



Value capture funding in the Netherlands

A study into the application of value capture funding instruments in the Netherlands







Alternative funding

London

- *'Economic property-based levy'*
- About 30% of funding derived from private parties

Crossrail route



Source: Crossrail

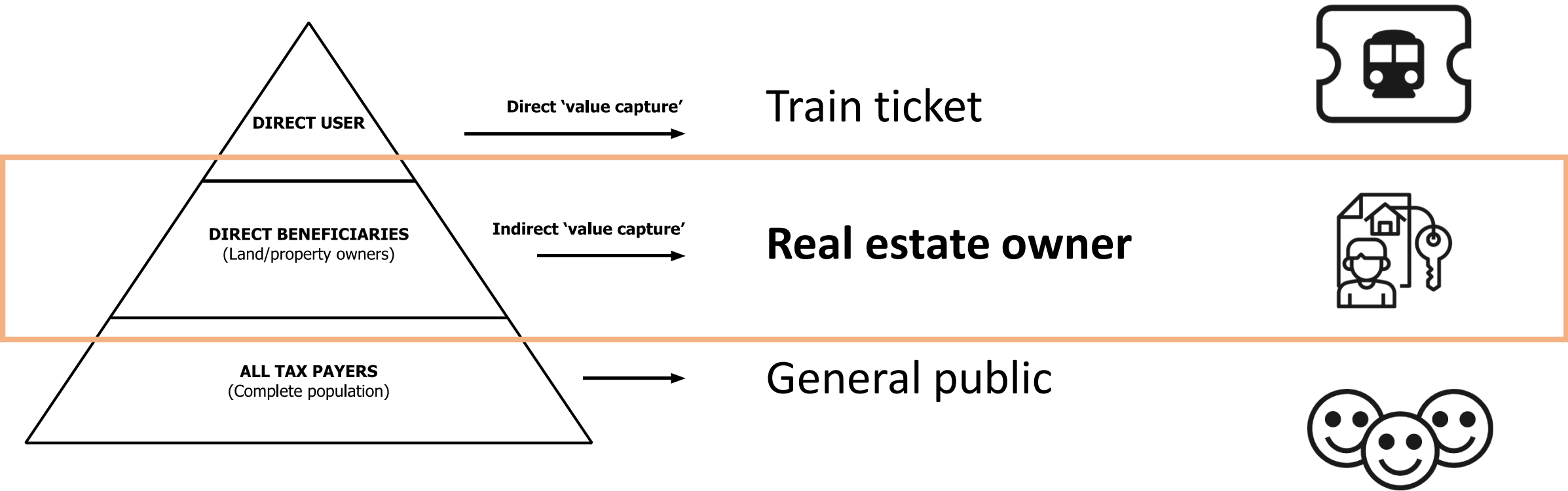
BBC

'Alternative funding'

Funding in addition to regular public funding

Value capturing

Current Dutch infrastructure funding



Problem statement

Rising demand for mobility

Demand for mobility

- Faster than expected
- Mainly regional around cities



(NMCA, 2017)

Problem statement

Rising demand for housing

Demand for housing

- Need for 75.000 dwellings a year
- Desire to construct next to public transportation
- Accessibility is key



Problem statement

Decrease in funding

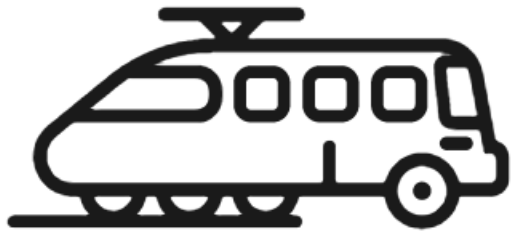
Decreasing funding

- Existing infrastructure needs maintenance
- More private involvement
- Subsidies



Problem statement

Funding problems



Demand for mobility



Housing in accessible locations



Decreasing public infrastructure funds

Research proposal

Goal and question

Goal

*The identification of **to what extent value capture instruments can be applied** to fund public transportation infrastructure in the Dutch context*

Question

*How can the emerging public transportation infrastructure funding gap be filled by **capturing value accrued by private parties benefiting from public investments** in public transportation infrastructure in the Netherlands?*



The research

Approach

Presentation setup

- Step 1: Understanding
- Step 2: Studying
- Step 3: Applying
- Step 4: Concluding

€ 285.000 k.k. [Wat worden mijn maandlasten?](#)
Verkocht



€ 315.000 k.k. [Wat worden mijn maandlasten?](#)
Verkocht



Understanding

Step 1: Research background

€ 285.000 k.k. [Wat worden mijn maandlasten?](#)
Verkocht



Distance to station=

3 kilometers

€ 315.000 k.k. [Wat worden mijn maandlasten?](#)
Verkocht



Distance to station=

500 meters

Understanding

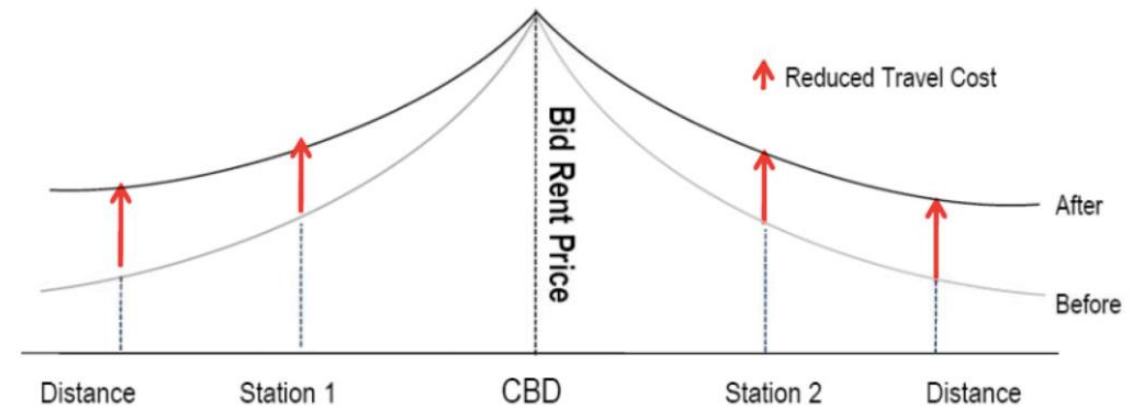
Step 1: Accessibility and land values

Classical theory on land value

- Cost of transportation decides land prices
- Near center of town (CBD) higher value

More factors to land value

- Amenities
- Parks
- ...



(Kim & Lahr, 2013)

Understanding

Step 1: Transportation upgrade value change characteristics

Contextual characteristics

- *Healthy real estate market*
- *Traffic congestion*

Public transport infrastructure characteristics

- *Travel time to center of town*
- *Link to center of town*
- *Regional catchment area*
- *Frequency of service*
- *Image of transportation*

Development area characteristics

- *Possibility for densification*
- *Real estate function*
- *Nuisance*
- *Alternative transport forms*
- *Supportive public policy*

Understanding

Step 1: Transportation upgrade value change characteristics



Understanding

Step 1: Transportation upgrade value change

What if a new station opens or transportation is upgraded?:

- Light rail or regional connections
- 3% - 5% rise in value
- Within the first 1 km
- Depending on local characteristics



Understanding

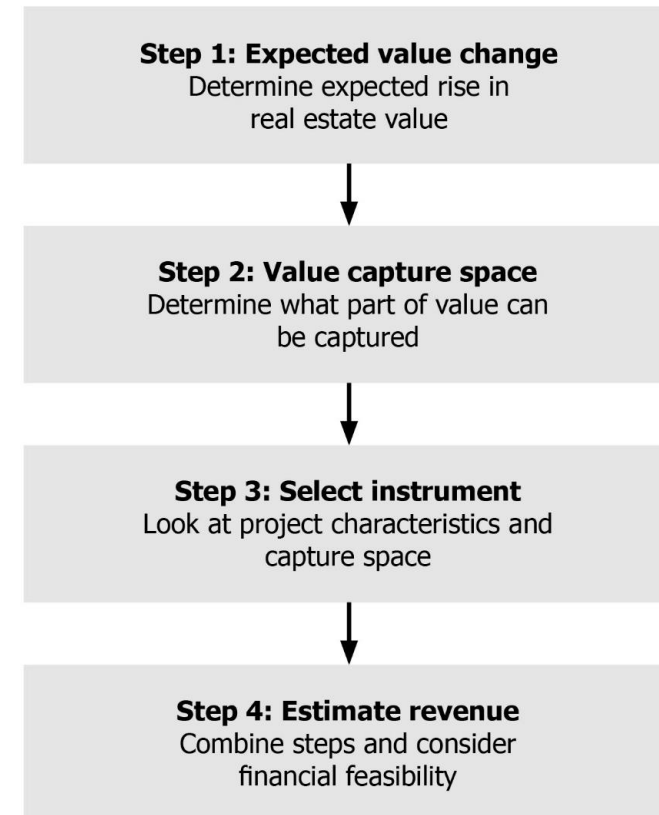
Step 1: Value capture process

What is the change in value?

How much can we capture?

How do we capture it?

What is the return?



Understanding

Step 1: What is the change in value?

Case characteristics

- Contextual characteristics
- Public transport infrastructure characteristics
- Development area characteristics

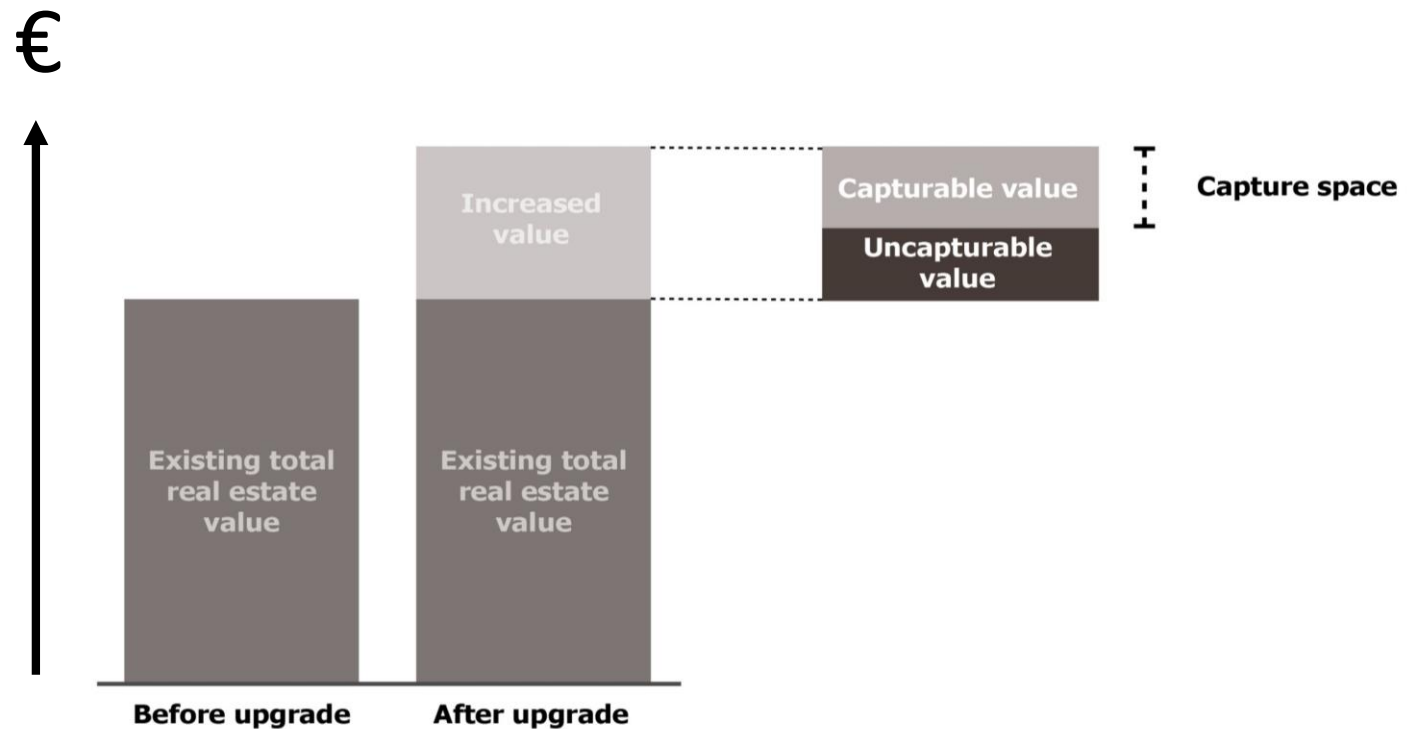


Understanding

Step 1: How much can we capture?

Capture space:

- Development level
- Type of landownership
- Land ownership dispersion
- Timing of contract
- Degree of capitalization



Understanding

Step 1: How much can we capture?



Land ownership



Timing

Understanding

Step 1: How do we capture it?

Local Dutch instruments

Foreign instruments cannot be copied

Promising instruments

- Levies on properties (OZB)
- Access charges (Heffing)



Understanding

Step 1: How do we capture it?

Promising instruments

- Area property tax
- Redirection of property tax
- Betterment levy
- Additional transfer tax
- Access charges



Understanding

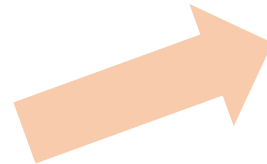
Step 1: What is the return?

Legal feasibility

Public party has to prove who benefits and how much

Governance feasibility

Is the public party capable of efficiently capturing value



Financial feasibility

Can the party be sure of the funding through value capturing

Understanding

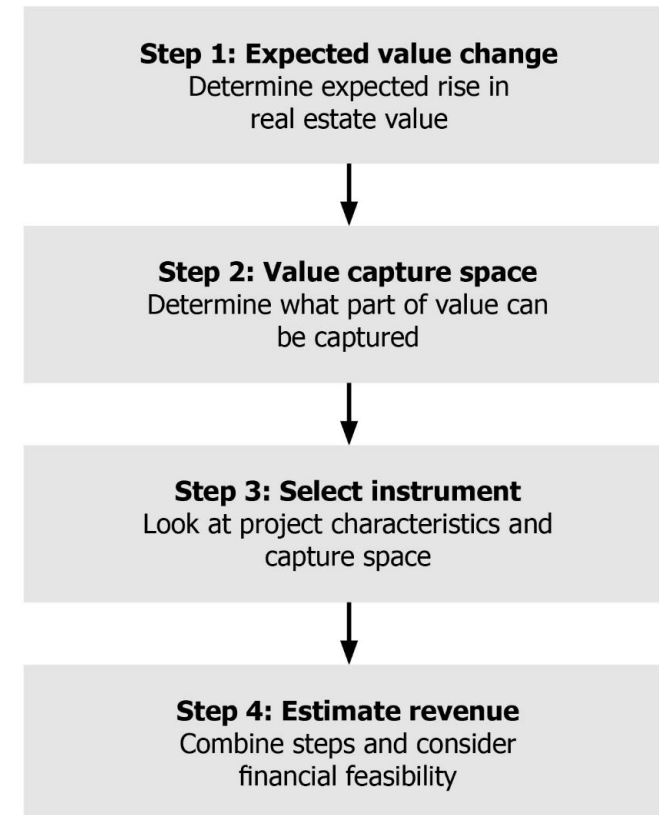
Step 1: Value capture process

What is the change in value?

How much can we capture?

How do we capture it?

What is the return?



Studying

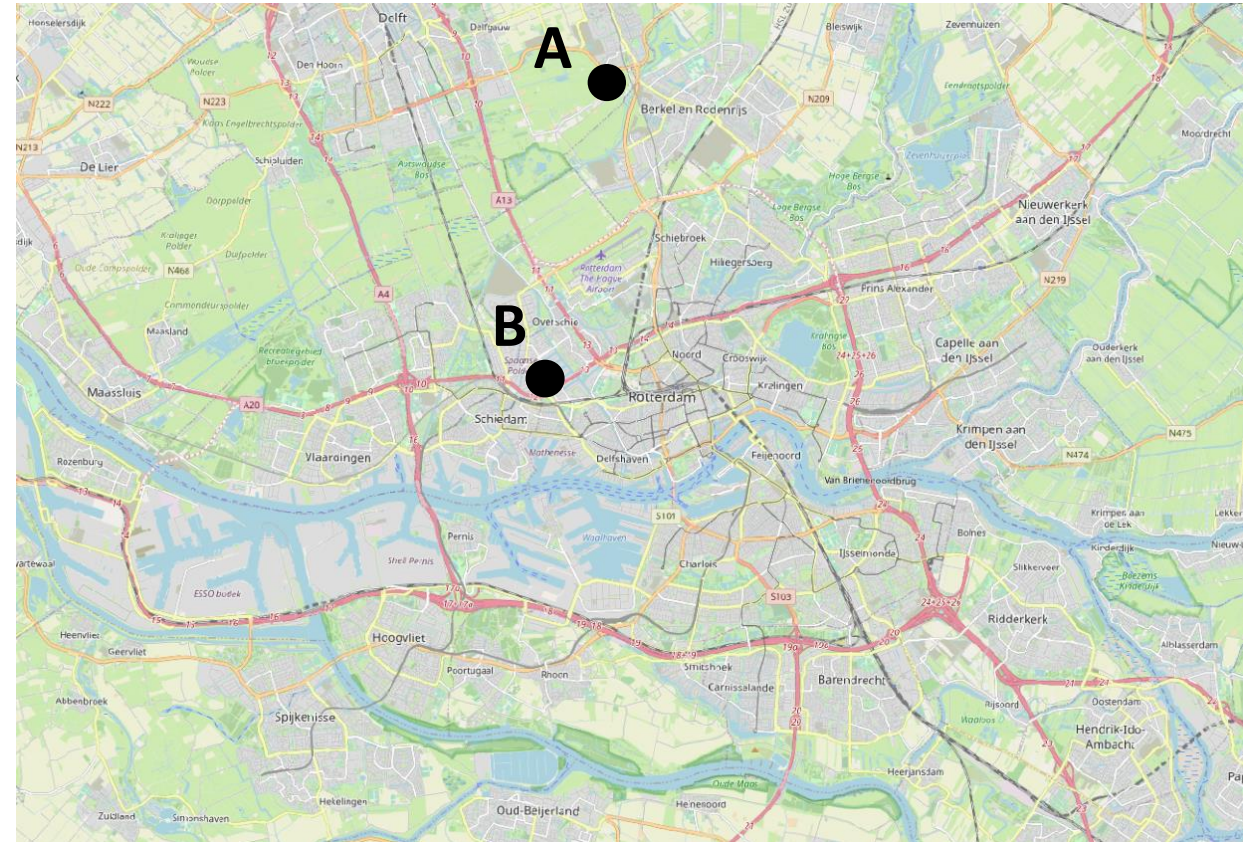
Step 2: Case study

A. Retrospective case

- Randstadrail, Berkel Westpolder
- VINEX greenfield location
- Transformation of Hofpleinlijn 2005-2010

B. Prospective case

- Oude Lijn, Van Nelle location
- Inner-city brownfield
- Future NS line transformation



Studying

Step 2: Retrospective case, Berkel Westpolder

The case:

- Transformation of existing rail line + VINEX locations
- National top down approach to funding and development planning
- Mobility project success; high ridership
- Urban area development problematic for municipality

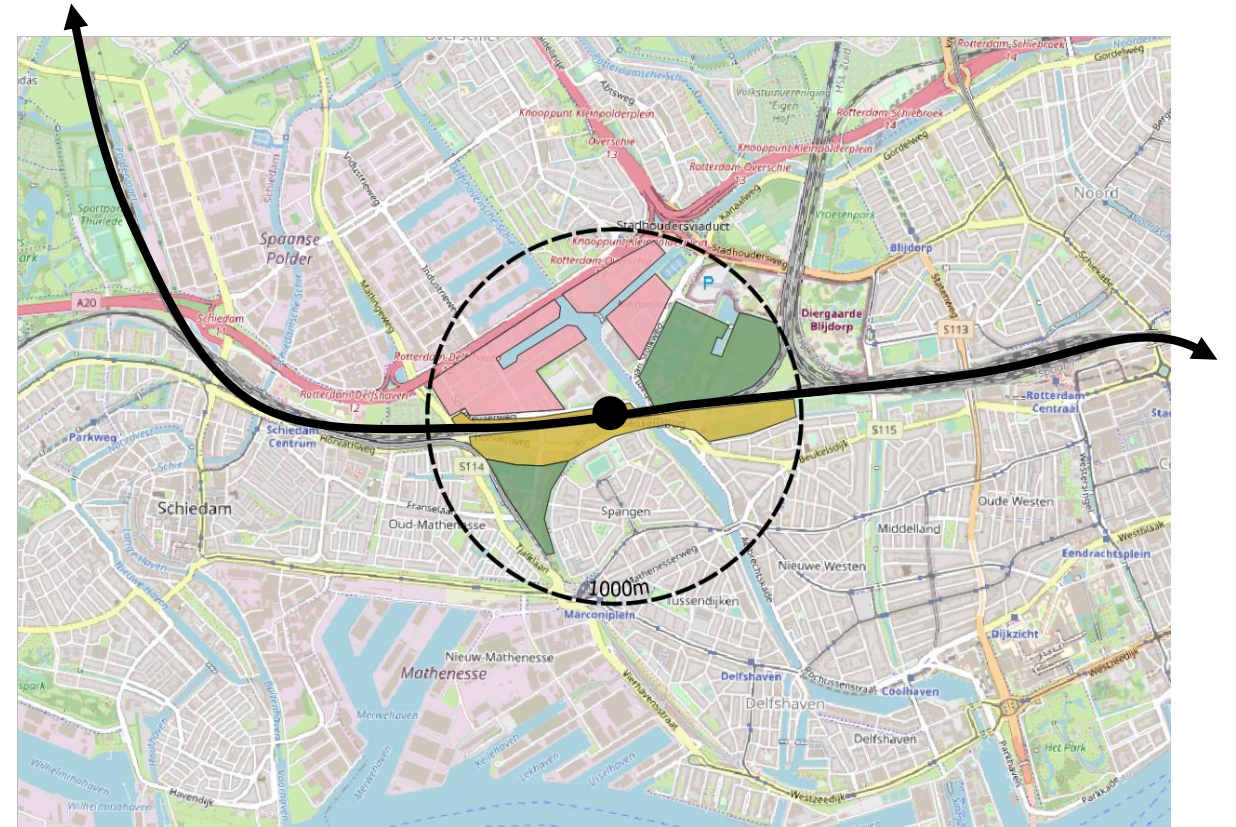


Studying

Step 2: Retrospective case, Van Nelle

The case:

- New station location and transformation of the area
- Inner-city location
- Municipality and region responsible for development



Studying

Step 2: Retrospective case findings, Van Nelle

Findings:

- Rotterdam takes leading role in development
- Space for thousands of homes
- Already near the city center
- Area south of the line already accessible



Applying

Step 3: Expected value change

Berkel Westpolder

- Berkel Westpolder location has high expected rise in value
- 5% increase
- € 100 million value rise in real estate

Van Nelle

- Van Nelle location has medium potential for a value increase
- 4% increase
- € 140 million value rise in real estate

Determinant	Berkel Westpolder	Van Nelle Fabriek
<i>Contextual characteristics</i>		
Healthy real estate market	+	++
Traffic congestion	++	+
<i>Public transport infrastructure characteristics</i>		
Travel time to CBD	++	+
Link to CBD	+	++
Regional catchment area	++	0
Frequency of service	++	+
Image of transportation	++	+
<i>Development area characteristics</i>		
Possibility for densification	+	++
Real estate function	0	+
Nuisance	+	-
Public transport alternatives	+	-
Alternative transport forms/infrastructure	-	--
Supportive public policy	-	++

Applying

Step 3: Value capture space

Berkel Westpolder

- Capture space fully depleted for the Berkel Westpolder case
- When project commenced capture space was already small
- Lack of professional development and planning

Van Nelle

- Captures space is large is planning is in early phase
- Land ownership mainly at municipality
- Timing and professional organization are now important

Applying

Step 3: Instrument selection

Berkel Westpolder

- Today the access charge is the best choice
- At time of development, value capturing through redirection of property tax

Van Nelle

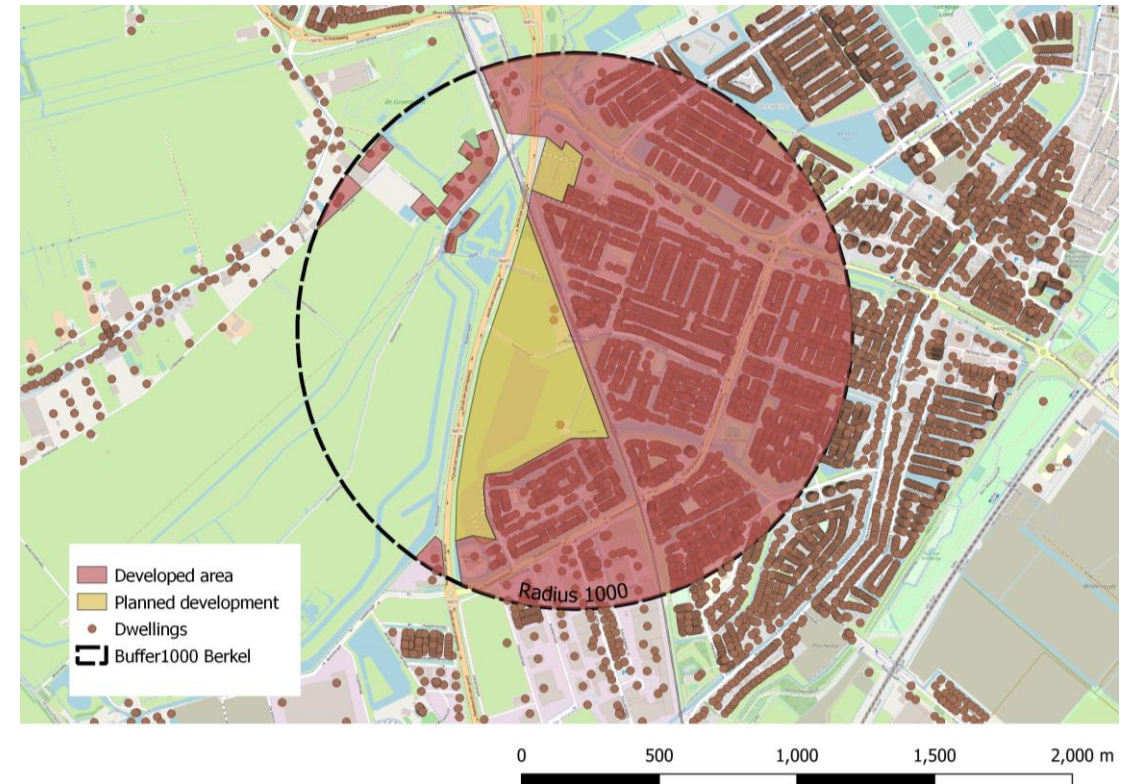
- All instruments can still be used as plan making is in early phase
- Land is all owned by municipality and will development and accessibility be integrated?

Applying

Step 3: Estimation of revenue and financial feasibility

Berkel Westpolder

- Small municipality
- In the past municipality too small and unprofessional
- Value capturing not financially feasible

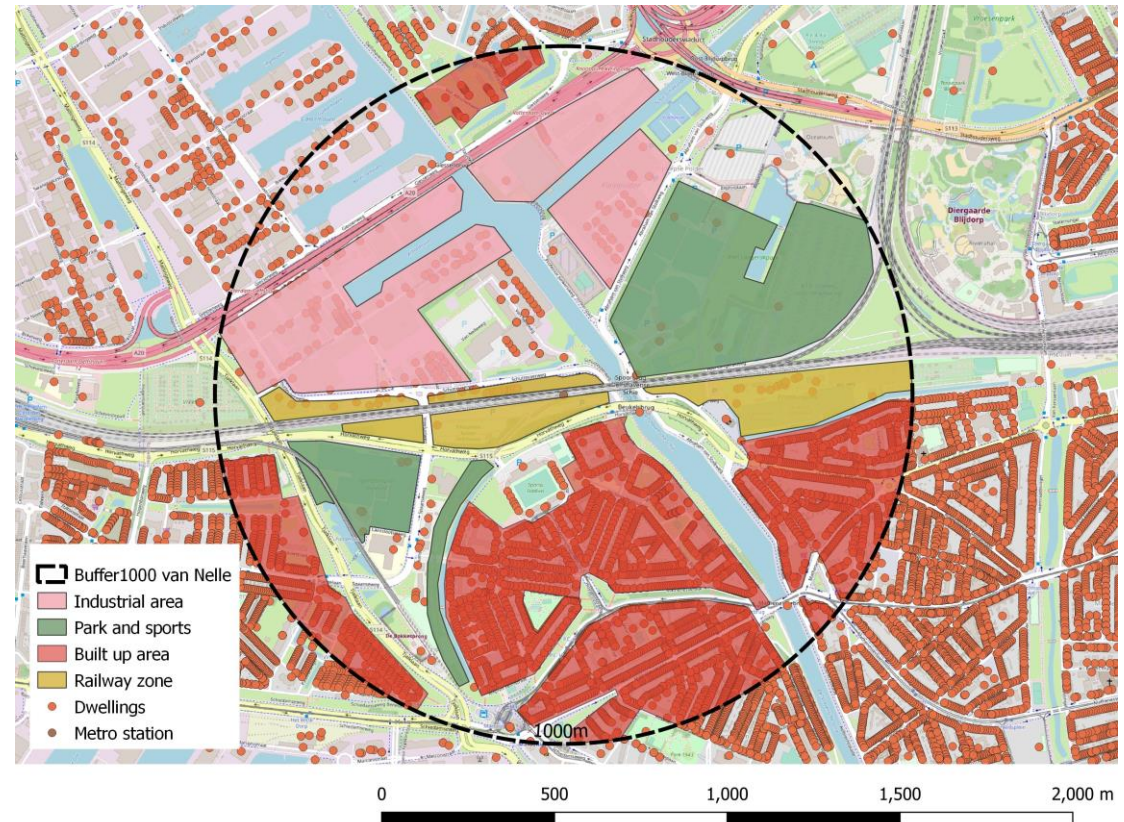


Applying

Step 3: Estimation of revenue and financial feasibility

Van Nelle

- New development
- Early in the process
- Large public organization
- Value capturing might be financially feasible





Conclusions

Research goal

Goal and question

Goal

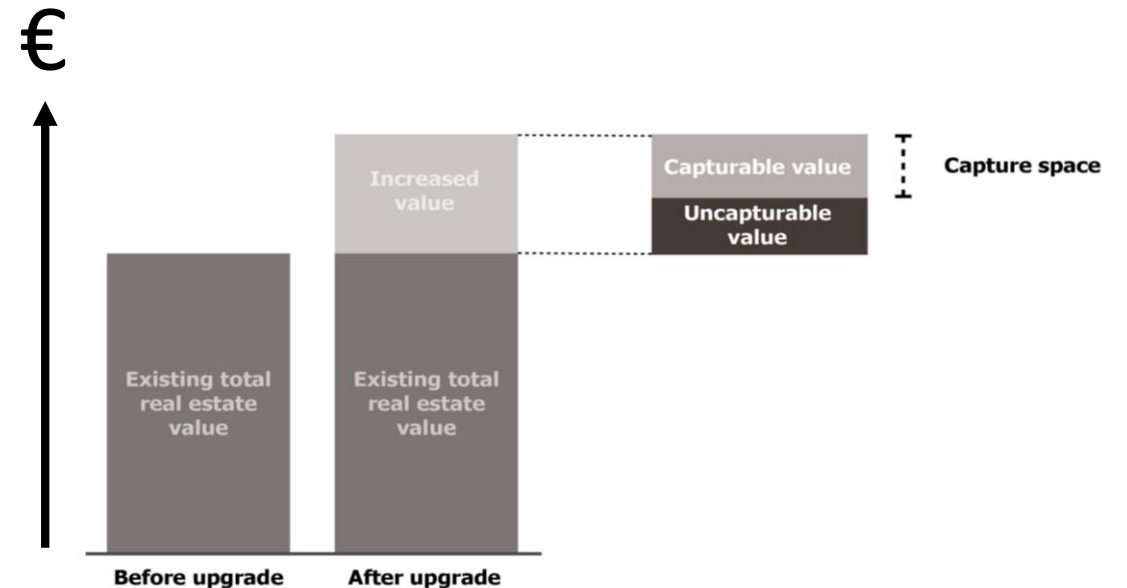
*The identification of **to what extent value capture instruments can be applied** to fund public transportation infrastructure in the Dutch context*

Conclusions

Main conclusions

Capturing value in the Netherlands

- Expected rise in value can be substantial
- The capture space is leading in choice for an instrument
- Dutch instruments are new and require professional organization and a regional approach

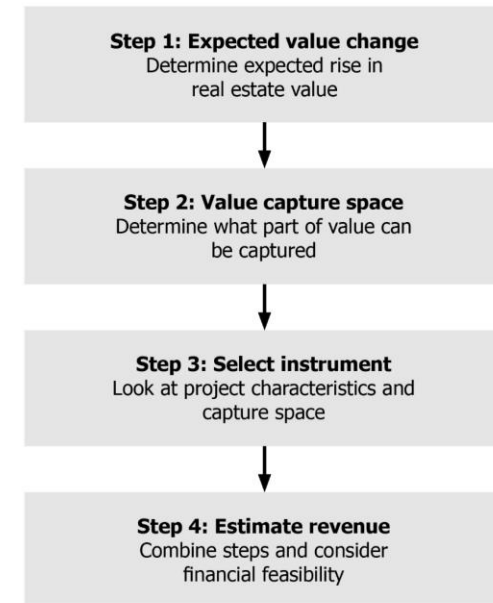


Conclusions

Main conclusions

The capture process

- Find the expected rise in value
- Base instrument choice on capture space
- Create business case considering financial feasibility



Conclusions

Answering the main research question

Question

*How can the emerging public transportation infrastructure funding gap be filled by **capturing value accrued by private parties benefiting from public investments in public transportation infrastructure in the Netherlands?***

- Start early
- Create a professional and preferably regionally operating organization
- Combining infrastructure development with urban development is beneficial
- Take existing Dutch taxation instruments

Discussion

Research limitations

- Limited transferability of foreign examples
- Lessons learned may not be applicable everywhere in the Netherlands
- Advanced statistical models may provide more accurate image of value change



Recommendations

For further research:

- Study more urban development and transit development cases
- Further research into the feasibility and legal risks of performing value capturing
- Research into what changes must be made to Dutch legislation to make the instruments applicable

In practice

- Find a way to standardize the valuation procedure
- Take away the large legal risks by formalizing instruments
- Policymakers should not only look at the increase in value

Value capture funding in the Netherlands

A study into the application of value capture funding instruments in the Netherlands



Picture references

- Front: <https://www.zja.nl/nl/Beatrixlaan-Den-Haag>
- London big ben: <https://www.alberttencate.com/big-ben-londen/>
- Paris Eiffel tower: <https://gokhan.ozar.net/blog/paris-60s/>
- NMCA: <https://www.ovmagazine.nl/2017/05/nmca-tegen-2040-loopt-het-ov-vast-0928/>
- Final slide: <https://www.dnls.nl/locatie/van-nelle-fabriek-rotterdam>
- NRC vinexwijk: <https://www.nrc.nl/nieuws/2017/06/09/wonen-zonder-pretenties-10987992-a1562270>
- Brug: <https://www.cobouw.nl/infra/nieuws/2020/06/van-brienenoordbrug-krijgt-nieuwe-boogbrug-bij-slimme-renovatie-101285611>
- <https://secretldn.com/lockdown-london-in-days-coronavirus/>
- https://www.eutouring.com/images_paris_city_life_218.html