080/02513625.2020.1794126

83. Kvale, S. (2007). Qualitative Research kit: Doing interviews. SAGE Publications

84. Latour, B., & Porter, C. (1996). *Aramis, or, the love of technology*. Harvard University Press.

85. Lauermann, J. (2016). "The City" as developmental justification: claimsmaking on the urban through strategic planning. *Urban Geography*, *37*(1)., pp. 77–95. https://doi-org.proxy.library.uu.nl/10.1080/02723638.2015.1055924

86. Leermakers, C. & Hillege, B. (Eds.). (2019). *Kwartaalrapportage Q2 2019: Programma Lightrail 2020 -2040*. Gemeente Amsterdam https://openresearch.amsterdam/nl/page/53109/programma-lightrail-2020-2040---q2-2019

87. Lefebvre, H. (1991). *The Production of Space*, translated Donaldson-Smith n. from the original 1974 Ed. Blackwell, Oxford.

88. Lester, W. T. & Reckhow, S. (2012). Network governance and regional equity: Shared agendas or problematic partners? *Planning Theory*, 12(2)., pp. 115-138.

89. Lieshout, M. (2020, February 18). D66 en CDA halen plannen voor IJmeerverbinding weer uit de kast. *De Volkskrant*. https://www.volkskrant.nl/nieuws-achtergrond/d66-en-cda-halen-plannen-voor-ijmeerverbinding-weer-uit-de-kast~b0e3f922/.

90. Marshall, T. (2013). The remodeling of decision making on major infrastructure in britain. *Planning Practice and Research*, *28*(1)., 122–140. https://doi-org.proxy.library.uu.nl/10.1080/02697459.2012.699255

91. Martin, L. & Simon, S. (2008). A formula for disaster: The department of homeland security's virtual ontology. *Space and Polity, 12*(3), 281–296. https://doi.org/10.1080/13562570802515127.

92. Ministerie van Binnenlandse Zaken en Koninkrijksrelaties (2020). *Nationale Omgevingsvisie: Duurzaam perspectief voor onze leefomgeving*. Available at: https://denationaleomgevingsvisie.nl/over+de+novi/ga+naar+de+nationale+omgevingsvisie/default.aspx. Accessed 19/09/2020.

93. Ministerie van Infrastructuur en Milieu (2015). *Wet Lokaal Spoor*. Available at: http://wetten.overheid.nl/BWBR0034363/2015-12-15. Accessed: 20/08/2020.

94. Ministerie van Infrastructuur en Waterstaat (2016). *Spelregels van het Meerjarenprogramma Infrastructuur, Ruimte en Transport (MIRT).*. Available at: https://www.rijksoverheid.nl/binaries/rijksoverheid/documenten/rapporten/2016/11/21/spelregels-van-het-mirt/Spelregels+MIRT+2016.pdf. Accessed: 14/07/2020

95. Ministerie van Infrastructuur en Waterstaat (2017). *Tracéwet* (1993).. Available at: http://wetten.overheid.nl/ BWBR0006147/2017-05-01. Accessed: 20/08/2020.

96. Ministerie van Infrastructuur en Waterstaat (2018). *Wet personenvervoer 2000*. Available at: http://wetten.overheid.nl/BWBR0011470/2018-02-17. Accessed: 20/08/2020.

97. Ministerie van Infrastructuur en Waterstaat (2019). *Contouren Toekomstbeeld OV 2040*. Available at https://www.rijksoverheid.nl/binaries/rijksoverheid/documenten/rapporten/2019/02/06/contouren-toekomstbeeld-ov-2040/contouren-toekomstbeeld-ov-2040.pdf. Accessed: 20/07/2020.

98. Ministerie van Infrastructuur en Waterstaat (2020). *Ministerie van Infrastructuur en Waterstaat*. rijksoverheid.nl. https://www.rijksoverheid.nl/ministeries/ministerie-van-infrastructuur-en-waterstaat. Accessed: 22/09/2020.

99. Ministerie van Infrastructuur en Waterstaat, Ministerie van Economische Zaken en Klimaat & Ministerie van Binnenlandse Zaken en Koninkrijksrelaties. (2019). *MIRT Overzicht 2020*. Available at: https://www.rijksoverheid.nl/binaries/rijksoverheid/documenten/rapporten/2019/09/17/bijlage-1-mirt-overzicht-2020/bijlage-1-mirt-overzicht-2020.pdf. Accessed: 14/07/2020

100. Ministry of Infrastructure and the Environment, (2012). *35 icons of Dutch Spatial Planning*. Available at: https://www.government.nl/binaries/government/documents/leaflets/2012/12/19/icons-of-dutch-spatial-planning/icons-of-dutch-spatial-planning.pdf. Accessed: 09/03/2020

101. Moulaert, F. Jessop, B. & Mehmood, A. (2016). Agency, structure, institutions, discourse (ASID). in urban and regional development. International Journal of Urban Sciences, 20:2, pp. 167-187.

102. Movares (2016). *Regionaal OV Ambitiebeeld 2040 voor Noord Holland en Flevoland* Available at https://www.metropoolregioamsterdam.nl/wp-content/uploads/2019/08/Samenvatting-OV-Ambitiebeeld-2040-voor-heel-Noord-Holland-en-Flevoland.pdf. Accessed 10/06/2020

103. MRA (2015). *Ontwikkelagenda Spoor*. Available at: https://www.metropoolregioamsterdam.nl/wp-content/uploads/2019/08/MRA-Ontwikkelagenda-Spoor.pdf. Accessed: 10/06/2020

104. MRA (2016). *Convenant Versterking samenwerking Metropoolregio Amsterdam*. Available at https://www.metropoolregioamsterdam.nl/wp-content/uploads/2019/11/MRA-Convenant.pdf. Accessed: 10/06/2020

105. MRA (2019). *Internationale topregio met hoge leefkwaliteit*. Available at: https://www.metropoolregioamsterdam.nl/wp-content/uploads/2019/10/Concept-MRA-Agenda-2.0.pdf. Accessed 10/05/2020.

106. Murdoch, J. (2006). *Post-structuralist Geography: A Guide to Relational Space*. Sage.

107. Musterd, S., Jobse, R.B. & Kruythoff, H.M. (1991). Residential mobility and urban change in the Randstad: Some (dis).similarities between Amsterdam, Rotterdam and The Hague. *Netherlands Journal of Housing and the Built Environment* 6, pp. 101–113.

108. North, D. C. (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge University Press.

109. Nuissl, H., & Heinrichs, D. (2011). Fresh Wind or Hot Air—Does the Governance Discourse Have Something to Offer to Spatial Planning? *Journal of Planning Education and Research*, 31(1)., pp. 47–59. https://doi.org/10.1177/0739456X10392354

110. Obeng-Odoom, F. (2012). On the origin, meaning, and evaluation of urban governance. Norsk Geografisk Tidsskrift - Norwegian Journal of Geography, 66:4, pp. 204-212, DOI: 10.1080/00291951.2012.707989

111. OECD (2017). *The Governance of Land Use in the Netherlands: The Case of Amsterdam*, OECD Publishing, Paris.

112. OIS Amsterdam. (2020, June 17). *Gasten en overnachtingen in hotels, bungalowparken, campings en groepsaccommodaties*. https://api.data.amsterdam.nl/dcatd/datasets/K9iLvoh0cOTvIw/purls/1

113. Olesen, K. & Richardson, T. (2011). The Spatial Politics of Spatial Representation: Relationality as a Medium for Depoliticization?. *International Planning Studies*, 16(4)., pp. 355-375. DOI: 10.1080/13563475.2011.615549

114. Olesen, K. (2020). Infrastructure imaginaries: The politics of light rail projects in the age of neoliberalism. *Urban Studies*, *57*(9)., pp.1811–1826. https://doi.org/10.1177/0042098019853502

115. Olesen, M. (2014). Framing light rail projects –Case studies from Bergen, Angers and Bern. *Case Studies on Transport Policy,* 2(1)., pp. 10–19.

116. Olesen, M. and Lassen C. (2016). Rationalities and materialities of light rail scapes. *Journal of Transport Geography*, 54, pp. 373–382.

117. Ong, A. (2011). Introduction: Worlding cities, or the art of being global. In Roy, A. & Ong, A. (eds.). *Worlding cities: Asian experiments and the art of being global*. Chichester: Wiley-Blackwell, pp.1–26.

118. Othengrafen, F., & Reimer, M. (2013). The Embeddedness of Planning in Cultural Contexts: Theoretical Foundations for the Analysis of Dynamic Planning Cultures. *Environment and Planning A: Economy and Space*, 45(6)., pp. 1269–1284. https://doi.org/10.1068/a45131

119. Peters, B. G. & Pierre, J. (2012). *Urban Governance*. Oxford University Press.

120. Provincie Flevoland (2016). *Mobiliteitsvisie Flevoland 2030.* Available at: https://www.flevoland.nl/getmedia/ba109e9f-894d-488c-a8ec-1d4134e469b5/Mobiliteitsvisie.PDF. Accessed: 18/06/2020.

121. Provincie Flevoland (2017). *Omgevingsvisie FlevolandStraks: Samen maken we Flevoland*. Available at : https://www.flevoland.nl/getmedia/4187edb4-d9cd-482f-bc7d-fc0a9aaa0da3/Omgevingsvisie-FlevolandStraks-8-11-17-dv.pdf. Accessed: 18/06/2020.

122. Provincie Flevoland. (2020).. *Even voorstellen.* stateninformatie.flevoland.nl. https://stateninformatie.flevoland.nl/Medewerkers/even-voorstellen. Accessed: 18/06/2020

123. Provincie Noord-Holland (2018). *Omgevingsvisie NH2050: Balans tussen economische groei en leefbaarheid*. Available at: https://www.noord-holland.nl/Onderwerpen/Ruimtelijke_inrichting/Projecten/Omgevingsvisie/Publicaties/Omgevingsvisie_NH2050_vastgesteld_op_19_november_2018.org. Accessed: 18/06/2020

124. Provincie Noord-Holland (2019). *Agenda Mobiliteit.* Available at: https://www.noord-holland.nl/Onderwerpen/Verkeer_vervoer/Mobiliteit/Zie_ook/Discussiedocument_Agenda_Mobiliteit.org. Accessed: 18/06/2020.

125. Pucci, P., Manfredini, F., & Tagliolato, P. (2015). *Mapping urban practices through mobile phone data*. Springer.

126. Rérat, P. and Lees, L. (2011). Spatial capital, gentrification and mobility: evidence from Swiss core cities. *Transactions of the Institute of British Geographers*, 36(1), 126-142.

127. Richardson, T. & Jensen, O. (2008). How Mobility Systems Produce Inequality: Making Mobile Subject Types on the Bangkok Sky Train. *Built Environment, 34*(2), 218-231.

128. Rijkswaaterstaat (2020). *Structuurvisie*. Kenniscentrum InfoMil. https://www.infomil.nl/onderwerpen/ruimte/ruimtelijke/wet-ruimtelijke/structuurvisie/. Accessed: 22/09/2020.

129. Roodbol-Mekkes, P. H., van der Valk, A. J. J., & Altes, W. K. K. (2012). The Netherlands Spatial Planning Doctrine in Disarray in the 21st Century. *Environment and Planning A: Economy and Space*, 44(2)., pp. 377–395.

130. RRAAM (2013). *Ontwerp-Rijksstructuurvisie Amsterdam-Almere-Markermeer*. Available at: https://zoek.officielebekendmakingen.nl/blg-223645.pdf. Accessed: 20/06/2020

131. Said, E. (2003). *Orientalism*. Revised ed. London: Penguin Classics

132. Salet, W. (2006). Rescaling territorial governance in the Randstad Holland: The responsiveness of spatial and institutional strategies to changing socio-economic interactions. *European Planning Studies*, 14(7)., pp. 959-978.

133. Salet, W. (2018). *Public Norms and Aspirations: The Turn to Institutions in Action*. Routledge.

134. Salet, W., Vermeulen, R., Savini, F., & Dembski, S. (2015). Planning for the new European metropolis: functions, politics, and symbols. Planning Theory & Practice, 16(2), 251-254. https://doi.org/10.1080/14649357.2015.1021574

135. Savini, F., Boterman, W. R., van Gent, W. P. C., & Majoor, S. (2016). Amsterdam in the 21st century: geography, housing, spatial development and politics. Cities : The International Journal of Urban Policy and Planning, 52, pp. 103-113.

136. Schmid, C. Karaman, O. & Hanakata N. (2018). Towards a new vocabulary of urbanization processes: A comparative approach. *Urban Studies, 55*(1), 19–52.

137. Schmidt, V. A. (2012). Discursive Institutionalism: Scope, Dynamics, and Philosophical Underpinnings. In F. Fischer & H. Gottweis (Eds.), *The Argumentative Turn Revised: Public Policy as Communicative Practice* (pp. 85–113). Duke University Press.

138. Schmidt, V. A. (2016). The roots of neo-liberal resilience: Explaining continuity and change in background ideas in Europe's political economy. *The British Journal of Politics and International Relations*, *18*(2), 318–334.

139. Schmidt, V.A. (2008). Discursive institutionalism: the explanatory power of ideas and discourse. *Annual Review of Political Science*, *11*, 303 –26.

140. Schmidt, V. A. & Radaelli, C. M. (2004). Policy Change and Discourse in Europe: Conceptual and Methodological Issues. *West European Politics, 27*(2), 183–210.

141. Schreuder, Y. (2001). The Polder Model in Dutch Economic and Environmental Planning. Bulletin of Science. *Technology & Society, 21*(4), 237–245.

142. Scott, W. (2001). *Institutions and organizations*. Sage.

143. Scruton, R. (1996). *Modern Philosophy: An Introduction and Survey*. Mandarin.

144. Sharp, J. P. (2009). *Geographies of postcolonialism: spaces of power and representation*. Sage.

145. Sheller, M. (2017). From spatial turn to mobilities turn. *Current Sociology, 65*(4), 623–639. https://doi.org/10.1177/0011392117697463

146. Sheller, M., & Urry, J. (2006). The New Mobilities Paradigm. *Environment and Planning A: Economy and Space, 38*(2), 207–226. https://doi.org/10.1068/a37268

147. Sørensen, A. (2015). Taking path dependence seriously: an historical institutionalist research agenda in planning history. *Planning Perspectives*, *30*(1), 7–38. https://doi-org.proxy.library.uu.nl/10.1080/02665433.2013.874299

148. Sørensen, A. (2017). New Institutionalism and Planning Theory. In Gunder, M., Mandanipour, A. & Watson, V. *The Routledge Hanbook of Planning Theory* (pp. 250 – 263). Routledge,.

149. Spaans, M., Zonneveld, W., & Stead, D. (2019). Governance and power in the metropolitan regions of the Randstad. In *AESOP Congress 2019 - Plannning in Transition: Institutional change and regional transition*

150. Star, S. L. (1999). The ethnography of infrastructure. *American Behavioral Scientist,* 43(3)., pp. 377–391.

151. 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

152. Suitner, J. (2015). *Imagineering cultural Vienna: on the semiotic regulation of Vienna's culture-led urban transformation*. Transcript Verlag.

153. Sum, N. & Jessop, B. (2013). Towards a cultural political economy: putting culture in its place in political economy. Edward Elgar.

154. Tarr, J. A., & Dupuy, G. (1988). *Technology and the rise of the networked city in europe and america* (Ser. Technology and urban growth). Temple University Press.

155. Terhorst, P. & van de Ven, J. (1997). Fragmented Brussels and Consolidated Amsterdam. A Comparative Study of the Spatial Organization of Property Rights. *Netherlands Geographical Studies,* 223.

156. Thompson, G. & Brown, J. (2010). The role of System Planning in Light Rail Transit Success. *Transportation Research Circular*, E-C145.

157. Tzaninis, I. (2016). *Building Utopias on Sand: The production of space in Almere and the future of suburbia.* (Published doctoral thesis). Universiteit van Amsterdam, Amsterdam

158. Urry, J. (2004). The 'System' of Automobility. *Theory, Culture & Society*, 21(4–5)., pp. 25–39. https://doi.org/10.1177/0263276404046059

159. Urry, J. (2007). *Mobilities*. Polity Press.

160. Van Assche, K., Beunen, R. & Duineveld, M. (2012). Performing success and failure in governance: Dutch planning experiences. *Public Administration*, 90, pp. 567-581.

161. Van der Lans, J. (2006). K*leine geschiedenes van de stadsregio Amsterdam*. INMERC.

162. Van Duinen. L. (2015). New spatial concepts between innovation and lock-in: the case of the dutch deltametropolis. *Planning Practice and Research*, 30(5)., pp. 548–569. https://doi-org.proxy.library.uu.nl/10.1080/02697459.2015.1076155

163. Van Eeten, M., & Roe, E. (2000). When fiction conveys truth and authority. *Journal of the American Planning Association*. *66*(1)., pp. 58–67.

164. Van Wee, B., Annema, J. A., & Banister, D. (Eds.). (2013). *The transport system and transport policy: An introduction*. Edward Elgar.

165. Verveorregio Amsterdam (2016). *Strategische Visie Mobiliteit*. Available at: https://www.vervoerregio.nl/document/1251abaf-84d9-4d7b-bf9f-f8022d485fde. Accessed: 10/06/2020.

166. Verveorregio Amsterdam (2017). *Beleidskader Mobiliteit.* Available at: https://www.vervoerregio.nl/document/ef9122eb-877f-4d68-b1d0-2a8e8fa8ad2e. Accessed: 10/06/2020

167. Verveorregio Amsterdam (2019). *Regioraad*. Vervoerregio. https://vervoerregio.nl/pagina/20160103-regioraad. Accessed: 20/06/2020

168. VVD, D66, Leefbaar Almere, CDA, GroenLinks & ChristenUnie (2020). *Coalitieakkoord Almere 2020-2022: Een frisse start*. https://almere.raadsinformatie.nl/document/8433081/1

169. Wagenaar, H. (2011). *Meaning in Action: Interpretation and Dialogue in Policy Analysis*. M. E. Sharpe.

170. Watkins, J. (2015). Spatial imaginaries research in geography: synergies, tensions, and new directions. *Geography Compass*, *9*(9)., pp. 508–522. https://doi-org.proxy.library.uu.nl/10.1111/gec3.12228

171. Wetzstein, S. (2013). Globalizing economic governance, political projects, and spatial imaginaries: insights from four Australasian cities. *Geographical Research*, 51(1)., pp. 71–84.

172. Yin, R. (2014). *Case Study Design and Methods*. 5th Edition. Sage Publications.

APPENDICES

APPENDIX 1: INDICATIVE INTERVIEW GUIDE

Interview Guide

Name Position

Research question:

What is the role of imaginaries and in shaping regional light-rail development in the Amsterdam Metropolitan region?

Information:

I am a Master student of Spatial Planning at Utrecht University, writing my thesis investigating the light-rail in the Amsterdam metropolitan region.

My focus is to uncover the rationales and justifications of the various levels of government, and the effect this has on governance and regional cohesion as well as achieving light rail, The aim of this thesis is to understand what these rationales mean to these actors, and which actors are in control in defining them.

I'd like to record this interview to make it easier to transcribe and review later. The recorded transcription will only be used for the purpose of the thesis, which will in turn be reviewed by my supervisor. In the finished product - no names or other identifiable information will be used unless you give me express permission to do so. Does that sound ok?

Warming up questions:

Question	**Probes**
Tell me a bit about your education and professional history and professional interests? Can you tell me a bit about the **(insert organisation)**? What are its goals and what or who does it represent?	
In your opinion, what are the biggest challenges facing the metropolitan area of Amsterdam? And specifically, regarding transport?	Do you think that they will overcome these challenges? What is needed to overcome these challenges?

Transition questions:

Question	**Probes**
What are the challenges that the metropolitan area of Amsterdam is facing when attempting to achieve desired infrastructure investment?	
As I mentioned earlier, I'm interested in light rail in the Amsterdam region. Could you tell me a bit about the recent history of light-rail in the Amsterdam area?	What were the main motivations to pursue light-rail projects? How important is the international influence/ example?
In this field of light-rail investment, who are the main actors in relation to investment?	Who has the ultimate decisional power? How do interactions and negotiations take place? In what arena? What form of influence do the smaller actors have? How is their influence achieved?

Key Questions

Question	**Probes**
What is your understanding of light-rail?	What other benefits does it have over other forms of public transport? What do you associate with light-rail regarding its benefits to the city? Is light-rail essential for the future visions of the municipalities as described earlier?
How much influence do the visions created by **(insert organisation)** have in creating regional light rail?	Who or what organisation is the main influence in creating your visions? Do you recognise any conflicts between your visions and those of others? Do you consider there to be any conflicts between VRA and the MRA's future-oriented vision regarding light-rail?
Which is the most powerful actor regarding transport investment?	How free are municipalities to define the motivations for projects? What are they tied to (funds available and for what; local municipalities wishes or community; investors; profit etc.)?
In your opinion, how powerful are the metropolitan visions of the MRA in steering transport investment? … and visions of the municipalities?	What is the influence of non-state actors (consultancies) in constructing motivations and future-orientations? Is any particular actor able to influence these visions? How is this influence achieved?

Wrapping up:

Question	**Probes**
Who is ultimately in charge of infrastructural investment in the Amsterdam metropolitan area?	
To what extent is Almere in control of its future? To what extent is the MRA in control of its future?	

APPENDIX 2: INDICATIVE CODEBOOK

The following is an indicative list of examples of the coding used in the coding process described in the methodology.

Name	Main codes	Sub codes	Examples
Institution			
	Formal		
		Rules, Structure	*(structure) "Infrastructure as well, and then you see this competition with the authorities themselves. And of course, for financing of the major infrastructure projects you need the national government. The Dutch system is rather centralised, even though officially the operation is given to the local authorities, but the major and heavy infrastructure is based mainly on funds from the national government, and to receive this you much get into the MIRT. There you see that there is a competition between local and regional competition, preferring their own projects and not supporting the projects of another."* (rules) "*It's almost a scientific approach in traffic numbers, in cost benefit analysis at the end, that's technical inputs for the policy decisions, that the board members have to make."*
	Informal		
		Motivations: Sustainability, Connectivity, Accessibility, City-building	*(motivations, accessibility) they try to provide the best transportation within the Metropolitan region from a technical viewpoint". "the fastest and best connections for the region as a whole".*
Governance			
	Stakeholder		

		Dynamics, Management.	*(dynamics & management) "We had a role in making their vision for 2040, and we could always ask questions about it and make some remarks. But we also said, "it's your document", the overall plan for 2040 has to be about public transport. It was good for them to remember that they try to put something on the agenda. So, if the VRA or the MRA want anything it on the official agenda with the ministry, they need to have it in their own plans. It's also setting the agenda and starting the process of speaking about it, but they also know, for example, that the IJmeerverbinding has less chances."* *(dynamics) "We ask them to guide us, but a big part of the knowledge about public transport is with the transport authorities and the operators: VRA, GVB, ProRail – they all have a lot of knowledge inhouse about the potential and possible developments"*
	Planning		
		System, Culture, Polderen	*Of course, of course. There are the economic centre. They need, somehow, a coalition within the region.* *In the initial phase with all parties, the investigation, we do that together, and then the conclusions. And for the big investments it's made, and it's nearly always because that effort and everybody agrees on the solution. In the end, but sometimes there are some voerwiede, wishes around it and so they say OK but then you have to and this and this and this*
	Metropolitan		
		Structure, Dynamics.	*(dynamics) "In Policy, I think, we are pretty unified in what's good for this region, so on the long term, 50 years*

		from now, we're all pretty much on the same page. Yeah, only when it comes to in which order projects needs get funded. It starts to tense up because, there's competition between municipalities. Yeah, when you are careless the projects are getting in competition."
Infrastructure		
	Light rail	*light rail should be considered seriously, because, contrary to traditional metro, it is more capable for middle sized urban regions like Amsterdam to develop pragmatically, perhaps opportunistically, a network rather than a single line, and the latter is what happened. This was in the early days in Amsterdam.*
	Heavy Rail	*So, for example, if you something about the high-speed rail track out of other cities around, so it's the travel time to Amsterdam. That would only be 1 1/2 hour, but they do understand that idea and they are not against that idea, but they say their main objective is getting people around the region of Amsterdam and a good job for the Metro and busier places.*
	Road	*because if we would want to improve infrastructure somewhere then most of the time the local authority is happy about it. Yeah, so that the regional cooperation would not be a problem. Uh, the problem is... For 2 years we no longer really want to invest in roads. Because when we want to invest in other modalities such as biking and public transport.*

CONSTRUCTING LIGHT RAIL

LIGHT RAIL DISCURSIVE DYNAMICS IN THE AMSTERDAM METROPOLITAN AREA

CAOILTE BASHFORD
C.BASHFORD@STUDENTS.UU.NL

MOTT MACDONALD

Universiteit Utrecht