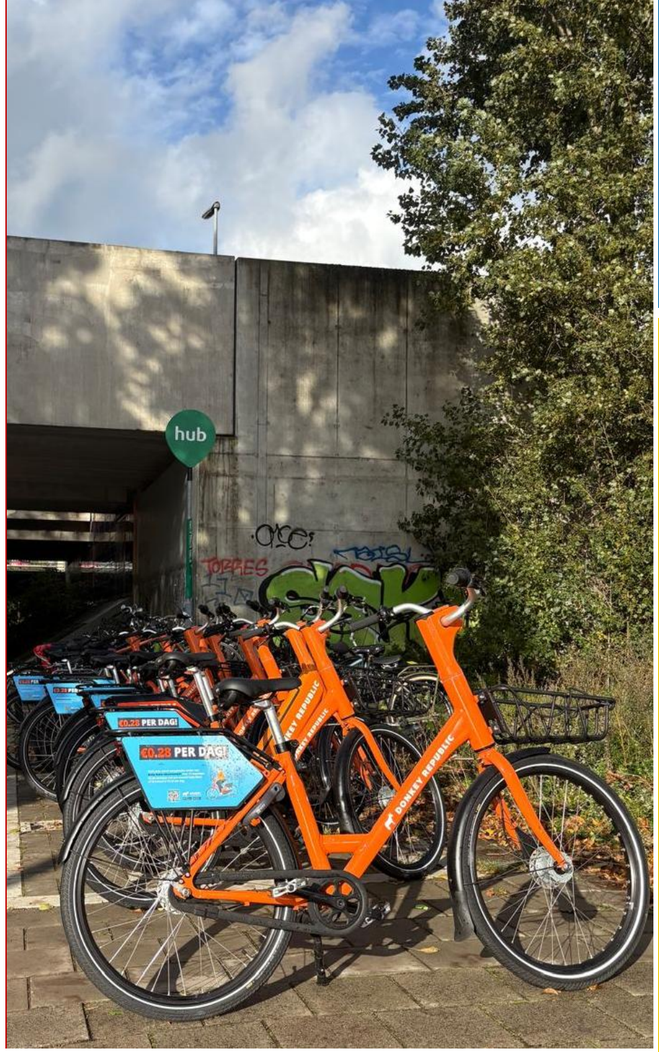
City of Utrecht

Social benefits of shared mobility systems in the Netherlands



POLIS25
ANNUAL CONFERENCE
26-27 November 2025
Royal Jaarbeurs | Utrecht, Netherlands

📌 **Thursday, 27 November 2025**
⏱️ **9:00- 11:15**

SESSION 4E: Two Wheels to Share

SPEAKERS

Hannah Habekotté, Haskoning
Paolo Ruffino, Haskoning

Haskoning
Enhancing Society Together

Shared mobility at Haskoning

Hannah Habekotté

- Shared mobility expert and spatial planner
- National program ‘Natuurlijk!Deelmobiliteit’

Paolo Ruffino

- Spatial and Transport Economist & Planner
- Coordinates a knowledge group in Economics at Haskoning

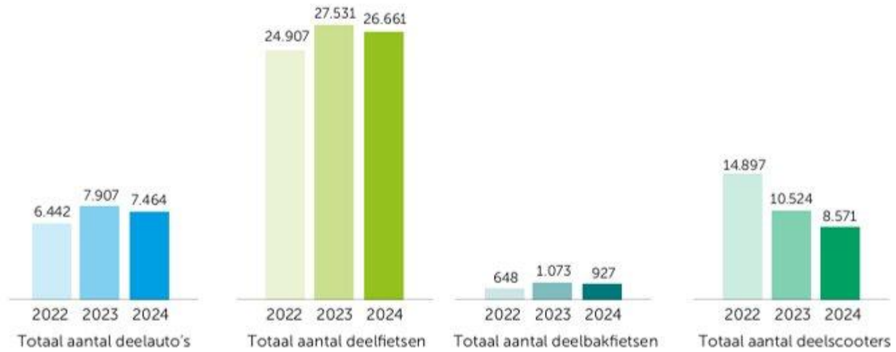
Haskoning

- Leading Global Engineering Consulting firm
- 6800+ colleagues globally in 30+ countries
- More than 15 shared mobility experts
- Working in both the Netherlands and abroad
- Policy, strategy, research, implementation

Haskoning
Enhancing Society Together

Shared mobility isn’t always a profitable business

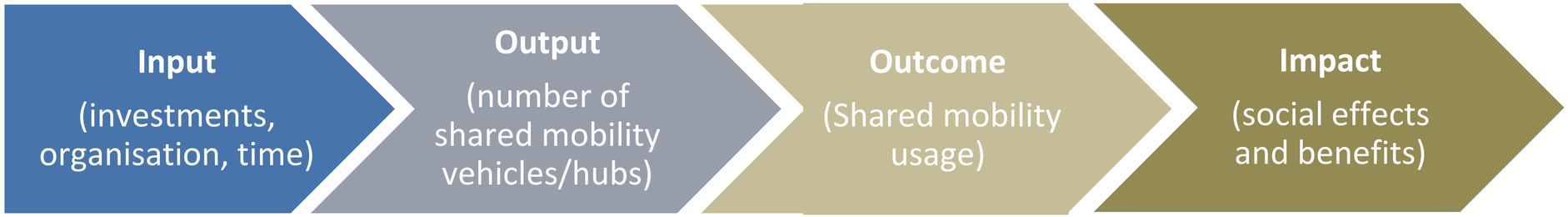
- The past decade, the Netherlands has seen rapid growth in Shared Mobility
- However, in recent years, the growth has declined
- Despite strong desires for regional shared mobility systems, the market is not profitable enough to achieve desired densities and regional coverage
- More municipalities and governments are considering investing in shared mobility through regional tenders or subsidies
- **However, why would you invest in something unprofitable?**



Figuur 1. Ontwikkeling aanbod deelvoertuigen 2022-2024

By illustrating societal benefits, the required public investments can be justified

- Social cost-benefit analyses (SCBA) have been used for decades in large infrastructure projects. By being able to not only quantify impact but monetize it, impact can be justified
- Unlike for Public Transport, there is not a shared concensus that shared mobility is a public service
- Researching the societal benefits and costs can contribute in the meaningful dialog between policy makers and decision makers

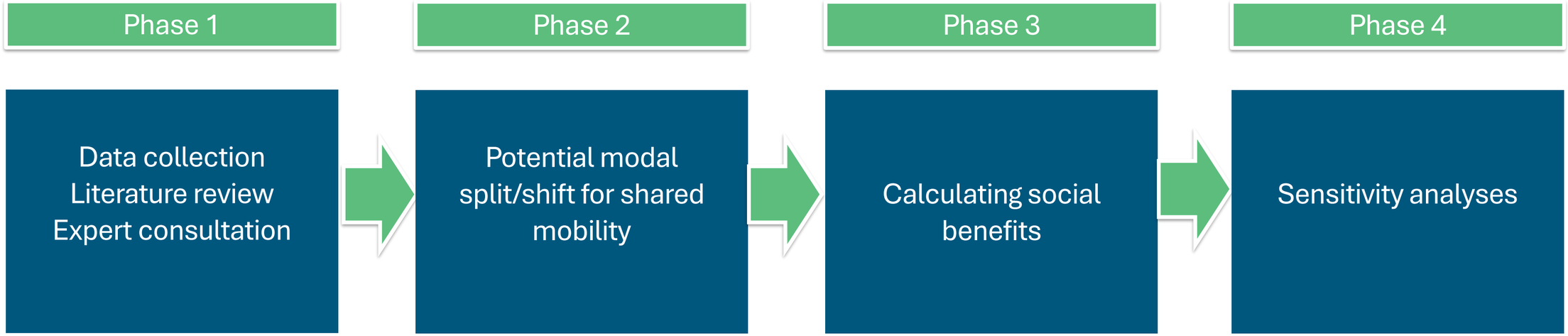


Our research approach

- Often a *'light'* approach, following Dutch 'MKBA' guidelines, works best for the scope and available information

- In the Netherlands, not every shared mobility system receives a government contribution
  - Showcasing the social benefits of the current and future systems

- In systems that receive governmental contributions, we can illustrate both costs and benefits



What is a Social Cost-Benefit Analysis?

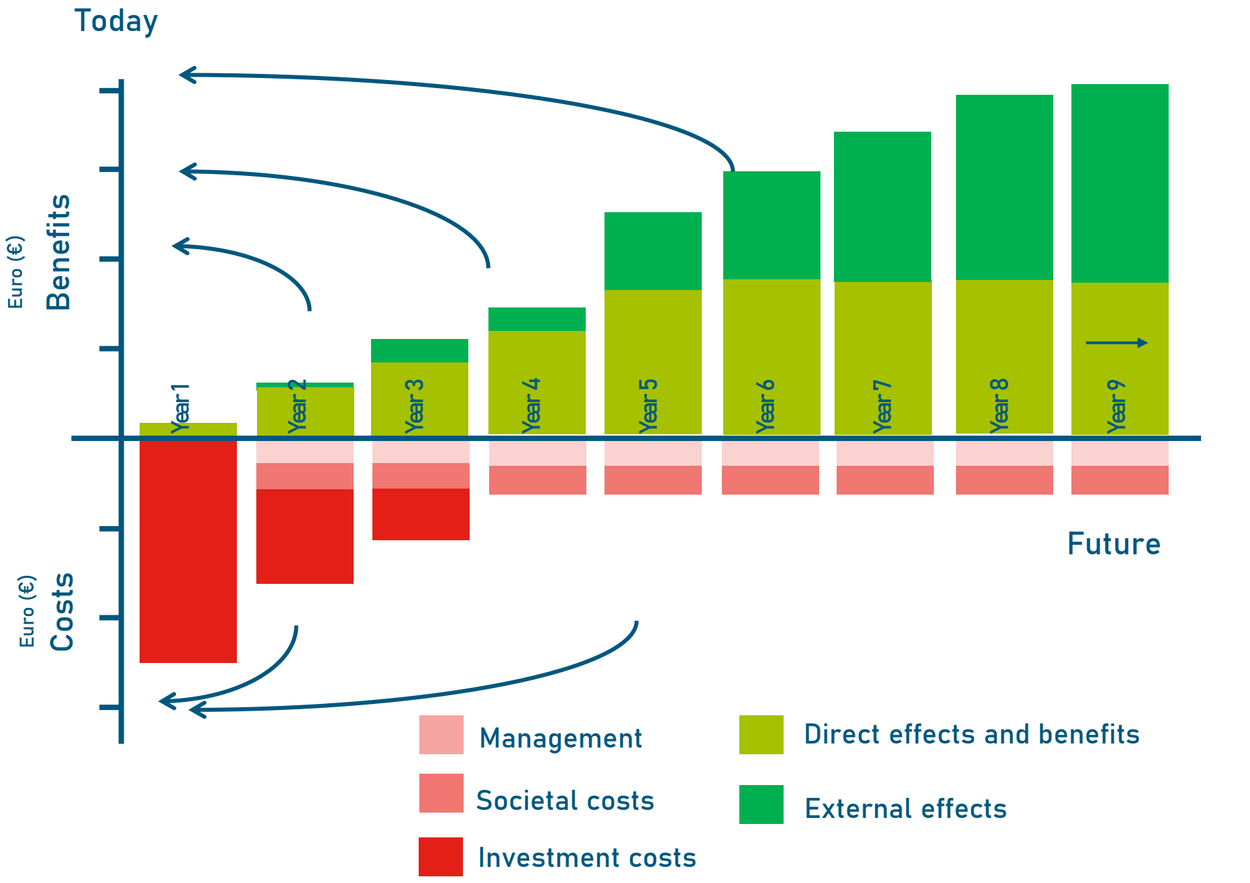
Focus: societal welfare

Real investments
(mobility hubs, investments of private operators, management, etc.)

Are compared to the

Broader Societal Effects of Shared Mobility
(accessibility for travellers, spatial gains, environmental and economic effects felt by society as a whole)

Useful calculation framework to value shared mobility!

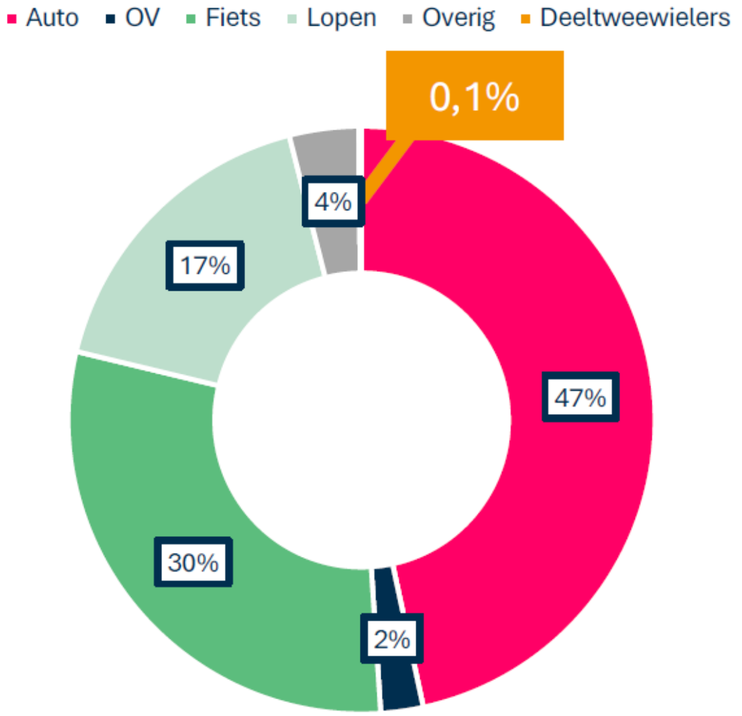


Mobility changes, modal shifts are essential in measuring social impact

- In the Netherlands, shared mobility rides are only a very small percentage of the current trips per day
  - This is also strongly regionally dependend

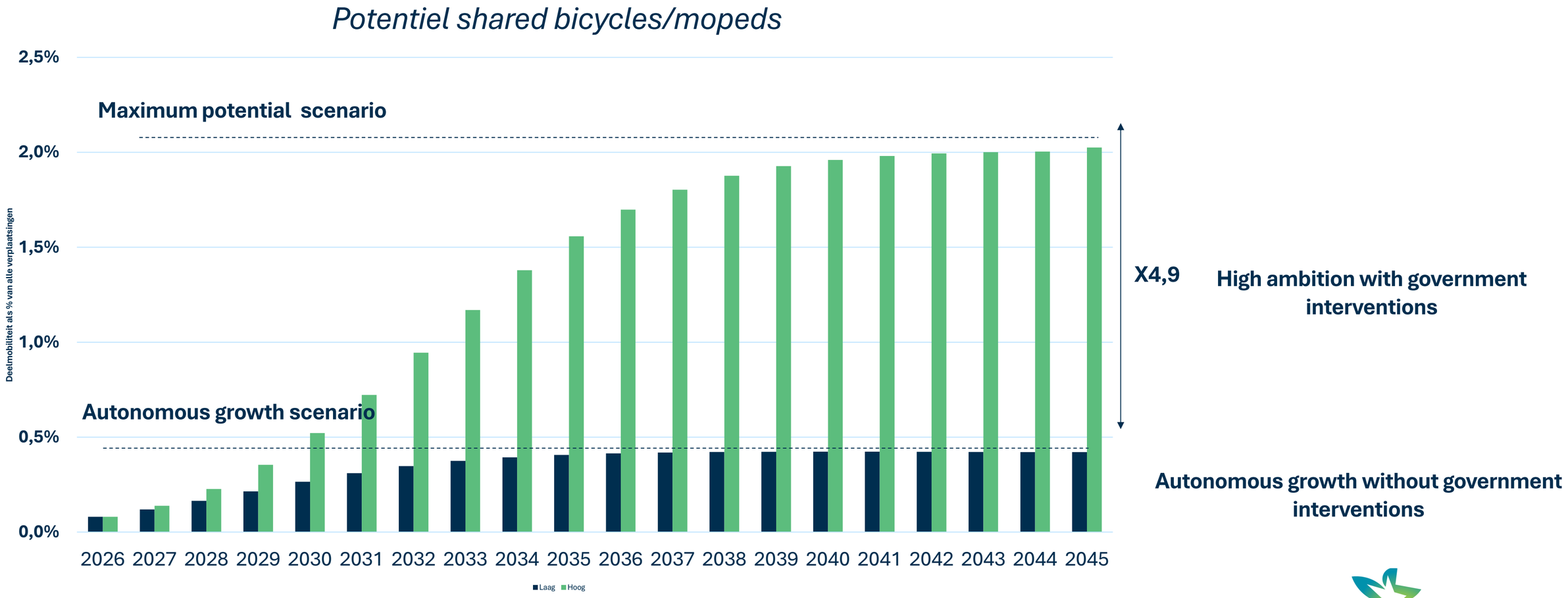
- Based on current use and projected regional growth, an estimation can be given of the potential ‘modal share’ in the future.

- Additionally, different scenarios can be generated depending on desired shared mobility system choices as well as external policy decisions

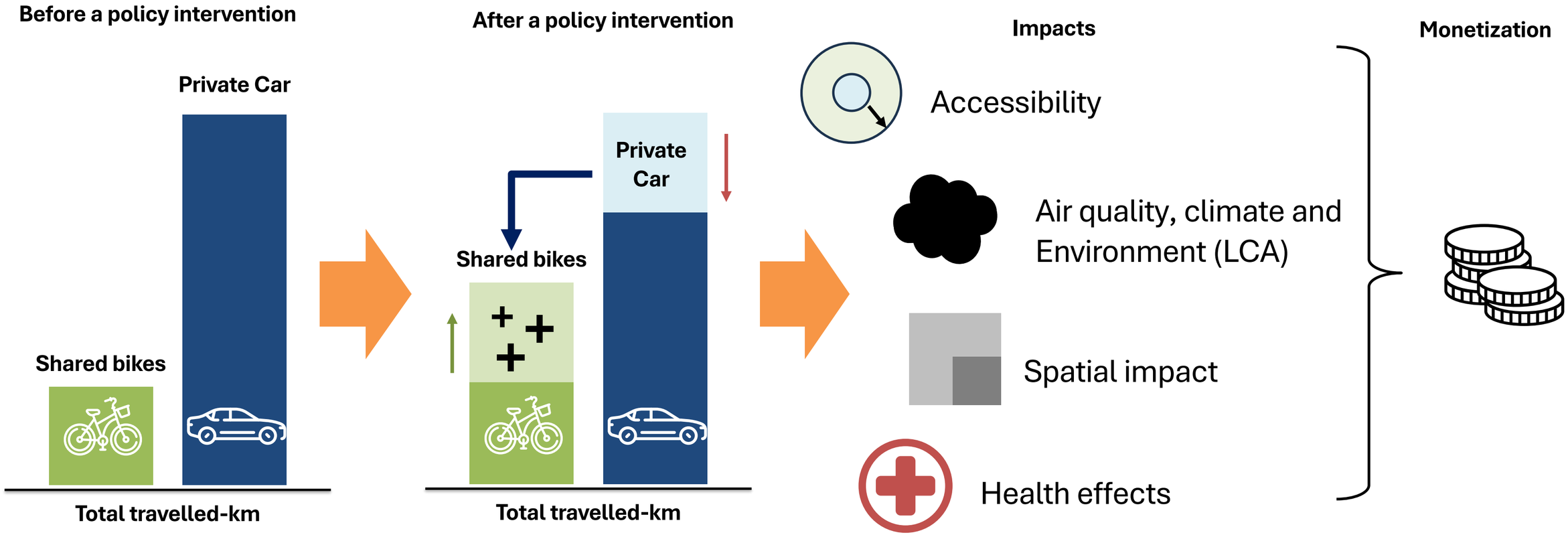


Bron: ODiN + data van aanbieders

Social benefits are not generated within a year, but over a longer time period



Modal shift estimates are combined with impact assessment (e.g. Life Cycle Assessment)



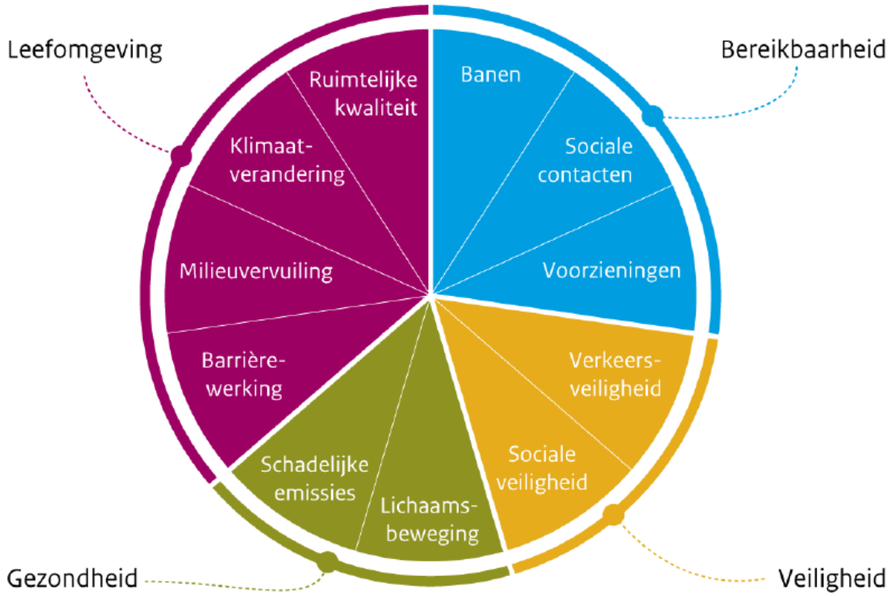
A closer look at social benefits of shared mobility

- In The Netherlands, societal impact is often measured from a ‘Brede welvaart’-perspective
  - Societal wellbeing

- This approach does not not only consider material but also immaterial wellbeing

- For mobility, the wellbeing goals can be categorized in
  - Accessebility
  - Safety
  - Liveability
  - Sustainability / spatial impacts
  - Health and wellbeing

- Most of these indicators can be quantified and monetized, giving a good understanding of the impact of different mobility systems.



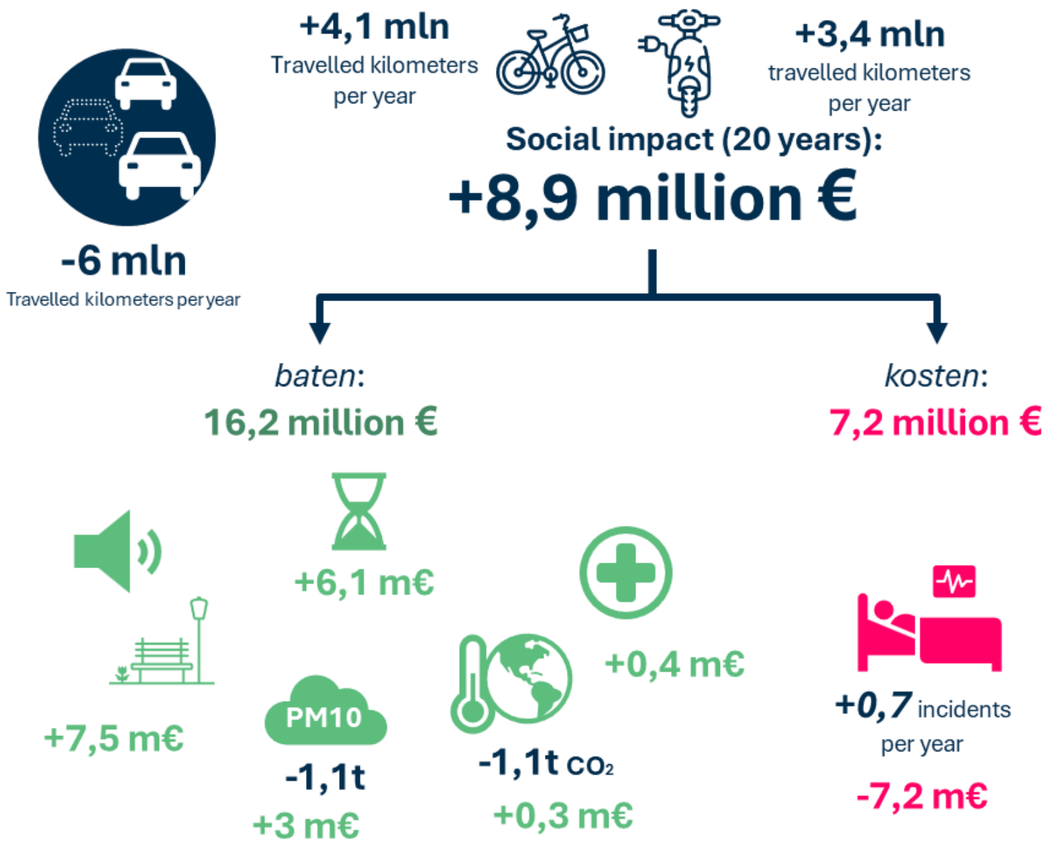
A closer look at social benefits of shared mobility

- **Accessibility:** such as travel reliability and decongestion
  - One of the most important benefits in all the studies we have executed

- **Liveability:**
  - Spatial impact: Noise nuisance, infrastructural costs, spatial impact
  - Sustainability: CO2 and NOx emissions

- **Health and wellbeing:** general health costs, employee productivity

- **Safety:** increased exposure of active modes to traffic could have negative consequences (in isolation!)

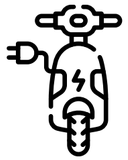


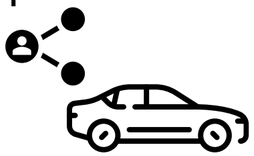
Key insights

The direct impact can be just as impressive but are highly dependent on regional context and the replaced modality

- **Reducing CO2 emissions (CO2eq/passenger-km)** with respect to private car (average)

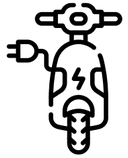
 **-81%**

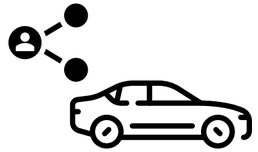
 **-62%**

 **-51%**

- **Relieving spatial pressure** with respect to private mobility

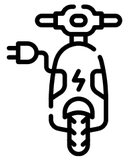
 **+1,2 m 2**

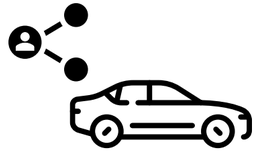
 **+2 m 2**

 **+86 m 2**

- **Reducing car usage in urban areas**

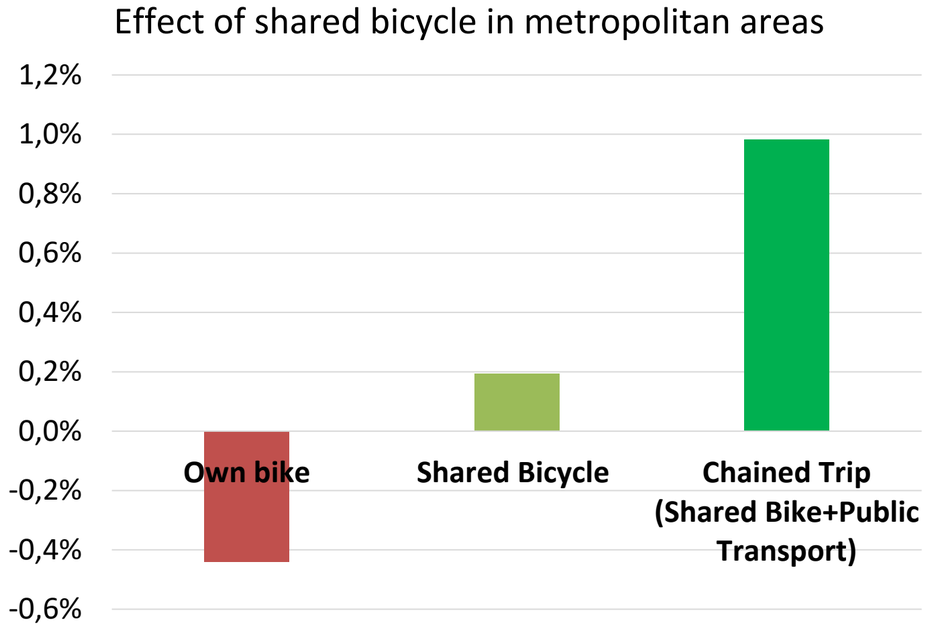
 **Extension of PT**
Limited effects on Car Use

 **High replacement of short car trips**

 **Avoidance of 2nd or 3rd Car ownership**

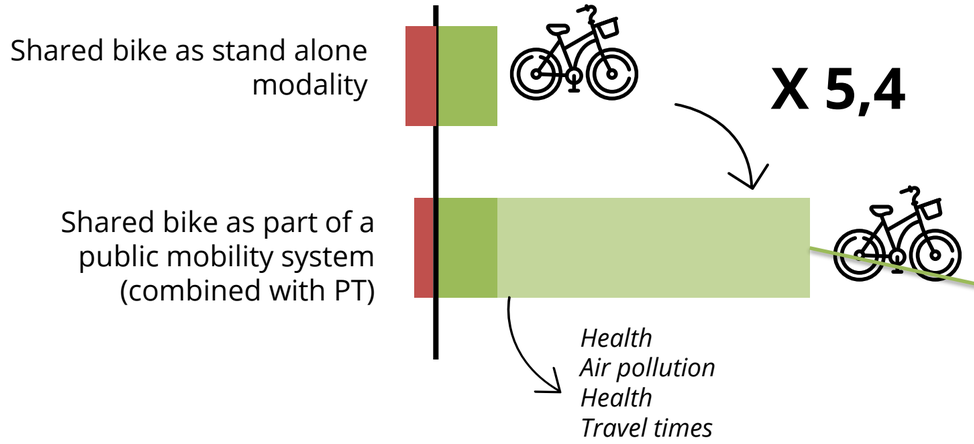
Key insights

- **Replacement of active mobility trips**
- Early evidence suggested that shared bicycles were replacing or competing with private cycling and walking
- However, this interpretation stemmed from a **limitation of survey data** based on stated preferences. When the entire trip chain is considered, shared bicycles actually **function as an extension of public transport journeys**.
- Although some substitution does occur, it is largely **offset by the overall increase in shared mobility rates** in combination with public transport

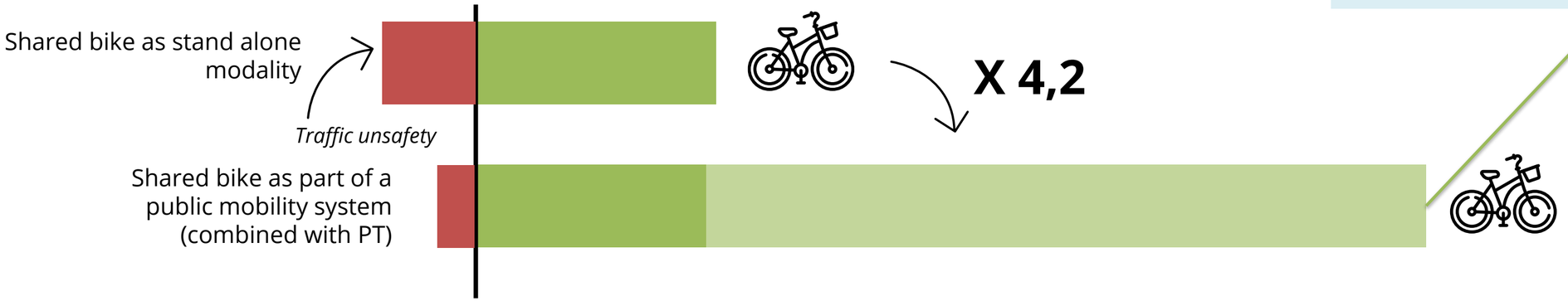


Key insights

Rural areas (societal benefits and costs)



Urban areas (societal benefits and costs)



Added value of a (regional) Public mobility system

More reliable travel times
Extended accessibility
Less waiting time
Decongestion (more competition with car use)

Conclusions

- Our different research projects have illustrated that
  - The social benefits of shared mobility are significant
    - Specifically **accessibility** and **spatial benefits** are impactful
  - **Traffic safety** is one of the most important negative cost factors for society. Safer environments for cyclists, moped- and scooter drivers are essential
- The social impact is strongly linked to the regional mobility system and the change that can be created within that system
- More research is needed in the behavioural effects (avoid “garbage in – garbage out” problem)

Recommendations

- Social Cost Benefit Analyses can be used for both ‘ex ante’ as ‘ex post’ as for monitoring throughout
- This type of research could be used to discuss the broader dialog around financing for shared mobility
- Involve multiple experts in the process to ensure informed discussions and calculations
- Every research is based on local context and available mobility systems, further research into the generalisation could be interesting

Thank you for your attention!

For more information:

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