⁶¹ 10.

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are using the bicycle as a promoter of a variety of programs, such as health, education, economy, and





62

EX CHAPTER 10	61 - 68
re, Able, and Invite Cycle	63 - 64
cial Cost-Benefit alysis	65 - 66
ycle Vision Rotterdam	67 - 68



Cycling Satisfaction Monitor



Visual: Goudappel Coffeng



The appeal of the route accounts for **30%** of the cyclist's

satisfaction with the ride





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Dare, Able, and Invite to Cycle

Reason for intervention

Mobility policy aims to entice commuters into making certain choices within the multimodal mobility system. Accordingly, the quality of services influences how people actually behave. Commuters, and hence also car drivers or cyclists, make choices based on the qualities they perceive, and this perceived quality is the underlying reality of their choices. This means that for commuters, reality is not the objective reality of performance, as monitored by KPIs (Key Performance Indicators), but rather how the commuter perceives and interprets the performance. For example, it does not matter whether it is objectively safe to cycle at night; what matters is whether the cyclists feel safe cycling at night, as this is what ultimately determines whether they choose to cycle or not.

Objective

To facilitate more targeted investments in measures that align with the experiences of cyclists, the needs of train passengers are transposed—as depicted in NS Netherlands Railways' pyramid of customer needs—to environments in which people cycle. This can be shaped into a tool for decision makers to monitor satisfaction amongst cyclists.

Chosen intervention

The resulting cycling pyramid follows the same structure as the customer needs pyramid and features three main levels: dare, able, and invite to cycle. Before daring to cycle, cyclists must first feel safe. Once they feel safe, the infrastructure must be designed in a way that allows them to be able to cycle quickly and conveniently. When the dare and able to cycle elements are established, the trick then is to entice these new cyclists into cycling more frequently and over longer distances.

Lessons learned

1. Research and monitoring of the cycling experience (e.g., through the Amsterdam Bicycle Satisfaction Monitor) revealed that cyclists deem speed to be less relevant than we previously assumed; instead, cyclists find the attractiveness of cycling routes much more important. Ξ

64

2. The Netherlands is a cycling country, and most Dutch people dare and are able to cycle; in short, the cycling pyramid's base is already well established in the Netherlands. Now it is time to devote greater attention to the top of the pyramid, where cycling is made more attractive. Now, not only more people want to cycle, people also cycle more often and cycle over longer distances.

"Before daring to cycle, cyclists must first feel safe."

Location: National

Duration of the project: 2018-2019

Involved organisations: National Railways (NS), Goudappel Coffeng, City of Amsterdam

Read more: Conference paper (EN) PROJECT INFC

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Social Cost-Benefit Analysis

Reason for intervention

The bridge over the Amsterdam-Rhine Canal (Dafne Schippers-bridge) connects a relatively new developed city district with the existing neighbourhoods and is therefore part of the cycle route between Leidsche Rijn and the centre of Utrecht. The bridge contributes to a better, faster and safer cycling network, but to understand the social costs and benefits of this intervention, Decisio was asked by the municipality to create a Social Cost-Benefit Analysis (SCBA) of this project.

Objective

The objective of the SCBA is to analyse whether the costs and benefits of such intervention have a positive or negative effect on the interested society. The SCBA is a powerful tool that allows policymakers to better understand the social impacts of specific interventions, in this case of cycling infrastructure like the construction of the Dafne Schippers-bridge.

Chosen intervention

The costs of building this bridge consist of building the bridge, moving a school from one area to the other and future maintenance and management of the bridge. The total costs were around $\in 25$ million. Once the bridge can be utilized, on average it will save 700 meters for 7,000 commuters on a daily basis. This saves travel time by approximately three minutes per person. Other important effects of this intervention are the saved CO2 emissions and the health effects, due to the modal shift of cars to bicycles. In total, the benefits are predicted to be as high as $\notin 46$ million. This gives a result of $\notin 21$ million of perceived social benefits.

Lessons learned

1. Being Decisio's first Bicycle SCBA, it taught that it is possible and feasible to calculate the social costs and benefits of bicycle projects.

2. Another important lesson learnt is the importance of looking at all the social effects of the project and not only at the direct effects for cyclists. In fact, in this study the costs of replacing the school building before its end-of-life cycle due to the construction of the bridge were taken into account, as well as



66

the effects on public transport and other factors. This allowed for a complete and clear picture of the case.

"The SCBA is a powerful tool that allows policymakers to better understand the social impacts of specific interventions."

> **Location:** Utrecht, Oog-in-Al

Duration of the project: 2017 (SCBA delivery time 2 months)

Involved organisations: Decisio

Read more: Decisio's report (NL) PROJECT INFO

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Bicycle Vision Rotterdam

Reason for intervention

In 2019, the City of Rotterdam released its bicycle vision. The reason to create such a document is to summarize the city's ambitions and plans in the field of cycling and to align budgets accordingly. Rotterdam, unlike many other Dutch cities, was rebuilt after World War II, and therefore it resembles some North American cities. In recent years, the city is moving from car-oriented planning to pedestrianand cycling-friendly planning, with focus on mixed-used, welcoming, safe, and comfortable streets. The Bicycle Vision is a large part of this change.

Objective

The objective of Rotterdam's bicycle vision was to use cycling as a transition tool to a better quality of life in Rotterdam. Since cycling touches in so many fields (mobility, health, economy, liveability), it can be used to take Rotterdam a step further.

Chosen intervention

Rather than just focusing on infrastructure, the vision stresses the importance of diversity of users, bicycle parking, the bicycle as an economic force, etc. In addition, the vision calls for the formation of Rotterdam's Bicycle Alliance: a collaboration that aims to further develop the bicycle culture in the city.

Lessons learned

1. Cycling is more than just lanes. In order to create a successful cycling city, we need to look at the city in a holistic way. For instance, how can the city work with teachers, parents, and children to promote cycling? How does it affect the learning quality of pupils? And what does it mean about the daily life and development of children?

2. We have to understand how different groups in the city see their mobility options. Cycling is more than just a way to go around, it's also a way of living.

3. How can we make the journey of the cyclists as comfortable as possible? It's not only the routes, but other factors like parking and wayfinding are highly relevant as well.





68



"We have to understand how different groups in the city see their mobility options."

> Location: Rotterdam

Duration of the project: 2018 - 2019

Involved organisations: Municipality of Rotterdam, Humankind, Dutch Research Institute for Transitions, Studio Bereikbaar

Read more: City of Rotterdam (NL) PROJECI