

Enabling the adaptive reuse of industrial heritage: A municipal perspective

Studying the involvement of the municipality
in the adaptive reuse process of
industrial heritage buildings in the Netherlands

P5 presentation
27 June 2023
H.L.F. (Nick) Coes

First mentor: A.C. (Alexandra) den Heijer
Second mentor: D.M. (Daan) Bossuyt
Board of Examiners: D. (Dirk) van den Heuvel



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Photo: Menno Emmink via Erfgoed Delft (2021)



Photo: ARES Architecten (2019)



Photo: Broekbakema (n.d.)

Problem statement

significance yet
often vacant

Problem statement

significance yet
often vacant

+

complexity
adaptive reuse

Problem statement

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complexity
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+

shifting role
municipality

Problem statement

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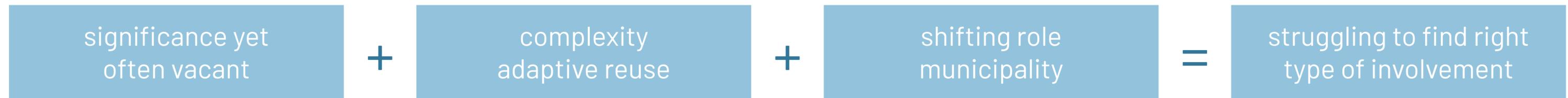
+

shifting role
municipality

=

struggling to find right
type of involvement

Problem statement



This research aims to...
study the involvement of the
municipality in the adaptive reuse
process of industrial heritage
buildings in practice

Research approach

1

Theoretical research

2

Empirical research

3

Discussion

4

Conclusions

5

Research approach

Research questions

How can the involvement of the municipality enable the adaptive reuse of industrial heritage buildings in the Netherlands?

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SQ1

Significance

SQ2

Adaptive reuse process

SQ3

Municipal involvement

SQ4

Public values

Research questions

How can the involvement of the municipality enable the adaptive reuse of industrial heritage buildings in the Netherlands?

SO1

What is the significance and impact of (the adaptive reuse of) industrial heritage for its context?

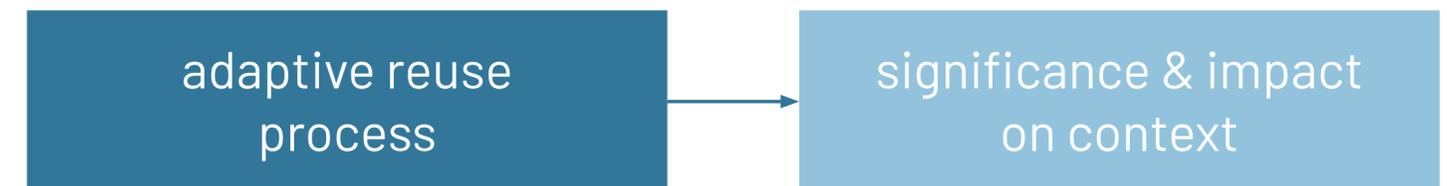
significance & impact
on context

Research questions

How can the involvement of the municipality enable the adaptive reuse of industrial heritage buildings in the Netherlands?

SO2

What are the different steps in the adaptive reuse process of (industrial) heritage?



Research questions

How can the involvement of the municipality enable the adaptive reuse of industrial heritage buildings in the Netherlands?

SQ3

How are municipalities involved in the adaptive reuse process of industrial heritage buildings?

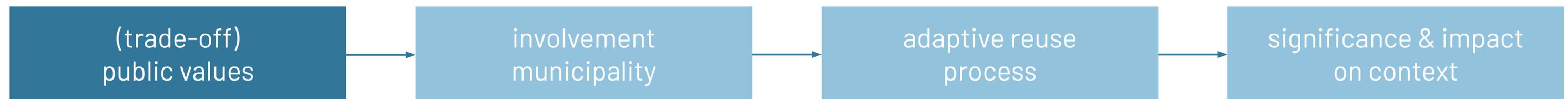


Research questions

How can the involvement of the municipality enable the adaptive reuse of industrial heritage buildings in the Netherlands?

SQ4

Which (trade-off) values can municipalities take into consideration for their choice of involvement in the adaptive reuse process of industrial heritage?



Research methods



Research methods

Approach

Theory

Empiry

Discussion

Conclusions



Research methods



Research methods



Research methods



Theoretical background

Theoretical background

Significance

Adaptive reuse process

Municipal involvement

Public values

Why industrial heritage?

[in·dus·tri·al her·i·tage]

“the remains of industrial culture which are of historical, technological, social, architectural or scientific value” (TICCIH)

Why industrial heritage?

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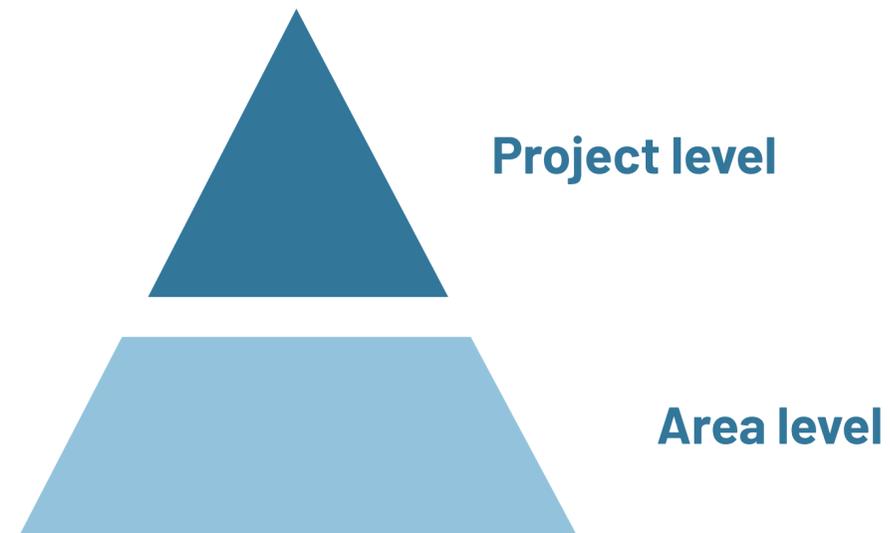


Source: Own figure, division adapted from McDonald & McMillen (2011)

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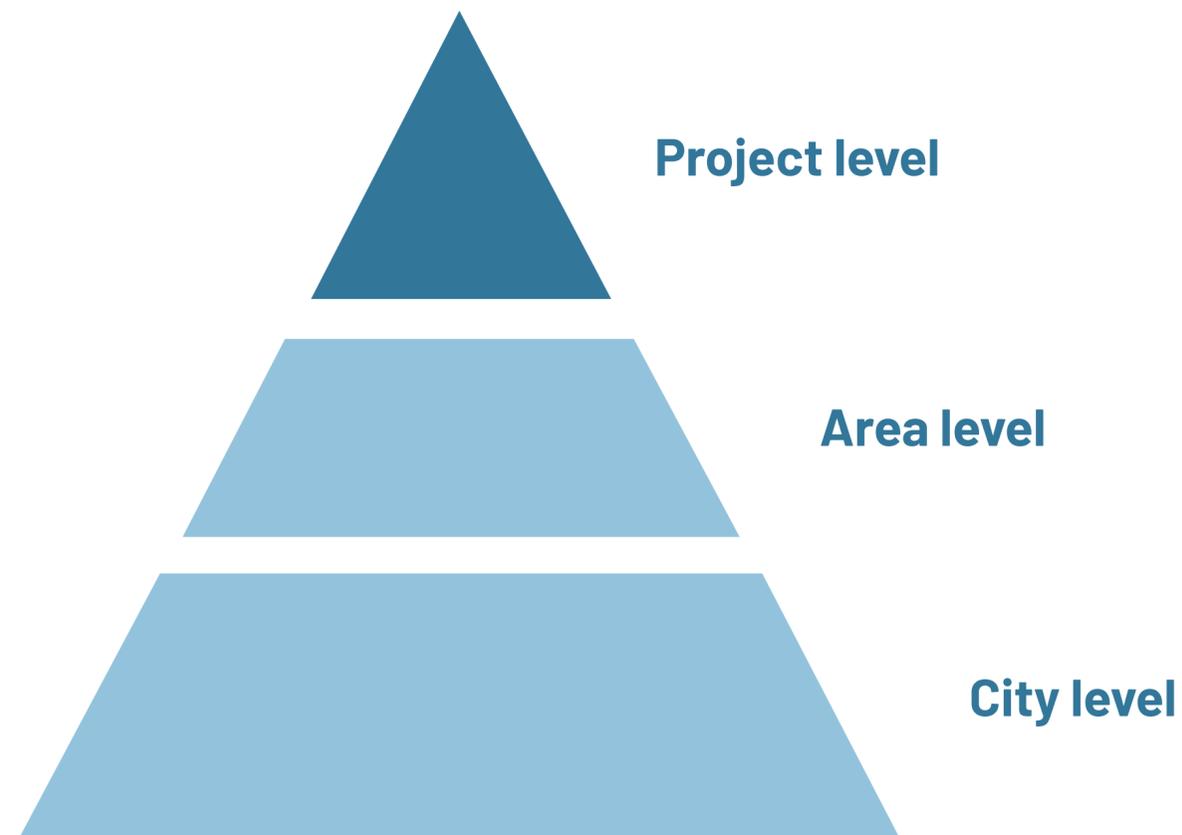


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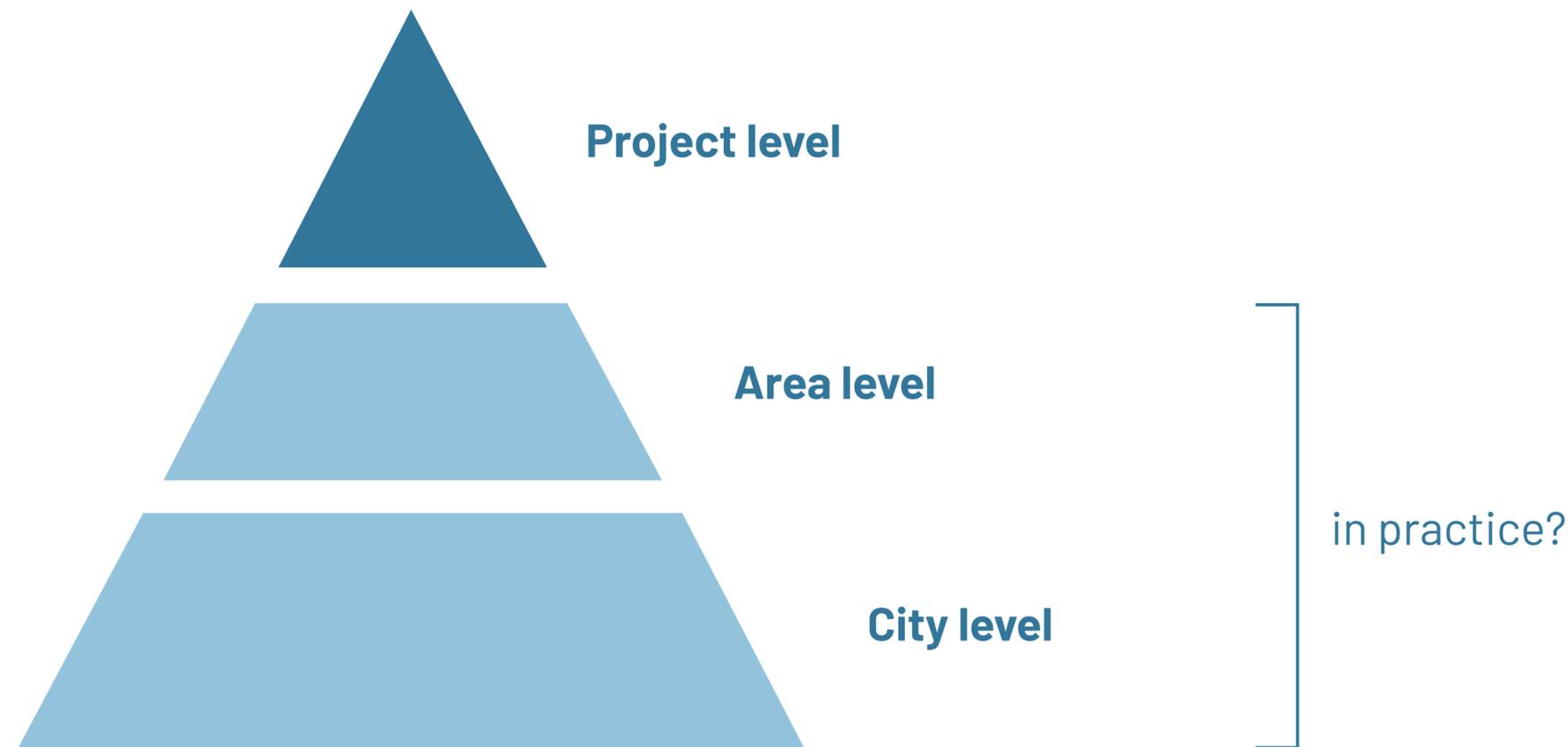


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Need for adaptive reuse, but how?

[adap·tive re·use]

“the process of converting a building to a function which is significantly different from the original function” (Arfa et al., 2022)

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How can the involvement of the municipality contribute?

[pub·lic com·mis·sion·ing]

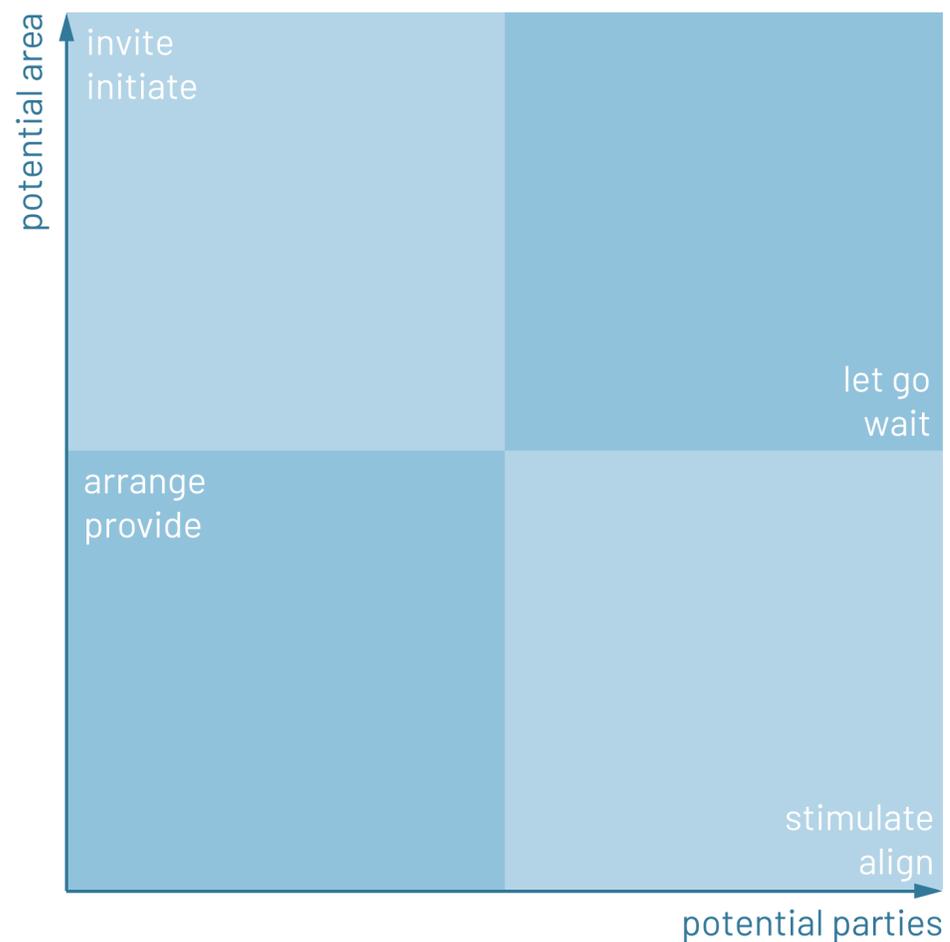
“the way in which a public sector organization, with regard to its responsibilities in the built environment, shapes and implements its interaction with the market internally and externally”
(Hermans et al., 2018)

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Approaches



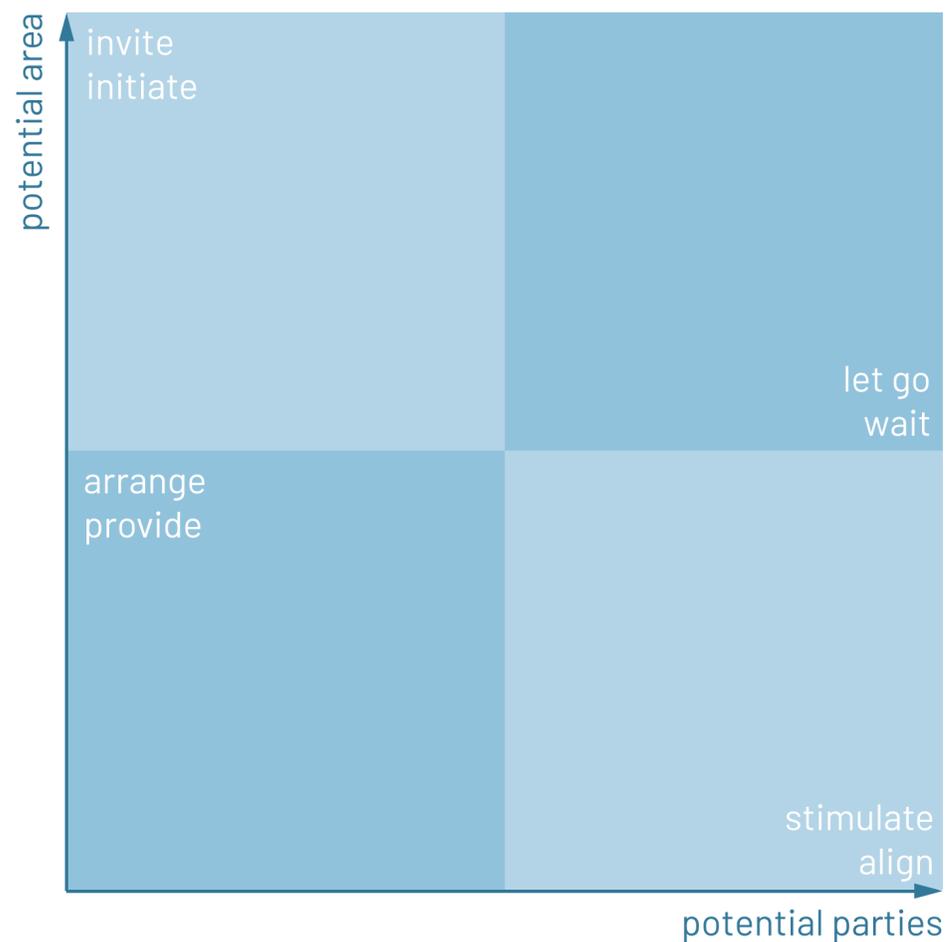
Source: van der Velden et al. (2012)

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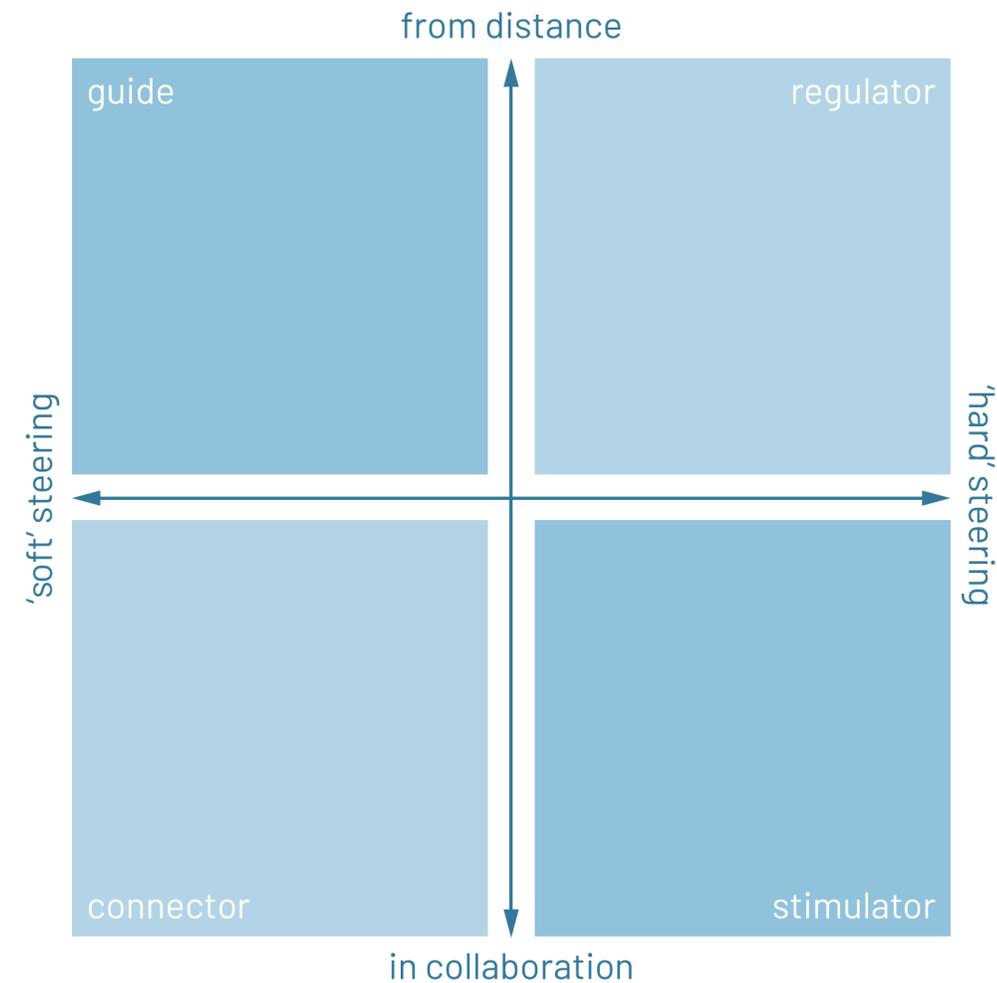
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Approaches



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Roles



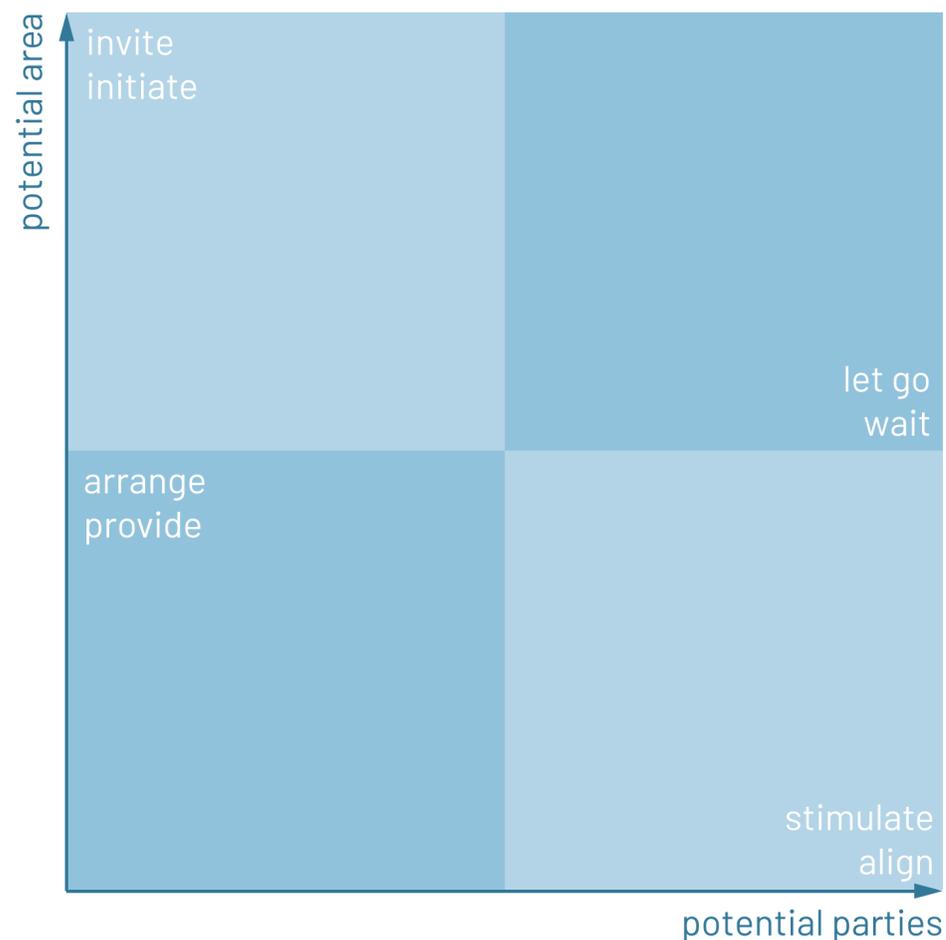
Source: Verheul (2017; 2018)

How can the involvement of the municipality contribute?

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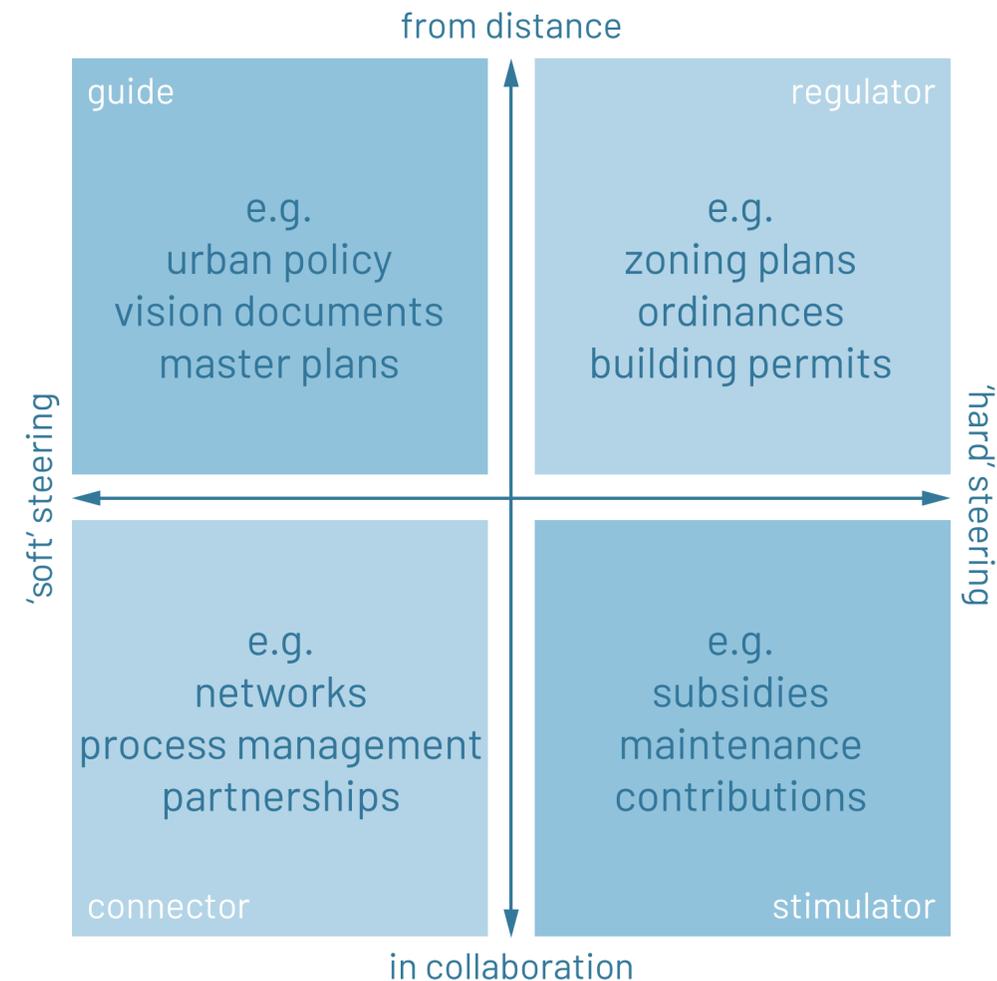
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Approaches



Source: van der Velden et al. (2012)

Roles



Source: Verheul (2017; 2018)

What values determine their involvement?

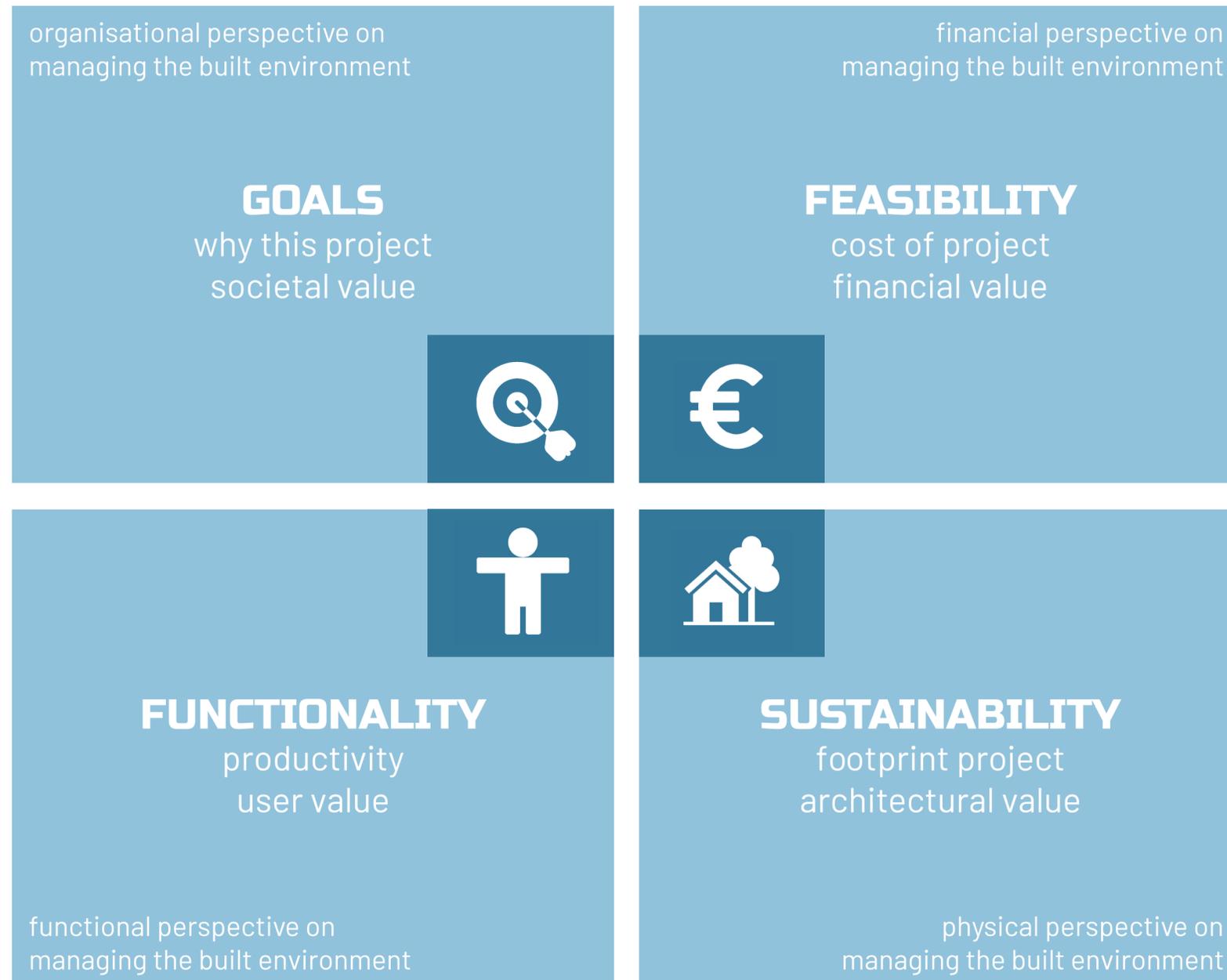
[pub·lic val·ue]

“reflection of what society believes are important values in the production of certain products or services and whose provision is the responsibility of the government” (Kuitert, 2021)

What values determine their involvement?

[public value]

“reflection of what society believes are important values in the production of certain products or services and whose provision is the responsibility of the government” (Kuitert, 2021)



Source: den Heijer (2021)

Empirical research

Methods empirical research



Market review: Former use

Approach

Theory

Empiry

Discussion

Conclusions

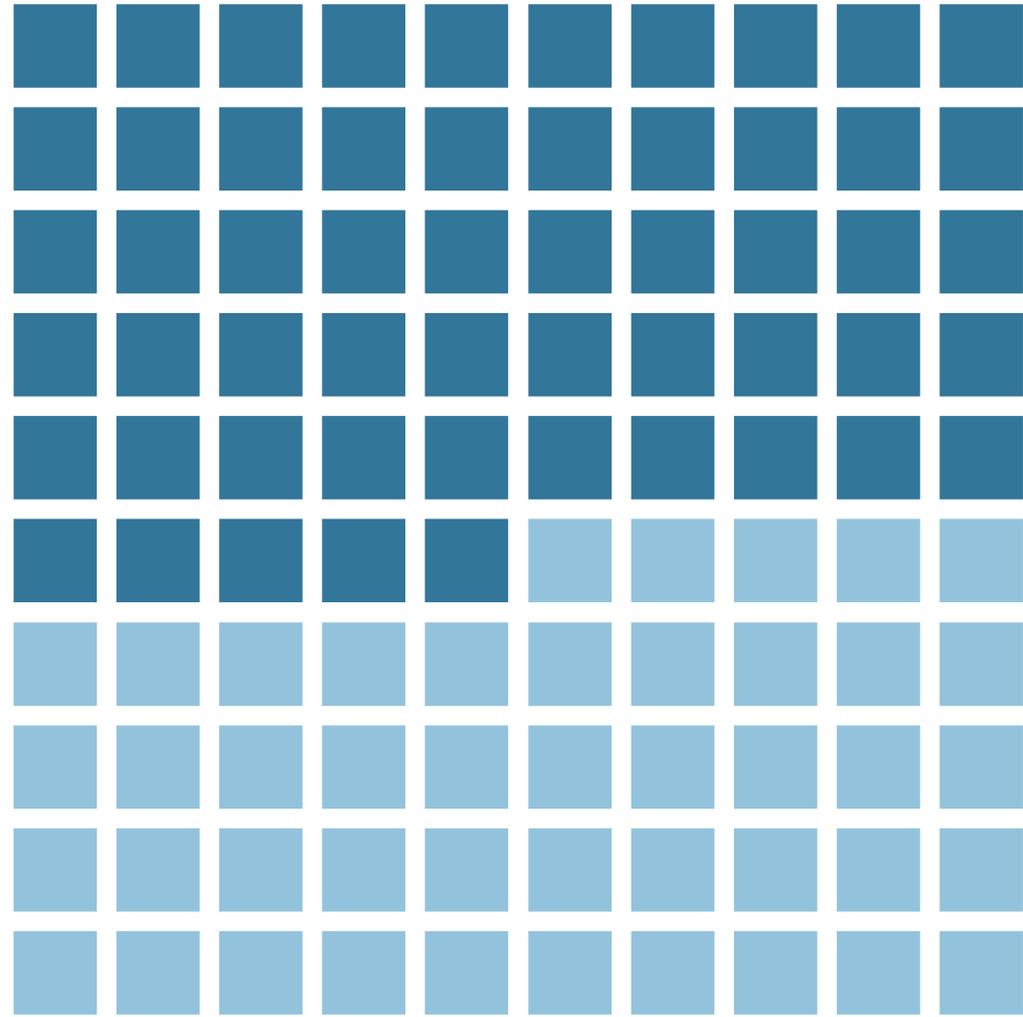


Photo: BiermanHenket (n.d.)

Market review: Former use

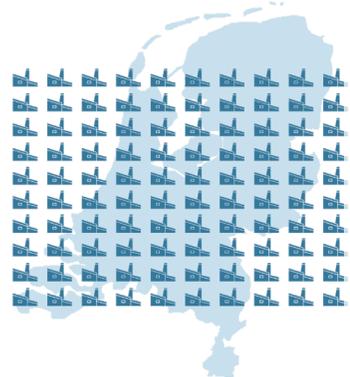
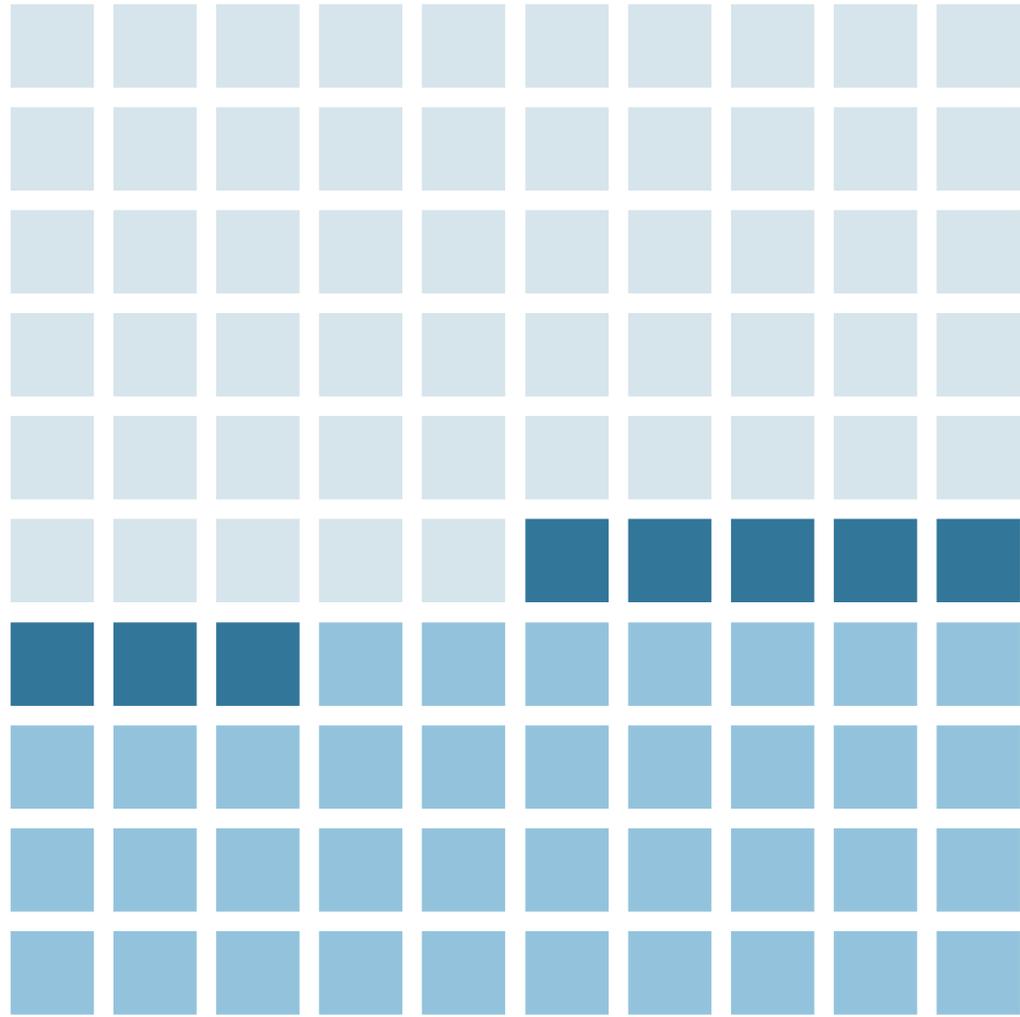
Approach

Theory

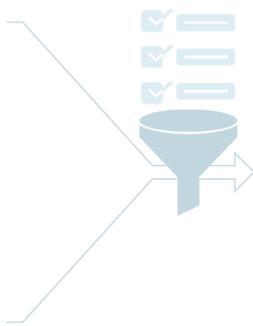
Empiry

Discussion

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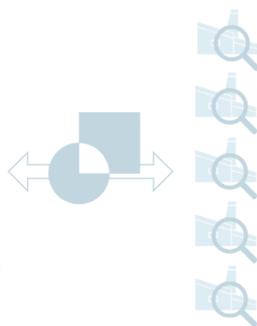
MARKET REVIEW



CASE SELECTION



CASE ANALYSIS



CROSS-CASE ANALYSIS



Photo: Recycle (n.d.)

Market review: Former use

Approach

Theory

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Discussion

Conclusions

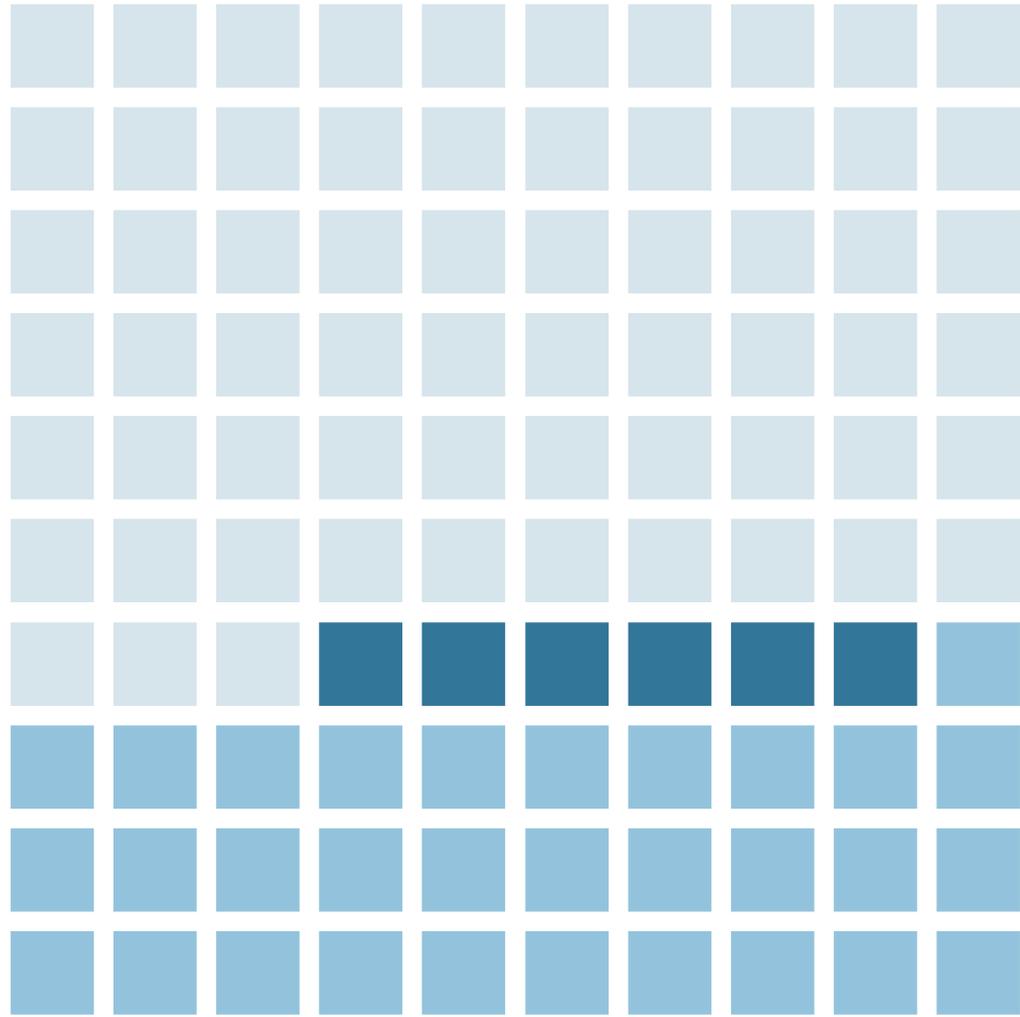


Photo: MVA (n.d.)

Market review: Former use

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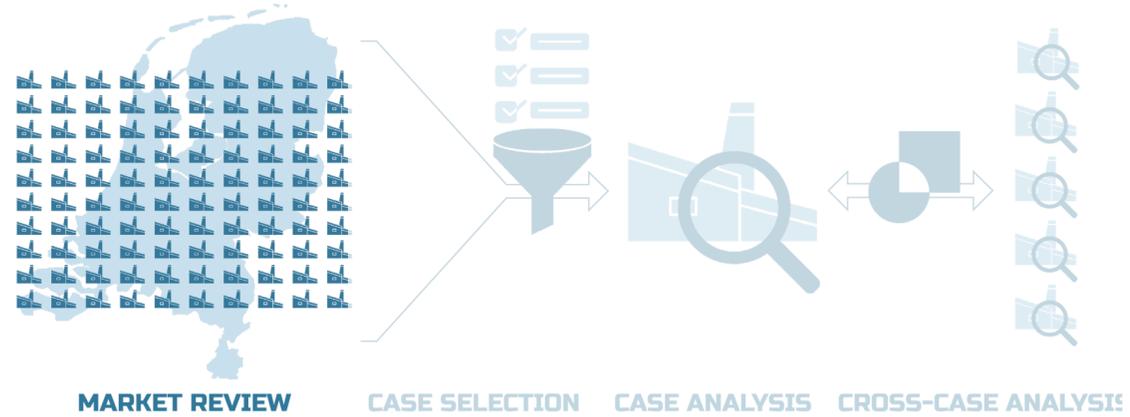
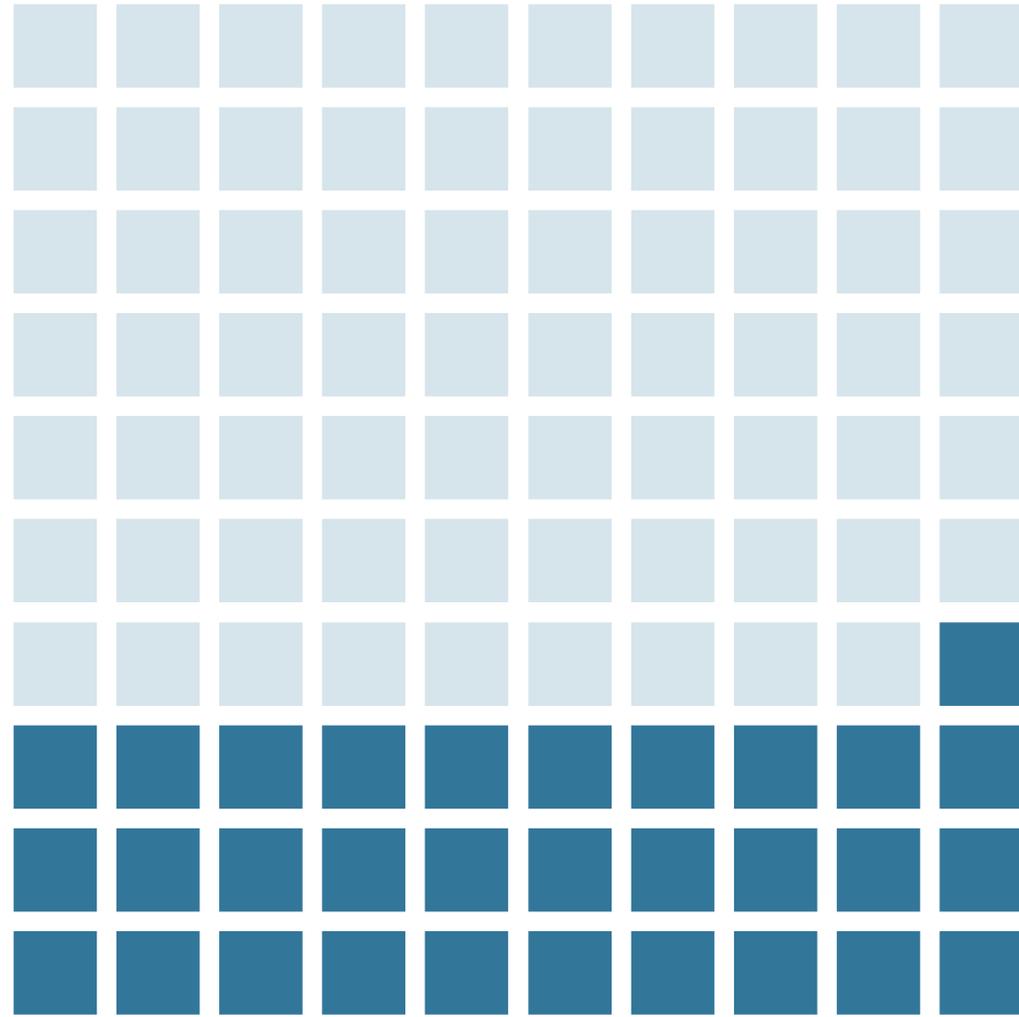


Photo: MVA (n.d.)

Market review: Size

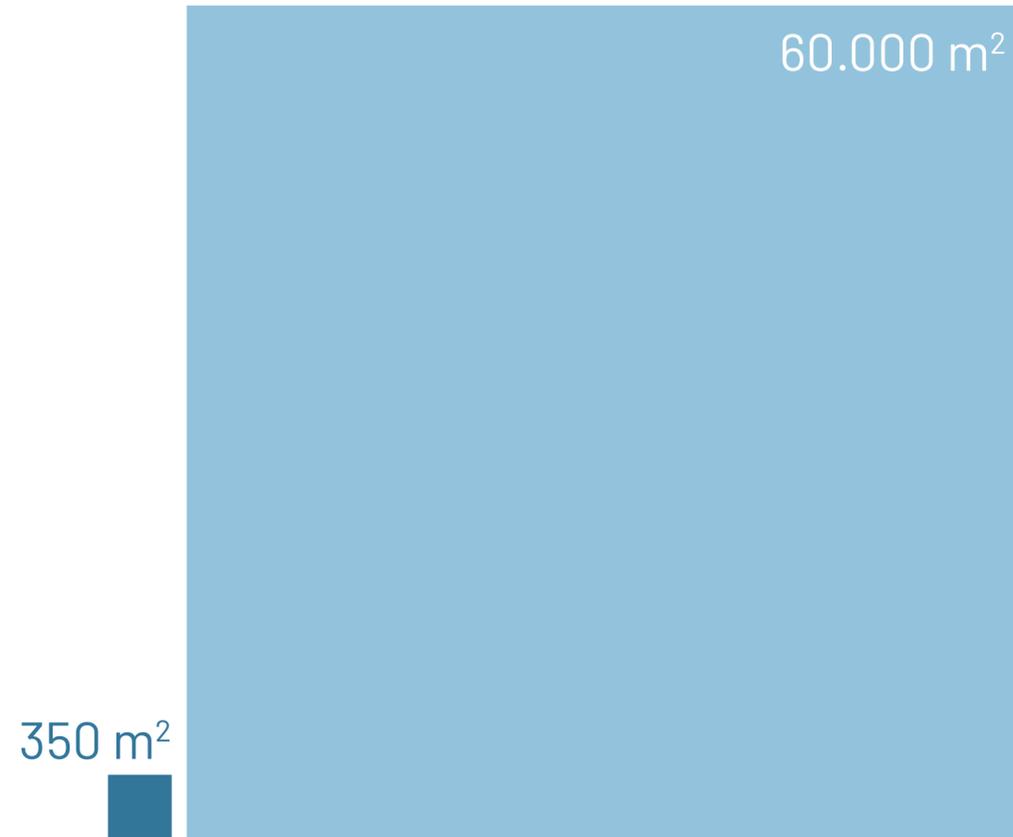


Photo: KRO-NCRV (n.d.)

Market review: Size

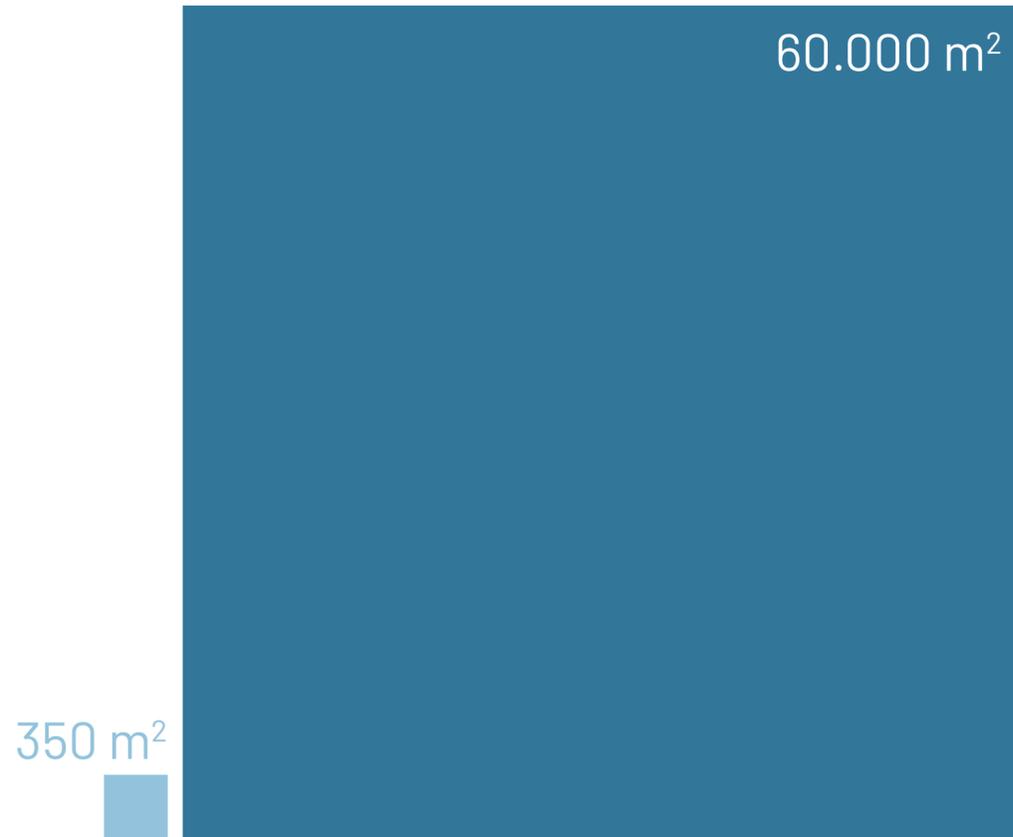


Photo: Broekbakema (n.d.)

Market review: New use

Approach

Theory

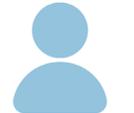
Empiry

Discussion

Conclusions



Dark Blue									
Dark Blue									
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Dark Blue	Light Blue	Light Blue							
Light Blue									
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Light Blue	Light Blue	Light Blue	White						
White									

-  multiple users
-  one user
-  homes
-  N.A.

Market review: New use

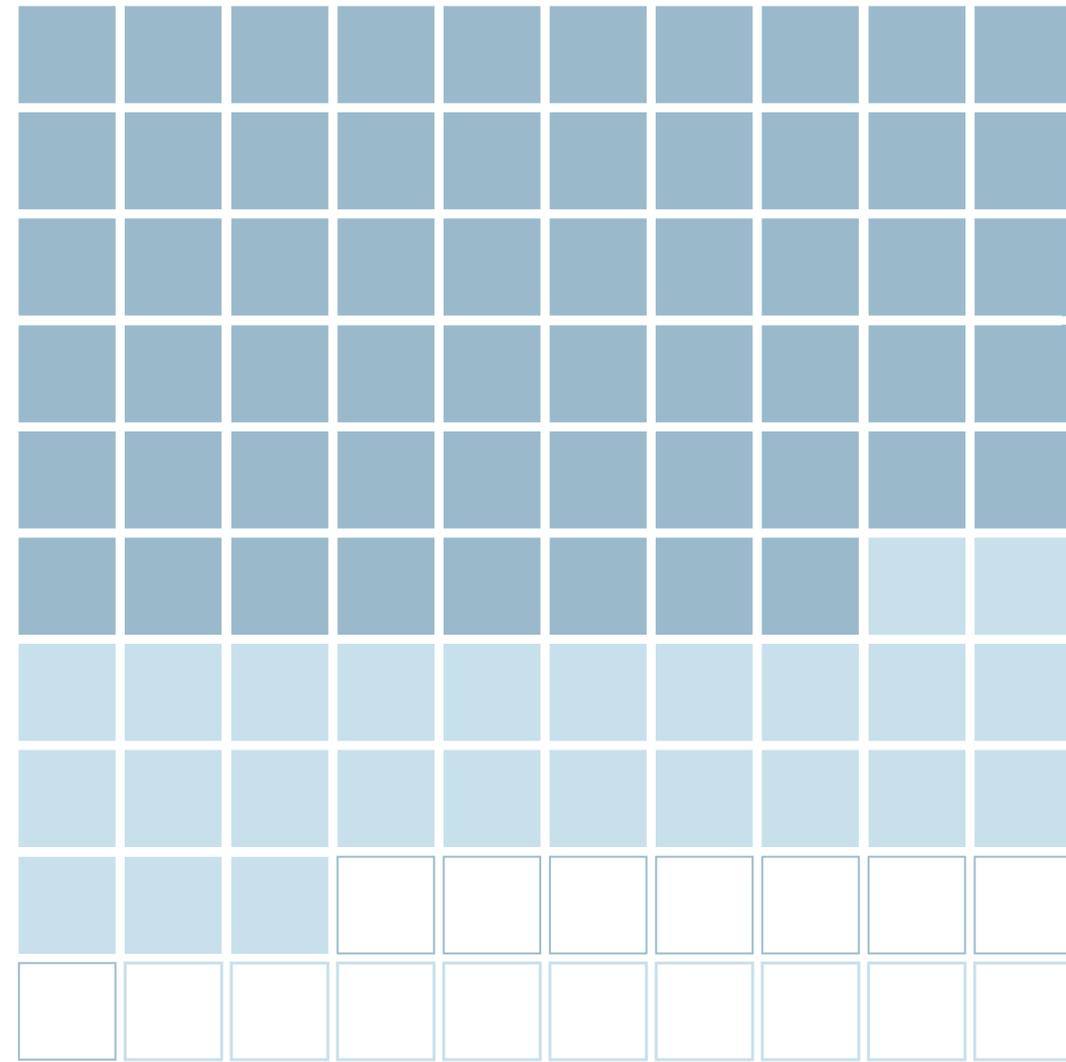
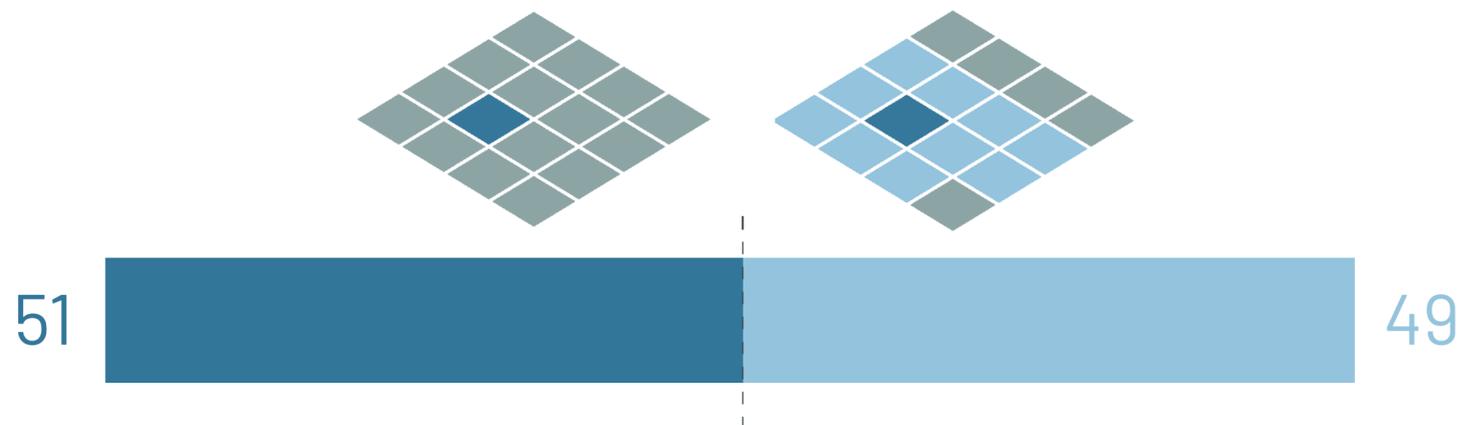
Approach

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-  multiple users
-  one user
-  homes
-  N.A.



Case study selection

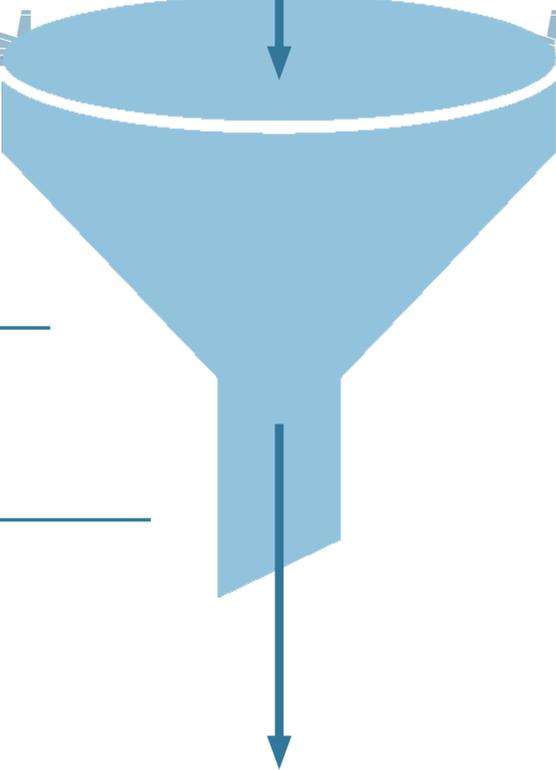
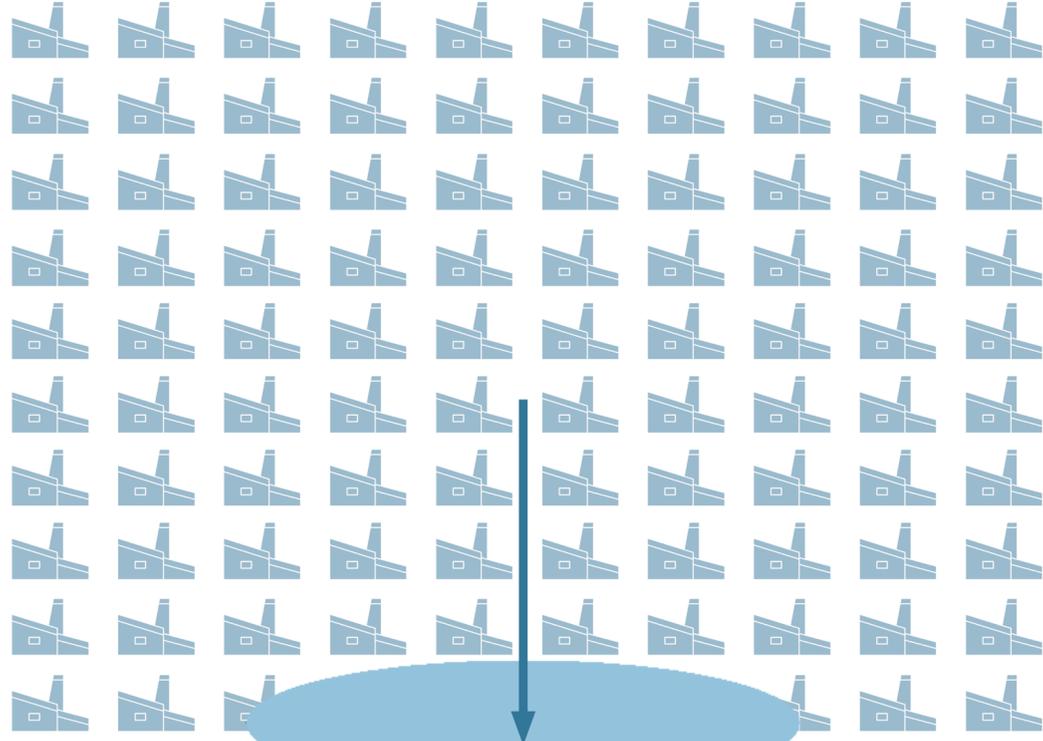
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Theory

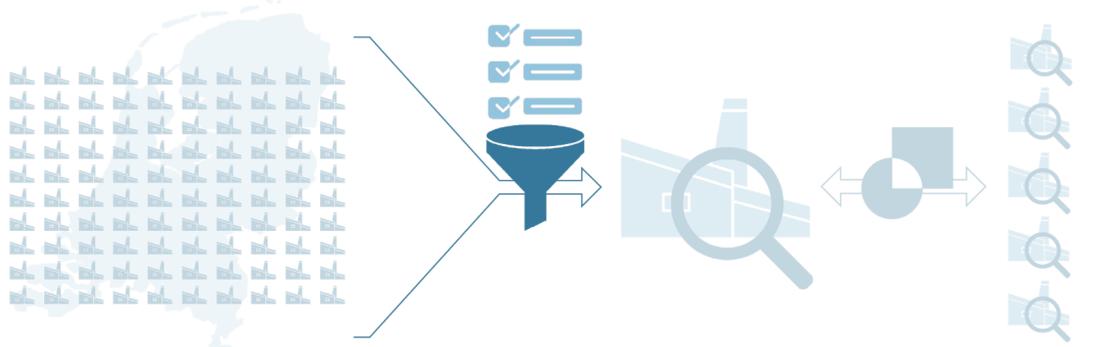
Empiry

Discussion

Conclusions



- Project characteristics
- Municipality characteristics
- Available information



MARKET REVIEW CASE SELECTION CASE ANALYSIS CROSS-CASE ANALYSIS

Case studies

LoHal Tilburg

Klokgebouw Eindhoven

Baronie Alphen aan den Rijn

RDM Campus Rotterdam

Weverij de Ploeg Bergeijk

Greswarenfabriek Reuver



Case studies

Lochal Tilburg

Old function	Train workshop
New function	Library, cultural centre, meeting space
Area	Spoorzone
Status	Municipal monument
Municipality	Owner

Klokgebouw Eindhoven

Baronie Alphen aan den Rijn

RDM Campus Rotterdam

Weverij de Ploeg Bergeijk

Greswarenfabriek Reuver



Photo by author

Case studies

Lochal Tilburg

Klokgebouw Eindhoven

Old function	Philite factory
New function	Event location, offices, hotel, education
Area	Strijp-S
Status	National monument
Municipality	Area developer (PPP)

Baronie Alphen aan den Rijn

RDM Campus Rotterdam

Weverij de Ploeg Bergeijk

Greswarenfabriek Reuver



Photo by author

Case studies

Lochal Tilburg

Klokgebouw Eindhoven

Baronie Alphen aan den Rijn

Old function	Chocolate factory
New function	Shopping centre, housing
Area	Groot Baronie - Rijnhaven
Status	-
Municipality	only publicly involved

RDM Campus Rotterdam

Weverij de Ploeg Bergeijk

Greswarenfabriek Reuver



Photo by author

Case studies

Lochal Tilburg

Klokgebouw Eindhoven

Baronie Alphen aan den Rijn

RDM Campus Rotterdam

Old function	Shipping workshop
New function	Start-up location, offices, education
Area	'RDM' - Stadshavens
Status	Municipal monument
Municipality	only publicly involved

Weverij de Ploeg Bergeijk

Greswarenfabriek Reuver



MARKET REVIEW

CASE SELECTION

CASE ANALYSIS

CROSS-CASE ANALYSIS

Photo: John Gundlach via Flying Holland (2018)

Case studies

Lochal Tilburg

Klokgebouw Eindhoven

Baronie Alphen aan den Rijn

RDM Campus Rotterdam

Weverij de Ploeg Bergeijk

Old function	Weaving factory
New function	Workshop, cultural Centre
Area	-
Status	National monument
Municipality	only publicly involved

Greswarenfabriek Reuver



Photo by author

Case studies

Lochal Tilburg

Klokgebouw Eindhoven

Baronie Alphen aan den Rijn

RDM Campus Rotterdam

Weverij de Ploeg Bergeijk

Greswarenfabriek Reuver

Old function	'Gres' factory
New function	Education, cultural centre
Area	Oppe Brik
Status	Municipal monument
Municipality	Owner



Photo by author

Cross-case analysis

- LoHal Tilburg
- Klokgebouw Eindhoven
- Baronie Alphen aan den Rijn
- RDM Campus Rotterdam
- Weverij de Ploeg Bergeijk
- Greswarenfabriek Reuver



Significance

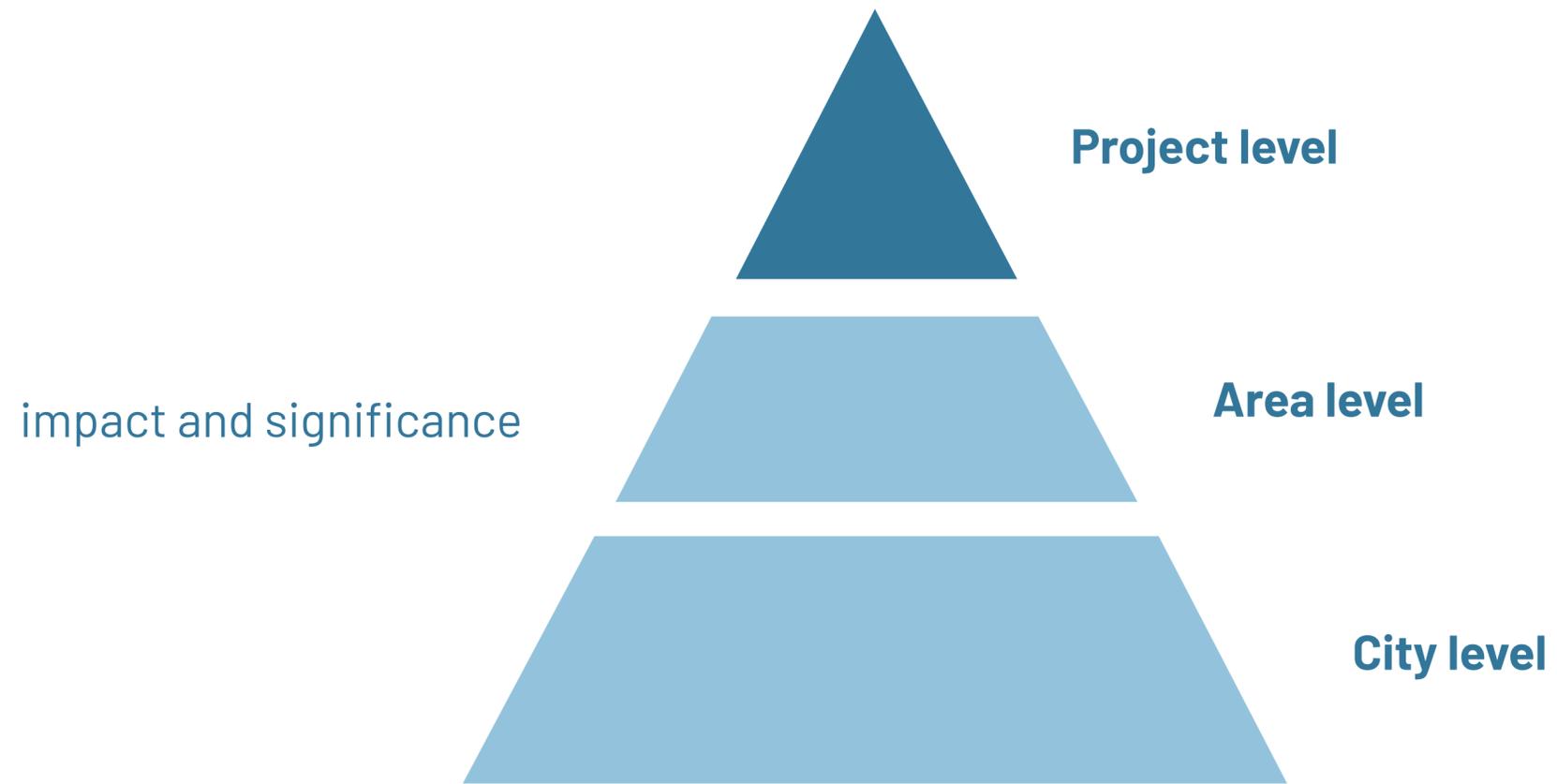
Adaptive reuse process

Municipal involvement

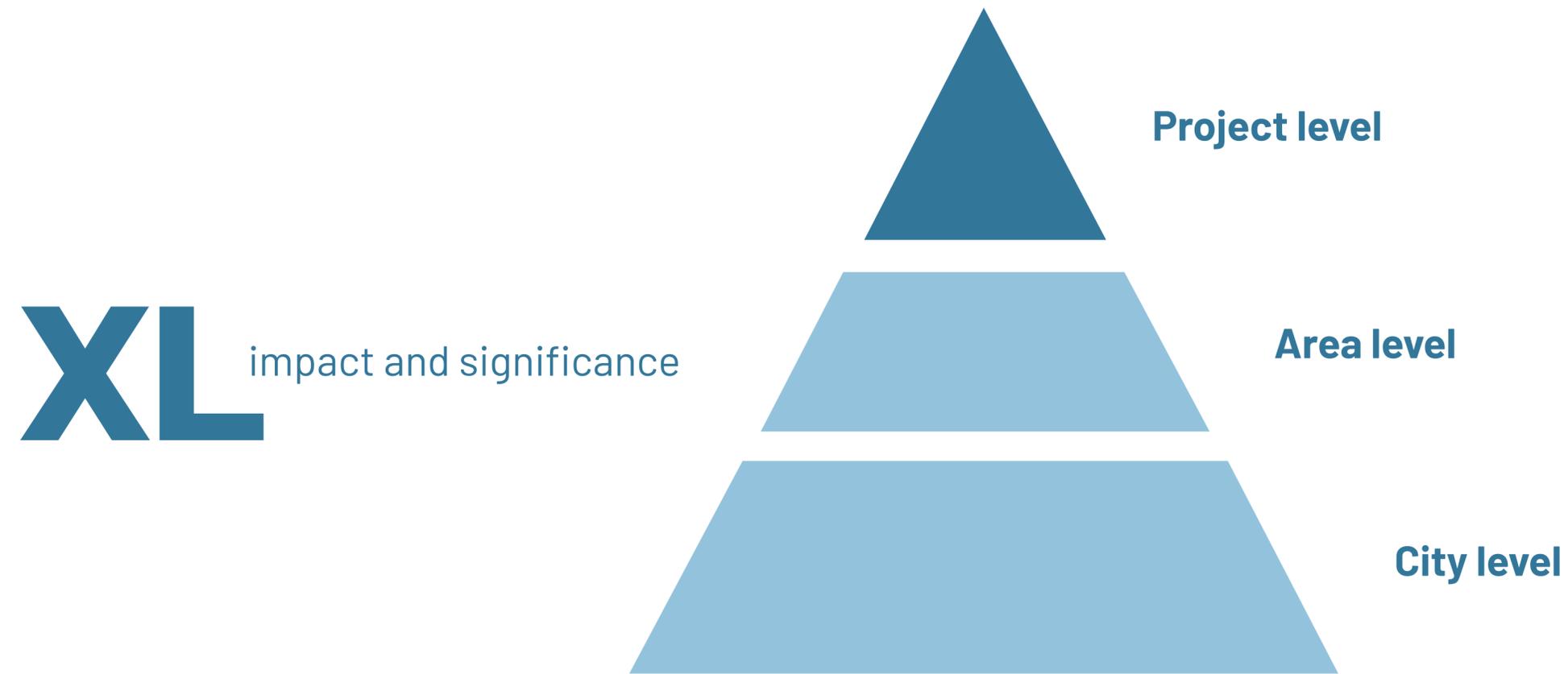
Public values

Discussion

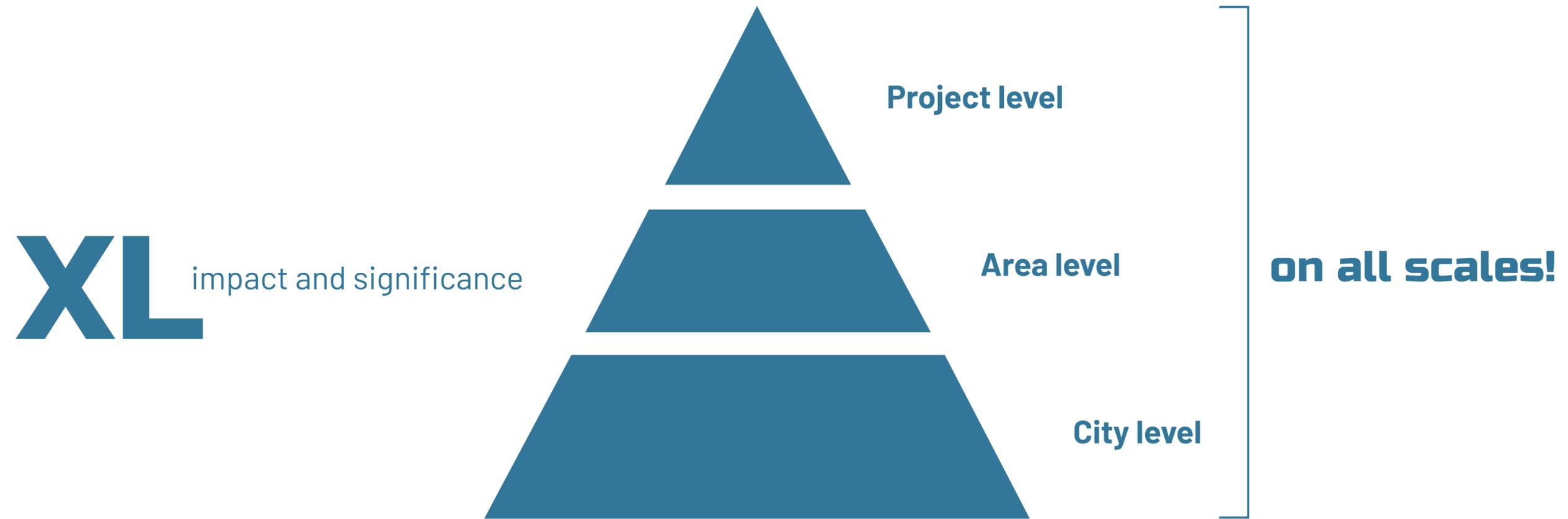
Key findings: Significance



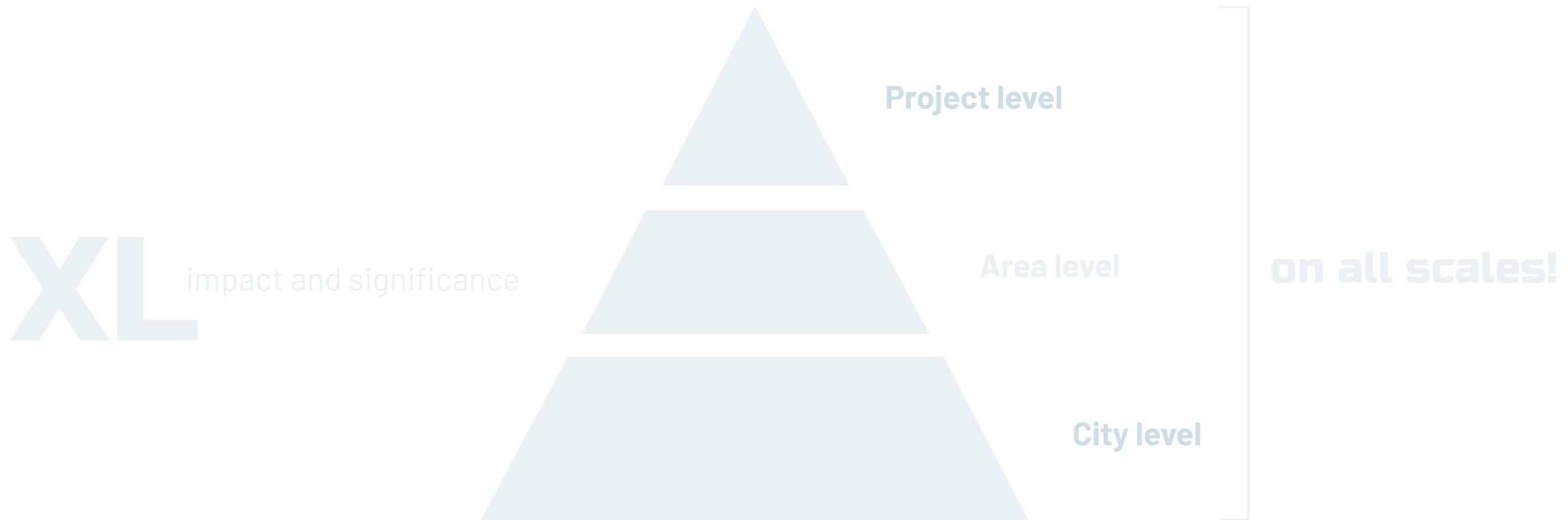
Key findings: Significance



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Key findings: Significance

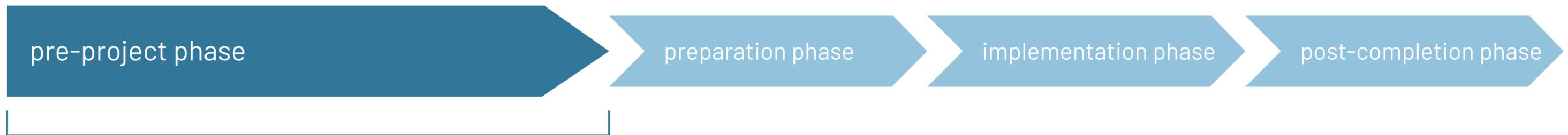


! *Industrial heritage has an extra-large impact and significance on all levels: project, area and city level*

Key findings: Adaptive reuse process



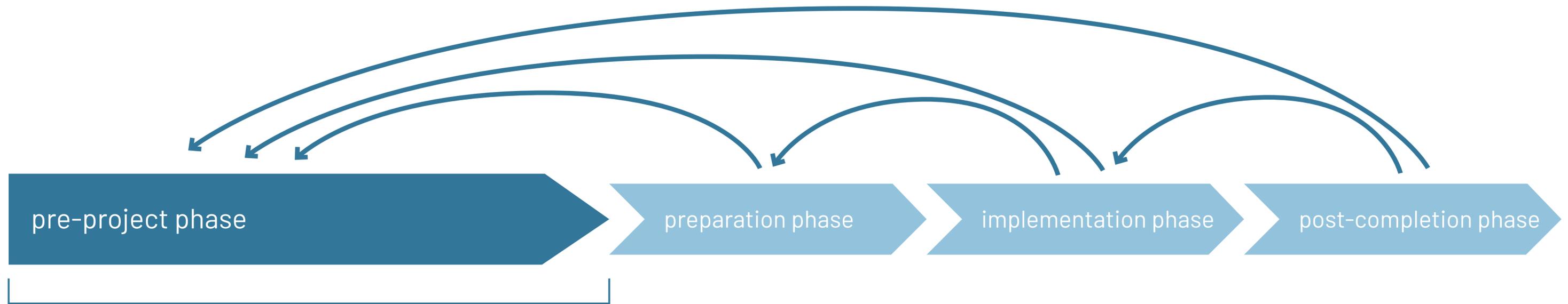
Key findings: Adaptive reuse process



extensive!

- poor market conditions
- + options for temporary use

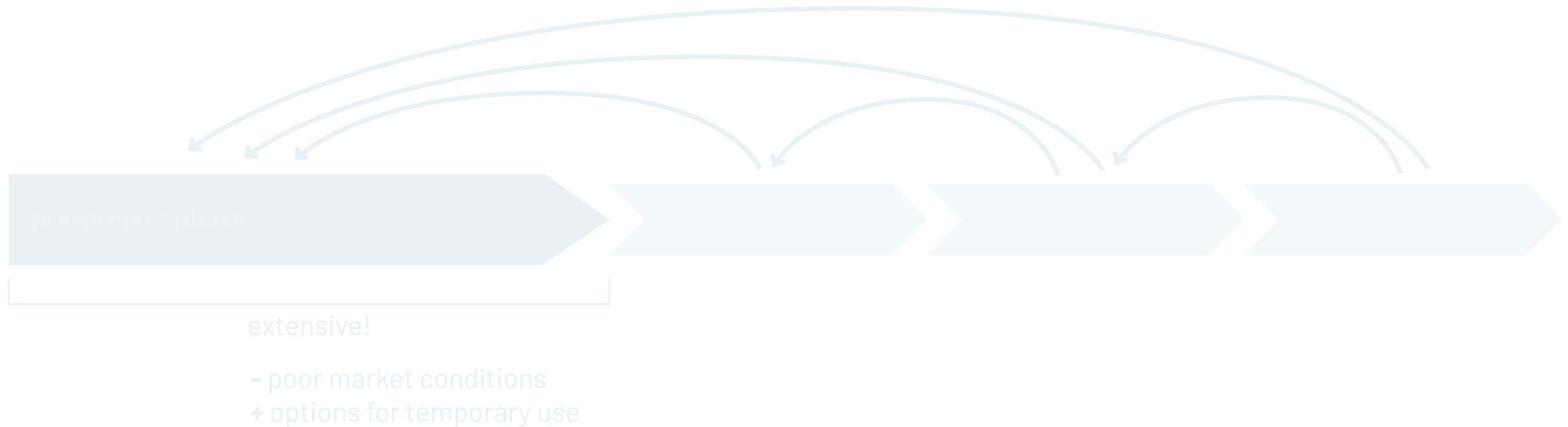
Key findings: Adaptive reuse process



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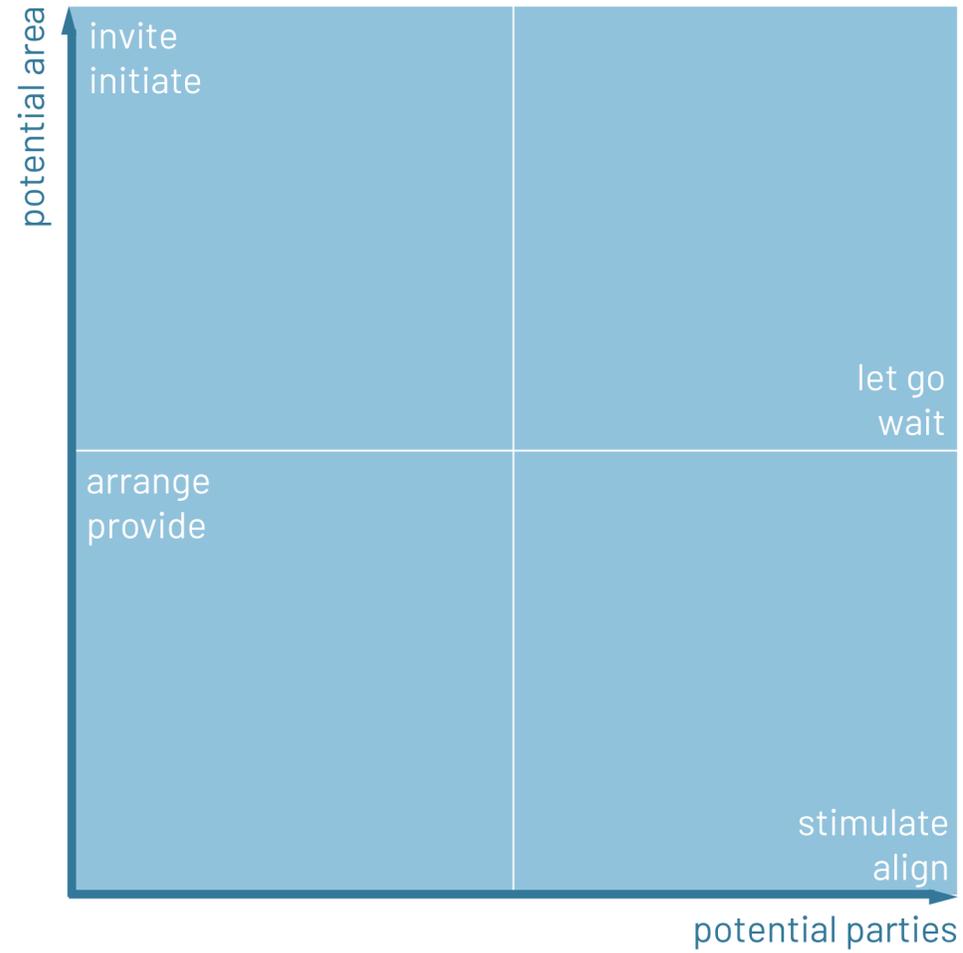
Key findings: Adaptive reuse process



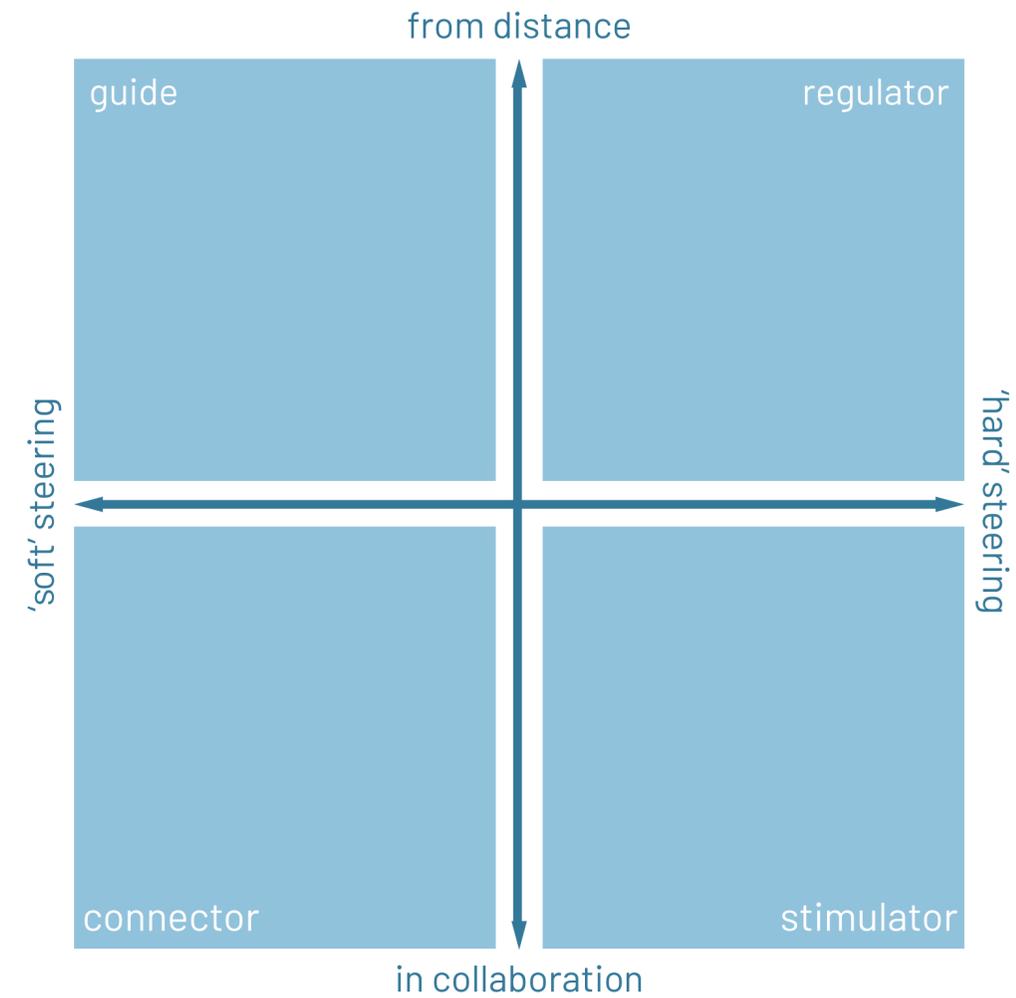
! The adaptive reuse in practice is more complex than theoretical models. Especially the pre-project phase is (too) extensive.

Key findings: Municipal involvement

Approaches

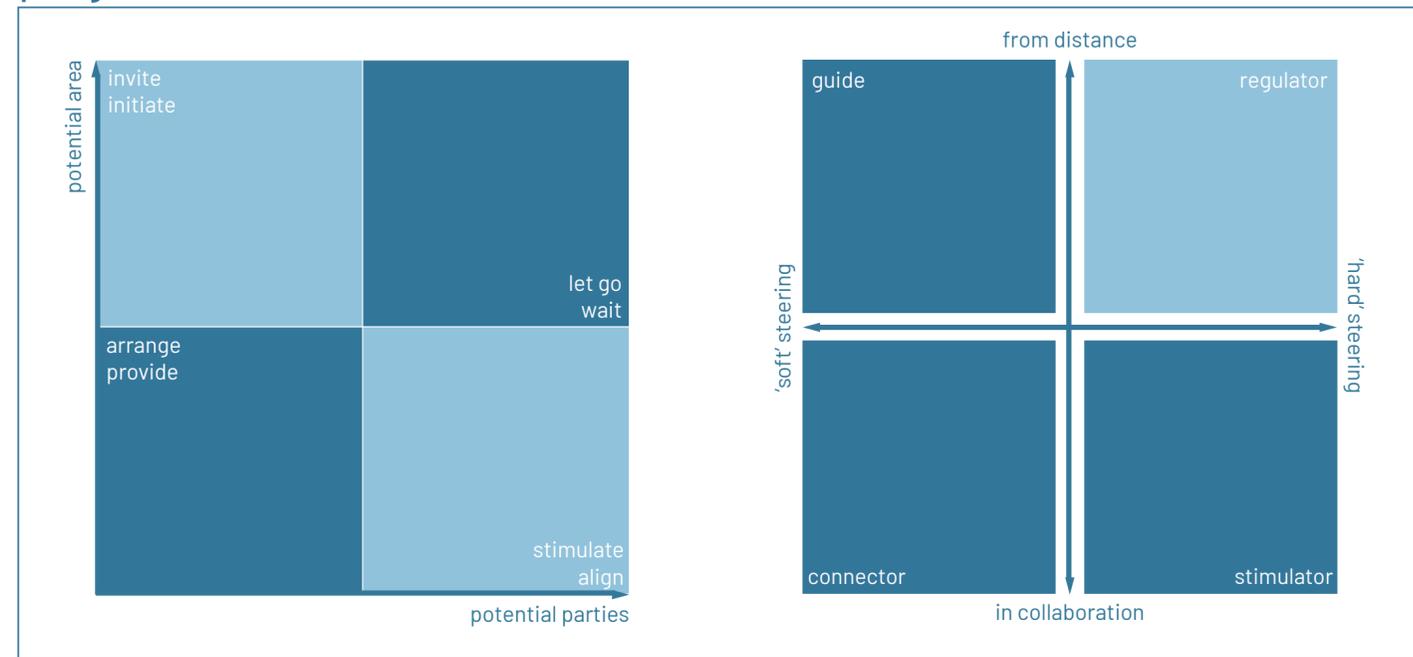


Roles

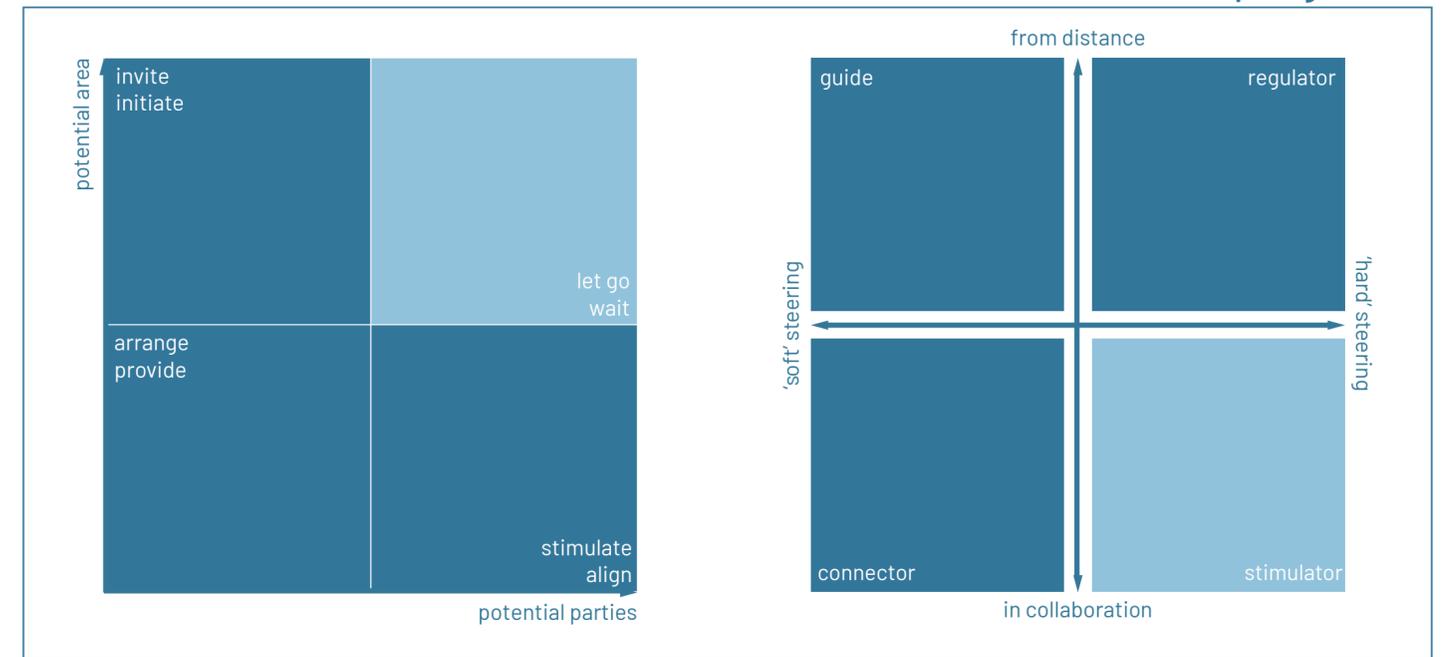


Key findings: Municipal involvement

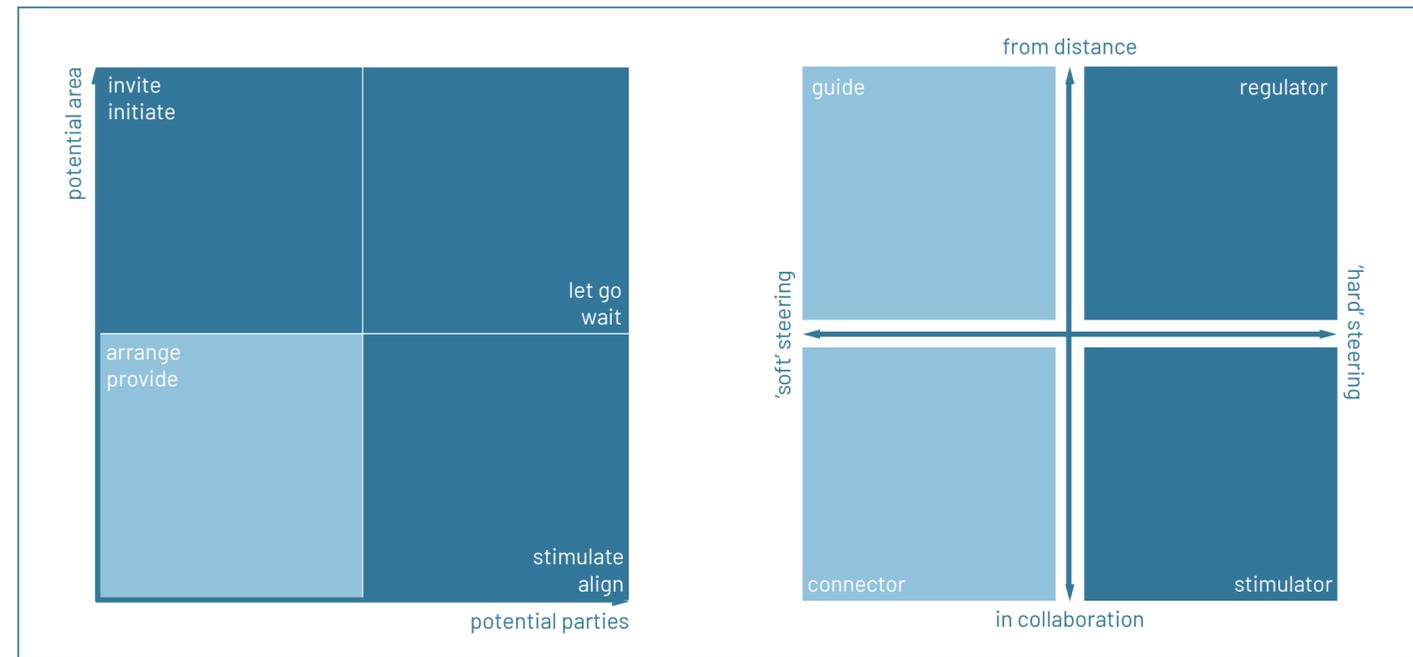
project 1



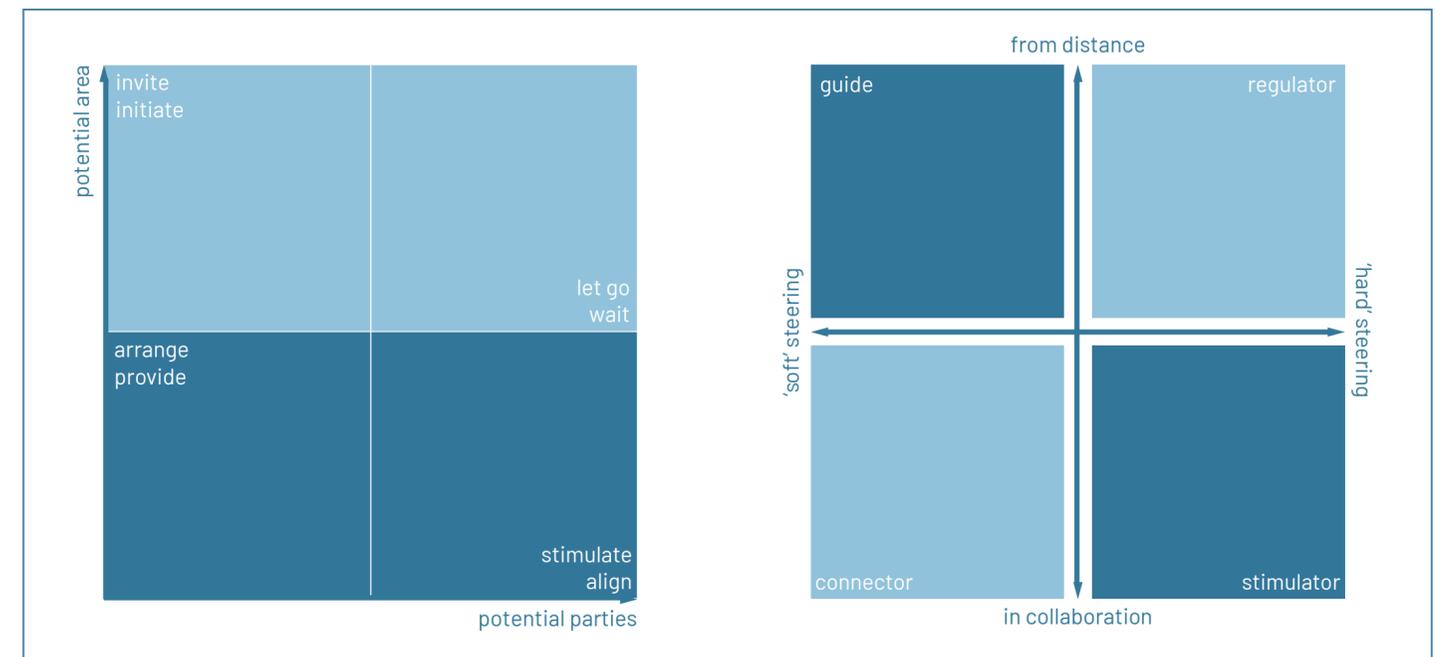
project 2



project 3



project 4



project 3

project 4

Approach

Theory

Empiry

Discussion

Conclusions

Significance

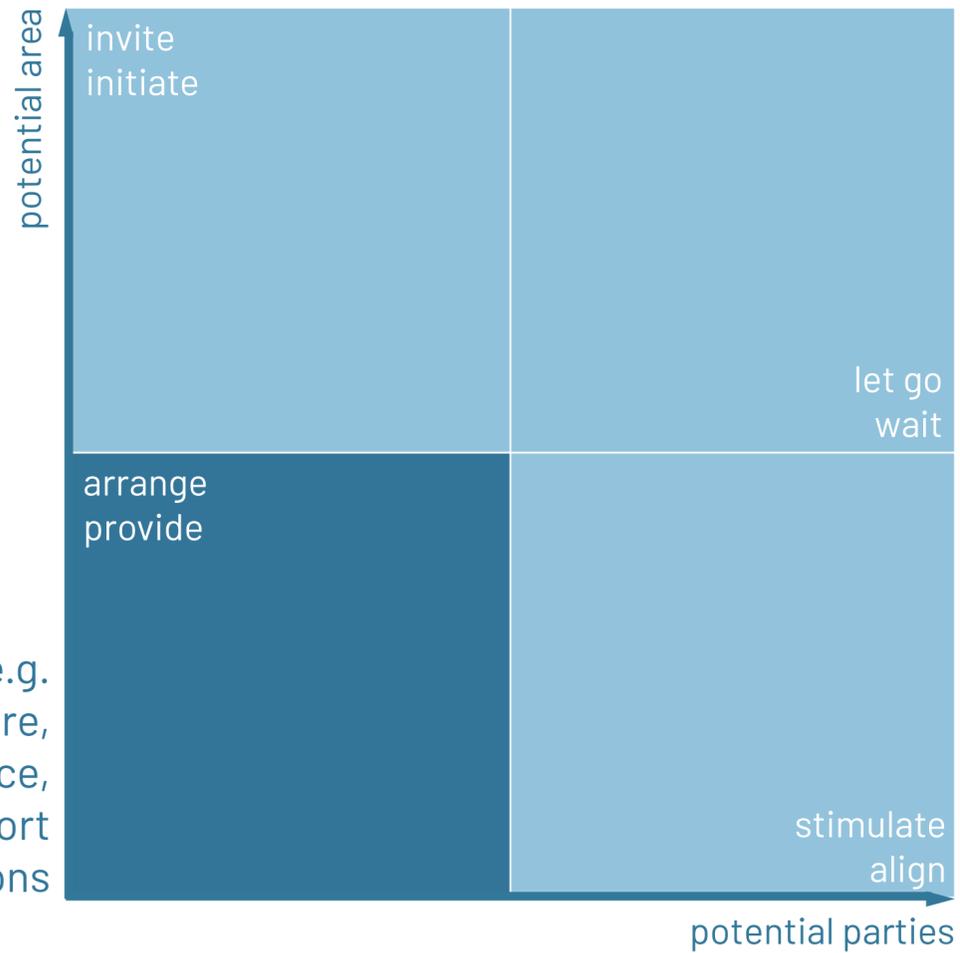
Adaptive reuse process

Municipal involvement

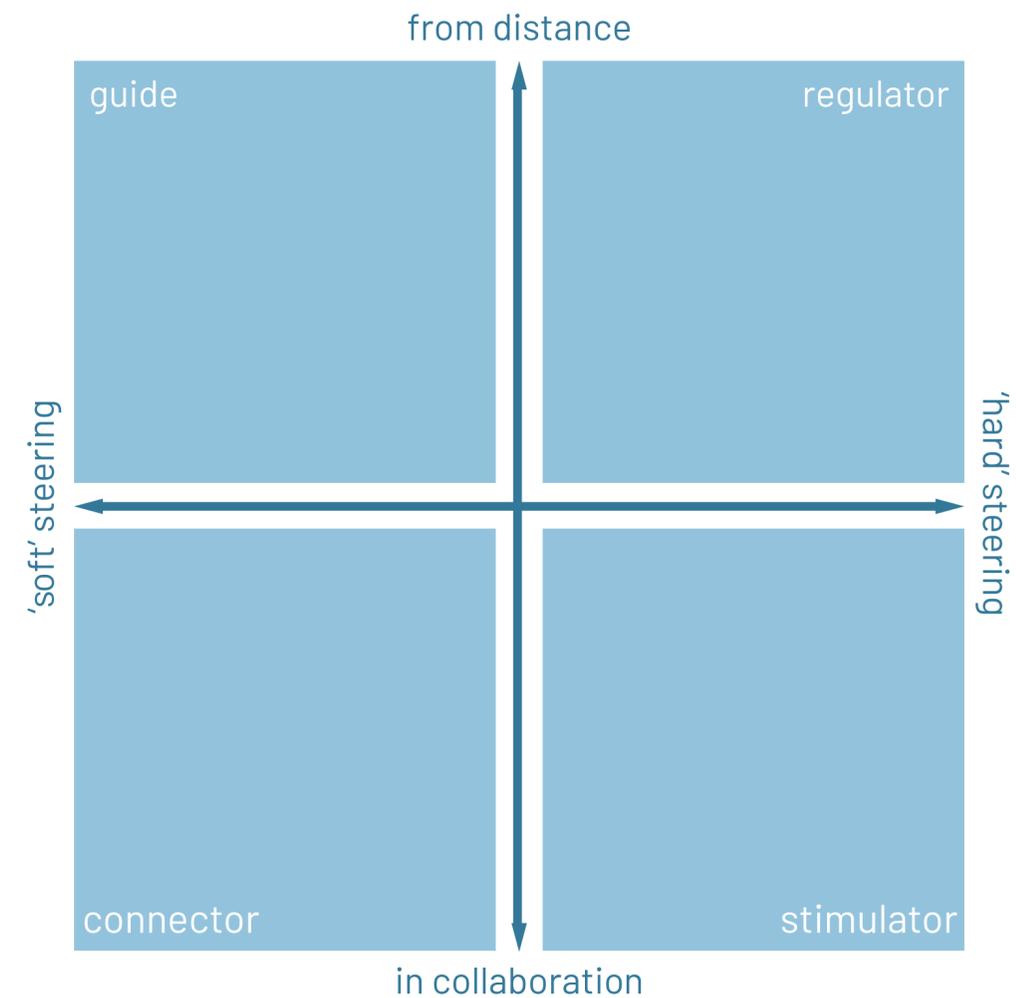
Public values

Key findings: Municipal involvement

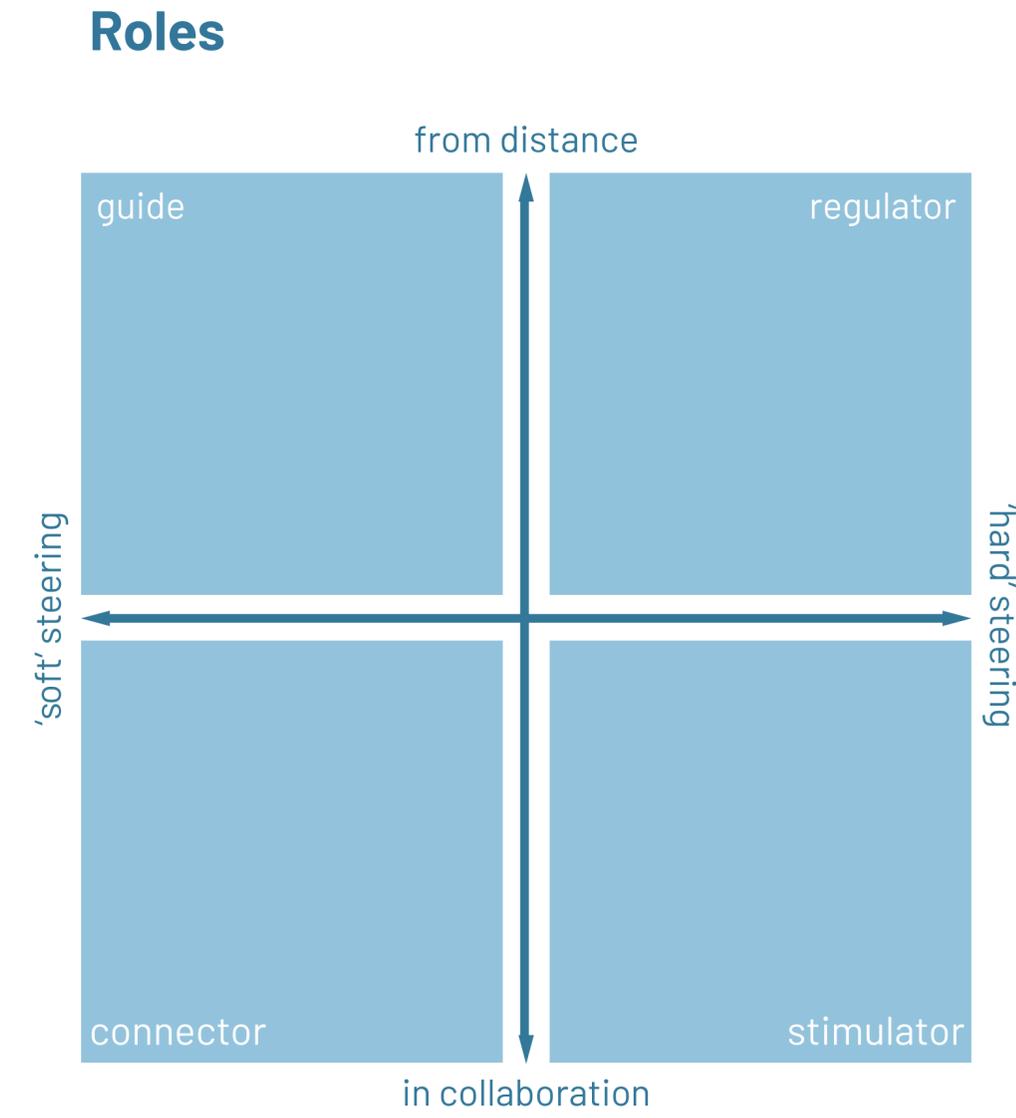
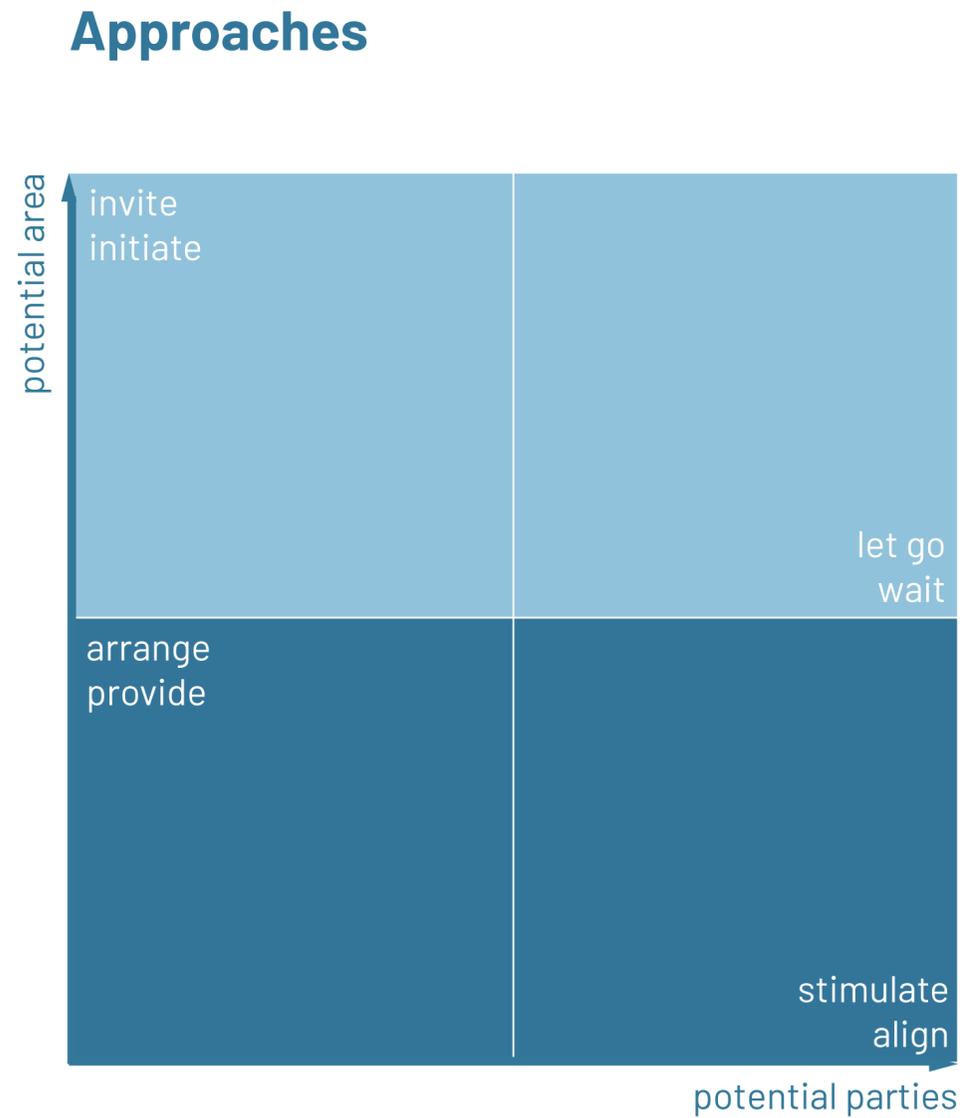
Approaches



Roles

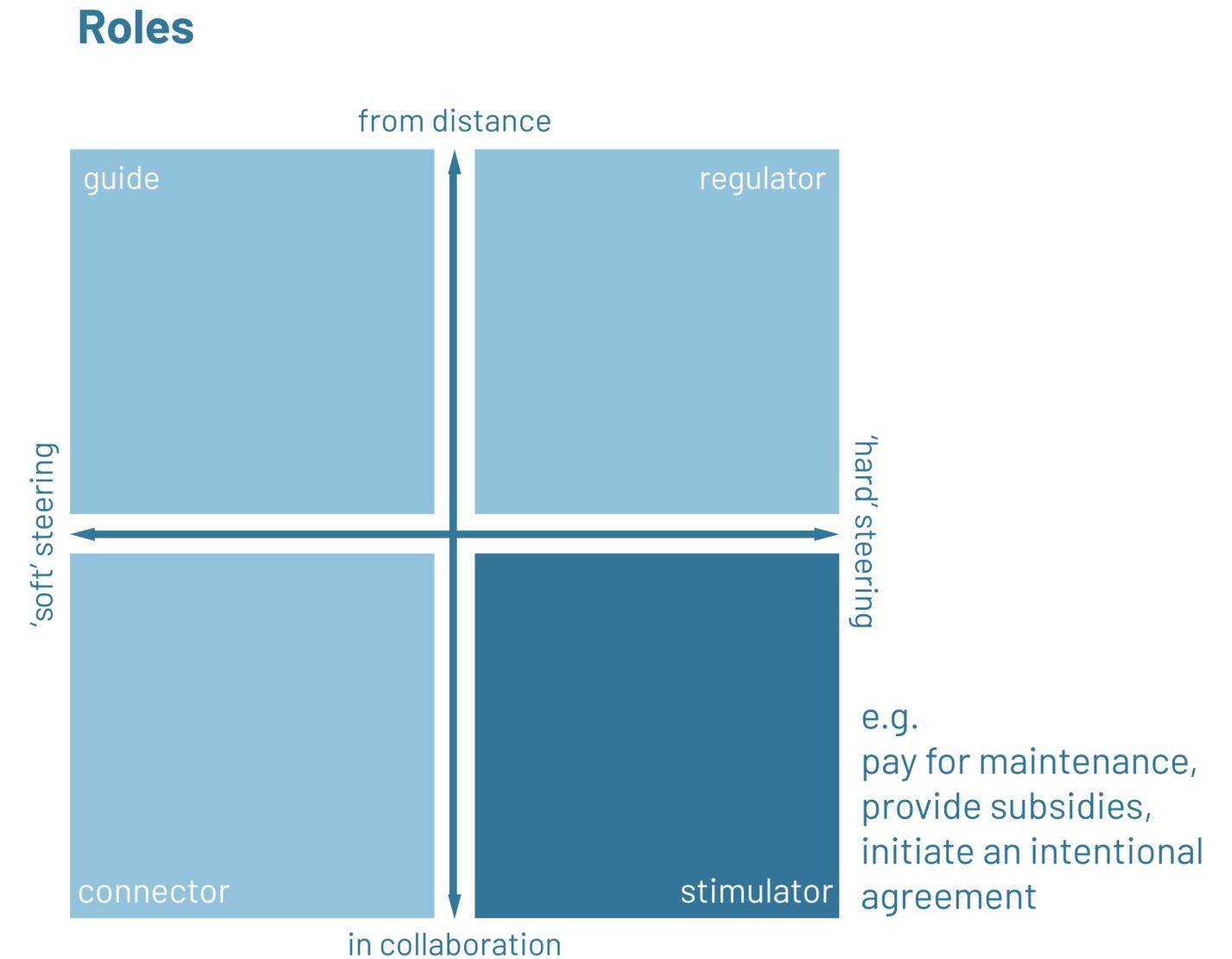
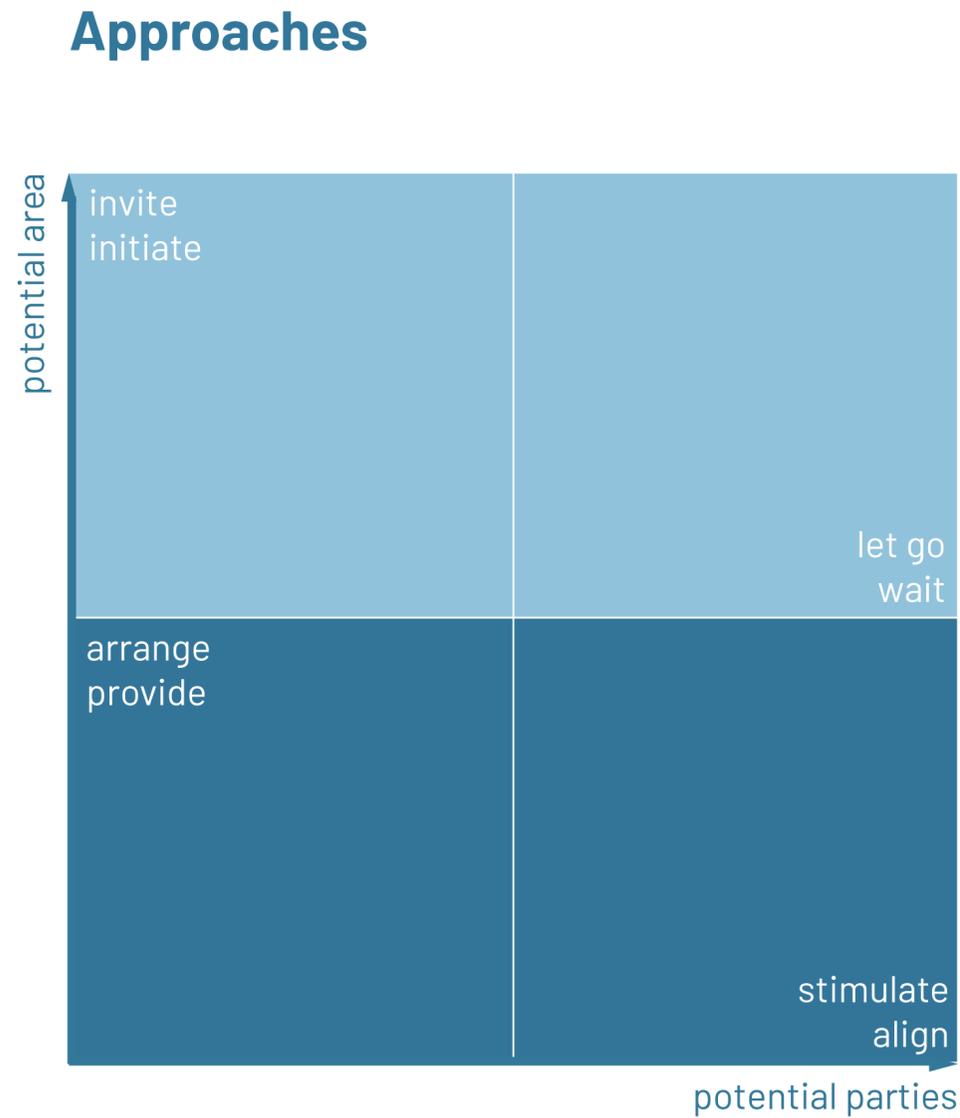


Key findings: Municipal involvement

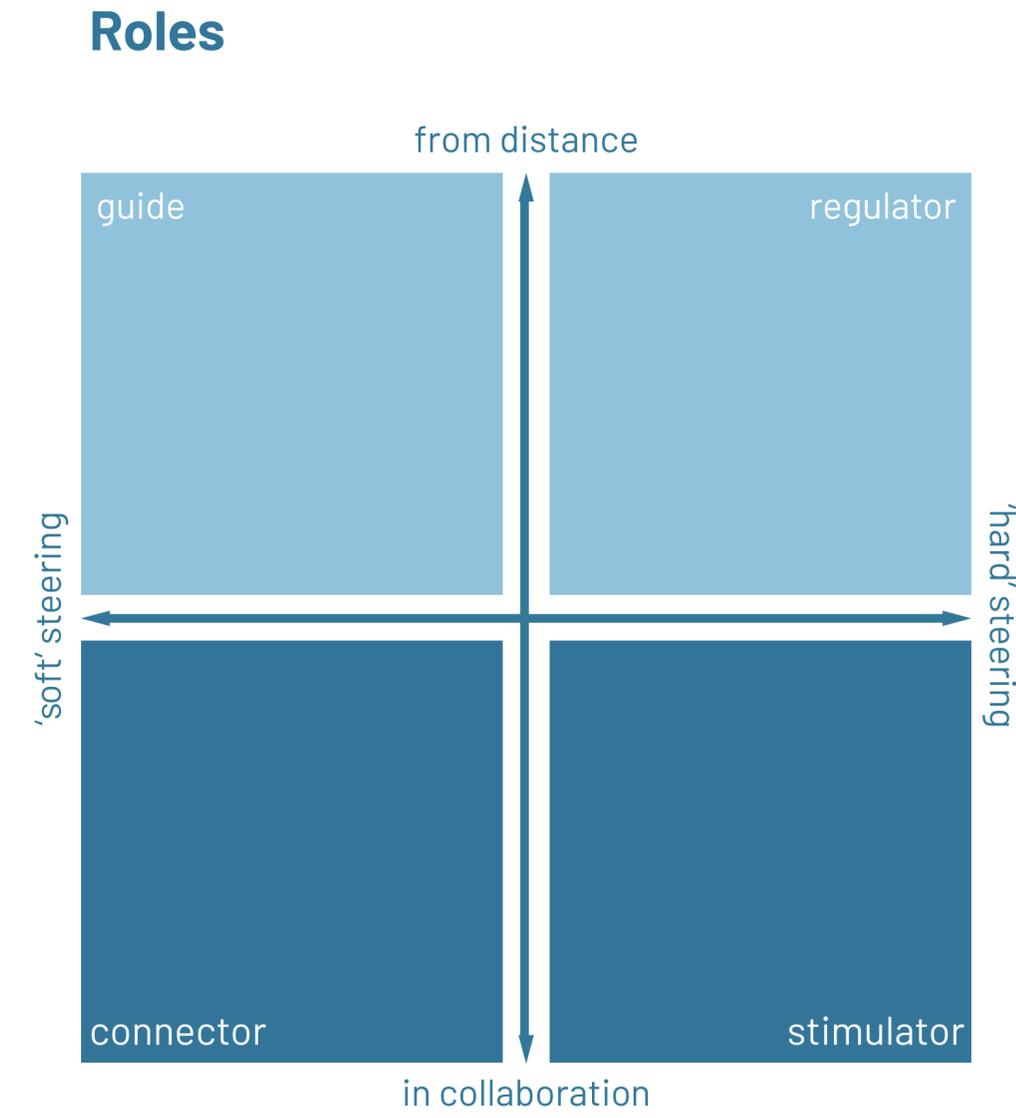
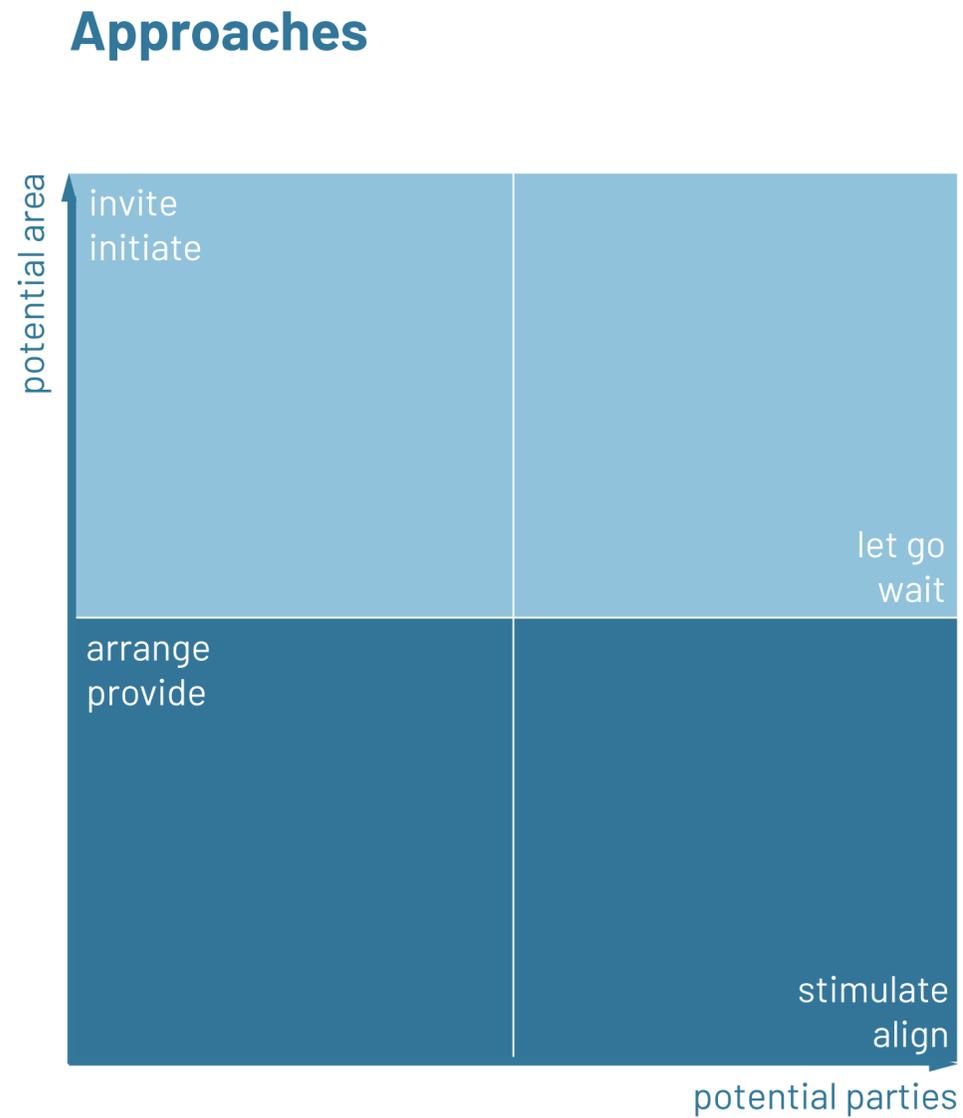


e.g.
development programme of requirements,
function as intermediary,
provide political backing

Key findings: Municipal involvement

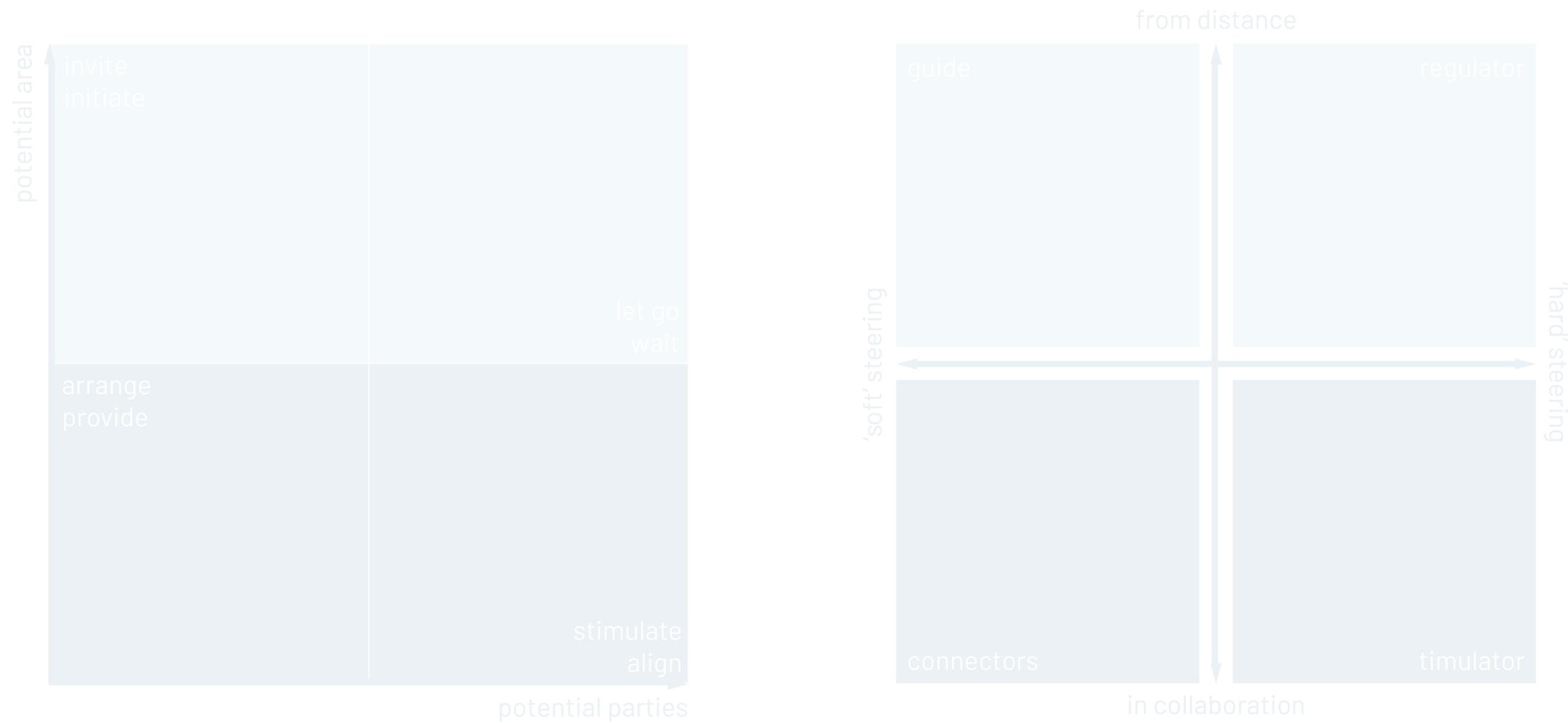


Key findings: Municipal involvement



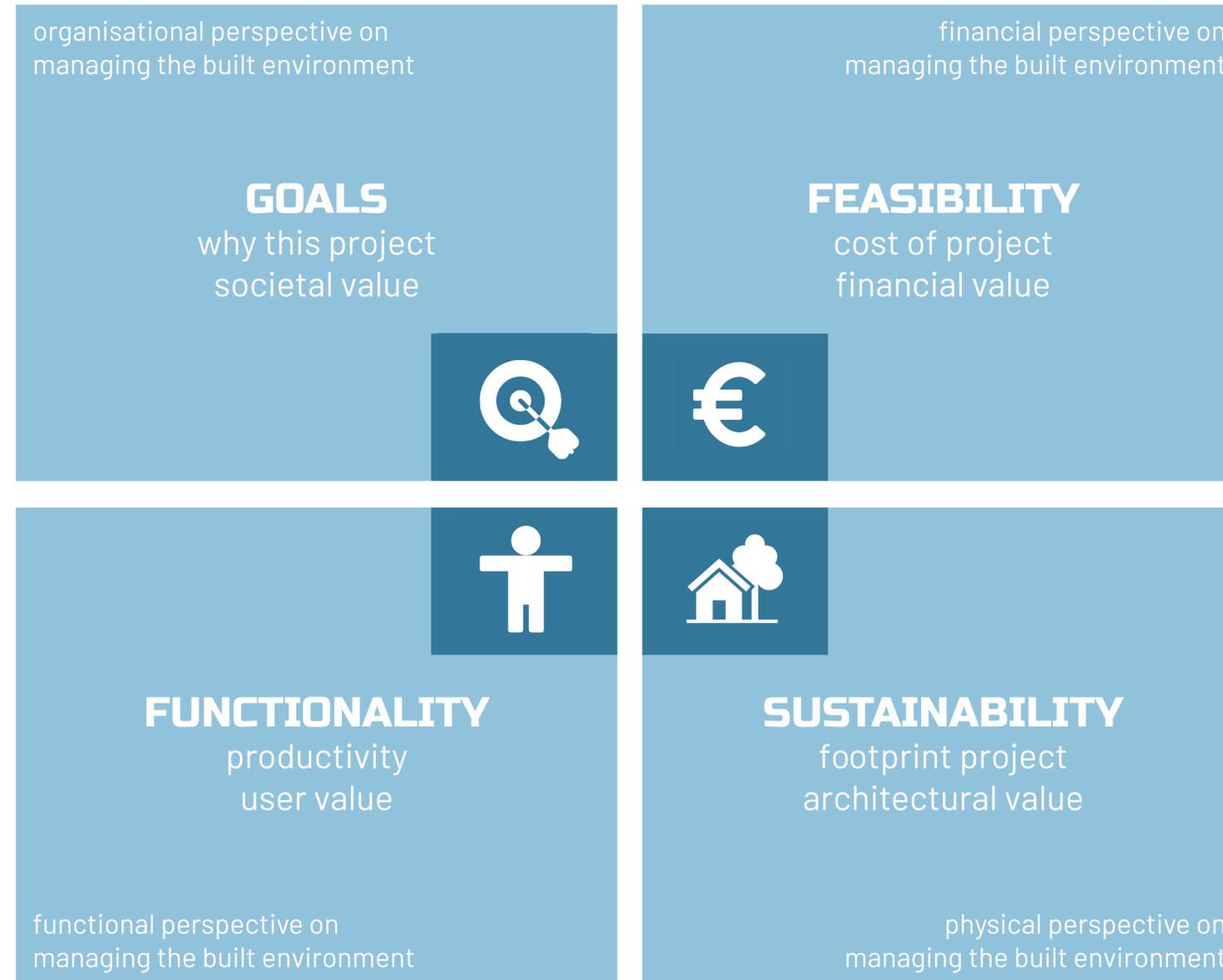
e.g.
design the decision-making process,
inviting end-users,
help find tenants

Key findings: Municipal involvement



! Municipalities choose active involvement to enable the adaptive reuse process, combining a lot of instruments from multiple 'types'.

Key findings: Public values



Key findings: Public values

e.g.
identity of the city,
preservation of historic value,
serving as catalyst for the area



Key findings: Public values

organisational perspective on managing the built environment

GOALS
why this project
societal value



financial perspective on managing the built environment

FEASIBILITY
cost of project
financial value



FUNCTIONALITY
productivity
user value

functional perspective on managing the built environment



SUSTAINABILITY
footprint project
architectural value

physical perspective on managing the built environment

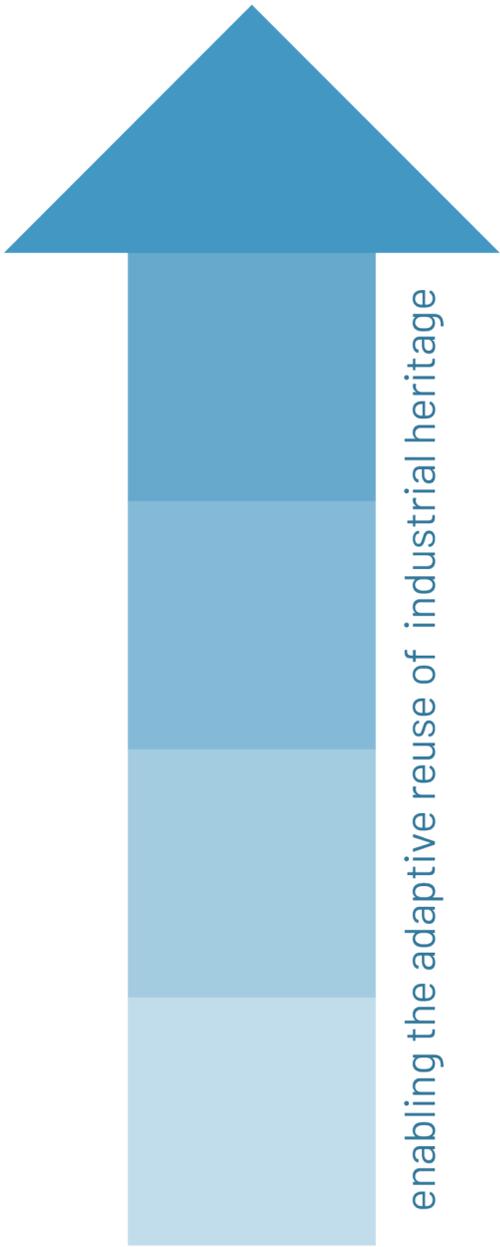
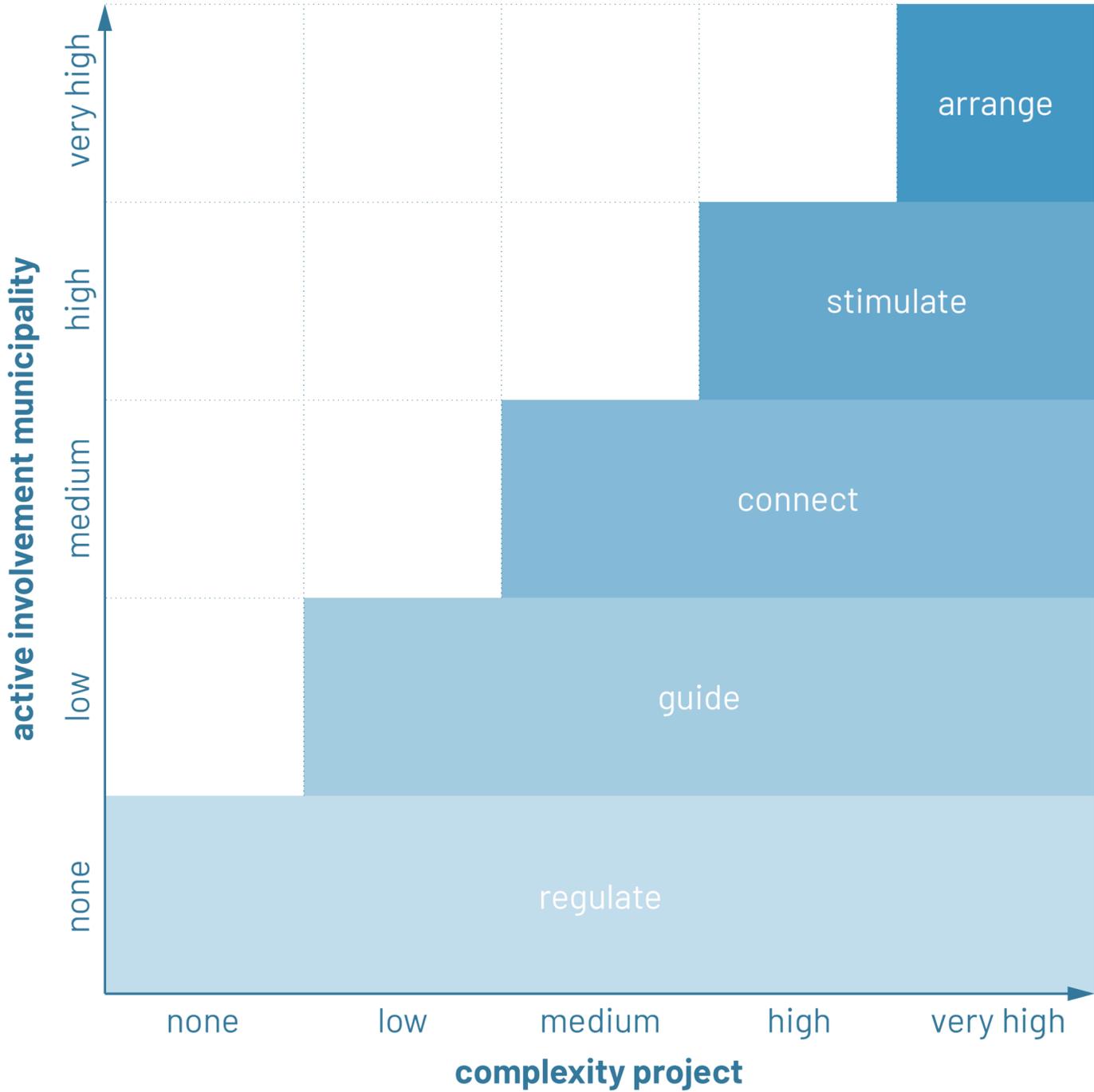
e.g.
operating costs,
enhancing the property value in the area,
positive impact on the touristic climate of the city

Key findings: Public values



! *Organisational and financial values are considered to be the most important, yet financial values also cause the greatest tension.*

Contribution to research: Developing a new model



Recommendations: research



More research !

- > understanding involvement of the municipality in context
- > studying influence of instruments on the process
- > mapping decision-making process of municipality

Recommendations: practice

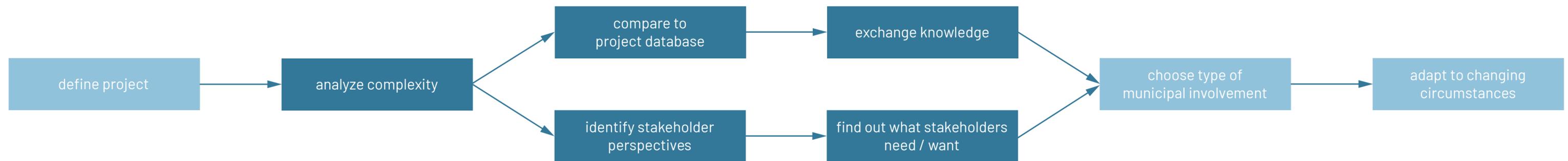


Be pro-active !

- > knowledge development and sharing
- > be aware of complexity
- > engage actively with other stakeholders



Photo: VNG (n.d.)



Conclusions

Conclusions

SQ4

Which (trade-off between public) values can municipalities take into consideration for their choice of involvement in the adaptive reuse process of industrial heritage?

SQ3

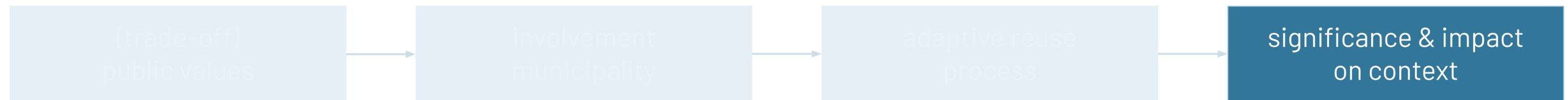
How are municipalities involved in the adaptive reuse process of industrial heritage buildings?

SQ2

What are the different steps in the adaptive reuse process of (industrial) heritage?

SQ1

What is the significance and impact of (the adaptive reuse of) industrial heritage for its context?



- > XL significance and impact
- > conservation
- > all different scales

Conclusions

SQ4

Which (trade-off between public) values can municipalities take into consideration for their choice of involvement in the adaptive reuse process of industrial heritage?

(trade-off)
public values

SQ3

How are municipalities involved in the adaptive reuse process of industrial heritage buildings?

involvement
municipality

SQ2

What are the different steps in the adaptive reuse process of (industrial) heritage?

adaptive reuse
process

- > first phases most important
- > biggest impact municipality
- > extensive pre-project phase
- > importance temporary use

SQ1

What is the significance and impact of (the adaptive reuse of) industrial heritage for its context?

significance & impact
on context

- > XL significance and impact
- > conservation
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Conclusions

SQ4

Which (trade-off between public) values can municipalities take into consideration for their choice of involvement in the adaptive reuse process of industrial heritage?

(trade-off)
public values

SQ3

How are municipalities involved in the adaptive reuse process of industrial heritage buildings?

involvement
municipality

- > municipalities are involved, often quite active
- > diverse set of instruments, combining multiple types
- > focus on working on collaboration, stimulation and arranging

SQ2

What are the different steps in the adaptive reuse process of (industrial) heritage?

adaptive reuse
process

- > first phases most important
- > biggest impact municipality
- > extensive pre-project phase
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SQ1

What is the significance and impact of (the adaptive reuse of) industrial heritage for its context?

significance & impact
on context

- > XL significance and impact
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Conclusions

SQ4

Which (trade-off between public) values can municipalities take into consideration for their choice of involvement in the adaptive reuse process of industrial heritage?

(trade-off)
public values

- > multi-dimensional nature
- > important organisational perspective
- > crucial financial perspective
- > no real 'trade-off'

SQ3

How are municipalities involved in the adaptive reuse process of industrial heritage buildings?

involvement
municipality

- > municipalities are involved, often quite active
- > diverse set of instruments, not one type
- > focus on working on collaboration, stimulation and arranging

SQ2

What are the different steps in the adaptive reuse process of (industrial) heritage?

adaptive reuse
process

- > first phases most important
- > biggest impact municipality
- > extensive pre-project phase
- > importance temporary use

SQ1

What is the significance and impact of (the adaptive reuse of) industrial heritage for its context?

significance & impact
on context

- > XL significance and impact
- > conservation
- > all different scales

How can the involvement of the municipality enable the adaptive reuse (process) of industrial heritage buildings in the Netherlands?

various opportunities and instruments to do so

active involvement highlighted in (successful) projects

more involvement in **pre-project phase**

dependent on context: **'be a chameleon'** (C1)

Questions?



Enabling the adaptive reuse of industrial heritage: A municipal perspective

Studying the involvement of the municipality
in the adaptive reuse process of
industrial heritage buildings in the Netherlands

P5 presentation
27 June 2023
H.L.F. (Nick) Coes

