

MSc thesis for Engineering & Policy Analysis

Rethinking the operationalization of broad prosperity

Towards the further integration of local values into the ex-ante evaluation of Dutch transport policies

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2023



RETHINKING THE OPERATIONALIZATION OF BROAD PROSPERITY

TOWARDS THE INTEGRATION OF LOCAL VALUES INTO THE EX-ANTE EVALUATION OF DUTCH TRANSPORT POLICIES

Master Thesis

submitted to Delft University of Technology
in partial fulfilment of the requirements for the degree of

Master of Science

in

Engineering and Policy Analysis

by

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To be defended in public on May 4, 2023

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PREFACE

Growing up in the Netherlands, I always took the country's efficient and well-connected transport system for granted. It wasn't until I started to learn more about transport policy all over the world that I started to understand that this transport system has been the result of deliberate choices. While these choices have served our country well, they are now increasingly under pressure.

That's why when TU Delft professors and my supervisors at Goudappel introduced me to the concept of broad prosperity, it felt like the perfect opportunity to learn about and contribute to the future of these transport policy choices.

At first, I thought that the best way to do this would be to create content-related indicators of broad prosperity or to build upon existing ones. But after several conversations with my supervisors, I came to realize that this approach might not be the most effective. Instead, I decided to focus on a process-related approach, which suddenly came very close to participation.

It wasn't easy to conceptualize this approach. I vividly remember how it took a few tries to try and explain it to my Goudappel supervisors, probably because I didn't fully understand it yet either. But once I did, I was excited to see it come to life. First by operationalizing it into several criteria, then by actually applying it to two real-life cases. The interviews and the several conversations I had with people at Goudappel gave me many new insights, and these energized me to make this thesis as valuable as possible. I am proud of the fact that I was able to contribute to the ongoing conversation about what we make transport policy for. I hope that this work will inspire practitioners and researchers to contribute to a more holistic transport system that better serves the values of everyone.

I would like to thank my TU Delft supervisors for providing me with the initial ideas and guidance to conceptualize broad prosperity, as well as for their continued support throughout my research. I would also like to thank my colleagues at Goudappel. They not only provided me with valuable insights into their work but helped to make the thesis process an enjoyable experience as well, through the multiple fun activities that I could join. Special thanks go to my supervisors from Goudappel, who played a great role in keeping me motivated and ensuring that my research remained aligned with practice. I also deeply appreciate my father, who went out of his way to plow through my difficult texts several times, to provide me with very valuable feedback. I am also grateful to my interviewees, whose willingness to participate not only provided me with valuable data to analyze but also created enjoyable conversations that gave me a much-needed break from the writing process. Furthermore, I would like to thank the stakeholder managers who facilitated my contact with other interviewees and as such made my life a whole lot easier. Finally, I am thankful to my family, my friends, and my housemates, who have all played a significant role in keeping me motivated.

*Sybe Andringa
Delft, April 2023*

SUMMARY

With what objectives do policymakers make transport policy? This fundamental question is subject to a paradigm shift within transport policymaking in the Netherlands. There is an increasing call to let go of the predominant focus on economic well-being and consider a broader notion of well-being instead. However, how exactly this 'broad prosperity' should be operationalized and integrated within ex-ante policy evaluations remains a challenge.

Therefore this thesis aims to aid this integration of broad prosperity, by suggesting an alternative approach to operationalizing broad prosperity. One that moves away from the content (i.e. *what* should it include) and towards the process (i.e. *how* should it be determined). By approaching broad prosperity as a context-dependent and normative concept, effective value-oriented participation becomes the vehicle to integrate broad prosperity into ex-ante policy evaluations. Through literature review and expert validation, this approach is translated into a practical framework with 5 categories of 11 process-related criteria. It is suggested that these criteria together constitute an effective integration of broad prosperity into ex-ante policy evaluations.

By performing desk research and semi-structured interviews, this practical framework is then applied to the ex-ante evaluations of two Dutch transport projects: the Meerjarenprogramma Infrastructuur, Ruimte en Transport (MIRT) projects Oeververbindingen Rotterdam and A15 Papendrecht-Gorinchem. The results suggest that while broad prosperity is being used to some extent in Dutch ex-ante policy evaluations, there is still room for improvement. The great efforts to reduce the information asymmetry among participants, appreciate the participants' knowledge, and ensure all participants' contributions within MIRT processes, suggest that the projects are on their way to integrating broad prosperity. The main areas for improvement include the limited influence of local stakeholders on project objectives and scope, the transport-oriented scope of the (MIRT) process, and the extent of representative value-oriented participation.

Future research could examine how to further improve in these areas, address the challenges of a process-based approach, improve the practical framework, or expand the data collection. Overall, a process-based approach to broad prosperity that prioritizes effective value-oriented participation is a promising direction for a more holistic transport system that better serves everyone's values.

1

INTRODUCTION

1.1. BACKGROUND

1.1.1. THE ECONOMIC FOCUS OF WELL-BEING

IT may seem trivial: if policymakers plan and implement policies, then they should aim to improve our well-being. However, what actually constitutes well-being and what it entails to make policy that improves well-being has been debated since ancient Greek times (Bache & Scott, 2018). Up until around the 1960s, economic development stood central to well-being. Policymakers largely followed economists, who mostly interpreted high well-being as synonymous with high income and country-wide with a high gross domestic product (GDP) (van den Bergh & Antal, 2014). This mindset fitted in the rise of behaviorism in the 1930s (Diener *et al.*, 2009, pp. 15), in which the focus was less on thoughts and feelings, and more on rational behavior, illustrated by the concept of the ‘homo economicus’ (Boyd, 2020).

Around the 1960s, economists slowly began to realize that merely using GDP as a proxy of well-being might not suffice (van den Bergh & Antal, 2014). In the decades to come, it faced a lot of criticism. For example, scholars questioned its ability to measure the satisfaction of basic needs (e.g. a sense of community, clean air, or access to nature), income distribution, or environmental externalities (*ibid.*). Some of the most prominent criticism includes the Club of Rome report (Meadows *et al.*, 1972), Sen’s capability approach (Sen, 1985), and the positive psychology movement. As such, towards the end of the 20th century, the fields of economics and psychology slowly grew closer together. Well-being was increasingly seen as not being fully synonymous with economic growth, but something for which measuring people’s feelings is also important (Kahneman, 1999, as cited in Diener *et al.*, 2009).

1.1.2. TOWARDS AN ALTERNATIVE DEFINITION OF WELL-BEING

The idea that money does not just buy happiness has since gained traction, marking a paradigm shift in thinking about well-being. When looking at policy-making, this also entailed that GDP was considered less of a ‘holy grail’ than it did before. In the Netherlands, the 2008 economic crisis has been a more recent boost for this idea (Mudde, 2021), and more internationally this ‘beyond-GDP’ agenda has also seen a boost in popularity since 2008 (OECD, 2018). Finding a suitable alternative to GDP has however been a difficult quest. Despite its widespread criticism, the simplicity of using a single number that measures all economic activity as a proxy for well-being has remained attractive throughout the past decades (Ulfah, 2015; van den Bergh & Antal, 2014).

In the Netherlands, the term ‘broad prosperity’ is aiming to provide such an alternative to GDP (Bruins *et al.*, 2020; Lambregtse, 2021). The term gained popularity in the aftermath of the 2008 financial crisis but is gaining even more traction in recent years. In light of increasing inequality of opportunities, less trust in politics, recovery from a pandemic, and a transition to a more sustainable and digital society, it is not strange that Dutch policymakers are increasingly questioning the values behind their policy-making (SER, 2021). The focus on broad prosperity illustrates this. It aims to let go of the (implicit) predominant economic focus, take a step back, and fundamentally rethink what we want policies to achieve. In the paradigm shift of broad prosperity, well-being is approached as something normative, in which the focus is on what people value for leading a good life (Rocak & Keinemans, 2022). Since its introduction, many institutions in the Netherlands have embraced broad prosperity and have aimed to operationalize it so that policymakers can use it in practice¹.

1.1.3. WELL-BEING IN TRANSPORT POLICY

Within this thesis, broad prosperity is seen in the context of transport policy, or more specifically in the ex-ante evaluation phase of transport policy. Transport policy is very fundamentally linked to well-being because a transport system’s design affects our well-being (Goudappel, 2022; Singleton *et al.*, 2020). Good transport can provide travel satisfaction and access to valuable activities. It can provide opportunities to develop and exercise aspects of life that are valuable, such as friendship, achievement, and knowledge (Ferdman, 2021)². As such, transport policy is linked to well-being, because it aims to improve such transport options. By implementing a set of transport policies (e.g. changing infrastructure, setting prices, or determining land use), policymakers aim to maximize well-being, mitigate negative external effects, improve equity, or generate revenue (Annema, 2013; van Wee & Mouter, 2021).

When zooming in on the ex-ante evaluation phase, we see that this is a crucial aspect of transport policy-making, because it is in this phase that different policy alternatives are identified and assessed (Owens *et al.*, 2004). Broad prosperity comes in when we ask the question of what the assessment of different identified alternatives is based on.³ According to the broad prosperity paradigm, policymakers need to regard a broad set of objectives when assessing alternatives. Thus, the ex-ante evaluation phase is one of the most important phases in decision-making in which broad prosperity should be present, for it to be effectively incorporated into the transport system (Snellen *et al.*, 2021).

1.1.4. BROAD PROSPERITY IN EX-ANTE TRANSPORT POLICY EVALUATION

The paradigm shift from an economic towards a broader notion of well-being is specifically visible in the ex-ante evaluation of transport policies. Traditionally, the focus has been on increasing transport efficiency, i.e. decreasing travel times and congestion as a means to minimize economic loss (Beyazit, 2011; Boschmann & Kwan, 2008; Kębłowski & Bassens, 2017). The prominence of the cost-benefit analysis (CBA) illustrates this. In a CBA, human well-being is measured in terms of economic utility and market-related choices. As such, it is firmly rooted in neoclassical economic theory (Wegner & Pascual, 2011). In the past decades, the role of the

¹ Some examples include:

CBS (2021), who publish a yearly broad prosperity monitor;
CPB (2022), who have researched how broad prosperity could be entangled in the national government’s budgetary system; Thissen & Content (2022), who have researched how regional differences in values can lead to regional broad prosperity policy.

² See section 2.2 and appendix B for more information about the link between well-being and transport.

³ What exactly "a broad set of objectives" entails will be thoroughly discussed in chapter 2.

CBA in Dutch ex-ante policy evaluations has been prominent (Mouter, 2016). Its application is assessed based on standardized guidelines set out by the Dutch Ministry (or parties affiliated with the Ministry) (Mouter, 2014). As such, they are a formal, mandatory part of every ex-ante evaluation.

With the introduction of the broad prosperity paradigm, researchers and policymakers are increasingly exploring how ex-ante policy evaluations could be adapted. What should happen to the methodologies and tools used during this phase to incorporate this broader notion of prosperity? Can the CBA accommodate broad prosperity or not? Bos *et al.* (2022), TNO (2021), Goudappel (2022) and Snellen *et al.* (2021) are some examples of contributions to this question. They all aim to find a way of integrating this new mindset into the practice of Dutch transport policy-making.

1.2. PROBLEM STATEMENT

1.2.1. OPERATIONALIZING BROAD PROSPERITY IS DIFFICULT

There is thus a renewed interest in the Netherlands in moving beyond GDP, towards a broader notion of prosperity in transport policy-making. However, advocating for a paradigm shift is easier than setting it in motion: the operationalization of broad prosperity still turns out to be challenging. As Hoekstra (2021) mentions, while there is quite some knowledge and public support, there are only a few examples of how broad prosperity has involved policy-making concretely. The recommendations by TNO (2021) and Snellen *et al.* (2021) also indicate that there is not yet one way set in stone to measure broad prosperity. In my eyes, there are three main reasons why this is the case.

1.2.2. QUANTITATIVE APPROACH

The first reason is that the economic rationale is still prevalent when evaluating transport policy ex-ante. Creating transport policy is a complex act that will have many types of consequences, including economic, social, and environmental impacts (Jones & Lucas, 2012; Rodrigue, 2020). In light of this complexity, policymakers find it very useful to rely on objective evidence. This fits in the trend of so-called *evidence-based policy* (Munda, 2013). Policymakers use analytical evaluation tools like the CBA that translate many estimated consequences into the same unit. By converting all policy effects to a monetary value, the idea is that policymakers are better able to compare different policy alternatives and come to more objective choices. This makes policymakers more accountable for their plans and promises (Markaki *et al.*, 2015). As a result, the process of developing transport policy “involves a language imbued by mathematical models and technical knowledge, [...] and centers upon issues of utility, efficiency and economic growth” (Kębłowski & Bassens, 2017, pp.414).

Now, when we look at broad prosperity and the more social and environmental effects that these naturally involve, these would have to be quantified as well. This is however not only very difficult or impossible to achieve, but it might also be undesirable (Graham *et al.*, 2013; Jones & Lucas, 2012; TNO, 2021; Wegner & Pascual, 2011). If such intangible values could be measured, the question is to what extent they can be universally determined. They might be very contextual because different groups value them differently. For example, one group might make a different trade-off between economical and sustainability objectives than another. This becomes even more problematic if these values are translated into monetary values. In that case, it is not only the objectives themselves that might be valued differently, but money might also have a different value for different groups of people (Wegner & Pascual, 2011).

Another important point is that aiming to measure certain objectives might go beyond the intrinsic value that they could have. In such cases, it will likely be very difficult *not* to implicitly give preference to economic objectives, which are naturally easier to measure (Jones & Lucas, 2012; Wegner & Pascual, 2011).

1.2.3. QUALITATIVE APPROACH

So what if we do not measure these broader objectives, but integrate them into ex-ante policy evaluations qualitatively? A multi-criteria analysis (MCA), for example, is useful for identifying the trade-offs and costs of different policy options for a broader set of goals (Lucas *et al.*, 2015).

This brings me to the second reason why operationalization is problematic. While a qualitative approach might solve the issue of quantifying intangible objectives, it remains an analytical approach to well-being. Because of this, one major challenge remains unsolved, namely that it is close to impossible for an analyst to remain fully objective, while this *is* assumed (Anciaes & Thomopoulos, 2015; Lucas *et al.*, 2015). Fabian *et al.* (2022) call this analytical approach the ‘social planner perspective’ (SPP). They state that in this approach, estimating the optimal solution is considered a technocratic, value-free exercise, assuming that values only enter once politicians make the final decision. However, well-being is inherently value-laden, and as such experts *have* to make value judgments before they can conduct an analysis. As such, this assumption of objectivity is problematic.

Let me illustrate this in light of broad prosperity with three examples. Firstly, what indicators should the analyst choose to measure broad prosperity? Broad prosperity will naturally be a broader approach, meaning that there will be many more indicators available to measure well-being than is practically feasible. As such, the analyst will have to choose what indicators to consider, a choice that can never be objective (Markaki *et al.*, 2015). Secondly, how should the chosen indicators be measured? The mere choice of how to measure an indicator might induce bias. Especially when dealing with more social variables that deal with perceptions, there is likely not one single way to measure it. As TNO (2021, pp.46) puts it: “The full working method around indicators (from data collection to the way of presenting [the data]) influences the relevance of the decision information.” Thirdly, once the indicators have been measured, how should trade-offs between indicators and trade-offs between alternatives be made? Once again, the analyst will try to weigh these as objectively and as transparently as possible, but there will always be a value judgment involved.

1.2.4. BROAD PROSPERITY’S MANY DEFINITIONS

The third reason why, in my eyes, operationalizing broad prosperity remains difficult is essentially a consequence of the first two. As has become clear, broad prosperity is very fundamental: it is about revisiting why we are planning transport policy. Operationalizing broad prosperity also naturally involves many value judgments. It is a multi-faceted concept that is per definition subjective because it revolves around well-being (Lucas *et al.*, 2015). On top of that, there is an interest to operationalize this difficult concept in a complex transport system. A system that has many uncertainties concerning policies’ effectiveness, exogenous factors, and actors’ acceptance of policies (Rietveld, 2013; Rodrigue, 2020). A system in which political processes often dominate: pre-existing political commitments, legal requirements, and existing legal and institutional frameworks are often prevalent (Turnpenny *et al.*, 2008). The consequence is that many different definitions arise that will all have a

different focus. As [chapter 2](#) further elaborates, the term becomes a ‘boundary object’. This might have the advantage of being a means of communication between different disciplinary boundaries (Fox, 2011), but it might also induce political use of the term, to pursue different interests (Nicolini *et al.*, 2011). In any case, it does not aid efforts to operationalize broad prosperity.

1.2.5. TOWARDS A PROBLEM STATEMENT

Let me sum up. We have seen that there is an increasing call to approach the ex-ante evaluation of transport policy in the Netherlands from the broad prosperity paradigm. This is currently very challenging because broad prosperity lacks operationalization. As I have argued, operationalization is difficult because:

1. The economic rationale of quantification is still dominant, yet it is incongruent with broad prosperity. Even if it *would* be measurable, it might be undesirable to measure all aspects, as explained earlier.
2. Alternative analytical methods still assume an objective analyst that can carry out value-free analyses, while there are in fact many value judgments in such analyses;
3. It is practically impossible to come to a single conceptualization of broad prosperity in a complex world with many differing interests.

Figure 1.1 provides a schematic summary of this problem statement.

This thesis aims to contribute to finding a solution to these problems. I argue that all these three problems arise because operationalization currently has a predominant focus on broad prosperity’s content (i.e. *what* broad prosperity entails), instead of its process (i.e. *how* it should be achieved). Because of this focus on the content, the discussion inevitably shifts towards questions like ‘What definition should we use?’ or ‘What indicators should we include or not?’. Such questions are very difficult to answer, because of the three reasons mentioned earlier. Stepping away from such a content-related operationalization and moving towards a process-related operationalization could be the first step towards a useful operationalization. Section 1.3 further explains this.

1.3. KNOWLEDGE GAP

When one admits that broad prosperity is not always measurable, that the analyst cannot be objective, and that there are different definitions of broad prosperity, how can we still try to incorporate it into ex-ante policy evaluations? Alexandrova & Fabian (2022) suggest that in such cases, it is crucial to focus on the process of seeking political legitimacy. Talking about broad prosperity as a ‘thick concept’, they state that “[this] requires that the process of specifying the content of a thick concept takes into account the relevant value judgments of those to whose lives stand to be affected by [it]” (ibid., pp. 6).

While there is ample literature that has studied the process of ex-ante evaluations of transport policies, none of it links this to broad prosperity. Some analyze the process generally, e.g. van Wee & Mouter (2021), and others propose changes to its process, e.g. Ancaes & Thomopoulos (2015), Lenferink *et al.* (2008), and Lucas *et al.* (2015). The (political) complexity that it involves is also often mentioned, e.g. by Turnpenney *et al.* (2008) and Samset & Christensen (2015).

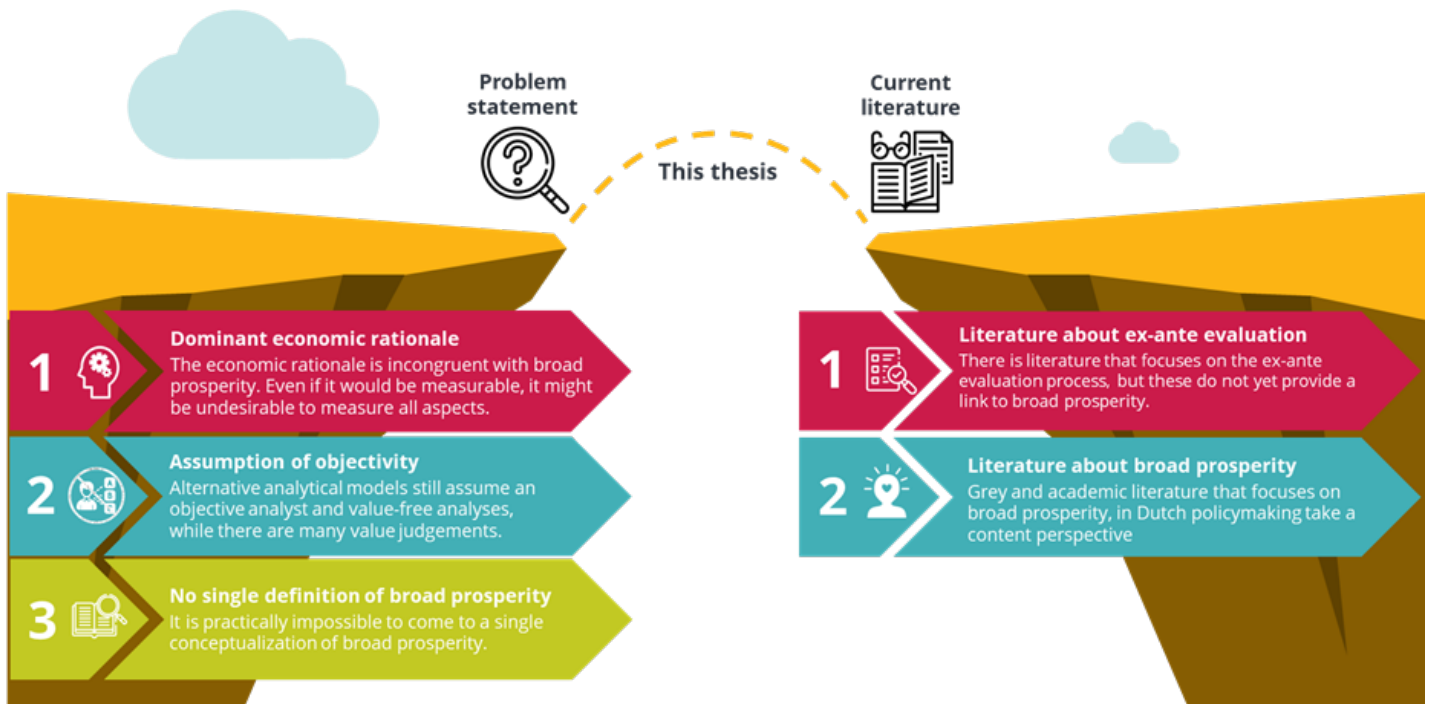


Figure 1.1.: Summary of the knowledge gap this thesis addresses

Looking at broad prosperity literature, almost all scholars link this to its content (see [chapter 2](#)). There is also some non-academic literature that focuses on how to incorporate broad prosperity specifically into Dutch ex-ante policy evaluations, e.g. TNO (2021), Bos *et al.* (2022), and Goudappel (2022). However, these also do not take a process-related approach.

So, no research has yet been conducted that links broad prosperity to the ex-ante evaluation of transport policy by seeing it as a set of adjustments to the process. So naturally, there has also been no research that operationalizes this and applies this to the ex-ante evaluations of large Dutch infrastructural projects. This is the knowledge gap that this research aims to fill.

1.4. RESEARCH SCOPE

In order to draw meaningful conclusions about the thesis topic within the available time, I demarcate this thesis in four ways.

Firstly, to make the thesis manageable, it focuses on the ex-ante evaluation of transport policies, and not on the entire decision-making process. As stated in section 1.1.3, this is a very important phase in which broad prosperity would have to be present. This does mean that aspects like agenda-setting and political negotiations are not part of the scope. This has implications: ex-ante evaluations are a very important source of information for decision-makers, but their outcomes are not necessarily always adopted (Annema *et al.*, 2017; Samset & Christensen, 2015). Section 5.1.1 further reflects on this.

Secondly, this thesis focuses on the Netherlands and not on other countries. This choice is made for reasons of practical relevance and information availability. The context of Dutch policy-making might be very different from policy-making procedures in other countries, and as such using the results for these other contexts should be done with caution.

Thirdly, this thesis focuses on specific types of ex-ante evaluations in the Netherlands: MIRT processes. The ‘Multiannual Program Infrastructure, Space and Transport’ (‘Meerjarenprogramma Infrastructuur, Ruimte en Transport’) (MIRT) is an investment program by the Dutch Ministry of Infrastructure and Water Management (I&W) (I&W, 2021). Section 4.3 further explains the MIRT process. For a more detailed substantiation of this choice, see [appendix E.1](#).

Lastly, the focus is on how the ex-ante evaluation process could be adapted to further integrate broad prosperity, so the focus is *not* on broad prosperity’s content, i.e. what indicators should or should not be taken into account. Section 1.2.3 already substantiated this choice.

1.5. RESEARCH OBJECTIVE AND QUESTIONS

Following the knowledge gap explained in section 1.3, the goal of this thesis is to **aid the integration of the broad prosperity paradigm in the ex-ante evaluation process of Dutch decision-making**. I aim to do this by focusing on the implications that broad prosperity has for the ex-ante evaluation process and operationalizing that in a set of criteria. As such, the research question is as follows:

To what extent is process-based broad prosperity currently being applied in the ex-ante evaluation process of large transport policy projects in the Netherlands?

In order to effectively answer this main research question, this thesis will answer three sub-questions (abbreviated as SQ).

SQ1: How can broad prosperity be defined from a process perspective, in the context of the ex-ante evaluation of transport policy?

Because this thesis approaches broad prosperity from a specific perspective, it is useful to first come to a clear definition. To that end, I perform a literature review to identify how the term is currently being used. Then, I come to a useful definition to be operationalized in the subsequent chapter.

SQ2: What practical framework can be developed to operationalize broad prosperity for ex-ante evaluation processes?

This sub-question involves the actual operationalization of broad prosperity into process-related criteria. Based on a combination of literature review, expert interviews, and creativity, the aim is to come to a set of criteria that can be used to assess the extent to which an ex-ante evaluation process followed the broad prosperity paradigm.

SQ3: To what extent has process-based broad prosperity been present in two recent Dutch MIRT processes?

This final sub-question will apply the broad prosperity framework to two MIRT processes as a case study. The aim is to find out how broad prosperity has been present in these processes, to be able to draw general conclusions about how broad prosperity is currently being applied in ex-ante policy evaluations of large transport projects. As such, these three SQs together answer the main research question.

The research objective and questions link well with the master program for which this thesis was written. [Appendix H](#) further elaborates on this link.

1.6. THESIS STRUCTURE

The structure of this thesis is as follows. [Chapter 2](#) explores the current use of broad prosperity and its synonyms in literature, to then come towards a useful definition for the rest of this thesis. As such, it aims to answer SQ1. [Chapter 3](#) aims to use this definition to come to a practical framework for broad prosperity. As such, it aims to answer SQ2. [Chapter 4](#) takes this framework, applies it to two MIRT processes in the Netherlands, to identify the extent to which these MIRT processes followed the broad prosperity paradigm. [Chapter 5](#) provides a discussion, in which I discuss the implications of this research and do recommendations for further research. Finally, [chapter 6](#) provides a conclusion.

2

WHAT IS BROAD PROSPERITY?

2.1. INTRODUCTION

IN this chapter, I perform a literature review to dive deeper into the definition of broad prosperity. As stated in the introduction (section 1.2.4), this term is per definition broad and can be interpreted differently by different experts or scholars from different domains. As such, it is important to understand how the concept has been defined in previous research and in practical applications.

The goal of this chapter is to answer sub-question 1: "*How can broad prosperity be defined from a process perspective, in the context of the ex-ante evaluation of transport policy?*". To that end, I first research how the term broad prosperity or its synonyms are being used in current literature. Then, I introduce how I use broad prosperity in this thesis, and I introduce the implications for using this definition. Following [chapter 1](#), the main statement in this chapter is that it matters less *what* broad prosperity entails, and more *how* it can be determined.

The method for this chapter is as follows. To gather academic literature, the Scopus and Google Scholar search engines are used. The keyword 'broad prosperity' is central to this search, but the synonyms '(multidimensional) wellbeing', 'quality of life', and 'prosperity' are used to get a broader view, whereas the keywords 'policy', 'policy evaluation', and 'transport policy' are used to come to definitions relevant to the scope of this research. To gather grey literature (i.e. non-academic reports that give information about how broad prosperity is used in the Netherlands), Google searches using the Dutch translation of broad prosperity suffice, along with the keywords 'policy', 'policy evaluation', and 'transport'. From these results and their citations, relevant literature is selected to form a broad image of how the term is used. The aim is not to identify *all* literature that defines this term but rather to get an image of the different perspectives from which the term is approached.

2.2. BROAD PROSPERITY AS A MULTIDIMENSIONAL CONCEPT

As already explained in [chapter 1](#), broad prosperity is one of the more recent paradigms that fits well into a broader movement, in which well-being is approached as something more than just economic and GDP-related. Other concepts that are often mentioned within this beyond-GDP movement are the degrowth economy and the post-growth society. These concepts are fundamentally very related to broad prosperity. However, post-growth and degrowth currently remain largely conceptual and seem to be less popular in the field of Dutch transport policymaking. The main reason for this is that its starting points seem to be hard to concretize into action perspectives (Pesch, 2018). More information about this and the link between these

concepts can be found in [appendix A](#).

By contrast, the operationalization of broad prosperity gets a lot of attention from both academics and policymakers (see section 1.1.4), which makes it a better starting point for this thesis (see [appendix A](#)). Broad prosperity, and its synonym (multidimensional) well-being, are often seen as the multidimensional alternative to GDP. Chaaban *et al.* (2015) state that no single indicator is sufficient to accurately reflect individual well-being. Something so complex as the well-being of the members of society can only be considered as something plural (Stiglitz *et al.*, 2009). So instead, a group of indicators must be considered (Halleröd & Seldén, 2012). Moreover, because it is multidimensional, it is important to not just consider average levels of well-being within a given community, but also the diversity of people's experiences and the linkages across various dimensions of people's lives (Stiglitz *et al.*, 2009).

The logical next step is then to further specify these dimensions and create indicators for each of them, which is what often happens. As such, literature about broad prosperity often does not present a definition of what it is, or it provides a very broad definition (e.g. "everything that people value" by PBL (2022)). Instead, the focus is on specifying what aspects and dimensions are assumed to constitute broad prosperity.

To give some examples, broad prosperity is said to include both people's individual characteristics, as well as the characteristics of the environment they live in (CBS, 2022). It involves both current well-being as well as sustainable well-being (i.e. whether well-being can last over time) (Stiglitz *et al.*, 2009). And, it involves both economic resources, as well as non-economic aspects of people's lives (Halleröd & Seldén, 2012; Stiglitz *et al.*, 2009). This is what Lambregtse (2021) calls profit, people, and planet: incorporate financial-economic, societal, and ecological objectives in decision-making.

When looking at specific dimensions that constitute well-being or broad prosperity, a broad variety of dimensions come into play. Health, economic circumstances, living standards, freedom of (political) choice and actions, security, environmental safety, education, socio-economic equality, business environment, and personal development are all mentioned as dimensions (CBS, 2022; Dreoni *et al.*, 2022; Halleröd & Seldén, 2012; Moore & Woodcraft, 2019; PBL, 2022; Stiglitz *et al.*, 2009; The Legatum Institute, 2017).

To conclude, broad prosperity is often conceptualized as a multidimensional concept that can include almost any aspect and any dimension. As a result, when zooming in on a specific use case, the most directly related aspects to that use case are often chosen. This is also what is done in relation to transport policy. In the literature that relates broad prosperity to transport policy, the 4 dimensions of well-being that are most often mentioned are economic well-being, social well-being, environmental well-being, and individual well-being. [Figure 2.1](#) provides a definition for all four of them. Most of this literature either gives a system-wide overview of all aspects of well-being that transport policy might affect, or zooms in on one of these aspects. [Appendix B](#) further lays out how transport policy might affect well-being, and [Figure 2.2](#) gives a summary of these findings.



Figure 2.1.: 4 categories of well-being

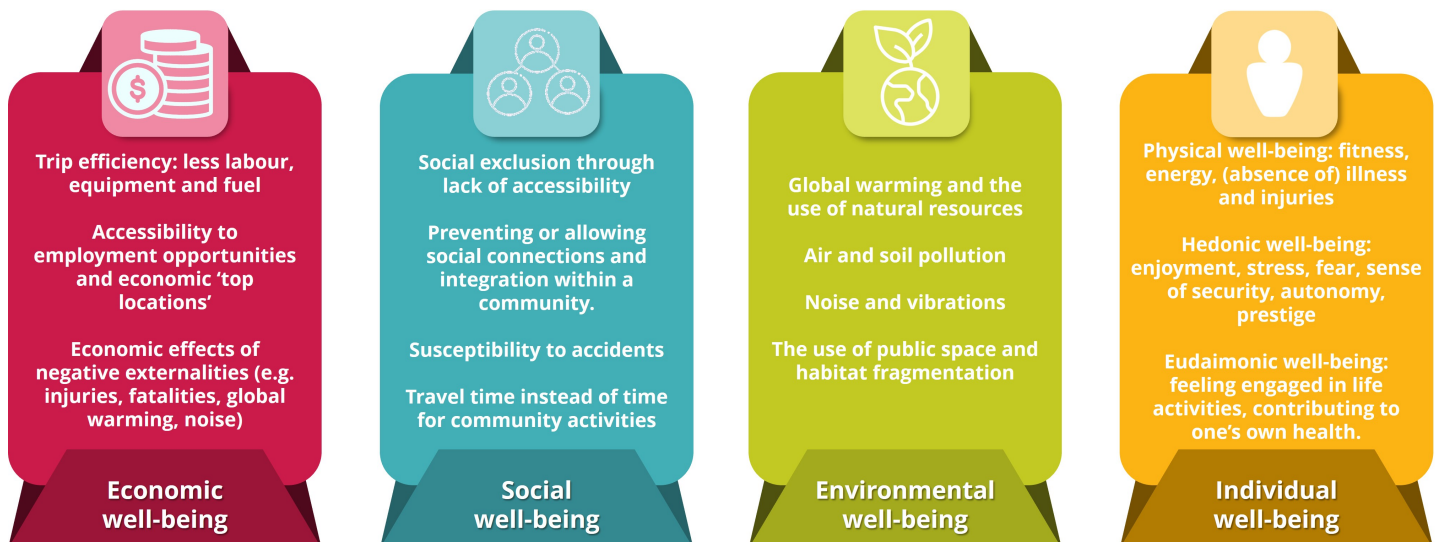


Figure 2.2.: Well-being in relation to transport and transport policy (summary of [appendix B](#))

2.3. TOWARDS AN ALTERNATIVE DEFINITION OF BROAD PROSPERITY

2.3.1. INTRODUCTION

Thus far, the focus of this chapter has been to identify how broad prosperity and its synonym (multidimensional) well-being are being approached in current literature. This has been useful to set the context but also serves as further proof for the statement I made in section 1.2.4: the many dimensions and facets that fall under the term broad prosperity make it very hard to find one all-encompassing operationalization. In this section, I aim to present the building blocks for an alternative definition of broad prosperity. A definition that moves away from the content (i.e. *what* should broad prosperity include), towards the process (i.e. *how* should broad prosperity be determined). That is, I see broad prosperity as a context-dependent, normative concept.

2.3.2. A CONTEXT-DEPENDENT CONCEPT

Prosperity involves people. Person A might feel prosperous because of a whole different reason than person B. Therefore, I argue that the elements that broad prosperity should consist of cannot be universally determined. Let me further substantiate this by approaching broad prosperity as a boundary object.

As Briers & Chua (2001) describe it, a boundary object is “plastic enough to adapt to local needs and the constraints of the several parties employing them, yet robust enough to maintain a common identity across sites.” While its meaning might be different in different social worlds, its structure is sufficiently common to make it recognizable. As such, a boundary object can serve as a means of communication between different disciplinary boundaries (Fox, 2011). In the case of broad prosperity, social inclusion advocates and sustainability advocates might for example use the term broad prosperity to enhance their collaboration. They create a shared meaning that encompasses both their goals.

On the one hand, using such a boundary object can thus be seen as an advantage: they are useful in the extent to which they lead to the creation of shared meaning (Carlile, 2002). With this advantage however also comes a disadvantage, which is that they are ambiguous and open to interpretation. Because the object is inherently heterogeneous, it can be used to pursue different groups’ interests. If these interests do not align, this can be the cause of conflict and misunderstandings (Nicolini *et al.*, 2011). This is especially the case in “occasions where there is an inequitable distribution of power and contrasting goals between groups of social actors” (Oswick & Robertson, 2009). In such situations, the outcomes “are likely to be more ambiguous, fragmented and contested” (*ibid.*).

For this reason, I argue that context is crucial when defining broad prosperity. This is something that is acknowledged by multiple scholars. Moore & Woodcraft (2019) adopt a similar context-specific approach to prosperity because they state that localized approaches might be more effective when dealing with context-specific social challenges. Their research reveals that a community-based approach reveals “perspectives and experiences that challenge the orthodox definition of prosperity as material wealth.” Similarly, Atkinson (2013) states that “framing wellbeing as relational and situated makes explicit that wellbeing can have no form, expression or enhancement without attention to the spatial dynamics of such effects”. Furthermore, Wegner & Pascual (2011) state that values or preferences are dynamic and may need to be socially constructed, through some form of deliberative communication. Finally, Fabian *et al.* (2022) mention ‘localism’ as a challenge of current approaches to policy-making. As they state, there is no universal variable of happiness and thus it is impossible to create standardized metrics. In traditional policy planning, there is little room for local information of practitioners, because the methods prefer classified and aggregated knowledge.

To conclude, broad prosperity is inherently contextual. Gathering information about how the local public values certain aspects over other aspects is therefore crucial.

2.3.3. A NORMATIVE CONCEPT

Next to being contextual, I argue that broad prosperity is also very normative. I have already demonstrated this in section 1.2.3. Broad prosperity entails fundamentally rethinking why we are making policy. Determining what should and what should not play a role when assessing policy from a broad prosperity perspective cannot be value-free. Section 1.2.3 gives three examples of this: What indicators should we take into account? How should these in-

dicators be measured? How should they be traded off? These choices all contain value judgments.

A counterargument could be one of practicality. It might be more practical for an analyst to make these choices during the process, and they could serve as a sufficient proxy for what the greater public wants. Chaaban *et al.* (2015) present this argument when discussing a global multi-dimensional measure of human development: it might be justifiable to use a predetermined (list of) indicator(s) for well-being because at least it “attracts public interest to specific issues”.

Fabian *et al.* (2022) however provide an ethical and a political argument against this. People are in this case treated as “receptacles of utility” who lack agency and knowledge of their own to improve their lives. It is questionable whether this is actually the case. Also, by implicitly adopting such a deficit model of citizens, according to which they are too ill-equipped or biased to form opinions about policy, it to some extent undermines democracy.

Moore & Woodcraft (2019) summarize it as follows: “How prosperity is conceptualized and measured is more than an intellectual exercise.” Following this line of thought, I will approach broad prosperity as something that is inherently value-laden.

2.3.4. BROAD PROSPERITY IN THIS THESIS

Broad prosperity is contextual. It cannot be universally determined, because the elements and their mutual weights will differ per local context. Broad prosperity is also normative: it is inherently value-laden. Following these principles, I use the following definition of broad prosperity in the rest of this thesis.

Broad prosperity is a paradigm that entails sufficiently taking into account all values that a broad range of relevant stakeholders finds important for their overall life satisfaction within a specific context.

A few words in this definition are worth noticing. Firstly, by using the words ‘*specific context*’, I acknowledge that not everything is always important. Moreover, by using the word ‘*sufficiently*’, I acknowledge that if values are important, some might be more important than others. So it is not about only incorporating everything important, but also about incorporating them to the extent that they are important. Finally, note that ‘*a broad range of relevant stakeholders*’ is a normative judgment as well. Some might find certain stakeholders relevant, and some not. In the context of transport policy, I argue that a broad range of relevant stakeholders is ideally all people that could be affected by that policy in some way. Of course, finding these relevant stakeholders will always be subject to practical trade-offs.

Having defined broad prosperity, I have in principle answered SQ1. Still, in the last section of this chapter, I want to zoom in on the implications of using this definition of broad prosperity. By doing that, I aim to provide a better understanding of this definition of broad prosperity and what it entails to operationalize it in practice.

2.4. IMPLICATIONS OF BROAD PROSPERITY AS A CONTEXT-DEPENDENT, NORMATIVE CONCEPT

2.4.1. FETCHING LOCAL KNOWLEDGE

By approaching broad prosperity as context-dependent and normative, what does that imply for how it should be adopted in a policy process? Following this definition, if policymakers want to make policy following the broad prosperity paradigm, they need to actively involve a broad range of relevant stakeholders. This closely aligns with the ‘citizen perspective’ that Fabian *et al.* (2022) introduce. Broad prosperity can as such only be achieved when making an active effort to fetch relevant values from the relevant public when making policy (Fabian *et al.*, 2022). The act of determining what is important, translating this into relevant indicators, and making a trade-off between them should preferably be a community participation process (Markaki *et al.*, 2015). The aim is then not to find standardized, expert-validated metrics, but rather to identify what works within that local context.

Through this process, the public, as ‘lived experts’, actively participate in the generation and the validation of knowledge (Fabian *et al.*, 2022). Note that this does not mean that the local public is the only source of knowledge: it is merely valued as central in the process. The knowledge that experts and policymakers bring to the table is not disregarded, it is just not dominant either. Moore & Woodcraft (2019) provide an example of what this could look like in practice. Within the context of East London, they demonstrate that using lived experience can be a useful addition to measuring what prosperity means in a specific local context.

Note that by approaching broad prosperity as something that involves fetching local knowledge, I implicitly take an ethical stance, namely that of ‘virtue ethics’ (de Boer *et al.*, 2022). While a thorough ethical discussion is outside the scope of this thesis, [appendix A](#) briefly touches upon this ethical stance.

2.4.2. BROAD PROSPERITY AND THOROUGH PARTICIPATION

From the perspective taken in this thesis, planning policy following the broad prosperity paradigm comes very close to having a thoroughly constructed participatory trajectory. There are however a few fundamental differences regarding the goals and the content.

Firstly, participatory decision-making involves how to better involve citizens in decision-making. This can have multiple goals. Some of them align with broad prosperity, such as empowering citizens to make decisions aligned with their values. Other goals are however not directly related to this thesis’s definition of broad prosperity, such as enabling learning for all stakeholders, building trust in the democratic system, and gaining support for a policy alternative.

Secondly, a participation trajectory is not synonymous with broad prosperity if its content is not about values. For example, if participation is merely organized about the design specifications of a certain highway, then it does not revolve around values and does not follow the broad prosperity paradigm. Only once the participation efforts deal with the question of how a transport system should be shaped and what value judgments are behind this, then it can be argued to follow the broad prosperity paradigm. Practically, this would entail being open to the values behind certain preferences, for example by giving room to qualitative information and asking ‘why’-questions. Ideally, this is done as early in the ex-ante evaluation process as possible. At that moment alternatives have not yet been specified and local values can still shape a large part of the process.

Thus, a carefully designed participation trajectory is not synonymous with broad prosperity, if it aims to achieve different goals or if it is not focused on values. Nevertheless, there are many similarities between the two concepts. For example, meaningful participation, i.e. participants being able to speak out thoroughly, freely, and well-informed, is a crucial aspect of both participation (as it fosters trust) and broad prosperity (as it ensures all participants can share their values and their knowledge). This becomes clear in [chapter 3](#), where I operationalize broad prosperity. So much of the literature about participation is very relevant for operationalizing broad prosperity.

3

TOWARDS A PRACTICAL FRAMEWORK FOR BROAD PROSPERITY

3.1. INTRODUCTION

CHAPTER 2 served to answer the sub-question ‘How can broad prosperity be defined?’. Now that we have a definition for broad prosperity, and I have discussed some of the implications of using such a definition, this chapter aims to further operationalize this definition into more measurable criteria. The goal of this chapter is hence to develop a practical framework to operationalize broad prosperity for ex-ante evaluation processes. This practical framework will contain multiple criteria that can together assess the extent to which an ex-ante evaluation process follows the broad prosperity paradigm. It will also contain a description per criterion that explains what the process would look like if it does follow broad prosperity, and what it would look like if it does not. This helps to identify ‘signs’ of following the broad prosperity paradigm more transparently in specific cases. As such, I can form an answer to SQ2.

3.2. METHODOLOGY

In order to create the practical framework for broad prosperity, I carried out a thorough literature review in combination with 6 open interviews with participation experts in the transport domain¹. I argue that a systematic literature review (i.e. one in which the aim is to systematically find all relevant literature) was useful nor feasible at this stage. The advantage of a systematic literature review would be to increase validity: by reading *all* literature about a set topic, I could make judgments about what criteria are more relevant than others, e.g. because they have been mentioned more often, or because they have a stronger proven relationship with broad prosperity. However, this would require having a set topic to search for. Broad prosperity defined from the process is however a novel perspective that other scholars have not proposed yet. An alternative topic to search for could have been the criteria of effective participation in general. However, then the argument of increasing validity would not stand, as it is a different concept than broad prosperity anyways.

As a consequence, I needed to gather literature selectively. The focus was mostly on literature that identifies effective participation, but as this is not exactly the same as broad prosperity (see 2.4.2), other aspects needed to be included as well (e.g. a focus on values within the

¹ Note that these are not all the interviews performed for this thesis. Most interviews were performed for the case studies (see section 4.2). These did not have the direct aim of increasing the framework’s validity, but rather assessing the extent to which broad prosperity has been present in the ex-ante evaluation of two large Dutch infrastructure projects. Two of the six interviews for this chapter were conducted with the same persons as for the case study. These interviewees had a general validation part, as well as a case-study-related part.

participation). As a result, the literature review could not serve to ensure construct validity (i.e. measuring what it aims to measure). This forms a limitation of studying a novel concept and operationalizing it in a novel way, which I further discuss in section 5.3.

The 6 open interviews with people involved in broad prosperity and participation in the Netherlands served to increase this validity somewhat. As the aim of the interviews was merely to brainstorm with experts and identify and/or validate process-related criteria, structure in these interviews was not deemed necessary. I presented them the general elements that I identified through literature. Then, I asked them whether they acknowledge these elements, and if they had any suggestions, either for other elements or for ways of measuring these elements. Appendix F shows an overview of the interviewed people. For the remainder of this chapter, they are referred to as A1 to A6.

The interpretation, categorization, and presentation of the framework is a process of creativity. Because of this, the framework might be difficult to exactly reproduce, which forms a limitation of this study. Still, by being transparent about the process and the sources of information, I aim to minimize this. To that end, appendix C gives an overview of all factors that I did *not* include in the framework, either because they are outside the scope of this research or because I chose to combine them with other criteria. Moreover, section 5.3 discusses the framework's limitations.

3.3. BROAD PROSPERITY'S 5 ELEMENTS

3.3.1. INTRODUCTION

Following chapter 2, I argue that to incorporate broad prosperity in the ex-ante evaluation of transport policy, it is essential to sufficiently take into account all values that are important in the local context. This means that one should not rely only on standardized expert judgments, but instead leave room for aspects that local citizens find important. The consequence of this is that citizens should play an active role in the generation and validation of knowledge, based on their underlying values (Fabian *et al.*, 2022). Citizen involvement efforts should focus on the citizens' needs, instead of on the goals of the party doing the involvement (Ianniello *et al.*, 2018). This opposes how many citizen participation trajectories are done at present. As Ianniello *et al.* (2018) state, public officials "see citizen participation as palliative for the challenges posed by exclusionary or unpopular policies, or a constraint imposed by external pressures. [...] Decision-making is effectively carried out somewhere else. [...] Officials place little trust in the skills, intelligence, and experience of ordinary people, and show limited capacity and willingness of valuing 'diffused knowledge'."

Based on a synthesis of literature and interviews, this thesis states that broad prosperity, viewed as taking into account all values that are important in the local context, consists of 5 elements. These are that: all relevant citizens are properly represented; citizens' values are central during the participation process; there is meaningful participation; there is evidence of how citizens' input is incorporated into the policy decision; and the value-oriented participation process is formalized. Figure 3.1 summarizes this.

3.3.2. CATEGORY 1: REPRESENTATION

In order to fetch all local values during an ex-ante evaluation process, local citizens must be represented. This could entail that a representative subgroup of citizens is present to assert influence on decision-making, or it could entail that citizen representatives have a place at the table that properly represent all citizens that will be affected by the policy. In the



Figure 3.1.: The 5 elements of broad prosperity that takes into account local values.

former situation, some basic statistics are necessary to ensure that the selected citizens are representative of the public at large (Simonofski *et al.*, 2019). In the latter situation, it would be ideal if citizen representatives bring to the table all sentiments and values citizens have (Carr *et al.*, 2012). A challenge with this is that not all citizens that might be affected by a policy feel represented by such representative groups, which might make it more difficult to fetch everyone's values (A6).

Apart from that, representation is very challenging in general. Firstly, it is very difficult to determine what citizens should be represented. Even if the selection criterion would be 'all citizens that will be affected by the policy in some way', it might be very difficult or even impossible to determine who that is and what they value. As an extreme example, it is next to impossible to represent citizens that will use the transport infrastructure in 15 years but live somewhere else today. Secondly, the citizens (or their representatives) that participate are not typically representative of the general population. There is a tendency for participation moments to be dominated by specific groups or specific people, the 'usual suspects (Brown & Eckold, 2019; OECD, 2022; A5). These are usually the people that have the time and money to participate, the typical group being older, white, male participants (Simonofski *et al.*, 2019; A1). Apart from demographic misrepresentation, people who will face serious negative consequences (the "not-in-my-backyard" participants) are also likely to be overrepresented, as they might feel the greatest urge to voice their opinion (A1; A6).

Thus, it could be argued that full representation is next to impossible. Still, what are the aspects that distinguish a good representation attempt from a bad attempt? In the framework, I include three criteria that can enhance representation.

1 Good selection criteria

The first is to make efforts to spell out good selection criteria to represent everyone, including the otherwise underrepresented groups. If selection criteria are clear, and it is clear that active effort is being made to prevent the usual suspects from being overrepresented, then this fosters representation (Ianniello *et al.*, 2018; OECD, 2022; Simonofski *et al.*, 2019). Examples of how this can be done are:

- Using a civic lottery to randomly invite people (OECD, 2022; A2). Academic literature about statistic sampling could provide suggestions for proper sample methods and sample sizes.
- Clearly substantiating who is not properly represented and what consequences this might have (A1).
- Rewarding citizens through financial but also other kinds of social benefits (Simonofski *et al.*, 2019).
- Including e-voting systems (Simonofski *et al.*, 2019; A2).
- Planning the participation moments well in advance and giving early notice to stakeholders so that they have ample time to reschedule other things (Wagenet & Pfeffer, 2007; A3).
- Offering participants that might feel afraid to join participation safer, specific sub-arenas, where the entrance is limited to those who have similar socio-demographic characteristics (Klok & Denters, 2018).
- Using different selection procedures, e.g. by using the existing groups and networks of the underrepresented group (Klok & Denters, 2018).
- Using existing research and think for the underrepresented groups about what they would find important. However, this could be wrong, so this is a second-best solution (A2).
- Using a stakeholder analysis that focuses on identifying issues. When issues stand central, a broader variety of stakeholders can be identified. (A6)

2 Multiple ways of informing the public

The second is to make sure that the public is informed about their participation possibilities in multiple ways (Wagenet & Pfeffer, 2007). Communication and participation are closely linked to each other (A4). Ideally, there is an organized strategy that informs potential participants in multiple ways, i.e. through multiple channels, multiple means, multiple languages, and multiple times (A1; A3).

3 Multiple participation methods

The third is to ensure that multiple participation methods are utilized. Each participation method could have a bias for effectively joining or effectively speaking out during the participation. So the use of multiple techniques limits the bias that a specific method could have (Ianniello *et al.*, 2018). For example, public meetings might be less accessible to those who have difficulty walking. Online methods might be more difficult for those who are more digitally illiterate. And formal moments to provide written input might be less accessible to those who are less proficient in writing or do not (have the time to) understand their formal procedures. As such, using a combination of such methods could work effectively to attract a broad range of people (Ianniello *et al.*, 2018; Wagenet & Pfeffer, 2007; A1; A2; A3).

3.3.3. CATEGORY 2: VALUE-ORIENTED

4 Values are central to the participation

Once a proper representation of all citizens is present, it is also important what participation is about. This aspect is the main difference between general participation efforts and participation efforts that foster broad prosperity (see section 2.4.2). Broad prosperity is only followed in

an ex-ante evaluation process if citizens' values are central during its participation process (Alexandrova & Fabian, 2022; Fabian *et al.*, 2022). This follows from seeing broad prosperity as a normative concept (see section 2.3.3).

For example, if the participation is merely organized to inform about the progress of the project, then citizens' values are not central. Similarly, if decision-makers present participants with a predetermined design (e.g. a highway with three lanes), and they merely ask citizens how they would fill in a specific aspect of this design (e.g. how wide the lanes should be), then citizens' values are not central either. In that case, decision-makers predetermine what citizens are expected to find important, and they structure the participation process accordingly (Fabian *et al.*, 2022). On the other hand, if citizens play a central role in what the problem is and why this is a problem, then citizens' values are seen as a detrimental part of the process.

Even later in the process, once the problem has already been defined and the focus is on the design, citizens' values can still be somewhat central, if there is room for qualitative information about *why* citizens prefer a certain design (e.g. citizens prefer wider lanes because it provides them with comfort and increases their perceived safety). In that case, the values are however less fundamentally present. Still, this focus on values throughout the entire process is a very important aspect of broad prosperity.

3.3.4. CATEGORY 3: MEANINGFUL PARTICIPATION

Once the public is properly represented, and the participation's content is in fact about values, it is also crucial that citizens are able to transfer their values and their knowledge. This is what I call meaningful participation: participants should get the opportunity for careful and thorough consideration and/or discussion². This is an essential aspect of broad prosperity: if participants are hindered to transfer their ideas effectively, then it will be very difficult to fetch these values and incorporate them into the final decision. For example, let us say that there is a good representation of all citizens' values present and that these people are asked for their values. Still, if participants cannot speak out fully, for example because they have an information deficit, or because the conversation is improperly facilitated, then their values cannot be properly fetched.

Meaningful participation is very challenging, as it requires a major mindset shift. Going back to the social planner perspective (SPP) that has arguably been dominant in the past decades, decision-makers treat people as "receptacles who lack agency and knowledge of their own to improve their lives" (Fabian *et al.*, 2022). From that perspective, "officials place little trust in the skills, intelligence, and experience of ordinary people, and show limited capacity and willingness of valuing diffused knowledge" (Ianniello *et al.*, 2018). If indeed this perspective is still dominant, then it might be very difficult to change this.

As argued before however, using local knowledge is detrimental to the broad prosperity paradigm. So what can be done to ensure meaningful participation? There is ample literature about this, which I will include in the framework through 5 criteria.

5 Timely participation

The first is to ensure timely participation. The earlier in the process participation takes place, the

² Note that this category comes closest to properly organizing a participation trajectory. As argued in section 2.4.2, the category of deliberation indeed overlaps significantly. However, the underlying goal is different: for broad prosperity, the goal is explicitly to ensure that all relevant values and knowledge can be incorporated into ex-ante policy evaluations.

more participants feel involved in the project and the more ability they have to steer the policy (Ianniello *et al.*, 2018; Wagenet & Pfeffer, 2007). If goals have already been determined before participation starts, then the general policy direction has already been set, without participants being able to influence it. This is not without challenges: a project in an early stage is less likely to attract participants because it still feels far away from them (A5; A6). This means that deliberate efforts need to take place to attract participants early in the process.

Next to being early in the process, participation should take place throughout the entire ex-ante evaluation process, well before the formal decision moments, so that participants have ample time to assess these decisions and adjust them accordingly. This also counts for the final decision: citizens should get the opportunity to assess this decision and make (small) adjustments (Fabian *et al.*, 2022).

6 Shaping the participation process together

Secondly, there is strong agreement that to have meaningful participation, it is important to give participants the possibility to influence the participation process. This could involve agreeing on the participation goals, the participation methods, and the potential outcomes, or it could involve setting the agenda. Trust can partly be seen as the intermediate factor here: if participants feel that their goals and agendas can be part of the participation process and that it will actually influence the outcome, then they feel listened to and are likely to speak out more openly (Beierle & Konisky, 2000; Ianniello *et al.*, 2018). Communication about goals and the way participants can expect their input to be part of the final decision also reduces the likelihood of surprises, which in turn creates trust (Chan *et al.*, 2022; Davies, 2009; OECD, 2022; A1; A3; A5).

There is also a more fundamental reason why it is important to let participants determine the agenda. If participants are not able to assess the way the participation is arranged, then it can be argued that the SPP dominates: experts then predefine the participation topics based on paternalist grounds (i.e. the experts know better than lay citizens what participation should be about) (Fabian *et al.*, 2022). As such, citizens might be less able to express their values.

This all requires a flexible participation process, of which regularly gauging how participants feel is an essential part (Chan *et al.*, 2022). Based on this, there should be ample opportunity to revise the participation plan and trajectory.

7 Reduce information asymmetry

A third essential component of meaningful participation is a lack of information asymmetry. If participants are to express their values, they should sufficiently understand the project and its implications to form an opinion about how they value them (A6). To achieve this, it is important to actively inform the participants about the project and their opportunities to find the necessary information (Faehnle & Tyrväinen, 2013). The project team should acknowledge that different people have different capacities and different frames of reference. As such, there should be information in accessible language, in which jargon and technical issues are explained or simplified (Halvorsen, 2003; OECD, 2022; Wagenet & Pfeffer, 2007; A6). Using visuals, like sketches, infographics, or flow charts, could also help with this. Moreover, the information should be delivered at the right time, preferably well before the participation sessions, so that participants can familiarize themselves with the content and form an opinion (Chan *et al.*, 2022; Faehnle & Tyrväinen, 2013; A1). Having collaborative efforts that stretch over longer periods can help for building a shared knowledge base (Ianniello *et al.*, 2018).

8 Appreciation of participants' knowledge

Fourthly, project leaders *and* decision-makers need to show commitment to the participation process and actually appreciate the participants' knowledge. Letting the local public play an active role in the generation and validation of knowledge is impossible if the project leaders and the decision-makers do not place trust in this knowledge (Ianniello *et al.*, 2018). Participation is 'serious business' that costs time and money (A3). If the project leaders or the decision-makers do not show a genuine commitment to allocating this time and resources to the participation and taking citizens' input seriously, but rather approach it as a 'tick-of-the-box', then it will be very difficult to truly incorporate citizens' values in the ex-ante evaluation process (OECD, 2022).

9 Efforts to ensure all participants' contributions

Finally, ensuring that all participants are fully able to contribute is an important factor for effective deliberation. Pre-existing power relations or more vocative individuals might prevent everyone from being able to speak out fully and freely, and as such not all values might be sufficiently heard (Ianniello *et al.*, 2018).

One way how this can be achieved is by having a person or party that properly facilitates the conversation. This not only helps to keep the conversations on-topic, but more importantly, it moderates the effects of power asymmetry and makes participants feel that their input is useful (Chan *et al.*, 2022; Dobos & Jenei, 2013; Klok & Denters, 2018). Good facilitation of the conversation can ensure that weaker participants are actively engaged and not overwhelmed by the more vocative individuals, ensuring proper representation of all participants' values and as such preventing "big-mouth democracy" (Ianniello *et al.*, 2018). Klok & Denters (2018) mention that the facilitator's credibility with the participants is key and that selection or approval by the participants themselves might be effective.

3.3.5. CATEGORY 4: EVIDENCE

10 Evidence

If all criteria thus far are met, then all citizens' values are properly represented, the participation revolves around values and participants can give their opinion thoroughly, freely, and well-informed. However, if the participation results are not incorporated in the final decision in some way, then it can be argued that the process is still not in accordance with broad prosperity.

Acknowledging that a policy decision involves a complex political process, with evidence I do not mean that the citizens' preferences are plainly translated into the final decision. As Holmes (2011, pp. 27) states, control over the policy consultation process is seldom fully transferred to constituents and stakeholders. "Such control is crucial [...] for both political reasons (e.g. the political calculus of support and benefits from implementing promises and party priorities) and for meeting the official audit requirements for adhering to due process in public expenditure." So there is a contradiction. On the one hand, citizens having full control over the decision taken might be seen as the ideal situation from a broad prosperity perspective. After all, citizens' values are then truly incorporated into decision-making. On the other hand, the political and budgetary aspect makes this largely impractical.

As such, I call this dimension "evidence" and not "citizens' decision power". If an ex-ante evaluation process is to follow the broad prosperity paradigm, at the very least decision-makers should provide evidence of how the public's preferences are or are not incorporated into the final choice (OECD, 2022; Wagenet & Pfeffer, 2007; A2; A3). This at least provides accountability and transparency about the citizens' role.

Ideally, there should also be ex-post scrutiny, i.e. citizens being able to assess the decisions after they have been taken and get the ability to make small adjustments accordingly (Fabian *et al.*, 2022). Still, the balance between citizen power and political reality will most likely remain a challenge here.

3.3.6. CATEGORY 5: PROCESS FORMALIZATION

11 Participation process is formalized

The extent to which the participation process is formalized and is an integral aspect of the ex-ante evaluation process can greatly affect its outcomes. Both OECD (2022) and Ianniello *et al.* (2018) mention that if the participatory process becomes a habit by embedding it in the institutional framework, then the engagement and its outcomes will likely be more sustainable.

The effects of formalization are three-fold. Firstly, participation being an integral part of the evaluation process will mean that it becomes easier to allocate time and resources to it. This might not only greatly affect the space that citizens get to express their values, but also foster a mindset in which decision-makers actually take the results seriously (Ianniello *et al.*, 2018; Wagenet & Pfeffer, 2007; A2; A6). Secondly, it serves as a tool for expectation management. Having a clear participation procedure makes it clear for participants what to expect and decreases the likelihood of surprises, which might increase participants' trust in the process and let them speak out freely (Chan *et al.*, 2022). Thirdly, if formalization also includes rules for how the participation moments themselves should be arranged, it might empower those who are naturally less likely to speak out and prevent a "big-mouth democracy" (Klok & Denters, 2018).

When formalizing participation, according to literature it is important to:

- Give it a proper place in the larger institutional architecture of the ex-ante evaluation process (OECD, 2022). This ensures that the significance that participation has in the process is based on a formal obligation, rather than the decision-maker's personal willingness.
- Include rules about the 'participation arena' (i.e. the participation moments). It is then important to not only create requirements that could be experienced as excessive bureaucratization but also to include rights for individuals who may otherwise be subject to domination by others (Klok & Denters, 2018).
- Remain flexible. E.g. by using a toolbox of different types of participation that organizers can choose from, so that they only need to make small changes to adapt the tool to the specific situation (Klok & Denters, 2018).
- Include evaluation during and after the trajectory as part of the participation (Chan *et al.*, 2022; A1).

3.4. A PRACTICAL FRAMEWORK FOR BROAD PROSPERITY

In the previous section, I have operationalized 11 criteria that together determine the extent to which an ex-ante evaluation process follows the broad prosperity paradigm. Together, these form the broad prosperity framework. Figure 3.2 provides a visual representation of the practical framework.



Figure 3.2.: The 11 criteria to assess whether an ex-ante evaluation process followed the broad prosperity paradigm. Note that the colors correspond to the categories presented in Figure 3.1.

In order to utilize this framework in a case study, it is useful to further specify each criterion. When will an ex-ante evaluation process get a low score for each criterion, and when will it get a high score? [Appendix D](#) provides a table in which this is further specified. Note that this framework does not suggest that each criterion is equally important; the current research method does not allow for such mutual comparison. As such, the practical framework in its current form is best seen as a checklist: all criteria have to be sufficiently met to effectively integrate broad prosperity in ex-ante policy evaluations. Section 5.3 further discusses this.

This chapter served to answer SQ2: “What practical framework can be developed to operationalize broad prosperity for ex-ante evaluation processes?”. The presented framework forms an answer to this.

4

CASE STUDY RESULTS

4.1. INTRODUCTION

Now that a practical framework has been created and validated, it can be used to assess to what extent broad prosperity has been present in real-life cases. That is what this chapter aims to achieve. This chapter seeks to answer SQ3: "To what extent has process-based broad prosperity been present in two recent Dutch MIRT processes?"

4.2. METHODOLOGY

In order to apply the framework in practice, I used a case study approach. A case study aims to "study the particularity and complexity of a single case, coming to understand its activity within important circumstances" (Stake, 1995). Such an approach fits if the phenomenon of interest cannot be studied outside its natural setting, if the study focuses on contemporary events, and if manipulation of events is unnecessary (Benbasat et al., 1987, as cited in Iacono *et al.*, 2011). The main reason for having taken this approach is exactly that: it fitted the aim of this sub-question, which is to apply the broad prosperity framework to the practice of policy evaluation.¹

A case study approach has its advantages and disadvantages, which are further elaborated in [appendix E](#). Some of the disadvantages can be mitigated by using a case-study protocol, in which the most important choices for the case study design are elaborated. [Appendix E.1](#) contains such a protocol. Important to mention is that I conducted a multiple-case study, in which I used the framework to analyze broad prosperity within two MIRT processes: Oeververbindingen Rotterdam (OVR) and A15 Papendrecht-Gorinchem (A15). These specific trajectories were chosen based on the criteria of recency, completion, access to documentation and people involved, time constraints, and the extent of being inspirational (see [appendix E.2](#)). While this does not mean that these cases are representative of all MIRT processes and that their results are fully generalizable to any MIRT process, the two case studies at least provide a diverse view of broad prosperity enablers and challenges within Dutch MIRT processes.

Data for the case study was collected through a combination of desk research and semi-structured interviews. The desk research aimed to identify all relevant information that has been documented in online publications. The semi-structured interviews aimed to identify the sentiments and experiences that were not revealed in the online documentation. Characterized by having a few predeter-

¹ An alternative would have been to use a more quantitative approach, such as modeling, but this suits the qualitative nature of a policy evaluation process less, and it also does not fit the aim to test the framework in *real-life*. An alternative qualitative approach would have been a theory-building approach. While it would be very interesting to build a theory for broad prosperity, this would have entailed incorporating all the different perspectives that constitute broad prosperity. This was infeasible within the time span of this thesis.

mined questions while not planning the rest of the interview in advance, semi-structured interviews are useful to gather more in-depth and informal information about the decision-making process in a flexible way (Alshenqeeti, 2014; Pollock, 2022)².

In total, I analyzed 43 online case documents, 25 for the OVR case study and 15 for the A15 case study. I interviewed 15 people, 7 for the OVR case study and 8 for the A15 case study. Appendix F contains an overview of these sources. For the remainder of this chapter, I will refer to these sources as B1 to B32 and C1 to C24 for the OVR and A15 case studies respectively.

The semi-structured interviews aimed to gather further in-depth information about how broad prosperity has been present in the project. After a short introduction, I asked the interviewees open questions that all related to the criteria of the broad prosperity framework. The initial questions were very open, but if I desired some more specific information, I asked more specific questions. I ended each interview with a summarizing question, either asking them to score this project on the different aspects of broad prosperity or asking them a few tops and tips related to broad prosperity and participation within this project. Appendix G contains a more specific overview of the interview invitation emails and interview questions.

Then, I systematically analyzed all documents and interviews using the practical framework created for this thesis. I used the descriptions of the different criteria to code the data, and as such identify excerpts in which information about that criterion came forward. Based on that information, I scored the cases on each criterion. I used a 5-category scale, ranging from low, medium-low, medium, and medium-high, to high. While it was close to impossible to give such a score objectively, appendix D provides a rubric that at least helped to give the score transparently. The implications of scoring in this way are further discussed in section 5.3.

4.3. WHAT IS A MIRT PROCESS?

“The ‘Multiannual Program Infrastructure, Space and Transport’ (‘Meerjarenprogramma Infrastructuur, Ruimte en Transport’) (MIRT) is an investment program by the Dutch Ministry of Infrastructure and Water Management (I&W) for projects and programs in the spatial domain (I&W, 2021). Any large project that impacts the spatial design of the Netherlands and requires funding from the national government follows this MIRT process.

In this procedure, multiple stakeholders (relevant governmental institutes, societal organizations, and companies) work together to “sustainably develop the competitive power, accessibility, and liveability of the Netherlands” (I&M, 2016). Over the course of multiple phases, promising spatial domain projects start with a broad initial research phase (MIRT research), then undergo a more specific exploration phase (MIRT exploration), then a plan elaboration phase, and finally a realization phase.

This thesis is specifically interested in the MIRT research and MIRT exploration phase, with a main focus on the MIRT exploration phase, because it is this phase in which the ex-ante evaluation takes place. The MIRT research phase does not follow a strict procedure, but a MIRT exploration follows 4 subphases, in which potential transport policy alternatives are evaluated ex-ante (I&W, 2021). These are the phases of creating an approach plan (start), specifying alternatives (analysis),

² Alternative data collection methods could have been structured interviews, a survey, focus groups, or observations. See appendix E.3 for a further explanation for not having chosen these methods.

estimating the effects of promising alternatives (assessment), and choosing the preferred solution (decision-making).”

4.4. CASE STUDY 1: OEERVERBINDINGEN ROTTERDAM

4.4.1. SETTING THE SCENE

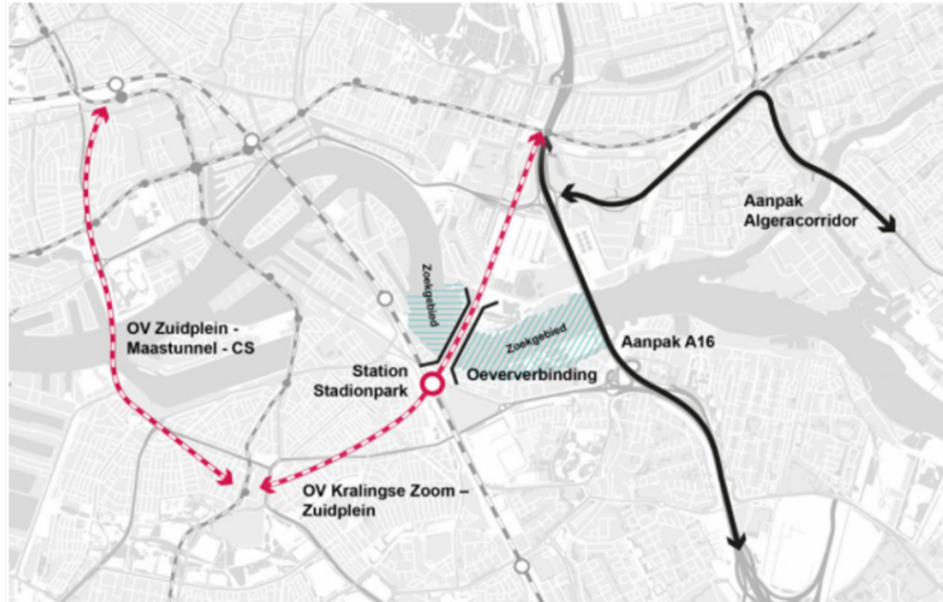


Figure 4.1.: Visual overview of the OVR project's area and intended measures (Studio Bereikbaar, n.d.)

The region of Rotterdam is already one of the busiest regions in the Netherlands, and with the plan to realize around 30.000 houses within the next few decades, it is set to become even busier. This puts pressure on the current transport system, including Rotterdam's river crossings. A national market and capacity analysis (NMCA) conducted in 2013 revealed that one of these river crossings, highway A16, was a main capacity bottleneck, causing high congestion (B8).

This was one of the reasons why the municipality of Rotterdam, the province Zuid-Holland, the Metropolitan Area Rotterdam The Hague (MRDH), and I&W initiated a MIRT research called 'Accessibility Rotterdam The Hague'. Within that MIRT research, accessibility was not seen as a goal in itself, but as a means to achieve the goals of strengthening the spatial-economic structure, increasing the quality and attractiveness of the living environment, and increasing opportunities for people (B8).

The MIRT research was finished in the fall of 2017 and provided suggestions for more concrete projects that could contribute to achieving those goals. One of these was to create a new river crossing in Rotterdam (B8). As a result, that year still, the same parties joined forces to start a MIRT exploration to these river crossings, called 'Oeververbindingen Rotterdam' (B13). It aimed to explore what would be necessary to solve the current bottlenecks in traffic and in public transport so that the prospected growth would become possible, and so that the city and region would remain accessible, livable, and attractive.

The project started with a pre-exploration phase, which aimed to expedite the exploration process by already narrowing the scope to a more specific location for the new river crossing, and by further specifying the funding (B10). Based on these results, the public administrators decided in the fall

of 2018 that the following aspects would be part of the MIRT exploration: a new river crossing in between the neighborhoods Kralingen and Feijenoord; a high-quality public transport connection between Zuidplein and Kralingse Zoom, a new station Stadionpark, an improvement to the existing public transport through the Maastunnel; and measures to decrease congestion on highway A16 (Van Brienoordburg) and regional road N210 (the Algeracorridor)(B13).

The exact form of these measures is what the MIRT exploration aimed to further explore. In November 2019, the starting decision was taken (B13), and after following the mandatory phases, the preferred solution was published three years later, on November 10, 2022(B25, B26). The decision-makers prefer a new bridge over the river, that facilitates a fast and frequent tram connection between Kralingse Zoom and Zuidplein. Next to that, they decided to make the Stadionpark a permanent train station, rearrange intersections on road N210, to make better use of the Algerabrug's capacity, and rearrange and add some lanes on highway A16.

To what extent was broad prosperity present in this MIRT project? Let me analyze this case using the broad prosperity framework. I give each criterion a score based on the rubric presented in appendix D.

4.4.2. APPLYING THE BROAD PROSPERITY FRAMEWORK

1. GOOD SELECTION CRITERIA

Score: **Medium-high**

This project went further than similar projects to involve a large group of participants that would be as representative as possible (B1; B2; B15; B16). Everyone was able to think along, including citizens. Also, they performed an amenity value study, for which they went into the poorer neighborhoods to ask people on the streets to give their opinion (B20). However, this amenity value study did not lead to more thorough participation by the groups that they approached (B1; B2). Furthermore, they also clearly stated what groups they felt were underrepresented (B18; B20; B23). Finally, they held focus groups and an 'area council' (Omgevingsberaad), for which there have been clear efforts to involve a broad representation of stakeholders: local stakeholders (residents' associations) as well as larger, national interest groups (e.g. ANWB and TLN) (B1; B2; B6).

Were all these efforts successful? It seems that it was still very challenging to involve everyone equally, especially the youth and the less wealthy people(B1; B2; B7). The youth just did not seem interested to participate, and the less wealthy people seem naturally less likely to organize and voice themselves. The amenity value study did not seem to cause further, more thorough participation by these groups (B1; B2). As such, their values might not have been equally represented. Also, for the people that *did* participate thoroughly, there is no visible guarantee that the involved participants accurately represent all underlying values and interests, including the more nuanced views (B7).

2. MULTIPLE WAYS OF INFORMING THE PUBLIC

Score: **High**

Within this MIRT project, many different methods were used to inform potential participants. Online tools like a website and social media were combined with offline tools, like a tour bus, a newsletter, visits at youth associations, and riding along with important bus lines (B1; B2; B14; B18; B20; B22). Also, the project team put effort into utilizing the local network to reach specific groups, e.g. by going to neighborhood or youth associations (B2; B7; B20). While the project team did not go as far as to communicate in multiple languages, they did inform thoroughly (B2).

3. MULTIPLE PARTICIPATION METHODS

Score: **High**

A multitude of participation methods was used: information evenings, focus groups, the area council, expert groups, individual conversations, an amenity value study, and a MIRT on-tour session (B1; B2; B6; B7; B12; B13; B16; B18). Every method had a different goal and different dynamics, which seems to have ensured that the participation yields have little to no bias as a result of one specific technique (B1; B6). Especially, the specific distinction between focus groups, the Omgevingsberaad, and expert groups seems to have ensured that participants could be better listened to because the parties that were present were better aligned in terms of knowledge level and perspective (B6; B18). One suggestion is that the project team could additionally have used interactive online tools. This could have led to yet different dynamics, which could have attracted a different target group.

4. VALUES ARE CENTRAL TO THE PARTICIPATION

Score: **Medium**

“ If you want to properly take into account broad prosperity in the trade-off, then you need broad prosperity objectives upfront. We didn't have those in this MIRT project. The project objectives were formulated about accessibility. And of course, there were a few 'sub-objectives', like improving the quality of the living environment or opportunities for people. But these were not hard objectives. - Interviewee B6 ”

Within this MIRT project, there are signs for and signs against value-oriented participation. Looking at value-oriented aspects, the MIRT research firstly included a thorough value-oriented participatory survey. Because the objectives of the rest of the process mostly came from the MIRT research's results, this participatory survey seems to have had some effect on the further trajectory (B8; B30; B31).

Secondly, the amenity value study during the exploration phase was highly focused on values: its goal was to map relevant opinions, ideas, and emotions, and to get a good overview of the 'softer values' that played a role (B20).

Thirdly, there seems to have been a lot of room for qualitative, value-oriented information in the participation report (B16).

And finally, during the participation sessions, there has been a lot of emphasis on participants' preferences for certain alternatives. They were able to assess alternatives themselves, and the 'why'-question seems to have been asked a lot (B1; B2; B16; B17). This implies going in-depth into the underlying values behind preferences.

What signs indicate that the important values were not fully derived through participation with local stakeholders? Firstly, while the objectives of this project *seemed* broad and value-oriented (see section 4.4.1), it turned out that the objective of accessibility was dominant. The objectives of 'improving the living environment' and 'increasing opportunities for people' were highly valued by the local stakeholders, but they mostly seemed to be nice-to-have objectives. The objectives' concrete substantiation seemed to be missing, and local stakeholders had little influence on this (B1; B2; B3; B4; B5; B6).

Secondly, the same counts for the assessment criteria: it seems that the participants did not play a large role in creating these, while this is an important aspect in which values come forward (B2; B16; B17).

Thirdly, among the interviewed participants, the sentiment dominates that the project was implicitly focused on a certain solution from the get-go (B3; B4; B5). While the intention seemed to be

to conduct a study in which all options were open, budgetary decisions in the beginning seem to already have eliminated a tunnel. As such, some participants felt that this MIRT exploration's approach was not in line with their values.

Finally, the amenity value study does not seem to have had an explicit role in the final decision information. It rather played an implicit role in slightly shifting the project team's focus and perspectives (B1; B2; B20).

5. TIMELY PARTICIPATION

Score: **Medium-low**

Within this project, participation that revolved around defining alternatives, adjusting alternatives, and stating preferred alternatives, seems to have been excellent. Also, within the MIRT research phase, there have been multiple 'creation days' in each phase of the research (B32).

However, it seems that participation in defining the project's problem statement and objectives was largely absent (B2; B3; B5). Also, in the pre-exploration phase, there seems to have been a mismatch between the extent of participation that the participants desired and that the project team offered (B1; B2; B4; B12). Furthermore, because of the strict planning of the MIRT exploration, there seems to have been too little time for the participants to properly form opinions at times (B1; B2; B5; B7; B17; B22). Finally, the preference decision was taken before the participation trajectory was completely finished. After that decision, there has been some interaction with the participants, but its aim was mostly to apologize and to somewhat regain support for the decision, rather than to actively involve stakeholders retrospectively (NRC, 2022; B2; B3; B4; B5)

6. SHAPING THE PARTICIPATION PROCESS TOGETHER

Score: **Medium**

Participation about the participation. That is what this project called shaping the participation process together. The project team seems to have taken ample time for this. At the start of the participation process, this has resulted in one extra participation method, the 'Area Council' (B1; B2; B7; B12; B13; B17; B18; B21; B23). The set of 'game rules' that was set up together was also greatly appreciated by participants (B3; B4; B5). Throughout the further process, there has furthermore been ample room for participants to provide feedback about their participation, for which the project team seems to have been very open (B2; B7). The project team mentions that they strived for flexibility in the process (B17; B22).

How did the project deal with requests about the project scope? When talking about scope requests *within* the possibilities of the MIRT procedure (e.g. incorporating an extra intersection in the model calculations), these seem to have been honored (B2; B5; B6; B17). Outside the possibilities of the MIRT process, the project team also put effort into honoring the participants' requests whenever they could. For example, they contributed to taking some short-term measures, they joined a local initiative (Kralingen aan de Maas) and they attempted to activate the municipality council to bring clarity about its spatial development plans (B7). However, inherent to the MIRT process as it currently is, no flexibility was possible when it involved content-related requests. The project team could not honor most of the participants' suggestions about the scope, the planning, or the funding within the MIRT project. Multiple people (including some project team members) found this unsatisfactory (B3; B4; B5; B6; B7).

Another point is that expectation management seems to have formed some problems within this project (B1; B2; B3; B4; B5; B6). Even though the project team seems to have given this a lot of attention, at times it seems to have remained unclear what role participants had. The two obscurities were about the project's objectives, and about the role of costs. Firstly, at the start, the ambition

for an integral approach was communicated, for example by formulating 5 broad objectives. This raised the expectation that participants could also voice their broad ambitions and desires regarding these objectives. When it turned out that this was in fact largely a transport-related project, this led to disappointments. Secondly, it seems to have been unclear what role costs would play in the ex-ante evaluation and the final preference decision. The communication that costs would play no role during the ex-ante evaluation raised the expectations that costs would also not play a role when taking the final decision. Despite the project team's efforts, there seems to have been a miscommunication regarding this.

7. REDUCE INFORMATION ASYMMETRY

Score: **Medium-high**

The project team has paid a lot of attention to information provision. They organized masterclasses and used visualizations, video clips, and expert interviews to enhance the participants' understanding (B15; B18; B20). Participants seem to be positive about the use of these means (B1; B2). For the focus groups, the project team seems to have shared all necessary information at least one week before the meeting. Afterward, they often shared the presentation with the participants, to keep the information available to them (B2; B15; B17; B21).

Still, some participants seem to be critical of the timeliness of the information provision (B2; B3; B5; B7; B22). They felt that at times, they had too little time to form an opinion. One of the causes for this could be the strict planning of the project. Within this planning, there sometimes seems to have been too little capacity for the thorough preparation of participation. Another cause could be that it was sometimes hard for the participants to understand what information was truly important for that specific phase of the project (B7). There is also some criticism about the information complexity, despite the project team's efforts. This mostly shows how difficult it is to present such a complex project in understandable language.

8. APPRECIATION OF PARTICIPANTS' KNOWLEDGE

Score: **Medium**

The project organization did a good job fetching our ideas. They organized workshops, and participants' ideas were neatly gathered and further worked out. Design ideas about the tunnel were nicely drawn out by the drawers. - Interviewee B5

There are ample signs that this project team greatly appreciated the participants' knowledge. For example, there was a joint fact-finding process during the pre-exploration, intending to use local expertise as optimally as possible (B9; B13; B17). Also, there seems to have been an open setting to share knowledge within the design workshops and the focus groups, which was appreciated by the interviewed participants (B2; B3; B4; B5; B6). Residents' associations were able to present a set of measures, which was almost fully taken over by the project team and was researched as thoroughly as the other measures (B16; B21). Furthermore, the amenity value study, in which people on the streets could vent in an open setting, also shows how local knowledge was appreciated (B18; B20).

However, it seems that the appreciation of participants' knowledge mostly stopped at the project team (B3; B4; B5; B6; B7). Apart from enthusiasm in writing, there is no sign that participation played an extensive role at the level of decision-makers. At times, it seemed to be difficult to convince them about the significance of participation. This also formed a challenge when participants' knowledge fell outside the 'frame' that decision-makers had for this project. Input about the design was greatly appreciated. But once the input was outside the project's current scope, or was about

more fundamental aspects, there seemed to be a blockade. While the project team always seemed to try their best in finding a way to incorporate the input, there seemed to be a mismatch between the technocratic MIRT process and the participants' enthusiasm to bring their knowledge.

9. EFFORTS TO ENSURE ALL PARTICIPANTS' CONTRIBUTIONS

Score: **High**

The fact that they hired an independent facilitator for the Area Council was very positive. She let all parties speak out freely and ensured cohesion between participants. She knew exactly what tone to use so that we all got closer together. - *Interviewee B4*

There are indications that a lot was done to ensure all participants' contributions. During the project, many participation methods were deployed. Moreover, an open atmosphere was the goal (B1; B23). Regarding facilitation, the Area Council was guided by an independent facilitator, and the information evenings and focus groups by a project team member. The participants seemed to greatly appreciate the independent facilitator's efforts to involve everyone and seek cohesion among them (B4; B18). While the project team members are not as independent, they generally seem to have had credibility among participants. The used participation methods (e.g. the use of post-its) also seem to have ensured that everyone could contribute and that the dominance of 'vocal individuals' could be limited (B6; B21). The only consideration is that sometimes, the knowledge difference between participants seemed rather high. While this cost some time, there are no indications that this has prevented all participants from properly contributing (B5; B18).

10. EVIDENCE

Score: **Medium-high**

There is a lot of documentation about the participation yields, most of which was included in the document used for making the final decision (B12; B16, B24, B26). For example, the participation report clearly shows a section of 'how will we deal with this information' for all participation input (B12). Also, for the extra research conducted by one of the residents' associations (BBV), this participation report thoroughly mentions how it would or would not be used in the rest of the process. Finally, for the formal 'perspectives' that could be submitted, there is a thorough and transparent substantiation of how they were taken into account. For example, some of the assessment criteria were adjusted as a result of these (B22).

While there is extensive documentation about the worries that came forward during the focus groups, there is less clear documentation about how they would deal with these worries in the rest of the process (B17). Another point regarding evidence is the amenity value study. Such a study has the potential to make the MIRT process very value-oriented, yet its results were only used implicitly rather than explicitly (B1; B2; B19; B20). One of the mentioned reasons for this was that the extracted information does not lend itself to a more explicit use (e.g. not representative and too qualitative). Finally, in the final stage of the project, providing evidence does not seem to have gone well concerning the Area Council's advice. The preference decision had already been taken before the advice was made public (NRC, 2022; B1; B2; B3; B4; B5). As such, there is no way to credibly substantiate that their advice has been part of the decision information.

11. PARTICIPATION PROCESS IS FORMALIZED

Score: **Medium**

MIRT processes like these formally follow the 'participation code within MIRT explorations' (I&W,

2013). The new Environment and Planning Act is set to be formalized soon, but was not yet accepted at the time of this project. Nevertheless, the project team chose to take this new law's principles as a basis (B13). As a part of this, the project team created a thorough participation plan and a corresponding set of 'game rules', which participants seem to have greatly valued (B4; B5). The project team took ample time at the start of the project to come to a solid participation plan, which they tried to align with both participants and decision-makers (B1; B2; B7). Within this participation plan, attention has also been paid to the rights of weaker participants and fostering an open environment to ensure everyone's contributions (B23). And during the participation moments, it seems that the project team made an effort to mostly keep them aligned with the participation plan (B6).

Participation should not stop at the project leader, it should also be supported by the decision-makers. And that is not what happened here. [...] Participation was not fully recognized up until the level of the decision-maker. He did not think 'I need to participate, I need to involve my environment.' - Interviewee B6

However, participants seem to be disappointed that the 'game rules' were not fully formalized. They were more of a social contract, and this meant that there was no true consequence of breaking them. In some of the participants' eyes, these rules were indeed broken by the decision-maker (B4; B5). Also, fully integrating participation within the project seems to have been difficult (B2; B6). It seems that at times, the project planning could have left more room for an (even) more comprehensive preparation of the participation, instead of being something that came at the side. This might be partly explained by the difficulty to commit decision-makers to the participation process. In the beginning, the project team paid a lot of attention to letting the decision-makers commit to the participation approach (B7). However, during the project, this seems to have been lost. Among participants and some project team members, the sentiment dominates that decision-makers could have taken participation more seriously (B4; B5; B7).

4.5. CASE STUDY 2: A15 PAPENDRECHT-GORINCHEM

4.5.1. SETTING THE SCENE



Figure 4.2.: Visual overview of the project and study area (I&W, n.d.)

The A15 is a Dutch highway that starts at Rotterdam's Maasvlakte and ends near Nijmegen. In 2017, the four-yearly NMCA revealed that the A15 segment between Papendrecht and Gorinchem forms a great future bottleneck (C22). If nothing would be done to decrease congestion there, the economic loss in 2040 could be as much as 48 million euros a year. Based on this information, I&W decided to start a MIRT exploration with the intention to solve this bottleneck. Its main objective was to improve traffic flow and traffic safety on the A15 Papendrecht-Gorinchem in both directions.

An important prerequisite was that as a result of potential measures, congestion would not increase on *other* national, regional, or local road segments (C22).

In October 2019, the Minister of I&W officially published the starting decision, after which the MIRT exploration could start. Having followed the mandatory start and analysis phases, the project is currently in the assessment and decision-making phase (C24). If the original planning was followed, the preference decision would already have been taken in the fall of 2020 (C22). However, preliminary results revealed that any adjustments to the trajectory were very likely to influence congestion at the closeby intersection Gorinchem. As such, the project team and Ministry decided to extend the exploration's scope to include this. These results are expected to become public in 2024 (C24).

Nevertheless, a substantial part of this exploration has already been finished. While the preference decision has not yet been taken, much of the decision information is already available. So, to what extent was broad prosperity present in this MIRT project? Let me also analyze this case using the broad prosperity framework, using the rubric presented in [appendix D](#).

4.5.2. APPLYING THE BROAD PROSPERITY FRAMEWORK

GOOD SELECTION CRITERIA

Score: **Medium**

Within this project, a thorough stakeholder analysis and a force field analysis were carried out (C1; C2). Because of this, the most important interests were represented, for example by ANWB, Fietsersbond, TLN, EvoFenedex, and relevant municipalities and regions. To some extent, this has been an effective way to fetch local values (C3; C4; C7; C8; C14). Especially for smaller associations or municipalities, there are short ties between citizens and the people representing them. Direct participation from citizens has not taken place a lot within this project (C2, C10, C14, C16). Citizens were mostly able to come to information evenings and have individual conversations with the project team. There has also been a survey that asked participants how they viewed the potential solutions, but this was filled in by only 30 respondents (C14). So while it was a good way to fetch extra qualitative information, it was not necessarily representative.

“ For this MIRT exploration, I made the judgement that my constituency's interests were not so contradictory and confronting. I do not want to say 'a simple road widening project', but it did not have clear interferences with estates or green space. -Interviewee C7 ”

The challenge with involving citizens directly only through an 'open call', is that it is mostly the most critical people that make use of such occasions, which makes it hard to fetch the perspectives of all citizens in a representative way (C2). Involving representative groups can be a good alternative, but it is important that equal representation is guaranteed and that they really speak for the people that they represent. Within this project, there are 4 challenges regarding this.

Firstly, within the project region, there seemed to be few residents' associations (C1; C3; C5; C6). Municipalities could be an alternative for this. For some municipalities ties between citizens and municipal representatives are short, but this is not necessarily always the case. As such, the representation can be rather indirect. Secondly, in some sessions, the absence of one representative seems to have influenced the final result (i.e. that representative's interests were less present) (C1). This begs the question of to what extent these results are representative. There does not seem to have been a lot of effort to ensure this. Thirdly, representatives mostly interpret what their constituency is likely to value within this specific project, instead of asking them directly (C6; C7; C8).

This does not have to be problematic, as it is their job to do so, but nuances might get lost in this interpretation. Finally, it seems that within the administrative advice group (BAG), there is a representation of multiple municipalities that has to synthesize their interests. This forms an additional challenge to ensure that all those interests are truly represented in a balanced way (C8).

MULTIPLE WAYS OF INFORMING THE PUBLIC

Score: **Medium-high**

Within this project, multiple communication channels and means have been used: newsletters; information meetings; social media; a project website; door-to-door magazines; mail and phone to invite participants; Staatscourant; local newspapers; advertisements; and pages at the municipalities' websites (C1; C2; C10; C13; C14). This indicates a high effort to inform everyone that might be able to participate. However, because of the extended duration of the project, there seem to have been some difficulties in keeping everyone engaged with the project. This might form a challenge for further participation: do former participants still feel the urgency to keep participating? Some participants and project team members indicate that this could have been improved (C3; C6; C7).

MULTIPLE PARTICIPATION METHODS

Score: **High**

For participation, the project team initiated a combination of information evenings, working groups (administrative advisory group (BAG), societal advisory group (MAG), and workshops), individual conversations with people involved, and a survey (C2; C12; C14). All interviewed participants highly appreciate this combination of used methods (C3; C4; C6). The information evenings served as a way to gauge the general sentiment. The working groups were well-organized and were a good way to come to well-considered joint pieces of advice. If something was unclear, or if there were citizens that desired some extra participation, then the individual conversations worked well to exchange further information and knowledge. Finally, the survey seemed to have worked well to fetch people's individual points of view and as such to bypass group dynamics.

VALUES ARE CENTRAL TO THE PARTICIPATION

Score: **Medium-low**

While there have been some value-oriented aspects in the participation, citizens' values do not generally seem to have been central. At the beginning of the process, an 'Ambition Web Session' and an 'Environment Guide Session' were organized. The goal of these sessions was to fetch ambitions within the people, planet, and profit themes. To some extent, this has been a good way to fetch local values (C1; C6; C8; C14; C21). However, there does not seem to have been any participation regarding the project's objectives and initial scope. The criteria for when the project would be successful (i.e. when congestion on the A15 has been reduced) were defined before participation started. There is no sign that local knowledge has played any role in this (C1; C5; C8). As a result of this, while the Ambition Web Session and the Environment Guide Session have the potential to be very value-oriented, they did not revolve around the project itself, but rather around potential linkage opportunities.

“ In theory, those linkage opportunities are a good thing, because they go further than just accessibility. But you do notice that it is mostly bycatch. Within the MIRT exploration, they are not more than a list of things that we could take into account, *if* there is co-financing. But if we would have a broader objective, then we could integrate those aspects into the trade-offs that we make from the start. - Interviewee C5 ”

The participants *and* the project team seem to find this unfortunate (C1; C2; C5; C6; C8). For example, one regional stakeholder states that it is hard to find the region's ambitions within this project's objectives (C6). For some participants, it rather seems to be the linkage opportunities where they find their values. However, within the project's scope, there is hardly any money available to further develop these. For one linkage opportunity (a high-speed bike route), the project itself even seems to interfere (i.e. it cannot be developed until it is clear how the highway will be widened).

How value-oriented was participation further in the project? Regarding the assessment criteria that were used in this project, participants were able to voice their opinion about them, prioritize them, and adjust them slightly (C4; C9; C12; C14; C15). Participants seem to be positive about their possibilities to influence the assessment criteria. Regarding the potential alternatives, participants were also involved. They were asked to help in forming a large list of possible solutions, and later they were able to assess and prioritize them (C14; C15). The same counts during the design phase: participants were asked to identify points of concern and to think along with the spatial integration (C17; C18; C20).

While this all indicates that values were an aspect of participation, it also seems that there could sometimes have been some more 'digging deeper', i.e. asking about the underlying reasons and values (C2; C3; C4). COVID regulations seem to have made this more difficult: it is easier to achieve this face-to-face than in an online meeting. However, the interviewed participants do not unanimously see this as problematic. So it is hard to draw definitive conclusions about this.

TIMELY PARTICIPATION

Score: **Medium-high**

As stated above, participants were not able to think along with the project's objectives, so participation could have started earlier (C1; C3; C8). However, it seems that from that point onwards, participants were able to speak openly with the project team (C2; C3; C10; C13; C14).

Early on in the project, stakeholders were asked what their ambitions were, what they found important, and what their position in this project was.

Further in the project, participants too seem to have had ample opportunities to think along with the potential alternatives in a timely manner (C6). There seems to have been sufficient time to form a well-considered opinion before the formal decision moments took place. Participants seem to be satisfied with this (C3; C6; C7; C16).

Ironically, participants indicate that at times they felt that there was actually too much time in between participation moments (C3; C6; C7). Especially since the moment the project was postponed, little participation has been organized. This might form a challenge for proper value-oriented participation, as values might change over time, and past values might not accurately reflect present values.

SHAPING THE PARTICIPATION PROCESS TOGETHER

Score: **Medium-high**

It seems that the project team has taken a vulnerable attitude when it comes to the participation approach, which the participants seem to highly appreciate (C2; C3; C20). The project team states that involving participants in choices around planning and required information has been of large importance to them. Indeed, participants seem to have been able to adjust the participation process to their needs. For example, one stakeholder suggested a site visit, which the project team agreed with. Participants also seem to highly appreciate expectation management within this project (C1; C3; C6; C8; C13). They indicate that the project team has always clearly substantiated that they would take

their input into account, but that there could be reasons why their input would not end up in the final decision. The project team has mostly been clear about the participants' roles within the project.

When participants did content-related suggestions to the participation process (i.e. what they could participate about), this was sometimes harder for the project team to comply with (C6; C8; C18). For example, when parties stated that they found it important to think along with improving the rail line, they were mostly redirected to other parties. It seems that not the project team's efforts, but the strict scope of a MIRT process is the cause for this. Because of this, the participation objectives are less flexible. For broad prosperity to be fully incorporated into this project, one could argue that scope changes should be honored if the local participants ask for this.

REDUCE INFORMATION ASYMMETRY

Score: **High**

Participants seem to highly value the project team's efforts to get (and keep) everyone on the same knowledge level (C3; C6; C7). The project team consistently made well-readable summaries and images and was very approachable for further explanation (C10; C13; C14; C2; C3; C6). External advisors or civil servants that could answer specific questions were often invited. Oftentimes, a visual overview was made, for example one in which all variants were shown next to each other (C7). Participants also seem to have had sufficient time to properly digest all information. Every now and then, the presentations for sessions were shared upfront (C3; C6; C7; C18). All in all, this indicates a high effort to reduce information asymmetry to ensure meaningful participation.

APPRECIATION OF PARTICIPANTS' KNOWLEDGE

Score: **Medium-high**

Within this project's participation trajectory, participants seem to have experienced a very open space in which they could share their knowledge. This knowledge seems to have been greatly appreciated by the project team.

In the first phase of the project, three examples of this are the open call to participants to come up with alternatives, the question of what alternatives participants saw as most desirable, and the question of what assessment criteria were most important (C1; C3; C9; C13; C14; C15; C16).

“ The project team clearly owned up to the fact that the intersection Gorinchem had to be taken into account. That led to extra research, for which they accept a delay of 1 to 1,5 years, to investigate it thoroughly. Within that research, we as local stakeholders are really taken along. So we are very happy with all of that. - Interviewee C6 ”

Later in the project, local stakeholders voiced their concerns about a remaining bottleneck that was initially outside the scope of the project. As a result, the project scope expanded and extra research was started, even when this influenced the project planning. Within this extra research, local stakeholders indicate that they were greatly involved and that it has been a true case of co-design (C2; C3; C5; C6; C7; C19).

Throughout the entire project, the interviewed participants highly appreciate that someone from the Ministry was usually present during the participation sessions. This gave them the feeling that their knowledge was appreciated (C8).

On the other hand, if participants' knowledge revolved around something that was outside the project's scope, it was difficult to be fully appreciated (C6; C8). For example, if a municipality had a vision in which a widened A15 did not fit, then it was difficult for the project team to incorporate this. In that line of thought, some participants think that some variants (e.g. those related to rail)

were eliminated too quickly. They would have preferred to engage in more discussion about those and bring in more of their local knowledge. It seems that the project team has tried their best to do so, but they could not do much beyond the strict scope of the project.

Another example is when participants liked to think along during the CBA or when they wanted certain measurements to be done differently (C5; C19). The project team indicated that this was not possible, as those follow a strict procedure, to allow for comparison between projects. This forms a challenge for incorporating local knowledge.

EFFORTS TO ENSURE ALL PARTICIPANTS' CONTRIBUTIONS

Score: **High**

“ What I noticed is that they actively ask questions persistently and also seek clarity about our opinion outside the meetings. After the meetings, they do not think: let's go. They insisted on understanding the 'why' behind it. - Interviewee C4 ”

Respect and mutual trust was the goal of the participation, and the interviewed stakeholders all state that the project team has succeeded in doing so (C2; C3; C4; C6; C7; C8; C13). For example, many of the participation groups were guided by an independent facilitator. This facilitator's skills were valued positively by the interviewed stakeholders. Specifically, they indicated that the facilitator was well able to identify common ground between participants (C1; C7; C10).

The fact that a project team member was the secretary of such groups and assisted in writing reports was also highly valued. Especially the fact that participants were able to respond to the report was appreciated. This seems to have been a good way to ensure everyone's contribution to the advice reports (C2; C4; C7).

Furthermore, during the other meetings, large boards with post-its provided all participants with the possibility to bring their ideas and viewpoints to the table (C2).

Additionally, the use of individual conversations with participants seems to have been an effective way to gather additional information and to give everyone the feeling that they have been listened to (C3; C8).

During the COVID pandemic, it has admittedly been more difficult to fetch everyone's contributions properly, but participants still seem to rate this positively. The usage of online polls and the project team's efforts to actively ask participants' opinions seem to have ensured that everyone could share their ideas (C2; C3; C6).

EVIDENCE

Score: **High** (thusfar)

This project has not fully finished yet, so it is hard to judge completely how there is evidence of how local knowledge has been incorporated into the final choice. However, many intermediate choices have already been made that will largely influence the final decision. For these choices, it seems that the project team has been very aware of the fact that participation is an important aspect to incorporate. They state that they find it important to indicate generally what is and what is not done with the participants' wishes, demands, and preferences (C14; C19). This seems to have been successful: the interviewed participants greatly value the project team's transparency (C3; C6; C8). Whether participants agreed or not, they indicate that the project team clearly substantiates all decisions. For example, the project team usually started meetings by indicating what had or had not been done with the previous meeting's yields (C2).

Based on the interviews, it also seems that the area managers have made a lot of effort to voice the participants' concerns towards decision-makers and to communicate to participants to what extent

these were taken into account (C1; C2; C3; C6; C8). During some interviews, it *was* mentioned that participants' advice did not always influence the project course the way they wanted (C5; C6; C8). This is however outside the scope of this research: as elaborated in 3.3.5, this criterion is about the extent to which the choices have been explained to participants.

PARTICIPATION PROCESS IS FORMALIZED

Score: **Medium**

Just like the other MIRT process, the formal basis for participation within this project is the 'participation code within MIRT explorations', which is rather broad and interpretable (I&W, 2013). It does however require the creation of a participation plan (see C10 and C13). Within this project, this plan seems to have contributed positively to expectation management (C1; C3; C6; C8; C14). The interviewed participants indicate that this plan made it clear what participation possibilities there were, and what participation would be about.

On the other hand, the participation plan did not include any information about how the rights of weaker participants would be ensured. There has been no attention to how it would be ensured that everyone's interests would be taken into account, and when this would have been successful. Because this was not part of the plan, these efforts were completely dependent on the project team's competencies. In this case, these do not seem to have formed any issues, but ideally, this is to some extent formalized (see section 3.3.6) (C6; C8).

Another aspect of this criterion is the extent to which participation has been an integral component of the project. This seems to have been difficult (C1; C2; C8). On the one hand, someone from the Ministry was present during the participation. This indicates that there was some formal commitment. On the other hand, the area managers sometimes had to work hard to make the participation yields a fully-fledged aspect of the project's knowledge base.

A final aspect of this criterion is whether an evaluation of the participation process has been an integral component of the project (see section 3.3.6). This does not seem to have been the case.

4.6. PRESENCE OF BROAD PROSPERITY WITHIN THE TWO CASE STUDIES

The SQ that this chapter aims to answer is: "To what extent has process-based broad prosperity been present in two recent Dutch MIRT processes?". The previous sections have applied the practical framework to form an extensive answer to this question; this final section serves to summarize the most important points. Table 4.1 shows an overview of the scores that OVR and A15 get for each criterion. As can be seen, both OVR and A15 scored rather well on the criteria "Multiple ways of informing the public", "Multiple participation methods", "Reduce information asymmetry", "Efforts to ensure all participants' contributions", and "Evidence". The criteria that were met the least are "Values are central to the participation" and "The participation process is formalized".

Let me zoom in on a few more specific aspects of both MIRT projects that suggest a broad prosperity mindset, and aspects that do not. Looking at aspects that suggest a broad prosperity mindset, the following are most important:

- In both projects, the project team's efforts to **reduce information asymmetry and ensure all participants' contributions** generally seem to have been in place. Participants mostly felt that they had sufficient information and that there was an open space in which opinions could be shared.

Table 4.1.: Overview of the scores of the case studies OVR and A15 for the 11 broad prosperity criteria

Criterion		Score OVR	Score A15
1	Good selection criteria	Medium-high	Medium
2	Multiple ways of informing the public	High	Medium-high
3	Multiple participation methods	High	High
4	Values are central to the participation	Medium	Medium-low
5	Timely participation	Medium-low	Medium-high
6	Shaping the participation process together	Medium	Medium-high
7	Reduce information asymmetry	Medium-high	High
8	Appreciation of participants' knowledge	Medium	Medium-high
9	Efforts to ensure all participants' contributions	High	High
10	Evidence	Medium-high	High
11	The participation process is formalized	Medium	Medium

- In both projects, **participants' knowledge was appreciated rather well, as long as it fitted in the scope of a MIRT process**. Within OVR, the fact that participants were able to present their own alternative, which was fully incorporated in the rest of the process, hints towards broad prosperity. Within A15, the fact that the project team listened carefully to participants with regard to doing further research, hints towards broad prosperity as well. In both projects, there has been ample space for participants to think along about assessment criteria and about identifying and prioritizing alternatives.
- The efforts to **organize multiple ways of informing the public and use multiple participation methods** seem to have been high for both projects. Most important stakeholders seem to have been reached, and the use of multiple methods seems to have prevented that there was a bias as a result of the dynamics of a specific technique. Within OVR, the fact that citizens themselves got a large role in the participation process is a good step towards a broad prosperity mindset. And within A15, it is mostly the Ambition Web Session and the Environment Guide Session that had high potential for achieving a broad prosperity mindset.
- In both projects, the project team's efforts to **find ways to extend the scope within the possibilities of their assignment** seems to have gone really well. Being receptive to this proved to be a good first step into treating local values seriously, and as such properly taking into account broad prosperity. Examples are the decision to include the intersection Gorinchem within the MIRT A15, the decision to implement a 'short term package' within the MIRT A15 (that included measures that can otherwise not be part of a MIRT project), and the decision to include an extra road bottleneck within the MIRT OVR.
- The **set of 'game rules'** that was created in the MIRT OVR project. Independent of whether everyone complied with it, the game rules seem to have been a good foundation for participation. Mutually agreeing on rules like 'do not surprise each other', 'treat all information confidentially', 'stay committed to the participation process', and 'inform each other timely' is a good practice.

What went less within these projects? The following are the most significant:

- Within OVR, shaping the participation process together, and especially **expectation management** within this, seems to have been challenging. The multitude of objectives gave participants the idea that this MIRT project would be broad, whereas it still turned out to be transport-related only. Also, the role of costs seems to have been unclear.

- Within OVR, timely participation could be improved, especially regarding the **evidence in the final stage**. As the final decision had already been taken before the Area Council's advice was finished, there is no way to credibly substantiate that their advice has been part of the decision information.
- Within A15, **incorporating local stakeholder values** within the project's objectives went less. While the Ambition Web Session and the Environment Guide Session had high potential, they did not revolve around the project itself, but around linkage opportunities. The participants *and* the project team seem to find this unfortunate.
- Within A15, representation had some challenges. Because **citizens were not directly involved**, there were citizen representatives that actively participated. This might be challenging because of the lack of residents' associations, the potential weak ties between citizens and municipalities, the interpretation involved, and the synthesis of multiple municipalities' interests.

Having presented the full case study analyses for OVR and A15, as well as a summary of the most significant aspects that did or did not go well within these cases, I have provided an answer to the question of to what extent broad prosperity has been present in these two MIRT processes. As such, I have answered SQ3.

5

DISCUSSION

THE previous chapter has shown how the practical framework for broad prosperity can be applied to analyze the extent to which broad prosperity has been integrated into recent MIRT processes. The results are interesting and beg the question of how they can be interpreted. What are the underlying practical implications? What can and what cannot be said based on this research, and how should future research address this? I discuss four topics: further integrating broad prosperity in MIRT processes, the process-based approach to broad prosperity, applying the practical framework, and the data collection method.

5.1. FURTHER INTEGRATING BROAD PROSPERITY IN MIRT PROCESSES

Because every MIRT process is different and project teams seem to get ample freedom to incorporate their own interpretation in the project, the results of these case studies should be generalized to other MIRT processes with caution. Still, I would argue that the framework has succeeded in identifying some crucial underlying causes that hinder the integration of broad prosperity that could be relevant for any MIRT process. This was confirmed by multiple interviewees that have been active in multiple MIRT processes. I discuss three of these implications.

5.1.1. LOCAL STAKEHOLDERS' LACK OF INFLUENCE ON OBJECTIVES AND SCOPE

In both case studies, decision-makers decided to make the results from the national market capacity analysis (NMCA) leading for the project's initial scope and objectives. As a result, solving traffic bottlenecks became the central objective. The broad prosperity framework suggests that instead, these objectives need to be the result of a value-oriented participation trajectory with local stakeholders. The A15 project shows that potentially interesting value-oriented instruments (i.e. the Ambition Web and the Environment Guide) do not seem to achieve their full value within the MIRT process. And the OVR project shows that just defining a broader set of objectives (without proper participation) is insufficient and could in fact have the opposite effect.

POTENTIAL EXPLANATIONS

Interestingly, there have been changes to the MIRT procedure that aim specifically to include more stakeholders in the process. Changes made in 2016 intended to increase participation by regional and local governments and by representative groups (Van Geet, Lenferink, & Leendertse, 2019). The 'Environment and Planning Act' that is set to be formalized soon also increases participation requirements and was taken as an inspiration for both researched MIRT processes (B13). The increased attention to participation, as well as steps to formalize it, seem to be an explanation for why OVR and A15 scored well on many aspects of the broad prosperity framework. For example, the efforts to reduce information asymmetry, which entails providing easy-to-understand and accessible

information about the project, scored highly and is something that is now increasingly formally required. The same counts for the high score on efforts to ensure all participants' contributions. This entails listening to input and treating local initiatives as fully-fledged alternatives, something that is also increasingly formally required.

Still, on other criteria within the framework, such as value-oriented participation, scores seem to have been medium to low. This is in line with findings from Van Geet, Lenferink, & Leendertse (2019). They suggest that this is because while the goals have gradually “drifted” towards broad prosperity, the use of old instruments that are incongruent with these broader goals hinders their realization. The earlier mentioned NMCA used in both OVR and A15 is an example of such an instrument, which is also mentioned by Van Geet, Lenferink, Arts, *et al.* (2019). Rayner *et al.* (2017) suggest that even when new elements are added to allow for more integration and broader goals (the so-called “layering” of policy instruments), the process will remain affected by political and institutional history. As such, a focus on infrastructural investments persists, even when participatory elements are added that would allow for a broader approach (Van Geet, Lenferink, Arts, *et al.*, 2019). The earlier mentioned challenge regarding the Ambition Web and Environment Guide sessions within the A15 project is a great example of this.

As a result, value-oriented participation about a project's objectives might be hard, because the political and institutional mechanisms are lacking that allow them to truly value participation. If traditional mechanisms that encourage “informal lobbying and the pursuit of political portfolios” (Van Geet, Lenferink, Arts, *et al.*, 2019) are still in place, then it is not surprising that giving away this power to a participation process is challenging. That is, they maintain a mindset among decision-makers in which participation is a ‘tick-of-the-box’, something they need to ‘manage’, instead of something that can truly have added value (B6). Interviewee B7 describes it as such:

“Do you first seek the best solution for the project and then execute this solution while involving everyone as best as possible? Or do you include local values as a fully-fledged aspect of the project? These are two fundamentally different approaches. - Interviewee B7”

The result of this mindset is that it increases difficulties for the project team to incorporate participants' ideas into the project. Even if they want it, they are tied to a certain predetermined assignment, or they do not get the time or the capacity to properly arrange the participation.

POTENTIAL SOLUTIONS

I would argue that solving this requires an interplay between the introduction of new instruments and a mindset change. Using existing tools or approaches that foster value-oriented participation can help to make value-oriented participation easier. Participatory Value Evaluation (PVE) is one promising tool that could achieve this. It allows citizens to express their preferences by weighing different values within a project and giving their general opinion (Mouter *et al.*, 2019). By deploying this tool early in the project, its objectives could become more informed by local perspectives. Other approaches like value-sensitive design and value engineering focus more on determining important values together with experts (Rijkswaterstaat, n.d.; van den Hoven, 2021). Further research could assess the extent to which these tools can be an effective addition to fostering broad prosperity within MIRT processes. This research could build upon Howlett & Rayner (2013), who describe that ‘patching’ policy (i.e. reforming policy by adding new elements, changing policy goals without changing policy instruments, or changing the use of a policy instrument) is theoretically less effective than replacement because the legacy of old instruments might make policy designs sub-optimal. Once again, the Ambition Web Session in the A15 project is an example of this. It would therefore also be

an interesting area of further research to see whether a replacement strategy can help to increase the effectiveness of value-oriented tools within the MIRT process.

Fostering a mindset among decision-makers that early participation is truly valuable can be a driving factor as well as an effect of the introduction of new instruments. One potential way to foster this mindset is by helping decision-makers understand that participation will ‘hurt’ the project anyway, but that if these challenges are addressed early on, local values can still have a significant impact. This, in turn, may reduce resistance once the project enters the realization phase (A6). Perhaps exogenous developments, like the decreased trust in current politics, will also be a driving factor for this mindset shift because they increase the call for finding alternative ways to involve citizens in decision-making.

LIMITATIONS OF THIS STUDY

This mindset was not researched within this thesis, because this thesis had an explicit focus on the ex-ante evaluation process of transport policies. These are very important sources of information for decision-makers, but they are just one part of a larger decision-making process, and its outcomes are not necessarily always adopted (Annema *et al.*, 2017; Samset & Christensen, 2015). Because ex-ante policy evaluations are such an important part of the decision-making process, they are at least a good place to start. While final decisions do not have to be congruent with their results, it would at least force decision-makers to think about broad prosperity. As such, it could be a first step to further adopting a broad prosperity mindset.

Still, this scope choice presents a limitation of this thesis that future research could further address by including the political process: what would be needed politically to further integrate broad prosperity in transport policy decision-making, and what would be the best way to initiate this integration? Related to this, future research could interview decision-makers, and ask them what their current sentiments are towards value-oriented participation, and what would need to happen to make that a more integral part of MIRT processes. Such research could link these sentiments to hypotheses by Van Geet, Lenferink, & Leendertse (2019) about the need to have congruency between policy and instruments and goals, and as such come to a course of action for further integrating broad prosperity.

5.1.2. THE STRICT FORMAT OF THE MIRT PROCESS

The strict format of the MIRT process is another important underlying cause. This strict scope is perhaps for good reasons: to keep the (already extensive) project manageable and to ensure comparability and equal treatment between projects (B6; C5). Still, the strict scope and funding requirements of the MIRT process have posed challenges to achieving broad prosperity in both projects (C5; C6; C8). A MIRT process originally works towards a mobility solution, whereas local stakeholders do not always only value mobility. The case studies revealed that this forms a mismatch: a situation arose in which project teams tried their best to incorporate broad and integral solutions as best as they could, but they were severely limited by the scope of the MIRT process. This led to frustration with both the participants and the project team.

POTENTIAL EXPLANATIONS

This finding is in line with Van Geet, Lenferink, Arts, *et al.* (2019), who once again see incongruence between goals and instruments as the underlying reason for this mismatch. On the one hand, the most recent version of the MIRT playbook hints at a more integral approach: “A MIRT process can [...] lead to choices for urbanization locations, in order to not put a further burden on the transport

system or instead to generate sufficient travelers to make certain public transport measures possible.” (I&W, 2020). On the other hand, funding requirements still seem to be sectoral. The nature of a MIRT process is that it is funded by I&W, mostly through the Mobility Fund and the Delta Fund (ibid). I&W and its funds focus specifically on transport investments. As the case studies showed, non-transport alternatives are therefore difficult to include in a MIRT process and are often at best seen as linkage opportunities that require funding from elsewhere. So the MIRT playbook allows for an integral approach, and the project team is willing to accommodate it, but the funding process stands in the way. Van Geet, Lenferink, Arts, *et al.* (2019) explain this by describing these funds as one of the more “rigid institutions” that prevent the integration of objectives that is required for true broad prosperity.

Another, perhaps even more fundamental, reason that the case study revealed is the compartmentalization of the Dutch public administration. The lack of coordination between different levels of government, ministries, and even compartments within ministries forms a mismatch with solutions that need to be increasingly integral (B4; B5; B6;C8). Although policy goals have become increasingly abstract to allow for increased collaboration (Van Geet, Lenferink, & Leendertse, 2019), practice still lags behind. Broad prosperity does not belong to a single department, so “passing the buck” to another ministry or another level of government (i.e. local or regional) still seems to happen frequently, as the OVR and A15 projects exemplify. This finding is in line with Duffhues & Bertolini (2016), who describe an ‘implementation gap’ for integrating transport planning and land use policy because actions and indicators are still defined sectorally. Van Geet, Lenferink, & Leendertse (2019) also support this finding and emphasize how decentralization efforts and the further division of responsibilities over multiple levels of government has made this even more challenging.

POTENTIAL SOLUTIONS

For true broad prosperity, funding requirements should change. That is, broad prosperity requires the possibility for more integral solutions, which means that the requirements to get funding should not be limited to transport investments only. This could for example be achieved by working towards a co-financing structure from multiple ministries. Co-financing from multiple ministries could be achieved by either including it from the start of the MIRT project, or by initially funding the project through I&W, but with built-in flexibility to allow for co-financing from other ministries if non-transport alternatives are preferred. A driving factor for such changes could be that if such flexibility is not created in a society where problems become increasingly integral, it might end up costing more money in the long term. This all is an interesting area for future research: what exactly are the funding requirements for MIRT projects, how do they currently implicitly guide towards certain solutions, and how exactly could this be changed to better incorporate broad prosperity?

Furthermore, to address the challenges of compartmentalization for broad prosperity, it is crucial to increase collaboration. Firstly, increased knowledge sharing between projects might be a good place to start, especially when these projects are active within the same region. This could lead to more awareness about similar or conflicting objectives between projects, leading to a more integral approach. Secondly, creating policy together might be crucial, for example through co-creation (Pappers *et al.*, 2020; Von Schneidemesser *et al.*, 2020). One idea for this is to set up a broad prosperity community. This community could exist of all relevant stakeholders: policymakers from different government levels and departments, citizens, research institutions, interest groups, etc. They could work together to develop a shared vision and a roadmap for integrating broad prosperity, in which not only transport policies but other types of policies are regarded as well. A final point is that having a clear governance structure, in which it is clear who is responsible for what and how different parties’ interests are taken into account, could also help to foster collaboration (Brunet &

Aubry, 2016). Future research could explore these suggestions and see how increased knowledge sharing, increased co-creation, and having a clear governance structure can support increasingly integral challenges and solutions.

LIMITATIONS OF THIS STUDY

One limitation of this thesis is that it focuses on how broad prosperity could be integrated into MIRT processes, while one could argue whether MIRT processes are necessarily the best place to start the integration of broad prosperity. Could more strategic arenas that are key to shaping transport policies, such as those where mobility visions are formed, be a better place to start? Or, what about starting with smaller projects that could serve as an example of how broad prosperity can effectively be adopted? And from the opposite perspective, one could wonder whether the integration of broad prosperity in MIRT processes is helpful, if many large infrastructural projects are funded by other parties (e.g. Rijkswaterstaat) and as such do not follow a MIRT process (e.g. upgrading the A9). Still, the integration of broad prosperity in MIRT processes has been the most interesting to research. Because MIRT projects are large yet concrete, they have a wide impact on well-being, because they are generally larger in scale and scope and as such are likely to impact more people. Plus, they are well-documented, which made them the most feasible.

Nevertheless, future research could look into other types of transport policy. How do projects of different scales compare in terms of how easy it is to integrate broad prosperity? How mutually dependent are these projects in terms of integrating broad prosperity? And how can they potentially learn from one another? These are all interesting aspects to research further.

5.1.3. REPRESENTATIVE PARTICIPATION

A third topic for discussion is the extent to which value-oriented participation in a MIRT process is, and can be, representative. The nature of a MIRT process is that its projects are abstract and affect a lot of people. The case studies revealed that this makes full representation challenging.

POTENTIAL EXPLANATIONS

Firstly, the projects faced the issue that citizens tend to become more interested in a project once it becomes more concrete. However, by this point, the project is already more fixed and their ability to influence the outcome decreases (A1; A6; B1; B2; B7; C4). Citizens are primarily interested in the specific and tangible impacts on their daily lives (e.g. accessibility of their homes during road construction), whereas a MIRT process involves more conceptual questions (e.g. will two or three lanes be most effective to reduce road congestion). This is often a mismatch.

Secondly, participation tends to be most interesting for the small group that faces the largest consequences per person, and less for the larger group that faces small effects per person (B5; B6). This finding corresponds with the 'Not In My Backyard' (NIMBY) sentiment, which has been extensively researched (e.g. Devine-Wright (2005) and Huber & Wicki (2021)). However, it should be noted that NIMBY literature and its potential solutions often focus on how to better involve the NIMBYs, whereas the challenge here is how to better involve the other groups. Future research could further expand on the link between NIMBY sentiments and their effects on representative participation.

Thirdly, participation is easier for those who have the time and the money, and as such their values are naturally more represented (B1; B2). This was especially challenging in the OVR project, where the intention to involve residents from Rotterdam Zuid (who are generally less wealthy) and the youth turned out to be very challenging (B1; B2; B7). These findings are consistent with previous

research on the challenges of representative participation, as mentioned in section 3.3.2: Brown & Eckold (2019), OECD (2022), Ianniello *et al.* (2018) and Simonofski *et al.* (2019) all emphasize this as a crucial challenge for effective participation. Interviewee B2 aptly sums it up:

“ It is easy for people to say: involve everyone. But you are dependent on that specific group. Many younger people said: I don't care. That shows something too: in that case, they have no opinion and it is impossible for us to make that more specific. [...] The ideal situation would be to have a diverse group, but this is not always realistic. - Interviewee B2 ”

POTENTIAL SOLUTIONS

While the challenges of abstract projects, overrepresentation of NIMBY participants, and overrepresentation of those who have time and money may seem different, addressing them requires similar strategies. One aspect of this involves increasing public trust. Reversing feelings of cynicism about participation (i.e. the sentiment that participation is a waste of time because the influence is minimal anyway) seems to be crucial for allowing a broader group to participate (Beierle & Konisky, 2000; Huber & Wicki, 2021). This can likely not be achieved within a single project: such negative sentiments are likely to be reinforced by a lack of trust in the government in general. Future research can therefore examine what the role of public trust is in decreased participation within infrastructural projects, and how this could be reversed.

Another aspect is that this should also come with increased resources. In the case studies, both project teams mentioned that they were somewhat limited by the resources they had. As I stated earlier, if decision-makers see participation as a serious and integral aspect of any infrastructural project, then this could lead to more budget and capacity being available. This budget and capacity could be used to stimulate representative participation.

How exactly should these extra resources be allocated? Section 3.3.2 already provides a list of suggestions. Specifically, for the first challenge of abstract project vs. concrete participation, I argue that increased resources should mostly be put into information provision (i.e. better explaining the abstract project, for example by using interactive (online) tools that allow participants to understand the trade-offs). For the second challenge (overrepresentation of NIMBY participants) and the third challenge (overrepresentation of those who have the time and money), increased resources could be used to make participation easier (e.g. by using a mix of online and offline tools), to offer compensation for participation, and to increase communication efforts to reach everyone. Future research could experiment with these measures: how effective are they in increasing representation, how could they be implemented in MIRT processes and what new challenges does this bring?

5.2. THE PROCESS-BASED APPROACH TO BROAD PROSPERITY

The knowledge gap of this thesis was that current academic literature does not address the challenges that a content-related definition, based on indicators, creates for operationalizing broad prosperity in ex-ante transport policy evaluations in the Netherlands. As explained in section 2.2 and in appendix B, research such as by Reardon & Abdallah (2013), Stanley *et al.* (2021), and TNO (2021) approaches broad prosperity by laying out its dimensions, which I have summarized as economic, social, environmental and individual well-being (see section 2.2).

This thesis found that it is possible to operationalize broad prosperity differently and that this provides new insights into how broad prosperity is currently integrated into MIRT processes in the Netherlands. This approach is based on the citizen perspective that Fabian *et al.* (2022) introduced,

on the localized approaches that Moore & Woodcraft (2019) describe, on the ideas that Markaki *et al.* (2015) have about a community participation process, and finally on Atkinson (2013), who describes well-being as a relational and situated concept. Having applied these ideas to the concept of broad prosperity, which currently experiences popularity in Dutch practice, I have provided the first link to make this contextual and participatory mindset more widespread in the Netherlands. Moreover, having operationalized this mindset into concrete criteria, I have provided the first step in assessing it within a specific case.

CHALLENGES OF THIS APPROACH

Still, this process-based, contextual approach has its own challenges. For example, it is imaginable that for sensitive decisions, in which different actors' perspectives are passionately divided, it might be useful to fall back on a content-based approach that is grounded in theory. Otherwise, a discussion about the process might dominate and might prevent reaching agreements about the content. The contextual aspect of this framework also raises questions: one could wonder how efficient it is to start from scratch for each new project, without having universal objectives to fall back on, even if it is likely that there are quite some similarities between different transport projects.

These are all valid points. It has not been the intention of this thesis to state that a process-based approach is the *best* approach or that other, more content-related approaches are not useful at all. In fact, there could be a lot to gain in combining the two. For example, there could be some general themes that are interesting for any project (e.g. sustainability, social inclusion, and accessibility). These themes could be determined top-down, after which the value-laden choice for and weighing between different (sub)themes could be the result of a participation process. Another example is that when translating values into measurable indicators, multiple indicators could be created by experts. The value-laden choice of which indicators will be used and to what extent they will be regarded could then be the result of a participation process. In these ways, process-based and content-based approaches could be effectively mixed.

FUTURE RESEARCH

Building upon the point that a systematic method might help to fall back on, future research could look at how a few promising, value-oriented tools could be implemented systematically within the MIRT process, and provide a solid theoretical basis for them. Once again, PVE and the approaches of value engineering and value-sensitive design are promising to research in that respect, as they list, measure and weigh different values and as such give a systematic substance to the content, while taking into account the value-oriented process. Future research could also more explicitly address the theoretical foundation behind these approaches. For example, the ethical foundation behind different approaches to broad prosperity could be strengthened (see [appendix A](#)). The paper by de Boer *et al.* (2022) could be a useful starting point for this.

5.3. APPLYING THE PRACTICAL FRAMEWORK

This thesis has provided the first step in creating a practical framework for a process-based approach to broad prosperity. In its current form, the framework would be most useful to view as a checklist to assess the extent to which broad prosperity is currently present in ex-ante policy evaluations. This is especially helpful for Dutch transport decision-makers or MIRT project managers because it can help them to identify how to better align their project(s) with the broad prosperity paradigm. This is not only useful for that specific project. Even while generalizing the results should be done with caution, because MIRT projects can be vastly different, identifying best practices and areas for improvement can be interesting for similar projects as well. Section 5.1 illustrates this. It

shows how the case studies and the framework helped to identify three main underlying causes that currently hinder the integration of broad prosperity in MIRT processes in general. In this way, the framework can also be used to identify ways to further integrate broad prosperity in Dutch ex-ante policy evaluations.

LIMITATIONS AND AREAS FOR FUTURE RESEARCH

The practical framework that I created for this thesis is based on a non-systematic literature review and its elements have been validated by multiple experts. This has been sufficient for the aim of this thesis, which was to make a first operationalization of process-based broad prosperity and explore its use through case studies. However, this method also has its limitations.

Because it has not been possible to perform a systematic literature review, **it cannot be claimed with certainty that the identified criteria are the only or the best criteria possible**. The validation interviews with experts have mitigated this limitation to some extent, but future research with fewer time constraints could do this more thoroughly.

Also, **the criteria are not fully independent**. Some aspects that might increase one criterion might also increase another. For example, if participants can shape the participation process, then this could be a sign of a certain mindset in which their knowledge is better appreciated as well. Similarly, a formalized participation process might lead to more thought-out selection criteria and more efforts to ensure all participants' contributions. This mutual dependency between criteria could cause some elements of the ex-ante evaluation process to contribute to multiple criteria. This does not mean that this framework is not useful in identifying best practices or areas for improvement. Still, if a more quantitative use of the framework is desired, future research could focus on decreasing this, for example by utilizing statistical tools to identify and mitigate dependency between criteria.

Another discussion point is that **many of the criteria are multi-faceted**, i.e. they include multiple elements that are related, but not fully the same. For example, the criterion of 'Timely participation' includes 'participation early in the process', as well as 'participation well before formal decision moments', and 'room to assess the final decision after it has been taken' (see [appendix D](#)). In principle, all these aspects could be scored independently. Some criteria are very multi-faceted, others less so. This might lead to bias in scoring them: the person giving the scores might perceive certain aspects of that criterion to be more important and therefore give it a higher score. This deliberate choice was made to capture all important elements of broad prosperity in a manageable number of criteria. The framework also includes the 'medium-low' and 'medium-high' scores, to provide a middle option if some elements included in the criterion score lower than others. Still, future research could improve on this, by either using more (sub)criteria or identifying which specific aspects are the most important. If it proves infeasible to include all important elements separately, factor analysis would be one option. It could help to identify underlying factors that explain the correlations among different aspects, and as such reduce the number of elements that are necessary in the framework.

Building upon this issue, this framework currently does not answer the question of **which criteria are more important than others**. In its current form, the framework is best seen as a checklist for broad prosperity: all need to be sufficiently present to fully integrate the broad prosperity paradigm. It cannot make any objective statements about which criterion's score is most important. If this is desired, then one suggestion for future research is to use surveys to ask either experts or citizens which aspects they find most important. From there, statistical analysis could serve to identify the elements' mutual weights.

Another point when using the practical framework is that it includes many **criteria that are hard to determine objectively**. It would for example be a study of its own to determine how representative the participation really was, or how effectively information asymmetry was reduced. That is why this framework took effort as a proxy of result: I assumed that if there have been more (or more positively valued) efforts to achieve these aspects, the result has also been better. This is of course not necessarily true, which is a limitation of this study. Future research could focus on one or a few of the identified criteria specifically, and determine this objectively. In the case of representation, a researcher could for example identify who is likely to be affected by a certain policy and compare this to who was actually represented, either directly or through a representative. It should however be noted that such research moves away from broad prosperity, because then only *some* of its important aspects are researched.

Finally, there is a challenge in using the practical framework in the complex reality of an ex-ante evaluation process. Within such large projects that are probably perceived differently by every person involved, **how can one come to a single, uniform score?** It would be easiest to have one objective truth (i.e. there is an objective way to measure the extent to which an evaluation followed the broad prosperity paradigm), but the reality is not that simple. For a large part, it is exactly these perceptions that count: if it is indeed the nature of broad prosperity to incorporate local values, then the question of to what extent this has happened is per definition subjective. The rubric used to assess the cases (see [appendix D](#)) aimed to make the assessment as transparent as possible, but it will never be completely objective. Future research could deal with this in two ways. It could either collect more different perceptions than this study has done so that a broader picture can be created. Or, it could try to make the different criteria more uniform (e.g. by following the SMART principle) and then make the data collection method more quantitative (e.g. by using surveys or more structured interviews), as to make the criteria more objectively measurable.

5.4. DATA COLLECTION

For conducting the case studies, data were collected through a combination of desk research and semi-structured interviews. This combination generally seems to have worked well. The desk research mostly provided factual information about how the processes went, which served as a good knowledge base for conducting the semi-structured interviews. The interviewees were generally easily approachable. This is probably caused by the deliberate choice for recent projects with easy access to the people involved and the fact that the topic 'broad prosperity' is currently popular. In general, the combination of interviews with participants and with members of the project team seems to have worked well for getting a diverse view of broad prosperity and value-oriented participation within the projects.

LIMITATIONS AND AREAS FOR FURTHER RESEARCH

As I have argued, one of the pillars of broad prosperity is representation. Within this thesis, **it has however only been possible to talk with people that were actually involved in the participation**. For information about whether these participants have been a fair representation of all possible perspectives, I was dependent on insights from the project and stakeholder managers. This could have caused bias. As an example, let me compare the two case studies A15 and OVR. Within A15, citizens were not very directly involved; within OVR, this *was* the case. This means that within OVR, I could talk with those citizens, who turned out to be more negative than the citizen representatives I talked with for A15. So, has OVR done worse, or does it seem that way because I was not able to talk with citizens directly for A15? With the current data, there is no definitive answer to this. Future research

could use another data collection method that is more amenable to data from non-participants (e.g. a survey on the street).

Moreover, **I have not been able to talk with *all* participants**, but only with some. Within both projects, I was able to talk with project and stakeholder managers, albeit only a few. For the rest, I was able to talk with municipalities and representative groups within A15, whereas I only interviewed resident associations within OVR. Within A15, it was easier to find interviewees: the stakeholder managers were better able to refer me to stakeholders. This was very convenient, but could also induce a bias: I was more likely to interview participants that had good ties with the stakeholder manager. All in all, the small sample size, the non-representative group of interviewed participants, and the potential bias through snowballing could all have contributed to a distorted view. While this is an inherent challenge in evaluating these kinds of projects *ex-post*, future research could either conduct more interviews with a broader set of participants. Data collection methods other than interviews could also make the threshold lower to participate.

Finally, **the interviews themselves might have been biased**. While the aim has been to conduct them as neutrally as possible, it is the nature of semi-structured interviews that the answers are very dependent on the questions asked. They give increased flexibility, but with that comes the increased risk of interviewer bias and higher "between-interview variances" (Loosveldt & Wuyts, 2019). Also, interviewing is an adaptive process. The first interviews were perhaps less efficacious because I did not yet know the most effective questions to ask. On the other hand, the final interviews were perhaps less objective, because I might have been affected by previous interviews and the image they sketched. To minimize this, I mixed the interviews of both cases and waited with the data analysis until most interviews were conducted. Future research could deal with this in two ways. Firstly, it could increase triangulation, by combining the interviews and the desk research with one more data collection method to further validate the results. Secondly, it could increase peer feedback: an extra research step could be added in which the interview results are periodically discussed with other researchers. This could serve as an opportunity to critically reflect on the interviewer's role and how this could be mitigated.

6

CONCLUSION

6.1. CONCLUSION

BROAD prosperity is a paradigm shift within policy-making in the Netherlands, in which the predominant economic focus on well-being is replaced by a broader notion of well-being. This is also visible in transport policy-making, in which this paradigm shift is manifested by an increasing focus on more than just reducing congestion, and instead also incorporating more social and environmental objectives. However, how exactly broad prosperity should be operationalized within transport policy-making remains a challenge.

Within this thesis, I have argued that this challenge in part arises from the fact that operationalization efforts mostly focus on finding an objective and "best" way to measure broad prosperity using indicators. While in fact, broad prosperity has many different conceptualizations, cannot be defined objectively and value-freely, and might be problematic to define quantitatively altogether. As such, I suggested an alternative approach to operationalizing broad prosperity, that moves away from the content (i.e. *what* should it include), and towards the process (i.e. *how* should it be determined). As such, this thesis aimed to answer the following research question: **"To what extent is process-based broad prosperity currently being applied in the ex-ante evaluation process of large transport policy projects in the Netherlands?"** This was done through three sub-questions (SQ): defining process-based broad prosperity, operationalizing this definition into a practical framework, and applying this framework to two Dutch ex-ante policy evaluation processes.

SQ1: HOW CAN BROAD PROSPERITY BE DEFINED FROM A PROCESS PERSPECTIVE, IN THE CONTEXT OF THE EX-ANTE EVALUATION OF TRANSPORT POLICY?"

I have argued that broad prosperity cannot be universally and objectively determined but instead is a context-dependent and normative concept. Because of that, operationalizing its content should be done within the local policy context. Broad prosperity can then be defined as "a paradigm that entails sufficiently taking into account all values that a broad range of relevant stakeholders finds important for their overall life satisfaction within that specific context." From that perspective, effective value-oriented participation becomes the vehicle to integrate broad prosperity in ex-ante policy evaluations.

SQ2: WHAT PRACTICAL FRAMEWORK CAN BE DEVELOPED TO OPERATIONALIZE BROAD PROSPERITY FOR EX-ANTE EVALUATION PROCESSES?

Through literature review and expert validation, I created a framework that distinguishes 5 elements that are necessary to effectively fetch local values:

1. **Representation:** all relevant citizens' perspectives are properly represented.
2. **Value-oriented participation:** participation is centered around citizens' values
3. **Meaningful participation:** participants can speak out thoroughly, freely, and well-informed.
4. **Evidence:** it is proven how citizens' values are incorporated into the final choice.
5. **Formalization:** Value-oriented participation is an integral and institutionalized part of the process.

These 5 categories consist of 11 elements, which can be used to assess the extent to which process-based broad prosperity is effectively integrated into an ex-ante policy evaluation process.

SQ3: TO WHAT EXTENT HAS PROCESS-BASED PROSPERITY BEEN PRESENT IN TWO RECENT DUTCH MIRT PROCESSES?

Through semi-structured interviews and extensive desk research, I researched the extent to which the different broad prosperity elements were present in two Dutch ex-ante policy evaluation processes: the MIRT project Oeververbindingen Rotterdam (OVR) and the MIRT project A15 Papendrecht-Gorinchem (A15).

The results show that both projects are on their way to integrating process-based broad prosperity. Both projects seem to have provided great efforts to reduce information asymmetry, to ensure all participants' contributions (e.g. by providing an open space for discussion), to appreciate the participants' knowledge (e.g. by letting them present their own alternatives or giving them a large role in extra research), to organize multiple ways of informing the public, and to use multiple participation methods. Both project teams were also eager to find ways to extend the scope within the possibilities of their assignment. And within the OVR project, the set of game rules has been a good foundation for participation.

On the other hand, within the OVR project, broad prosperity was not visible with regard to expectation management towards participants and the provision of evidence in the final stage. Within the A15 project, it is mostly the incorporation of local stakeholder values and the lack of direct citizen involvement where broad prosperity was not yet in place.

ANSWERING THE RESEARCH QUESTION

The case study results indicate that while process-based broad prosperity is currently being applied to some extent in Dutch ex-ante policy evaluations, there is a lot of room for improvement. Both projects scored well on criteria like reducing information asymmetry and ensuring all participants' contributions, which seems to be caused by the fact that this is increasingly formally required. However, three underlying causes seem to impede the true integration of broad prosperity; first, the limited influence of local stakeholders on the project's objectives and scope; second, the fact that the scope of a MIRT process is limited to transport-related solutions; and third, the extent to which value-oriented participation is representative.

The findings suggest that while progress has been made in incorporating the broad prosperity paradigm, true integration would require a mindset shift, where early and representative participation is seen as valuable. This mindset change can be an effect or a driving factor for further changes, such as introducing more value-oriented instruments, restructuring the funding of MIRT projects,

enhancing knowledge sharing and co-creation between policymakers, citizens, and other relevant stakeholders, and allocating extra resources to make participation more representative.

Future research could focus on analyzing how the aforementioned changes could enhance broad prosperity and how they could be implemented in practice. It could also address the challenges that a process-based approach poses, e.g. by examining how to combine it with more content-related approaches, or by improving the theoretical foundation behind process-based broad prosperity. Additionally, future research could improve the practical framework, e.g. by enhancing its foundation through statistical analysis. Finally, future research could also improve on the case study results, e.g. by engaging with a broader range of stakeholders or utilizing alternative data collection methods.

In conclusion, while operationalizing broad prosperity in transport policy-making remains a challenge, a process-based approach that prioritizes effective value-oriented participation is a promising direction. Embracing this perspective and solving the challenges that it brings paves the way for a more holistic transport system that better serves the needs and values of everyone.

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BROAD PROSPERITY AND SOME RELATED TERMS

A.1. BROAD PROSPERITY IN RELATION TO DEGROWTH AND POST-GROWTH

While they are not synonyms, the idea of broad prosperity is closely related to another development: the degrowth movement and the post-growth economy. As such it is worthwhile to briefly explore its relations when coming to a broad prosperity definition.

Both broad prosperity and degrowth call for a decoupling between GDP and human well-being. A post-growth economy is an economy that is transformed in such a way that human well-being can be increased, while simultaneously decreasing greenhouse gas emissions, independent of whether GDP grows or contracts (Hardt *et al.*, 2021). From the view of degrowth, it is crucial to recognize that human well-being is greatly embedded in ecological systems (Barca *et al.*, 2019). Only when this is recognized, will societies be able to design sustainable welfare institutions and an economy that serves human needs (instead of preferences and wants) and the needs of other living beings within planetary boundaries.

Note the explicit link between the degrowth movement and the reduction of greenhouse gases; this sustainability aspect is often seen as the main underlying rationale. Because we need to achieve reductions in greenhouse gas emissions and because these emissions have traditionally been coupled with GDP growth, a major decoupling is required if we want to prevent major social impacts (Hardt *et al.*, 2021). This means that the degrowth movement's focus is less explicitly on the social dimension and more on the sustainability dimension. Also, while broad prosperity does shift the focus away from economic indicators, it does not explicitly call for a reduction of the economy.

Still, the implications are the same: both movements aim to transform into a more humane and sustainable economy (Janssen, 2020). The main difference between the two is the extent of operationalization and its popularity.

Regarding operationalization, the discussion about degrowth and post-growth seems to remain more conceptual. Its starting point and underlying values (e.g. solidarity instead of greed) are appealing, yet hard to concretize into action perspectives (Pesch, 2018). There seem to be many approaches to degrowth. Some advocate a full reconstruction of the economic system (Pesch (2018) mentions the décroissance approach as one of them), whereas others seek changes within the current economic system (Pesch (2018) mentions the sufficiency approach as one of them). Because these approaches are often at the level of the economy as a whole, current efforts to translate them into practice also seem to focus on changing the economy, albeit in small-scale pilots (Bauhardt,

2014). However, the link between these small-scale efforts and the more general consequences of degrowth is still difficult to clarify. These more general consequences could be of a large scale (e.g. dramatically transforming the current capitalist system), which would have to be implemented in societies that are highly heterogeneous in terms of moral standpoints. To add to this, the short-term consequences of such a transformation could be dramatic (e.g. decreased income and increased unemployment), if the existing institutional structures are not completely revised from the start (Romano, 2016).

As such, degrowth operationalization seems to be extremely complex (Pesch, 2018). On the other hand, the operationalization of broad prosperity seems to be one step further. As I substantiated in section 2.2, broad prosperity is often approached as the multidimensional alternative to GDP. The logical next step is then to further define these dimensions and operationalize them. While I do argue that just operationalizing the dimensions might not be the best way forward (see section 1.2 and 2.3), this is at least one step further than for degrowth. As such, broad prosperity provides a better starting point for this thesis.

Regarding popularity, I substantiated in section 1.1.2 that broad prosperity is currently ‘hot’ in Dutch politics and society. The debate about degrowth seems to be mostly academic at this point. So to provide the highest societal relevance, I chose to focus on the concept of broad prosperity rather than the concepts of degrowth and post-growth.

A.2. BROAD PROSPERITY IN RELATION TO VIRTUE ETHICS

The discussion about broad prosperity revolves around the fundamental question of what we as a society find important. This fundamental question naturally involves ethics. A thorough ethical discussion is outside the scope of this thesis because the aim is to make broad prosperity more practical, instead of expanding on its ethical foundations. Still, by choosing a definition of broad prosperity that focuses on local context, I do take a specific ethical stance, namely that of virtue ethics (de Boer *et al.*, 2022). Therefore, it is worthwhile to briefly explore this.

Virtue ethics is perhaps one of the oldest ethical movements: first introduced by Aristoteles, it goes back to ancient Greek times. In recent decades however, the relevance of the question of what is ‘just’ has increased, which is also the main driving factor behind the popularity of broad prosperity (see section 1.1). The traditional method of appraising policy is mostly based on utilism (see section 1.2.2). This perspective however has some fundamental moral issues (see Sandel, 2009, pp. 22-34). Therefore, it has become more relevant to assess alternatives, such as virtue ethics.

Virtue ethicists give specific character traits, so-called ‘virtues’ a central place in their theories. They argue that only once a person embodies those virtues, they can act morally. It is thus about what kind of person someone wants to be, instead of what one ought to do. One of these virtues is to contribute to the ‘common good’ (Sandel, 2009). Virtue ethicists see life without political participation as incomplete, for both instrumental and intrinsic reasons (Tholen, 2018). That is, not only do they see ‘civic engagement’ as an instrument that contributes to feeling a sense of belonging, but they also see it as intrinsically ethical to feel accountable for what happens in society around you.

From that perspective, one could argue that the extent to which citizens contribute to the discussion matters because as such they contribute to the virtue of civic engagement. That is, the values that lie underneath one’s preferences regarding a certain policy question should be discussed deliberately (de Boer *et al.*, 2022). This perspective aligns with Fabian *et al.* (2022)’s citizen perspective and

justifies a focus on the process. This is the perspective I take when forming a definition for broad prosperity: because the values that play locally are important, it is crucial to actively fetch these values locally through an effective, value-oriented participation process.

B

THE DIFFERENT EFFECTS OF TRANSPORT POLICY ON BROAD PROSPERITY

B.1. TRANSPORT POLICY AND ECONOMIC WELL-BEING

Implementing transport policies as a means to foster economic growth has been the dominant perspective since the 1930s (see section 1.1.1). Indeed, this is one of the ways in which transport can affect well-being.

Transport infrastructure firstly improves efficiency and in turn productivity (Berg *et al.*, 2016). That is, if transport costs are lower, more (or longer) trips can be made with the same amount of labor, equipment, and fuel (Reardon & Abdallah, 2013). From the perspective of the individual, Delbosc (2012) however questions to what extent it is likely that travelers will ‘reinvest’ small travel time savings into other activities that earns them money.

Secondly, transport infrastructure improves accessibility. It enables people to reach their jobs, as well as “economic top locations” (TNO, 2021). Improvements to transportation infrastructure will allow people to have easier access to stores and entertainment opportunities. As such, it can cause increased economic activity. Berg *et al.* (2016) however nuance this by stating that roads may be a necessary but not a sufficient condition for economic development. They explain that to be effective, road development might have to be combined with other policies, such as changes to land use.

Thus, while transport policies have the potential to improve economic well-being, this relationship is complex. Jurkauskas *et al.* (2005) share this conclusion. They provide a model for how transportation relates to nationwide economic well-being (i.e. GDP) and conclude that it is a complex interplay, in which factors like ‘distance price’ and ‘travel time’ have to weigh up against the costs of negative externalities, like noise, pollution, and global warming.

B.2. TRANSPORT POLICY AND SOCIAL WELL-BEING

Social well-being can be defined as “the quality of one’s social support network, family or personal relationships, and level of community involved.” (Lee & Sener, 2016). Social exclusion entails that individuals or groups are unable to develop this social well-being because they are unable to participate in society properly. Social exclusion is a complex concept: it is multi-dimensional and could be both voluntary or non-voluntary (Van Wee & Geurs, 2011). Its relationship with well-being is also complex: whether well-being affects social exclusion or the other way around, remains inconclusive (Stanley *et al.*, 2021). In any case, there seems to be a relation to transport: if it becomes more difficult to travel, it becomes more difficult to develop social connections (Bokhari & Sharifi, 2022). As

such, transport enables social inclusion, social capital, and connections with the community, which contributes to well-being (Delbosc, 2012; Stanley & Vella-Brodrick, 2009).

How should transport policy be designed to promote social inclusion? Different ethical perspectives have different answers to this. Next to a utilitarian perspective that is often dominant in a CBA (see section 1.2.2), often mentioned ethical perspectives that focus specifically on social inclusion are the egalitarian, the sufficientiarist, and the capabilities approach.

The egalitarian point of view states that everyone should have equal access to social connections, regardless of their location or background. As such, from this perspective, the difference between those who currently have the best levels of accessibility and the worst levels should be minimized. This entails that individuals currently facing a lower level of accessibility are to be prioritized (Fung-A-Loi, 2022).

The sufficientiarist perspective assumes that everybody should be well off. They assume that there is a threshold that expresses what is 'sufficient' accessibility to basic needs. The 'weak' version then states that transport policy should aim to improve the well-being of people below the threshold. The 'strong' approach demands giving absolute priority to the people below this threshold (Van Wee & Geurs, 2011).

Finally, a capabilities approach puts more emphasis on an individual's agency to shape their own life. The focus is on the extent to which people can easily reach the destinations that they want to reach. People have different personalities, different physical or social environments, and different perspectives, and this should be taken into account when assessing people's accessibility (Van Wee & Roeser, 2013). In practice, this entails looking at different groups and comparing their current accessibility to their desired accessibility to basic needs, like jobs, (emergency) services, shops, education, social contacts, or recreation locations (TNO, 2021). It also entails focussing on the actual accessibility to transport. Van Wee & Geurs (2011) for example mention access barriers like a transport's infrastructure (availability and locations of infrastructure), timetables, prices, safety and security, access to platforms, and digital literacy.

Next to social exclusion, transport might affect social well-being in more indirect ways. Transport and transport policy might affect:

- **'Safety poverty'**: the extent to which certain social groups are more prone to accidents as a result of transport (TNO, 2021).
- **Community connections**: vehicle traffic and busy roads can hinder physical acquaintances or be a physical barrier within neighborhoods, that hinders social connections to be formed (Lee & Sener, 2016; Reardon & Abdallah, 2013).
- **Community dynamics**: if it is easy for people to travel further, then communities might spread out more, which might affect our social well-being positively or negatively (Reardon & Abdallah, 2013).

B.3. TRANSPORT POLICY AND ENVIRONMENTAL WELL-BEING

With environmental well-being, I refer to the quality of an individual's environment and their ability to interact with it in a healthy and fulfilling manner. There are several ways in which transport and effective transport policy can affect this.

- **Climate change:** transportation produces emissions and utilizes energy, which causes global warming (TNO, 2021).
- **Natural resources:** not only through emissions but also through the materials that are needed to produce vehicles, transportation contributes to the depletion of natural resources (Delbosc, 2012; TNO, 2021).
- **Environmental stress:** transportation affects local air quality and soil quality (Delbosc, 2012; Reardon & Abdallah, 2013; TNO, 2021).
- **Noise and vibrations:** the noise and vibrations that transportation generates might bother people and can potentially be dangerous, as it might lead to increased stress and annoyance levels, which in turn increases the risk of hypertension and sleep disturbance (Reardon & Abdallah, 2013; TNO, 2021).
- **Spatial effects:** transportation infrastructure uses public space, which might affect people's well-being (e.g. they like it or find it ugly). Additionally, the infrastructure causes habitat fragmentation, which is one of the biggest threats to the conservation of ecological biodiversity (López & Monzón, 2010).

B.4. TRANSPORT POLICY AND INDIVIDUAL WELL-BEING

By individual well-being, I mean a person's overall physical and mental health.

Physical health is closely related to transport. As Lee & Sener (2016) describe, the choice of transport affects one's fitness, energy, and (absence of) illnesses. Walking or cycling as a means of transport is a beneficial physical activity that has been linked with a lower BMI and decreased odds of hypertension, diabetes, and cardiovascular disease. Physical activity also leads to higher mental well-being, with people claiming to be happier and more satisfied with life (Reardon & Abdallah, 2013). Air pollution and traffic incidents can also affect health negatively (ibid.).

Regarding mental health, literature often distinguishes between hedonic and eudaimonic well-being. While the divide may not be as clear as originally thought, hedonic well-being revolves around increasing pleasure and minimizing pain, whereas eudaimonic well-being is higher order and entails living a life filled with purpose and meaning, in which one can develop one's full potential (Stanley *et al.*, 2021). In short: hedonic well-being is about feeling good, whereas eudaimonic well-being is about doing well.

Relating hedonic well-being to transport, the following feelings can be distinguished:

- **Autonomy:** having the means to travel around wherever one pleases can lead to a sense of autonomy, which can improve well-being (Reardon & Abdallah, 2013; Stanley *et al.*, 2021).
- **Enjoyment and stress:** a journey can be a source of enjoyment (e.g. when cycling in sunny weather or when using a car drive as a transitional buffer) and stress (e.g. traffic jam-related time burdens) (Singleton, 2019; Stanley & Vella-Brodrick, 2009).
- **Fear:** e.g. when cycling on a busy road (Singleton, 2019).
- **Prestige:** owning a certain vehicle might give an individual a sense of prestige and pride (Reardon & Abdallah, 2013).

Higher order, eudaimonic elements of well-being that transport affects are:

- **Feeling engaged in life activities:** traveling can be seen as a means to develop one's full potential, and as such it affects individual well-being (Ferdman, 2021). This could be access to jobs, social gatherings, etc., which closely relates to social exclusion (see section A.2) (Stanley *et al.*, 2021). Traveling could also be a way of adventure or variety seeking (Reardon & Abdallah, 2013).
- **Contribute to one's health:** the choice of mode (e.g. walking or cycling) can give someone the feeling that they are positively contributing to one's health (Singleton, 2019).



FACTORS NOT INCLUDED IN THE PRACTICAL FRAMEWORK

C.1. FACTORS NOT INCLUDED IN THE PRACTICAL FRAMEWORK FOR OPERATIONALIZING BROAD PROSPERITY

Table C.1 below shows all factors that I came across during this research and that I chose to not include as separate factors in the framework. Note that I do not claim that the factors that I did include and the factors below together present a full picture of all factors available. After all, I did not conduct a systematic literature review (see section 3.2 for a further explanation). Hence, there could be other important factors that I could not include in the framework or the table below, just because I did not come across them. This presents a limitation of this study, which is further discussed in section 5.3.

Table C.1.: Factors not included in the practical framework for broad prosperity, including the substantiation

Factor	Outside scope or combined with other criteria?	Reason for not including it in the framework
Sufficient budget for participation	Outside scope	It is very difficult, if not impossible, to determine what is sufficient. The amount of budget that is needed for effective participation might depend on the project size, the number of stakeholders that need to be involved, and the duration of the project. Moreover, spending sufficient money will in itself not improve value-oriented participation; it matters what is being done with this money. As such, sufficient budget is seen as an enabler for achieving other factors, rather than a separate criterion.
Adequate time and resources for participation	Outside scope	For time and resources (i.e. not only financial but also practical resources like adequate locations), the same counts as for budget: it is an enabler of other criteria, rather than a separate criterion.

Table C.1.: Factors not included in the practical framework for broad prosperity, including the substantiation

Factor	Outside scope or combined with other criteria?	Reason for not including it in the framework
Number of participation moments	Outside scope	The same reasoning counts here: it is very difficult, if not impossible, to objectively determine how many participation moments are enough. Moreover, it is questionable whether more participation moments necessarily lead to better value-oriented participation. It might matter more what the participation is about, and what is being done with its yields in between the participation moments. So similarly, the number of participation moments is seen as an enabler for achieving other factors.
Extent to which citizens can make the final choice	Outside scope	See section 3.3.5.
All stakeholders learn from the engagement (not only about the policy's content but also about the rules of the game, nuances of policy, collaborating with others, and tolerating those with different views) (Maginn, 2007, as cited in Faehnle & Tyrväinen, 2013; Halvorsen, 2003)	Outside scope	While learning is a detrimental aspect of participation, it falls outside the scope of this research. This research is about how values can be better integrated into ex-ante policy evaluations, not about how citizens can feel more enlightened. One could argue that there is an indirect link: if citizens feel that they learn from the participation, it increases their enjoyment and trust in the process, which in turn increases their ability to truly speak out (see section 3.3.4. However, I find this aspect too indirect to take into account separately, as it is already covered in criterion 6 (shaping the participation process together).
Participation efforts stretch over longer periods of time	Combined with other criteria	Ianniello <i>et al.</i> (2018) mention this as an important aspect to participation. I have chosen to incorporate this into two other criteria that are in my eyes more directly related to broad prosperity. The first one is 'timely participation', which includes an element that participation needs to take place well before every decision moment. As decision moments take place at different times, this naturally involves participation over longer periods of time. Secondly, Ianniello <i>et al.</i> (2018) also explain regular participation as a way to reduce information asymmetry. I have incorporated this aspect in the 'Reduce information asymmetry' criterion.

Table C.1.: Factors not included in the practical framework for broad prosperity, including the substantiation

Factor	Outside scope or combined with other criteria?	Reason for not including it in the framework
Regularly gauging how participants feel	Combined with other criteria	Chan <i>et al.</i> (2022) mention this as a separate aspect, as a means to achieve a participation process that is better tailored to the participants' needs. I have integrated this aspect with the criterion of 'shaping the participation process together'. That criterion does not assess this gauging as a separate element, but rather as one of the means through which a participation process can be tailored in such a way that participants are able to speak out fully, thoroughly, and well-informed. I combine it with other, more content-related factors, like setting the agenda. Combining these has its implications, which are discussed in section 5.3.
Clear communication about the process	Combined with other criteria	OECD (2022) mentions communication as a detrimental aspect of organizing a successful participation trajectory. They mention that a communication strategy is helpful for this. However, as they mention, it can help at every participation stage. As such, it has already been integrated into many of the other factors. Good selection criteria, multiple ways of informing the public, multiple participation methods, reducing information asymmetry, shaping the participation process together, and evidence. All these factors contain an element of communication. Therefore, communication is not added as a separate element. Rather, the communication efforts are assessed in relation to their goal. For example, if the communication aimed to inform the public how they could participate, then it is assessed for criterion 2 (multiple ways of informing the public). If instead, the communication was to provide information, it is assessed for criterion 7 (reduce information asymmetry).
Evaluate the participation process	Outside scope	OECD (2022) mention that the participation process should be evaluated and that lessons should be incorporated into subsequent projects. This is without a doubt detrimental to transferring the lessons learned to new projects. Still, I do not include it specifically in this research, because I aim to identify criteria that make a specific project follow the broad prosperity paradigm. Proper ex-post evaluation will allow for better <i>future</i> projects, but it will not affect the extent to which the current project follows broad prosperity.

D

FURTHER SPECIFICATION OF THE 11 BROAD PROSPERITY CRITERIA

D.1. FURTHER SPECIFICATION OF THE 11 BROAD PROSPERITY CRITERIA

In order to utilize the framework that was presented in [chapter 3](#) in a case study, it is useful to further specify each criterion. When will an ex-ante evaluation process get a low score for a certain criterion, and when will it get a high score? Table C.1 on the next page aims to answer this. The data for this table is derived from the same literature as mentioned in [section 3.3](#), only structured differently as to provide guidance for ‘scoring’ ex-ante evaluation processes.

Note that in an ideal situation, the elements on which I base the score for each criterion are defined in a specific, measurable, attainable, realistic, and timely (SMART) manner. In that way, it would be very clear what score a case should get on a specific criterion. However, within this framework, some criteria contain multiple elements. A case could score low on one of these elements, and high on another, which makes it difficult to score the cases uniformly. This is the result of a compromise between including as many aspects in the framework as possible and keeping a workable amount of criteria. As such, while using a rubric like this helps to make scoring easier and more transparent, it will not fully achieve doing so. This is partly a limitation of this study (see [section 5.3](#), and another part can be mitigated by allowing for in-between scores (i.e. medium-low and medium-high) if different elements within the same criterion score differently.

Table D.1.: Further specification of the 11 broad prosperity criteria into low, medium, and high scores.

Criteria		Low	Medium	High
Representation	Criterion 1: Good selection criteria (to represent everyone, including otherwise underrepresented groups)	No effort is made to involve groups that would normally not join the participation. There are no selection criteria, there is only an 'open call' to recruit participants, so the participation process is likely to be overrepresented by those who have the time and money to join.	Organizers are aware of the fact that some groups might be underrepresented and there is some effort to involve them, but they remain general and do not link explicitly to the participation goal (e.g. only stating that participation needs to be inclusive, instead of elaborating on what that entails). Some thought has been given to what different perspectives could exist (e.g. by inviting representative groups), but there is no effort to ensure that all perspectives are equally represented. No basic statistics have been used to select participants.	A lot of effort is made to involve groups that would normally not join the participation, e.g. by giving them early notice, providing them extra support (e.g. childcare), rewarding them, or using the existing groups and networks of the underrepresented group. These efforts have been well thought-out. They link to the participation goal and are clearly organized and substantiated. Either basic statistics have been used to select a representative group (e.g. civic lottery), or a lot of effort has gone into identifying all different perspectives that could exist and representing them equally (e.g. by inviting many representatives and ensuring that they speak for their constituency).
	Criterion 2: Multiple ways of informing potential participants	Potential participants are only approached about their participation possibilities through a single means that is likely to attract a biased group of participants. E.g. a mail or a newsletter with a link to a website. This is only done once.	Potential participants are approached about their participation possibilities through a few different channels (e.g. online mail as well as offline posters), and this is done once or twice.	If you could be involved in the project in some way, it is very hard to miss participation possibilities. There is an organized strategy to extensively inform potential participants in multiple ways (e.g. multiple channels, multiple means, multiple languages) and multiple times throughout the entire project.
	Criterion 3: Multiple participation methods	There is only a single participation method used (e.g. informational evenings). As a result, there is bias in the participants being involved.	At least 2 participation methods are used but they are very much alike (e.g. informational evenings and open meetings). As a result, there is still some bias in who is able to participate.	At least 3 different participation methods are used, of which at least one is vastly different from the others (e.g. an online method or participatory budgeting). There is little to no bias as a result of the dynamics of a specific technique.

Table D.1.: Further specification of the 11 broad prosperity criteria into low, medium, and high scores.

Criteria		Low	Medium	High
Value-oriented	Criterion 4: Values are central to the participation	Participation efforts are not centered around the question of what citizens value at all. It aims to inform citizens about the project's progress or to consult with citizens about specific aspects of the project, e.g. a certain design feature like the number of lanes on a road. What citizens are expected to find important is predefined by decision-makers before the participation takes place.	Participation efforts are implicitly centered around the question of what citizens value. For example, next to informing and helping to specify alternatives, citizens are asked to judge assessment criteria. However, experts have already predefined these criteria to a large extent. There is little room for qualitative information. As such, citizens' value judgments are plugged into an expert-developed analytical framework.	Participation efforts are centered around the question of what citizens value throughout the entire process. Next to informing or consulting with citizens about alternatives, citizens play a major role in defining and structuring the problem. Next to getting the opportunity to judge assessment criteria, citizens also get the opportunity to add criteria to take into account. The extra qualitative information they can add about their values is seen as detrimental to participation.
Deliberation	Criterion 5: Timely participation	Participants are involved only when the most important decisions have already been made. The problem, objectives, and potential alternatives have already been defined once public opinion is sought. The engagement stops once the decision has been taken: apart from legal procedures, there is no way to influence the final decision.	Participants can help define potential alternatives, adjust alternatives and state their preferred alternative. They are involved only shortly before the formal decision moment. The problem and objectives have however already been determined. There is some engagement with participants once the final decision has been taken, mostly with the aim to gain support for the decision.	Participants can think along about the problem, the objectives, the potential alternatives, and their preferred alternative, well before formal decision moments. Participants also get the opportunity to assess the final decision after it has been taken and make small adjustments accordingly.

Table D.1.: Further specification of the 11 broad prosperity criteria into low, medium, and high scores.

Criteria		Low	Medium	High
	Criterion 6: Shaping the participation process together	Goals and potential outcomes of the participation trajectory are fully determined by the project team and/or experts and remain largely implicit. It is unclear to the participants what the potential outcomes of the participation trajectory are, and they are not asked what their goals are. They cannot set the agenda or tell how they feel during the trajectory.	The project team clearly communicates the expected outcomes at the beginning. All participants' goals and potential outcomes of the participation trajectory are briefly discussed and made explicit, but the project team and/or experts have a final say, even when others do not agree. During the trajectory, there is little opportunity for participants to tell how they feel about the participation or deviate from the goals.	The project team clearly communicates about the expected outcomes at the beginning, but they are flexible. All participants' goals and potential outcomes of the participation trajectory are extensively discussed and made explicit (e.g. the whole first session is dedicated to this). If applicable, the original goals and outcomes are then adjusted so that most (if not all) agree on them. During the trajectory, there are multiple moments at which participants can tell how they feel and set the agenda accordingly.
	Criterion 7: Reduce information asymmetry	There is little effort to reduce information asymmetry. Information is presented in a single, difficult format. Technical concepts are not simplified. Difficult language is used with a lot of jargon. Participants get little time to familiarize themselves with the key issues, and there is no possibility to first ask questions about the key issues.	There is some effort to reduce information symmetry. Some (at least 2) different formats are used, and there is some consideration to explain technical concepts and to avoid jargon. Participants still get little time to familiarize themselves, cannot contribute to the information base, and are mostly expected to understand everything on their own.	There is a lot of effort to reduce information asymmetry. More than 2 different formats are used and difficult technical concepts and jargon are simplified in different ways. Participants get the information timely so that they have ample time to familiarize themselves. They can contribute to the information base and have ample opportunity to ask questions beforehand.
	Criterion 8: Appreciation of participants' knowledge	The project team <i>and</i> the decision-makers show little commitment to the participation trajectory. They approach it as a 'tick of the box'. They place little trust in the participants' skills, intelligence, or experience. The focus is on informing: they show little signs of appreciating and valuing the participants' knowledge.	The project team <i>and</i> the decision-makers show some commitment to the participation trajectory. They intend to have an open mindset. They greatly appreciate participants' knowledge but do not seek real interaction with them. Participants' knowledge is gathered, but it is only included if it fits in their frame.	The project team <i>and</i> the decision-makers show full commitment to the participation trajectory. They see it as a detrimental part of the process and place high trust in the participants' skills, intelligence, or experience. They see the participants' knowledge as a fully-fledged aspect of the total knowledge base.

Table D.1.: Further specification of the 11 broad prosperity criteria into low, medium, and high scores.

Criteria		Low	Medium	High
	Criterion 9: Efforts to ensure all participants' contributions	The person or party facilitating the participation makes little to no effort to ensure all participants' contributions. There is a high probability that the conversation is dominated by vocal participants, as there is no specific focus to also involve 'weaker' participants.	The person or party facilitating the participation pays some attention to weaker participants, but this is not the main focus, so there is a probability that vocal participants still have more to say. The facilitating person or party is aware of potential power relations and some effort is done to suppress them, e.g. by addressing them in the beginning.	The person or party facilitating the participation makes an active effort to find ways to ensure everyone's contribution (e.g. giving everybody a possibility to speak, or separating weaker participants from others to offer them a safe space to voice their opinion). The facilitating person or party suppresses power relations by paying regular attention to weaker participants. There is a focus on selecting a facilitator or facilitating party that has high credibility with most participants (e.g. by letting them choose one).
Evidence	Criterion 10: Evidence (of how the participants' knowledge is incorporated into the final choice)	There is no documentation about the knowledge that the project team gained from the participants. There is no sign that it has been considered when making the final choice.	There is documentation about the knowledge that the project team gained from the participants but it is not clear how it has or has not been incorporated into the final decision.	There is extensive documentation about the knowledge that the project team gained from the participants and there is clear substantiation about how and why this knowledge has or has not been incorporated into the final choice.

Table D.1.: Further specification of the 11 broad prosperity criteria into low, medium, and high scores.

Criteria		Low	Medium	High
Formalization	Criterion 11: The participation process is formalized	Participation efforts are not formalized, but are ad-hoc. There is no participation plan beforehand, and there are no formal procedures that state how they should be organized. As a result, participation is completely separated from the rest of the ex-ante evaluation. Rights for participants (including weaker participants) have not been institutionalized. There is no room for evaluation of the process.	Participation efforts are based on a clear plan, but this plan does not include any formal commitment by the decision-makers. There are rules and obligations related to participation, but these are too broad and do not oblige participation to be an integral part of the ex-ante evaluation process. As such, the significance that participation has depends on the decision-makers' personal willingness. Rights for participants (including weaker participants) are not formalized. Evaluation of the process is ad-hoc.	Participation efforts are a formal and integral aspect of the ex-ante evaluation process. Participation efforts are clearly laid out in a participation plan and include a formal commitment by the decision-makers. The plan is based on a flexible procedure for how participation should be organized, e.g. an institutionalized toolbox of effective participation procedures. Rights for participants (including weaker participants) are central to this. Evaluation of the process is part of the plan.

E

CASE STUDY PROTOCOL AND FURTHER METHOD CHOICES

E.1. CASE STUDY PROTOCOL

A case study is very useful in situations in which the context is crucial in understanding the working of the system, like in the case of applying broad prosperity in ex-ante policy evaluations in the Netherlands. However, generalizability (i.e. the extent to which the findings apply to other cases or contexts) and reproducibility (i.e. the extent to which different researchers will approach the same case in the same way and find similar results) can be challenging.

A case study protocol can help mitigate these disadvantages. By specifying a consistent approach that can be reviewed and verified by others, reproducibility can be enhanced. Additionally, specifying clear criteria for case selection provides insights into the extent to which the results are generalizable to other MIRT projects.

I use the case study protocol template by Brereton *et al.* (2008). The different elements of this template are discussed below.

BACKGROUND

- **Identify previous research on the topic:** see [chapter 1](#) and [chapter 2](#).
- **Define the main research question being addressed by this study:** see [chapter 1](#).
- **Identify any additional research questions that will be addressed:** see [chapter 1](#)

DESIGN

- **Identify whether the case study will be single-case or multiple-case:** For reasons of increased validity, multiple case studies will be used. Yin (2003) states that “when the researcher chooses to do a multiple case study, he is able to analyze the data within each situation and also across different situations.” The alternative within this study’s time boundaries could be to use just one case but to analyze it more thoroughly. For example, I could identify more phases and conduct more interviews. It is however my prediction that in this case, analyzing multiple cases will yield more useful results than more thoroughly researching one case. For this research, it is merely important to explore the general sentiment of how value-oriented participation was present during the project, and this can easily follow from thorough desk research and a handful of interviews. So it is my prediction that the extra time available is better spent by analyzing a second case.

- **Identify whether the case study will use embedded designs or holistic designs:** Runeson & Höst (2009) describe an embedded case study as one where multiple units of analysis are studied within a case, whereas a holistic case study is one where the case is studied as a whole. In this case, a holistic case study is deemed suitable. The reason for this is that the different participation moments within a MIRT process are very interdependent. It is irrelevant to treat singular participation moments separately, as the goal is to assess whether broad prosperity has been present in the process as a whole. If broad prosperity has not been present for one single participation moment, other moments could compensate for that. As such, for this research question, it is irrelevant to assess participation moments as multiple units of analysis. Time constraints are another reason for not doing this: it would take too much time to assess them separately.
- **Show the logical links between the two choices above and the research questions:** see the answers above, in which I explain my choices in relation to the research question.
- **Describe the object of study:** see section 1.1.4, in which the ex-ante evaluation process is discussed. See also section 4.3, in which the MIRT process is explained. The MIRT processes are the object of study. These include pre-explorations or MIRT researches that precede a MIRT exploration. They do not include the phase of plan execution.
- **Identify any propositions or sub-questions derived from each research question and the measures to be used to investigate the propositions:** See section 1.5 for the research question and its sub-questions. The proposition of this thesis is that for an ex-ante evaluation process to follow the broad prosperity paradigm, there needs to be effective, value-oriented participation. This entails having a participation process that is representative, value-oriented, meaningful, provides evidence, and formalized. This proposition is further substantiated in chapter 3. As such, this is what will be assessed in the case studies.

DETERMINE THE CRITERIA FOR CASE SELECTION

- The case has to be fully Dutch because that is the scope of this thesis (see section 1.4).
- The case has to be about an ex-ante evaluation process of transport policy because that is the scope of this thesis (see section 1.4).
- **Reasons why I choose MIRT processes:** Any large spatial, transport-related project, that will require funding from the national government, will follow a MIRT procedure. So when searching for ex-ante evaluations for Dutch transport projects, MIRT projects are among the first to consider. Alternatives are to choose a more regional or local project as a case study. Two reasons for not doing this are that firstly, national projects often have a wider impact on well-being because they are generally larger in scale and scope and as such are likely to impact more people. Secondly, national MIRT projects have better data availability. As there is more at stake for MIRT projects, they are generally more standardized and well-documented. As such, it is easier to thoroughly examine the ex-ante evaluation and draw accurate conclusions.
- **Criteria for what MIRT projects to choose:**
 - **Elimination criteria:**
 1. **Recency:** The case study aims to find out to what extent broad prosperity has been present and come to recommendations for future MIRT processes. So the more recent a project is, the more likely it is that recommendations are relevant. Moreover, recent projects will still be more on top of mind by the people involved, so it will

likely be easier to find interviewees and ask them specific questions. A MIRT project is seen as recent if its ex-ante evaluation is at most three years old, i.e. it has been published after April 2020.

2. **Completion:** At least partially finished MIRT projects. This forms a trade-off with the selection criterion of recency. As recent as possible, but information needs to be available to effectively analyze the decision-making process.
 3. **Access to documentation:** there should be sufficient opportunity to access the case publications.
- **Criteria for choosing the cases:**
1. **Time constraints:** at most two cases can be selected.
 2. **Inspirational:** Flyvbjerg (2006) states that case studies may be central to scientific development through “the force of example”. Therefore, two cases with differing expected behavior regarding broad prosperity are selected. Roughly speaking, there are MIRT projects that have a strong focus on increasing road capacity (e.g. because the motivation for starting the exploration is a road capacity bottleneck), and there are MIRT projects that focus more on improving the integral problems in a certain area. Using Flyvbjerg (2006)’s argument, I will select one case from both groups.
 3. **Access to people involved:** the case study will involve interviews. In order to use the available time for this research efficiently, it is beneficial to choose cases for which the people and stakeholders involved are most easily accessible.
- See section E.2 for the case selection using these criteria.

CASE STUDY PROCEDURE AND RULES

- **Determine procedures governing field procedures:** as this case study merely involves interviewing people involved in the chosen MIRT project, there is no need for going ‘in the field’. I describe the procedures regarding interviewee selection, data collection, and data analysis in subsequent sections.
- **Determine the role of the case study research team members:** since this thesis is being done by only one person, there is just a single researcher role. Moreover, as the case study does not include live observation of participants, the researcher’s role is limited. However, it is important to assess the researcher’s role in performing the data collection. More specifically, when conducting interviews, the setting created and the questions asked have a large effect on the results. I will touch upon this below in the ‘Data Collection’ and ‘Analysis’ sections.

DATA COLLECION

- **Identify the data to be collected:** For each of the 11 criteria that could contribute to a process that follows the broad prosperity paradigm, to what extent were these themes present in the MIRT project? This is the data that I aim to collect. By asking questions that focus the interview on these specific aspects, I aim to identify what sentiments dominate and what efforts have been made. The desk research is especially useful to identify what efforts have been made, and only to some extent what sentiments dominate (e.g. only if there is documentation about satisfaction or dissatisfaction about certain things). On the other hand, the interviews are very relevant for identifying sentiments, and gauging whether what was written down in the documents has also been felt that way by the people involved.

- **Define a data collection plan:**
 1. **The use of desk research and semi-structured interviews:** Semi-structured interviews are characterized by having a few predetermined questions, but leaving ample room for the interviewee to set the interview's direction within the scope of interest (Pollock, 2022). Such interviews allow for gathering in-depth and informal information about the decision-making process in a flexible way (Alshenqeeti, 2014). Semi-structured interviews and desk research complement each other as a form of triangulation. Desk research can reveal what has formally been done to incorporate broad prosperity in the evaluation process, while interviews can reveal how the people involved perceive the extent to which it has been incorporated. Apart from triangulation, performing desk research suits some of the criteria better (e.g. evidence), whereas interviews suit other criteria better (e.g. value-oriented and meaningful participation). As such, a combination of both is powerful.
 2. **Dealing with the challenges for semi-structured interviews:** The first main challenge is that questions need to be based on existing knowledge of the research topic (Kallio *et al.*, 2016). I address this challenge by getting to know the topic through desk research and a few open interviews, before performing the case study. I used this information when creating the interview protocol (see [appendix G](#)). A second challenge is the possibility to deviate from the research topic if the interviewee is given too much freedom in answering questions. I tackle this challenge by creating an interview protocol with main themes and follow-up questions and using this to guide the interviewee back to the research topic. I test the interview protocol by assessing its effectiveness after the first view interviews to enhance its potential, as suggested by Kallio *et al.* (2016). Expert assessment can also be useful, so I validate the interview questions with experts from Goudappel and TU Delft.
 3. **Interview protocol:** I create an interview protocol that contains the main themes, follow-up questions, and formalities (e.g. introduction round, explaining goal and purpose, consent for recording, describing where research results can be found). This protocol aims to fill a one-hour interview. See [appendix G](#) for the final version.
 4. **Select potential interviewees:** the aim is to interview a mix of people that were involved in the case. Some project team members as well as some participants involved in the MIRT project. To achieve this, I first aim to reach out to 10 people per case. The actual interviews that will take place are of course subject to the willingness to be interviewed and the individuals' availability within the research period. [Appendix F](#) shows the people that were eventually interviewed.
 5. **Contact potential interviewees:** This contact will be through e-mail. If possible, I ask someone that has a better relationship with them to contact them for me first, to increase the likelihood of a response.
 6. **Plan and conduct the interviews** as soon as possible.
- **Define how the data will be stored:** if the interviewees agree, I record the audio of the interviews, store them locally, and delete them once I have transcribed them. At that point, the transcriptions will be stored in a secured cloud environment (ATLAS.ti). If the interviewees do not agree to be recorded, I make notes during the interview and store these in OneDrive.

ANALYSIS

- **Identify the criteria for interpreting the case study findings:** I interpret the case study findings based on the extent to which broad prosperity has been present within the trajectory. As such, the criteria set up in [chapter 3](#) are the criteria for interpreting the case study findings.
- **Identify which data elements are used to address which sub-question and how the data elements will be combined to answer the question:** the case study's results will be used to answer SQ3.
- **Consider the range of possible outcomes and identify alternative explanations of the outcomes, and identify any information that is needed to distinguish between these:** for each of the criteria, the possible outcomes range from “this aspect of broad prosperity has been taken into account very little” to “this aspect of broad prosperity has highly been taken into account”. Alternative explanations are not applicable, because there is no specific cause-effect relationship being studied, but rather any explanation of how broad prosperity was incorporated will be relevant and incorporated into the results.

PLAN VALIDITY

- **Check plan against Höst & Runeson's (2007) checklist items for the design and the data collection plan:** many of the aspects in this checklist are already included in this case study protocol or are irrelevant to this case study. A few additions:
 - **Is the integrity of individuals/organizations taken into account?** Interview results will be as anonymized as the interviewee wishes them to be. If desired, participants can assess how their input is being used within the research well before it is published (they get 2 weeks to comment).
 - **Are the planned methods and measurements sufficient to fulfill the objective of the study?** See section [4.2](#) and section [5.4](#).
 - **Is the study design approved by a review board, and has informed consent been obtained from individuals and organizations?** I obtain informed consent before conducting the interviews.
 - **Are sensitive results identified (for individuals, organizations or project)?** While sufficiently far to be researched for this study, the MIRT projects under study are not fully finished yet and thus the results could in theory affect the individuals and organizations involved. However, the object under study is the extent to which broad prosperity was taken into account, not the extent to which the trajectory has been successful as a whole. So I am not questioning the effectiveness of the project as a whole. Still, it remains important to thoroughly address the nuances and assumptions this research holds, so that suggestions for improvements are seen in the light of those. I aim to do this in the case study reporting. Also, I check with interviewees whether their input has been used correctly and whether I do not disclose any information that could hurt the project.
 - **Are threats to validity addressed in a systematic way?** See section [5.3](#) and section [5.4](#).
 - **Are ethical issues reported openly (personal intentions, integrity issues)** See section [5.4](#).
- **Construct validity:** [Chapter 3](#) shows how the correct operational measures are planned for the concepts being studied. I also show there how I use multiple sources of evidence, establish chains of evidence, and use expert reviews.

- **Internal validity:** there is no need to show a causal relationship between outcomes and the intervention or treatment because there is no intervention or treatment in this case study.
- **External validity:** as all MIRT processes are very different, it might be hard to generalize the case study results to other trajectories. The created framework is aimed to be generalizable to other ex-ante evaluation processes, perhaps even in other national contexts. The case study results should however be generalized with caution. Still, if it turns out that reasons for a certain extent of broad prosperity can be found in the nature of the MIRT process itself (e.g. because the formal rules allow or prohibit certain elements), then it is likely that this counts for any MIRT process. So I argue that such findings *can* be generalized. If interviewees have been active in multiple MIRT processes, they could confirm this.

STUDY LIMITATIONS

See [chapter 5](#).

REPORTING

See [chapter 4](#).

E.2. CASE SELECTION

Below is a list of all MIRT projects that are listed on [this](#) and on [this](#) website. MIRT projects for which the name is in bold are not eliminated.

Table E.1.: List of potential MIRT projects to select as a case

#	MIRT project	Elimination criteria		
		Ex-ante evaluation completed?	Access to information?	Recent?
1	A50 Ewijk - Bankhoef - Paalgraven	No	No	Yes
2	A15 Papendrecht - Gorinchem	No (but a large part has been completed)	Yes	Yes
3	A2 Deil-Vught	Yes	Yes	No (October 2019)
4	A58 Tilburg-Breda	Yes	Yes	Relatively (September 2020)
5	Oeververbindingen regio Rotterdam	Yes	Yes	Yes
6	Central Innovation District Binckhorst	Yes	Yes	Yes (June 2022)
7	Rottepolderplein	Yes	Yes	Yes (November 2022)
8	N35 Wijthmen-Nijverdal	No (March 2022)	No	Yes
9	OV en wonen Utrecht	No (analytical phase finished October 2022)	No	Yes
10	A67 Leenderheide - Zaarderheiken	Yes	Yes	No (January 2019)
11	A1-A30 Barneveld	Yes	Little	Relatively (2020)

Table E.1.: List of potential MIRT projects to select as a case

#	MIRT project	Elimination criteria		
		Ex-ante evaluation completed?	Access to information?	Recent?
12	Suurhoffbrug	Yes	Little	No (2019)
13	Corridor Amsterdam - Hoorn	Yes	Yes	No (March 2019)
14	A4 Burgerveen - N14	Yes	Yes	No (December 2019)
15	Oostkant Amsterdam	Yes	Yes	No (December 2017)

From this initial selection, 5 MIRT projects remain that have been sufficiently completed, have sufficient access to information, and are sufficiently recent. From these, I select two explorations. Because I want the cases to be as inspirational as possible, I will choose one that has a more intrinsic focus on capacity improvement (either #2, #4, or #7) and one that focuses more on improving a specific area (either #5 or #6). Based on the criterion of access to people involved, I choose #2 and #5: A15 Papendrecht-Gorinchem and Oeververbindingen regio Rotterdam.

E.3. DATA COLLECTION METHOD SELECTION

Table E.2.: Alternative data collection methods to choose from

Data collection method	Advantages compare to semi-structured interviews	Reasons for not choosing them for this study
Structured interviews	Ability to compare different interview results more directly (Chron, 2021), reduced bias (i.e. less potential to influence results through asked questions and order) (George & Merkus, 2022), increased credibility (George & Merkus, 2022)	Structured interviews offer less opportunity for context and nuance, whereas these factors are deemed as very important for understanding the complex aspects that are being asked. As there are different possible ways in which the broad prosperity 'themes' (e.g. representation of stakeholders) can be achieved, this nuance is important to understand the case. The advantage of comparability that structured interviews have is less relevant for this case study, as a very precise comparison is not necessary for answering the research question. The aim is merely to identify how broad prosperity was applied and what can be learned from that.

Table E.2.: Alternative data collection methods to choose from

Data collection method	Advantages compare to semi-structured interviews	Reasons for not choosing them for this study
Survey	Flexible and less time consuming than interviews (Jain, 2021). Large sample size, easier to perform statistical analyses to make results significant.	<p>The goal of the case study is not generalizability (and thus statistical significance), but rather identifying what signs of broad prosperity were present in ex-ante evaluation projects, and what potential underlying causes this has.</p> <p>On top of that, surveys have fewer possibilities to dig deeper. Because the questions are set in stone, there is little space for the respondent to tell more about the aspects that they know most about, and to deviate from the questions initially asked based on the participant's responses. This is something that semi-structured interviews do give room for (Kallio <i>et al.</i>, 2016).</p> <p>Finally, interviews allow for a face-to-face personal touch, which increases the possibility that useful, alternative points of view come to the surface.</p>
Focus groups	Practical (i.e. many perspectives in relatively little time), discussions between experts might lead to results of higher quality, ability to study group dynamics (e.g. power relations), less interference (and thus knowledge) needed from the researcher (Longhurst, 2016).	Studying group dynamics is not necessary for this case and comes with the disadvantage that dominant individuals might take over the conversation.
Observations	Ability to see what people do, instead of them telling you what they think. So results are less likely to be colored by perception (Chron, 2021)	The chosen case studies are MIRT projects that are (almost) finished, so it is infeasible to directly observe the involved stakeholders.

F

INTERVIEWS AND DOCUMENTATION OVERVIEW

F.1. INTERVIEWS FOR VALIDATING THE BROAD PROSPERITY FRAMEWORK

Table F.1.: Overview of the interviews conducted for validating the broad prosperity framework

Code	Function	Date interviewed
Interviewee A1	Consultant at Goudappel	January 11, 2023
Interviewee A2	Consultant at Goudappel	January 12, 2023
Interviewee A3	Consultant at Goudappel	January 13, 2023
Interviewee A4	Stakeholder manager at APPM	January 27, 2023
Interviewee A5	Stakeholder manager at Twynstra Gudde	February 3, 2023
Interviewee A6	Employee at the participation department of I&W	February 17, 2023

F.2. CASE STUDY OEVERVERBINDINGEN ROTTERDAM

Table F.2.: Overview of the interviews conducted for the case study Oeververbindingen Rotterdam

Code	Role within the project	Date interviewed
Interviewee B1	Project leader	January 26, 2023
Interviewee B2	Stakeholder manager	February 3, 2023
Interviewee B3	Participant	February 16, 2023
Interviewee B4	Participant	February 17, 2023
Interviewee B5	Participant	February 17, 2023
Interviewee B6	Project leader	February 23, 2023
Interviewee B7	Stakeholder manager	March 2, 2023

Table F.3.: Overview of the documents analysed for the case study Oeververbindingen Rotterdam

Code	Document title	Date	Document link
Document B8	Eindrapport MIRT-onderzoek Bereikbaarheid Rotterdam Den Haag	July 2017	Link
Document B9	Resultatennota pre-verkenning	July 2018	Link
Document B10	Rapport pre-verkenning	October 2018	Link
Document B11	Studie Gebiedsbod Krimpenerwaard	July 2019	Link
Document B12	Participatierapport 2019	July 2019	Link
Document B13	Startbeslissing	November 2019	Link
Document B14	Kennisgeving Notitie Reikwijdte en Detailniveau	November 2019	Link
Document B15	Notitie Reikwijdte en Detailniveau	July 2020	Link
Document B16	Publiekssamenvatting Nota Kansrijke Oplossingen	July 2021	Link
Document B17	A16 Van Brienoordcorridor / OWN - Participatierapportage Deel 1	July 2021	Link
Document B18	Participatierapport analytische fase	July 2021	Link
Document B19	Belevingswaardeonderzoek deel 1	December 2020	Link
Document B20	Belevingswaardeonderzoek deel 2	December 2021	Link
Document B21	Spelregelkader participatie	July 2020	Link
Document B22	Nota van Antwoord - Zienswijzen en adviezen Notitie Reikwijdte en Detailniveau	July 2020	Link
Document B23	Participatieaanpak analysefase	July 2020	Link
Document B24	Integraal participatierapport	November 2022	Link
Document B25	Toelichting voorkeursalternatief	November 2022	Link
Document B26	Presentatierapport beslisinformatie	September 2022	Link
Document B27	Digitale meningspeiling	August 2022	Link
Document B28	Notitie Kansrijke Oplossingen	July 2021	Link
Document B29	Reactie op adviezen omgevingsbeeraad en Q-team	November 2022	Link
Document B30	Enquête analyse- en oplossingsrichtingenfase MIRT Onderzoek Bereikbaarheid Rotterdam Den Haag	July 2017	Link
Document B31	Groene peiler - bereikbaarheid in de regio Rotterdam Den Haag - Rapportage resultaten	December 2016	Link
Document B32	Proces analyse- en oplossingsrichtingenfase MIRT Onderzoek Bereikbaarheid Rotterdam Den Haag	July 2017	Link

F.3. CASE STUDY A15 PAPENDRECHT-GORINCHEM

Table F.4.: Overview of the interviews conducted for the case study A15 Papendrecht-Gorinchem

Code	Role within the project	Date interviewed
Interviewee C1	Stakeholder manager	January 27, 2023
Interviewee C2	Stakeholder manager	January 27, 2023
Interviewee C3	Participant	February 2, 2023
Interviewee C4	Participant	February 3, 2023
Interviewee C5	Project manager	February 8, 2023
Interviewee C6	Participant	February 15, 2023
Interviewee C7	Participant	February 15, 2023
Interviewee C8	Participant	February 23, 2023

Table F.5.: Overview of the documents analysed for the case study A15 Papendrecht-Gorinchem

Code	Document title	Date	Document link
Document C9	Presentatie informatiebijeenkomst II	May 2020	Link
Document C10	Participatieplan Fase A en B (v5.1)	February 2020	Link
Document C11	Kennisgeving Notitie Reikwijdte en Detailniveau	October 2020	Link
Document C12	Notitie Kansrijke Alternatieven	October 2020	Link
Document C13	Participatieplan beoordelings- en besluitvormingsfase	October 2020	Link
Document C14	Participatieverslag start- en analyse-fase	September 2020	Link
Document C15	Sfeerverslag atelier 1	January 2020	Link
Document C16	Sfeerverslag eerste inloopbijeenkomst	January 2020	Link
Document C17	Sfeerverslag atelier 3	November 2020	Link
Document C18	Sfeerverslag atelier 2	April 2020	Link
Document C19	Sfeerverslag atelier 5	April 2022	Link
Document C20	Sfeerverslag atelier 6	July 2022	Link
Document C21	Verslag omgevingswijzer- en ambitiewebsessie	August 2020	Link
Document C22	Startbeslissing	October 2019	Link
Document C23	Nota van Antwoord	June 2021	Link
Document C24	Planning MIRT- Verkenning A15 Papendrecht - Gorinchem aangepast	October 2022	Link



INTERVIEW GUIDE

G.1. INTRODUCTION

This appendix elaborates on the questions that were asked during the semi-structured interviews that served to get to know more about how broad prosperity has been integrated into two MIRT projects. As the interviews were semi-structured, the structure that I present here served as general support during the interviews. However, all interviewees are different: they have more or less knowledge about different aspects that I was interested in, or they answer certain questions more or less thoroughly, leaving more or less time for other questions. All these factors could have contributed to deviating from the structure below and asking more specific questions about one topic. Allowing for such flexibility is one of the advantages of semi-structured interviews.

G.2. INVITATION MAILS

Respondents were invited to participate in the research by email. I sent some emails to participants before they had heard about the research, but most interviewees were found via-via. That is, either people working at the graduation internship company Goudappel, or people that I interviewed earlier, helped me by making the first contact.

In the first situation, I kept the initial mail short:

"Dear xxx, I saw online / I heard from xxx that you have been/are a project manager within the MIRT project Oeververbindingen Rotterdam / A15 Papendrecht-Gorinchem. For my master thesis, I research how participation within MIRT processes contributes to achieving broad prosperity. [Optional: To that end, I already spoke with xxx last week, who has given me great insights into how the participation was set up. He/she told me that it could be useful to also speak with you, that is why I am mailing.]

I would be curious about your experiences, for example how you have experienced the participants' input, how you think it has contributed to the project, and how you view broad prosperity within this project in general. Would you have time in the coming week(s) to talk about this online for about an hour? Looking forward to hearing from you! Kind regards."

In the second case, I let the referring person draft the email, but in all cases, they asked me to provide a short explanation of the research. For that, I used the following text:

"I am currently graduating on the topic of how broad prosperity could be further integrated into MIRT processes. Within my thesis, I see broad prosperity as an approach in which the relevant values

have to be determined per context. That is why my assumption is that a carefully designed participation trajectory with residents, stakeholders, and potential users, in which value-related questions are central, can contribute to this.

To that end, I would like to use the MIRT project Oeververbindingen Rotterdam / A15 Papendrecht-Gorinchem as a case study. By gaining more insights into how the participation trajectory was set up within this MIRT project, I hope to be able to say something about the extent to which it contributes to broad prosperity. In that way, I would be able to find out what best practices or lessons can be taken away from these cases, to make future MIRT processes fully 'broad prosperity proof'.

Therefore, I would like to fetch some precise information about how that participation trajectory has gone. When did the participation take place, which procedures had to be followed, what was the goal, how were these participation sessions shaped, etc. This will of course be an addition to any information that is already available online.

G.3. INTERVIEW GUIDE

G.3.1. INTRODUCTION

1. **Short introduction of interviewee:** what is his/her function, something about the organization and the team at which he/she works.
2. **Short introduction of the interviewer:** who is he, what study does he follow, something about the graduation internship company (Goudappel).
3. **Short explanation of the research:** For this thesis, I research how broad prosperity could be integrated into MIRT processes [the term ex-ante evaluations of transport policies is explicitly not mentioned, as it would probably require further explanation]. As I already explained in my email, I see broad prosperity as something for which the relevant values need to be determined per context. Therefore, my assumption is that a careful, value-oriented participation trajectory contributes to broad prosperity. By taking this MIRT project as a case study, I hope to be able to draw conclusions about the extent to which the participation trajectory has contributed to broad prosperity. In that way, I can hopefully derive some best practices or lessons that can aid the further integration of broad prosperity within future MIRT projects.
4. **Goal of this interview:** I am curious about your experiences and ideas about how the participation trajectory has gone and how this has contributed to broad prosperity.
5. **Agreeing on interview duration:** The interview will take about an hour. Do you indeed have time until [proposed end time of the interview]?
6. **Consent for recording:** Would you find it okay if I recorded this interview? I will transcribe it and then delete the recordings. Your name will not be in the final document, but I *will* mention the function you had within the project. You will get the opportunity to assess how I have used your input, well before the final document will be published in the TU Delft repository.

G.3.2. QUESTIONS

1. **Role:** What has been your role in the participation trajectory?
2. **Experience:** How did you experience the participation? Was it challenging, useful, exciting, inconvenient, etc.?

3. **Participation plan:** How was the participation plan created? / What do you think about the participation plan and the choices that have been made while creating that plan?
 - What do you think of the role that citizens had within this participation plan?
4. **Participation methods:** Different methods have been used during the participation. How do you look back at the effectiveness of these different methods?
 - Do you feel that you got the opportunity to be present at the right moments? / Do you feel that the right people could be present at the right moments?
 - Which one of these methods did you think was most useful?
5. **Participation moments:** How do you look back at the moments in which you were involved? Do you feel that you / participants have been involved on time to really be able to make a difference?
6. **Representation:**
 - [If relevant:] What efforts did you make to try to involve everybody that could potentially be affected by the project?
 - Do you feel that efforts to communicate about participation possibilities have been successful?
 - Do you feel that the efforts to have representative participation have been successful?
 - [If relevant:] Did you involve your constituency directly or did this mostly go indirectly?
 - [If relevant:] Do you feel that you have been able to raise the interests of your constituency?
7. **Content:** Participation in relation to broad prosperity involves asking about the underlying values. Do you feel that this 'asking further' has been done sufficiently during the participation? Why or why not?
8. **Interaction:** Do you feel that there has been ample opportunity for interaction during the participation sessions? What indicates or does not indicate this?
 - Are there things that you / the project team did that stimulated or did not stimulate this?
 - Do you feel like you and other participants / the participants had sufficient knowledge about the subject matter to properly participate?
 - How do you feel about the efforts that have been made to get everyone on the same knowledge level?
 - What do you think about the role of the conversation leader during the sessions?
9. **Outcomes:**
 - How valuable do you think that local knowledge has been that participants brought to the project? / Do you feel that the project team and decision-makers valued your input as a fully-fledged aspect of the decision-making process?
 - Are you satisfied with how the participation results have been used for making policy decisions within this project, or could this have gone better?
 - How do you feel about your / the project team's efforts to reason and substantiate *why* certain participation results have or have not been taken into account?

G.3.3. CLOSING QUESTIONS AND REMARKS

1. **Score or tips and tops:**

If we look at the different elements of broad prosperity within this project (representative participation, value-oriented participation, meaningful participation, and providing evidence about the participation), how would you score these elements, based on your experiences?

OR

If you would have to give, as a summary, two tips and two tops regarding participation and broad prosperity within this project, what would those be?

2. **Other things:** Are there any other things that we have not talked about, that you think are important to understand value-oriented participation within this project properly?
3. **Other people to speak with:** Do you have any suggestions for other people I could speak with?
4. **Sharing results:** Would you like to see the concept version before it will be published in the TU Delft repository? Or would you like to just see the final result once the research is finished?



RELATION BETWEEN THESIS AND MASTER PROGRAM

This master thesis has been written for the master Engineering & Policy Analysis (EPA). This final appendix will briefly touch upon the link between this thesis subject and the EPA master program.

The EPA program focuses on "analyzing and solving complex problems that involve many parties with conflicting interests", the so-called 'grand (societal) challenges' (TU Delft, [n.d.](#)). Specifically, these are problems of which technology is a major component, but for which solutions require not just an understanding of the technology, but also an understanding of how actors use this technology and how they decide about it.

Linking this to the thesis topic, the grand challenge is how to keep making effective transport policies in a society in which there is an increasing demand for assessing a broader set of objectives. Where policy effectiveness could formerly be measured relatively easily (i.e. a policy's economic gains were thought to be a good proxy), changing societal demands have made this more challenging. There is thus a situation in which there is a technology, i.e. the transport system, that is of societal relevance, because that transport system affects well-being (see [appendix B](#)). Creating effective policy for this technology becomes increasingly difficult because of the changing societal demands, as a result of several societal trends and events (e.g. increasing inequality of opportunities, see section [1.1.2](#)). The broad prosperity paradigm might contribute to a solution, but its operationalization still seems stuck. This is the problem that this thesis aims to address.

So this thesis focuses on a grand sociotechnical challenge. Because I propose a way to improve the decision-making process, an understanding is required of such processes, which is a crucial aspect of EPA (Enserink, [2017](#)). EPA also tends to focus on real-world problems, which is what this thesis does as well: it applies theoretical knowledge to two real-life case studies. A final point is that EPA focuses on complex problems in which multiple actors play a role, which is what this thesis aims to do as well. By interviewing multiple stakeholders, I gain insights into different perspectives that play a role in complex transport policy problems.

In summary, this thesis project links well with the EPA master program, because it allows me to apply the fundamental themes of the program to a specific transport policy problem. It provides the final step in achieving the goal of the EPA program because it helps me to showcase how I am able to use the skills and the knowledge learned during EPA and apply it to address complex policy problems that require many parties to solve.