

As Long as it Lasts

Improving the adaptive reuse process through strategy
application in mixed-use areas in The Netherlands

P5 presentation
Pien Wilmink
June 18th, 2025



Content.

Introduction

Methodology

Theory

Empirical research

Proposal

Discussion & Conclusion

Introduction.

What.

... is adaptive reuse?

What.

... is adaptive reuse?

Across use
adaptation



Major change in
**physical
building**



Major change in
**buildings
function**

Lochal.

Tilburg, Brabant



Build in 1934

NS workstation

Spoorzone

LoCHal.

Tilburg, Brabant

Build in 1934

NS workstation

Spoorzone

Municipal monument
(2015)

Lochal.

Tilburg, Brabant

Lochal

Area development

LoHal.

Tilburg, Brabant



Area development

Public building

Lochal.

Tilburg, Brabant



Area development

Public building

Mixed-use

LoHal. Tilburg, Brabant



Area development

Public building

Mixed-use

Bruis.

Bladel, Brabant



Build in 2001

Rabobank office

Non-monumental

Centrally at the
market square

Bruis.

Bladel, Brabant

Community centre



Bruis.

Bladel, Brabant

Community centre

Redesign of the
façade



Bruis.

Bladel, Brabant



Community centre

Redesign of the
façade

Annex

Bruis.

Bladel, Brabant



Community centre

Redesign of the
façade

Annex

Theatre hall

Zandkasteel.

Amsterdam, Noord-Holland

Build in 1987

ING Office





Zandkasteel.

Amsterdam, Noord-Holland

Build in 1987

ING Office

Bijlmer Area

Zandkasteel.

Amsterdam, Noord-Holland



Build in 1987

ING Office

Bijlmer Area

Zandkasteel.

Amsterdam, Noord-Holland

Build in 1987

ING Office

Bijlmer Area

Municipal monument
(2017)

Anthroposophy

Zandkasteel.

Amsterdam, Noord-Holland



Mixed-use building

Zandkasteel.

Amsterdam, Noord-Holland



Mixed-use building

Apartments

Zandkasteel.

Amsterdam, Noord-Holland



Mixed-use building

Apartments

Zandkasteel.

Amsterdam, Noord-Holland

Mixed-use building

Apartments

Preserving
architecture

Zandkasteel.

Amsterdam, Noord-Holland



Mixed-use building

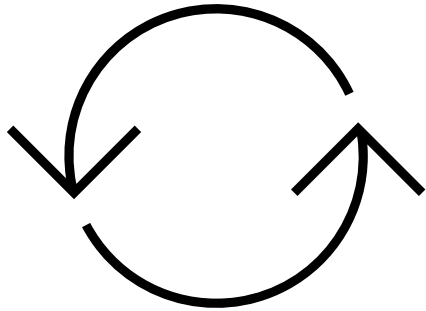
Apartments

Preserving
architecture

Why.

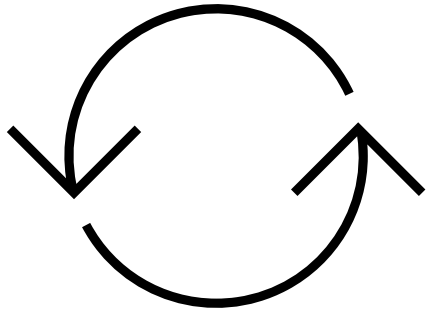


Why.



European Circularity
Action Plan

Why.

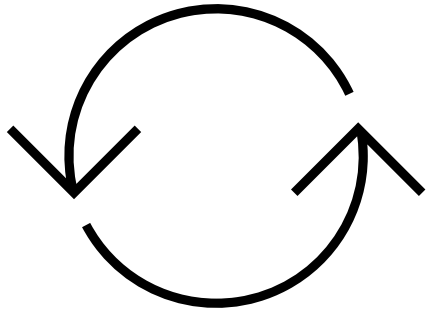


European Circularity
Action Plan

279.000

Vacant objects in the
Netherlands in 2024

Why.



European Circularity
Action Plan

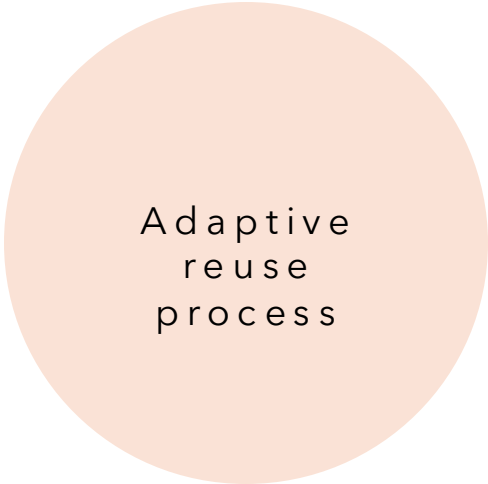
279.000

Vacant objects in the
Netherlands in 2024

87%

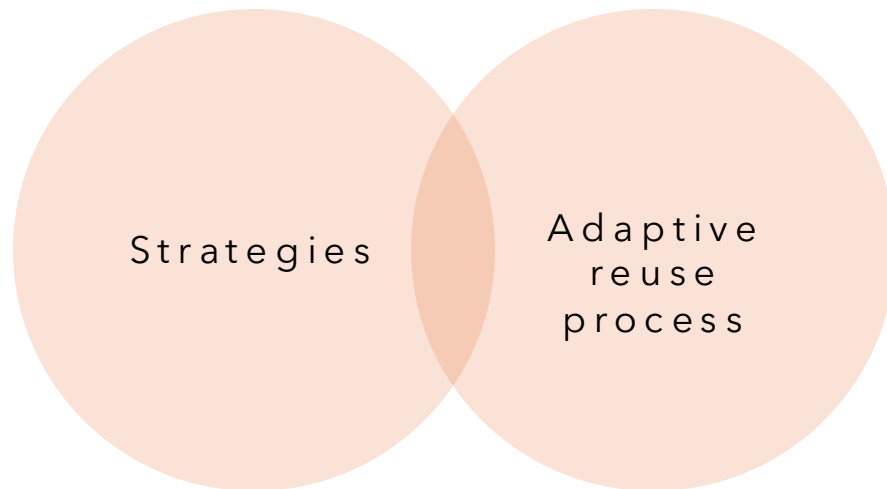
Of the needed building stock
for 2050 is already build

Concept.

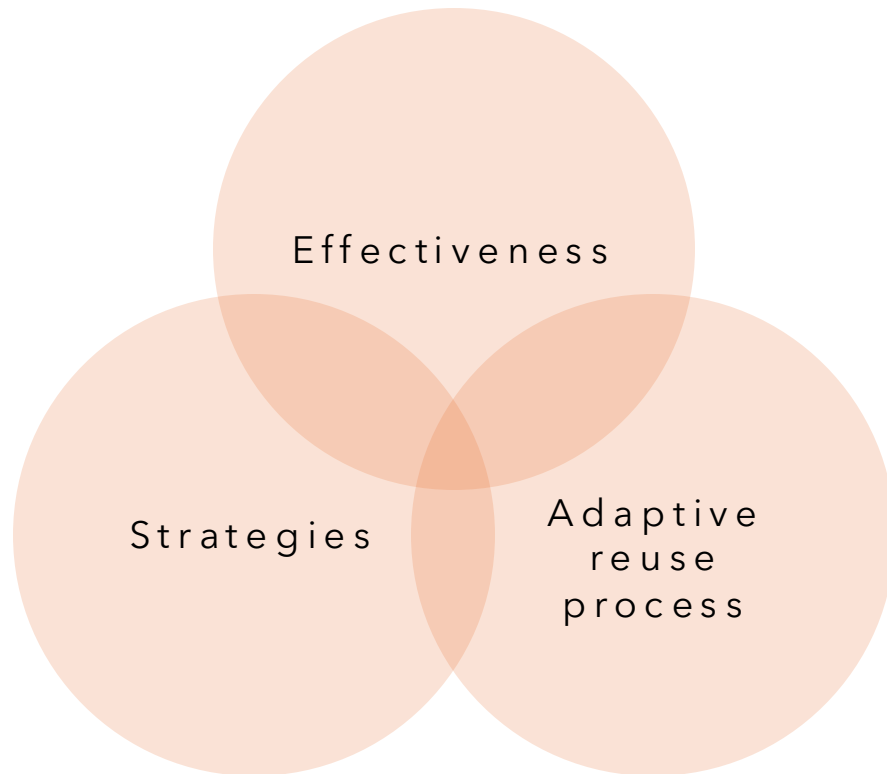


Adaptive
reuse
process

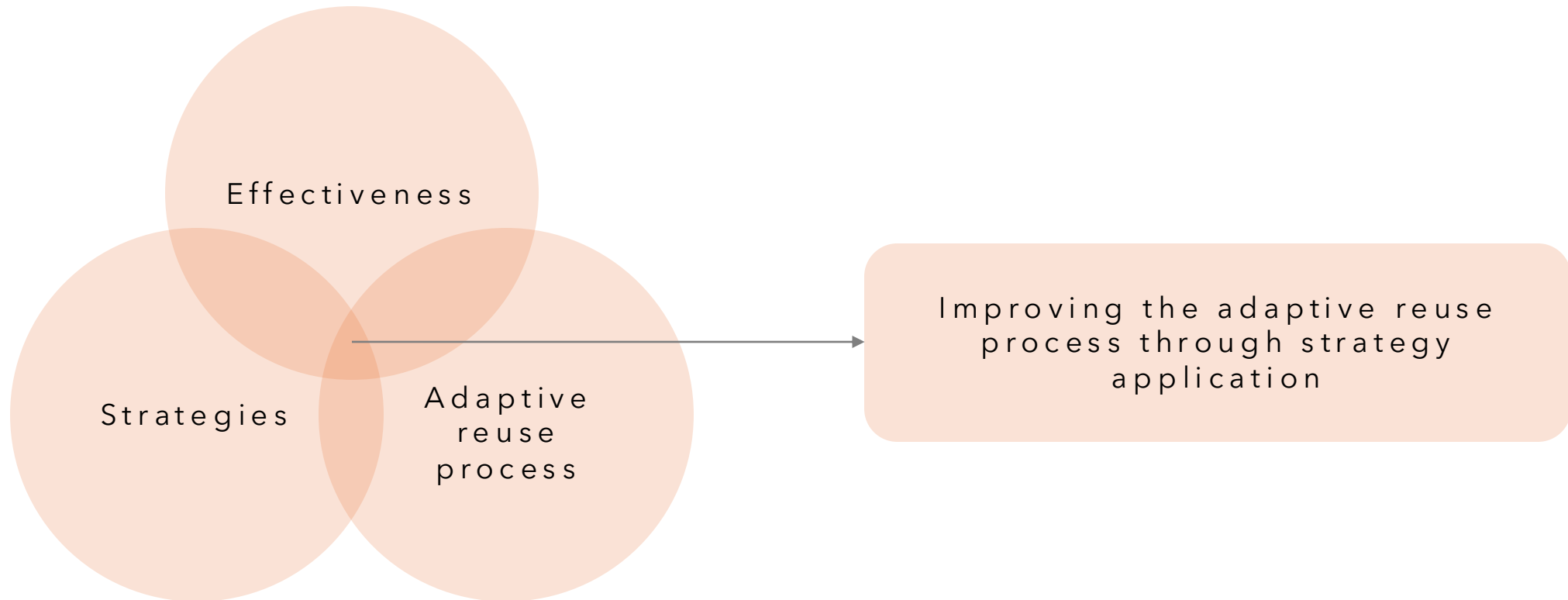
Concept.



Concept.



Concept.



Methodology.

How.

"Development of a list of strategies to improve the adaptive reuse process in mixed-use areas in The Netherlands."

How.

“Development of a list of strategies to improve the **adaptive reuse process** in mixed-use areas in The Netherlands.”

1. What is the adaptive reuse process?

How.

"Development of a list of strategies to improve the adaptive reuse process in **mixed-use areas in The Netherlands.**"

1. What is the adaptive reuse process?
2. What are benefits of adaptive reuse in mixed-use areas?

How.

“Development of a list of strategies to improve the adaptive reuse process in mixed-use areas in The Netherlands.”

1. What is the adaptive reuse process?
2. What are benefits of adaptive reuse in mixed-use areas?
3. How can effectiveness be measured in adaptive reuse?

How.

“Development of a list of **strategies** to improve the adaptive reuse process in mixed-use areas in The Netherlands.”

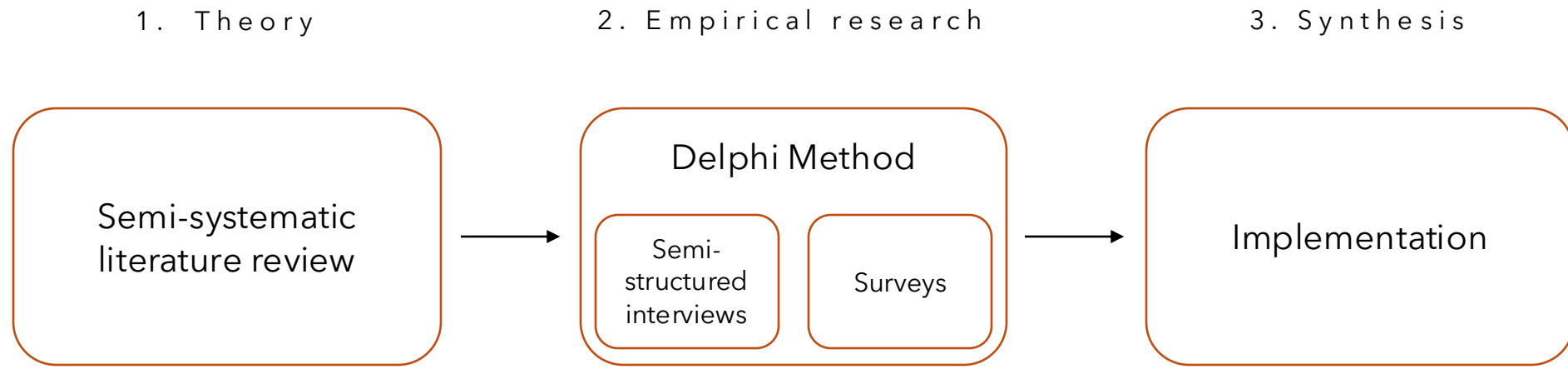
1. What is the adaptive reuse process?
2. What are benefits of adaptive reuse in mixed-use areas?
3. How can effectiveness be measured in adaptive reuse?
4. What strategies are applicable in the adaptive reuse process?

How.

“Development of a list of strategies to **improve** the adaptive reuse process in mixed-use areas in The Netherlands.”

1. What is the adaptive reuse process?
2. What are benefits of adaptive reuse in mixed-use areas?
3. How can effectiveness be measured in adaptive reuse?
4. What strategies are applicable in the adaptive reuse process?
5. What strategies can most effectively improve future adaptive reuse projects?

Method.



Theory.

Adaptive reuse process.

Across use adaptation

Adaptive reuse process.

Across use adaptation

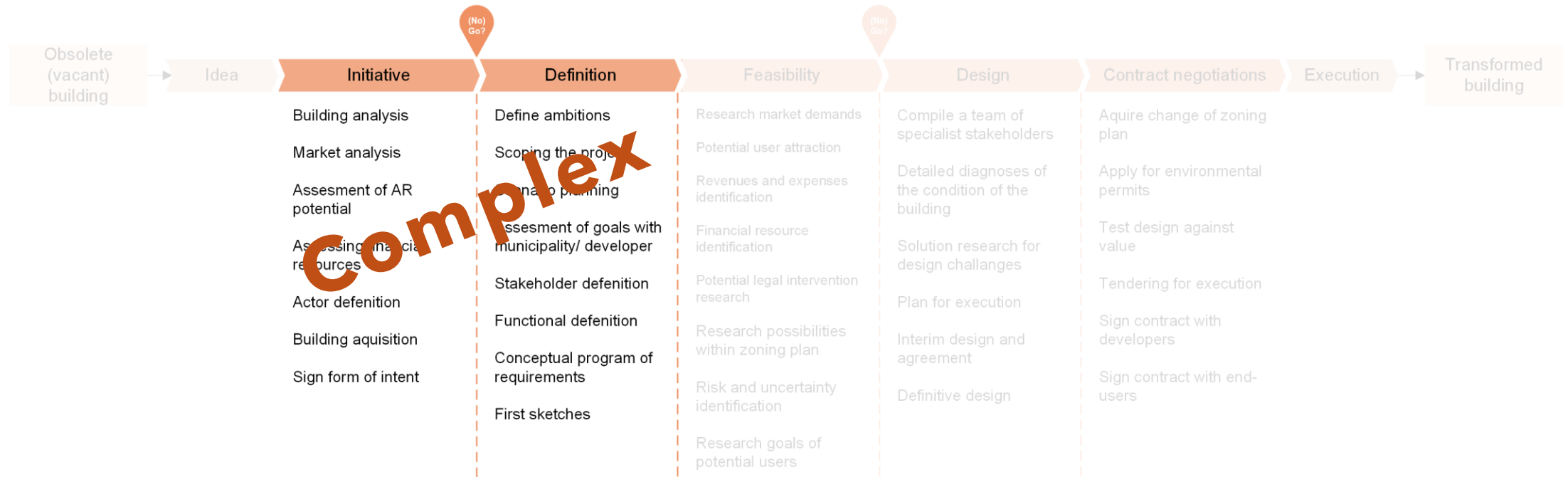
Project phases



Adaptive reuse process.

Across use adaptation

Project phases



Adaptive reuse process.

Across use adaptation

Project phases

Stakeholder groups

Internal		External	
Investors	Producers	Users	Regulators
Client	Architects	Residents	Regulatory agencies
Financiers	Engineer(s)	Local landowners	Local government
Clients' employees	Manager	Conservationists	National government
Clients' customers	Principal contractors	End-user	Environmentalists
Clients' tenants	Material suppliers		Archaeologists
Clients' suppliers			NGO
Building owner(s)			

Mixed-use areas.

Transformation potential

Resilient areas

Neighbourhood revitalisation

Effectiveness.

Economic value

Social value

Innovation

Architectural value

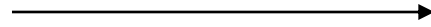
Effectiveness.

Economic value

Social value

Innovation

Architectural value



Overall project success

Strategy.

Definition

1. Foster a goal
2. Goals serve main purpose
3. Actionable

Strategy.

Definition

Legal

Economy

Preparation

Communication

**Building &
Environment**

Themes

Strategy.

Definition

Themes

Occurrence

Strategy		Andriessen, 1999	Balt, 2002	Kurul, 2003	Douglas, 2006	Bullen, 2007	Remey & van der Voordt, 2007	BOEI, 2009	Bond, 2011	Volker, 2011	Bullen & Love, 2011c	Yung & Chan, 2012	Fleuren, 2013	Manewa et al., 2013	Dyson et al., 2016	Tan et al., 2018	van Hout, 2021	Pintossi et al., 2023	Golić et al., 2023	van Wijk, 2024	Vafaei et al., 2025	Total
Legal	Create land use/ zoning flexibility		1		1						1		1		1							5
	Reserve extra time for legal procedures	1																				1
	Require multiple-use building										1											1
	Change building code to allow flexibility and creativity in adaptive reuse		1		1	1			1		1			1		1						7
	Require public participation															1				1		2
	Create political support							1						1		1	1					4
economic	Use financing methods (ex. PPP) to reduce risks															1						1
	Reduce project timeline to reduce risks						1				1					1						3
	Provide with (financial) incentives for adaptive reuse			1		1			1							1						4
	Seek for financial support from authorities					1			1													2
	Find inovative financing sources															1	1					2
	Reserve more time for feasibility studies	1									1											2
	Communicate economic inpact and catalytical effects with policymakers					1			1													2
	Conduct feasibility studies with experts	1																				1
	Suppress maintainance costs							1			1					1						3
	Seek early advise on building condition research						1	1							1	1						4
Preperation	Early determination of conservation/demolishment of building parts	1													1							2
	Early construction team involvement	1	1					1	1				1				1					6
	Early end user involvement	1						1		1							1					4
	Create a public support base							1														1
	Involve advisors experienced in adaptive reuse	1					1	1	1	1							1	1				7
	Create awareness of the AR opportunities				1	1	1				1							1	1			6
	Manage in a way that project complexity does not peak during construction		1																			1
	Seek for an innovative/creative designer														1		1				1	3
	Engage communities/local businesses in the process											1				1		1		1		4
Communication	Create a clear ambition document							1		1			1				1					4
	Collaboration with stakeholders in all stages of the process									1			1									2
	Enhance communication between stakeholders			1				1		1			1									4
	Use adaptive reuse as a part of area development to revitalise neighbourhoods											1				1			1			3
Building & environment	Regard the interest of the wider community											1					1	1				3
	Minimise changes to the building					1					1				1							3
	create "good fit" between the old and new building function					1					1				1						1	4
	AR with application of green concepts														1							1
	Set high sustainability ambitions									1												1
																						1

Strategy.

Definition

Themes

Occurrence

Final list

	Legal	Economy	Preparation	Communication	Building & Environment
	Create land use / zoning flexibility.	Reduce the project timeline to reduce risks.	Seek early advice on building condition research.	Engage communities / local businesses in the process.	Use adaptive reuse to revitalise neighbourhoods.
	Change building codes to allow flexibility and creativity.	Provide with incentives for adaptive reuse.	Involve the construction team early.	Create a clear ambition document.	Take the interest of the wider community into account.
	Create political support.	Suppress maintenance costs.	Involve end users early.	Enhance communication between stakeholders.	Minimise changes to the building.
			Involve advisors experienced in adaptive reuse.		Create a "good fit" between the old and new building function.
			Create awareness of the adaptive reuse opportunities.		
			Seek for an innovative / creative designer.		

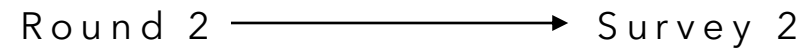
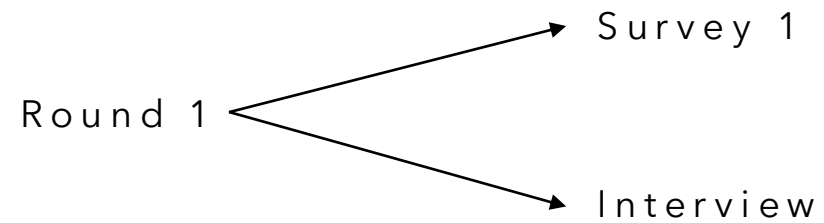
Empirical Research.

Delphi.

Modest group size requirements

Increased validity

No physical meeting



Selection criteria.

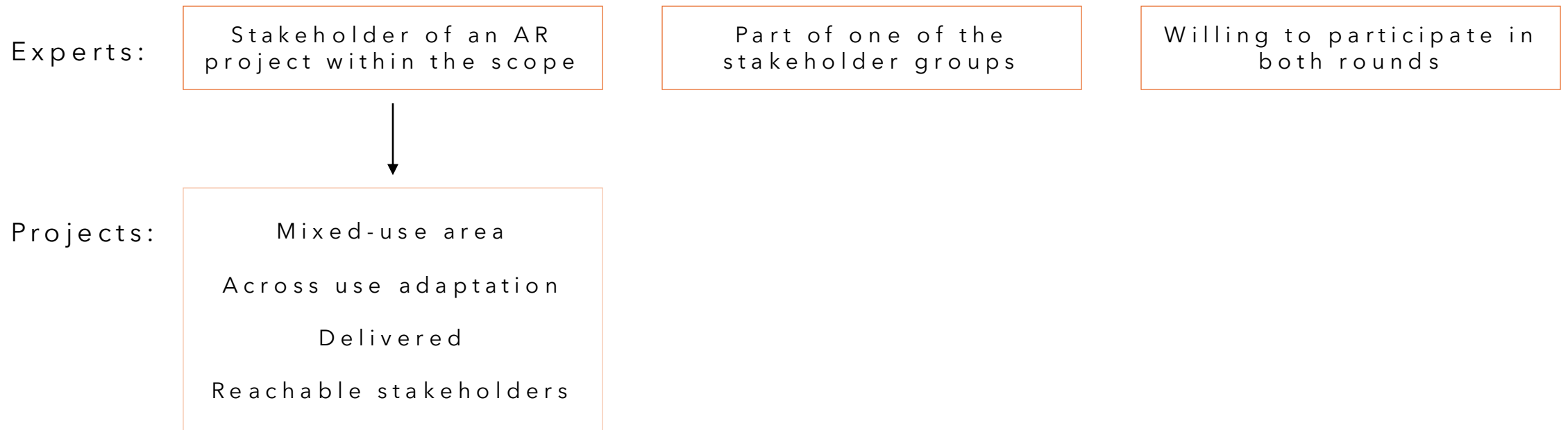
Experts:

Stakeholder of an AR
project within the scope

Part of one of the
stakeholder groups

Willing to participate in
both rounds

Selection criteria.



Case.

LocHal Tilburg



Architect (B)

Architect (C)

Contractor

End User

Bruis Bladel



Municipality/Client

Zandkasteel Amsterdam



Architect

Contractor

Developer/Client

Independent from case



Architect/Project
Manager

Architect/NRP

Project Manager

Developer

Delphi round 1.

Survey 1

Delphi round 1.

Survey 1

$$Index = \frac{1 * n1 + 2 * n2 + 3 * n3 + 4 * n4 + 5 * n5}{5 * N}$$

$$Result1 = \frac{Index^{EV} + Index^{SV} + Index^I + Index^{AV} + Index^{OPS}}{5}$$

Delphi round 1.

Survey 1

Rank	Strategy	Result 1
1	Involve advisors experienced in adaptive reuse	0,80
2	Provide with (financial) incentives for adaptive reuse	0,77
3	Involve construction team early	0,73
4	Use adaptive reuse as a part of area development to revitalise neighbourhoods	0,72
5	Create political support	0,70
6	Create a clear ambition document	0,70
7	Engage communities/local businesses in the process	0,70
8	Seek for an innovative/creative designer	0,70
9	Create land use/ zoning flexibility	0,68
10	Seek early advise on building condition research	0,68
11	Enhance communication between stakeholders	0,67
12	Involve end user early	0,66
13	Reduce project timeline to reduce risks	0,64
14	Create awareness of the adaptive reuse opportunities	0,64
15	Change building code to allow flexibility and creativity in adaptive reuse	0,63
16	Suppress maintenance costs	0,63
17	create a 'good fit' between the old and new building function	0,61
18	Minimise changes to the building	0,56
19	Take the interest of the wider community into account	0,51

Delphi round 1.

Survey 1

Interviews

Delphi round 1.

Survey 1

Interviews

Additional
strategies

Legal	Economy	Preparation	Communication	Building & Environment
Take on an encouraging attitude as regulatory authority.	Invest municipal money in adaptive reuse projects as part of area development.	Integrally analyse and design the building and its contexts.	Involve someone with knowledge about adaptive reuse at the side of the client.	Stay involved as a client by managing the building after completion.
Draw up clear contract document.	Reserve more money for unforeseen circumstances.	Research the question/ call for tender extensively.	Remain the same design and construction team for multiple projects.	Give the building back to the community.
Make adaptive reuse obligatory by law.	Leave some technical building research to be done during execution.	Formulate a strong concept/ vision with all stakeholders.	Involve a neutral party safeguarding inclusion and communication.	Maintain intangible values of the existing building.
			Involve end users in the analysis and research.	Analyse, work, design, and make choices at the project site.
				Create structures and layers in the building which facilitate future alterations.
				Stay involved as a client by managing the building after completion.

Delphi round 2.

Survey 2

Delphi round 2.

Survey 2

Strategy top 10

Moment in the process

Stakeholders

Focus points

Delphi round 2.

Survey 2

Strategy top 10

Moment in the process

Stakeholders

Focus points

$$Result2 = \frac{37 * r1 + 36 * r2 + 35 * r3 + 34 * r4 + 33 * r5 + 32 * r6 + 31 * r7 + 30 * r8 + 29 * r9 + 28 * r10}{37 * N}$$

Delphi round 2.

Survey 2

Final ranking

Delphi round 2.

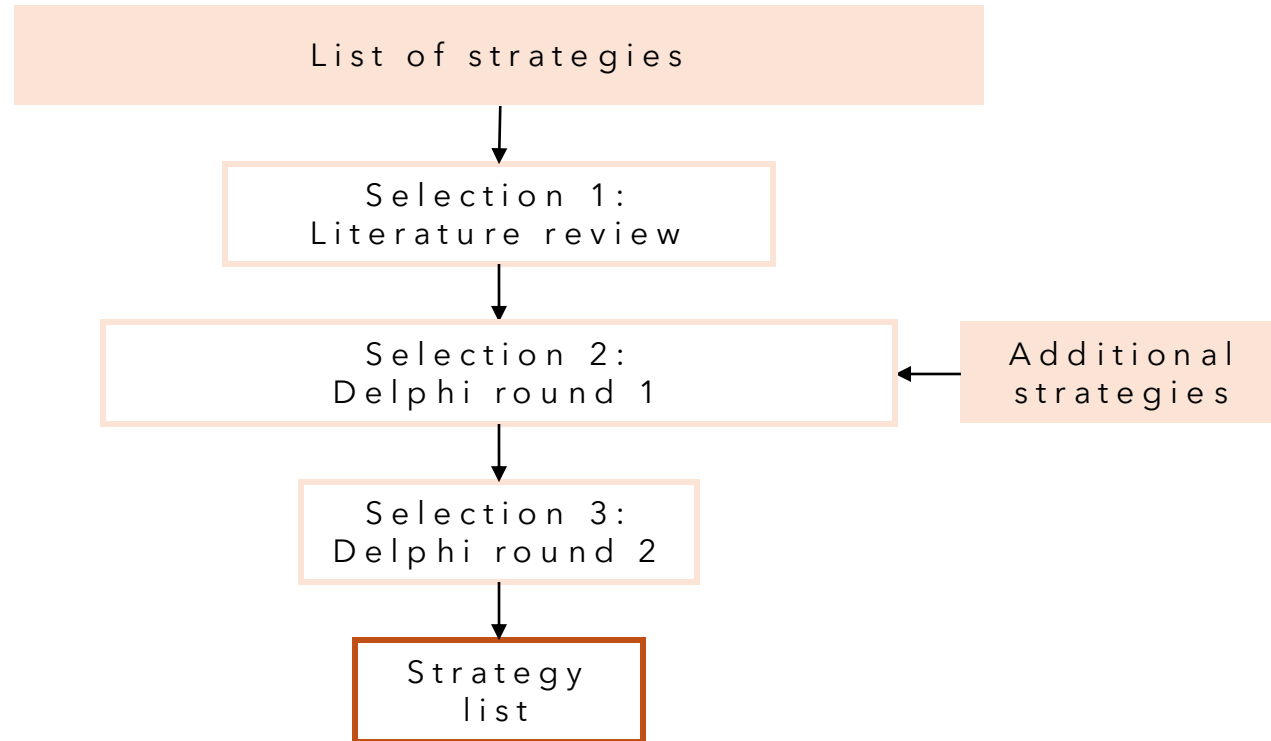
Survey 2

Final ranking

1. Formulate a strong concept / vision with all stakeholders
2. Involve advisors experienced in adaptive reuse
3. Reserve more money for unforeseen circumstances
4. Involve the construction team (bouwteam) early
5. Seek for an innovative/creative designer
6. Integrally analyse and design the building and its context
7. Create political support
8. Involve the end user early
9. Engage communities/local businesses in the process
10. Minimise changes to the building
11. Maintain intangible values of the existing building
12. Create structures/layers in the building which facilitate future alterations
13. Create awareness of the adaptive reuse opportunities
14. Stay involved as a client by managing the building after completion

Proposal.

Compiling the list.



Synthesis.

Who?

Stakeholder groups needed for the strategy to be implemented.

When?

Moment in the process when the strategy should be applied.

How?

Application of the strategy in practice.

List.

Client

How to use

List.

Client

How to use

Improving the adaptive reuse process

The adaptive reuse process is dynamic and complex. The checklist presented in this document is compiled to aid the client of the project. It aims to create clarity by presenting actionable choices, referred to as strategies, which are most effective to improve the adaptive reuse process. This document can be used as a supplement to contracting documents with stakeholders in the early stages of the adaptive reuse process, to ensure that the application of the strategies is safeguarded.


How to use?


The visualisation of the strategy list on the next page is to be read from left to right. On the X-axis the time in the AR process and the corresponding phases are visualised. On the Y-axis the level of influence of each phase is shown, which is based on the strategy ranking.


At the upper part of the process line, the implication of the strategies is shown. Each strategy is described in the 'strategy checklist' part, on this page. At the lower part of the process line, the reoccurrence of the strategies is shown.


The adaptive reuse process knows four groups of stakeholders: investors, producers, users, and regulators. For each strategy in the tool, the involved stakeholder groups are designated.

Stakeholders

 **Investors:** bring in monetary resources and have a pragmatic view on the project.

 **Producers:** Take part in decision-making processes and prepare and actualise the building.

 **Users:** Represent the demand for future use.

 **Regulators:** Aim to accomplish goals regarding the areas' economics, environment and socio-cultural aspects.

List.

Client

How to use

Strategy list

Improving the adaptive reuse process

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 **Regulators:** Aim to accomplish goals regarding the areas' economics, environment and socio-cultural aspects.

Strategy checklist

1 Formulate a strong vision/concept together with all stakeholders

Involving all stakeholders in the creation of the vision fosters authenticity and enthusiasm across all parties. Such involvement ensures continued commitment and generates widespread support, thereby increasing the feasibility of the project.

2 Involve advisors experienced in adaptive reuse

Adaptive reuse projects demand specific expertise from advisors, who must possess a thorough understanding of the existing building. The knowledge and experience of advisors are critical drivers of project feasibility.

3 Reserve more money for unforeseen circumstances

High complexity in adaptive reuse results in higher risks. Reserving extra money reduces the impact of these risks. Involvement of a financial expert aids in making informed choices and increases financial feasibility.

4 Involve the construction team (bouwteam) early

Early involvement of the construction team leads to more accurate planning and budget estimations. Expertise (especially the contractor) brought into the project at an early stage reduces risks later and supports informed decision-making.

5 Seek for an innovative/creative designer

The architect acts as a key stakeholder and carries the vision, while also playing a vital role in communicating ambitions and alternative solutions to the municipality and other stakeholders. A heterogeneous architectural team incorporates diverse perspectives.

6 Integrally analyse and design the building and its context

Awareness that adaptive reuse projects necessitate an integrated approach is a precondition. The client must organise the team, engage a suitable architect, and consult the municipality regarding opportunities and risks to conduct and comprehensive research.

7 Create political support

Early engagement of alderman (or even the mayor) fosters trust and allows regulating parties to contribute ideas, which can be crucial for accelerating permit procedures and changes to zoning plans. Political support can also lead to financial assistance.

8 Involve the end user early

Early involvement of end users introduces diversity into the project team and enables the programme to be tested against user expectations. By granting a clear mandate, the end users' input can support the assessment of the redesign's social value.

9 Engage communities/local businesses in the process

Local communities and businesses can offer insights that may not be apparent to the project team. Their repeated involvement builds mutual trust and fosters support throughout the process.

10 Minimise changes to the building

Minimising alterations helps to preserve the building's identity, fosters broader support, and simplifies complex permit processes. The extent to which changes should be limited depends on the specific building, making thorough analysis critical.

11 Maintain intangible values

Existing buildings always have a historical, cultural or emotional value. Comprehensive research into the building is essential to identify and define its intangible values. Governments can play a supporting role.

12 Create structures/layers in the building which facilitate future alterations

Anticipation on potential future changes in the building's function should be incorporated into the design tender. Future transformations can be facilitated by features such as sufficient daylight, generous spatial arrangements, the use of natural materials, and flexible structural systems.

13 Create awareness of the adaptive reuse opportunities

Experience within the design and construction teams plays a vital role for creating awareness. Awareness can be raised through innovative thinking, the avoidance of the most straightforward solutions, and the creation of multifunctional programmes and spaces.

14 Stay involved as a client by managing the building after completion

Continued client involvement following project completion allows the original visions and ambitions to be further developed in use. The client's intimate understanding of their own design choices ensures that the intended user groups remain engaged.

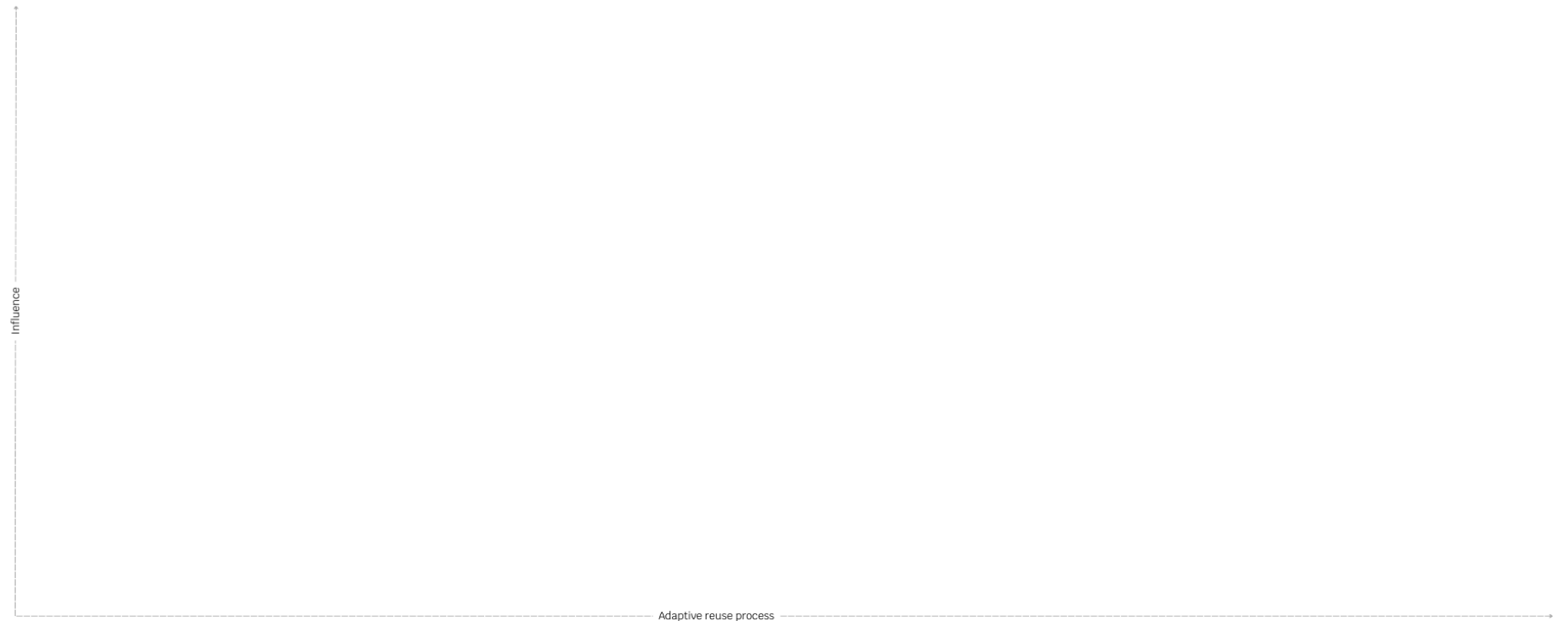
List.

Client

How to use

Strategy list

Visualisation



Legend



Time in the AR process



Influence of the phase according to the ranking of the strategies

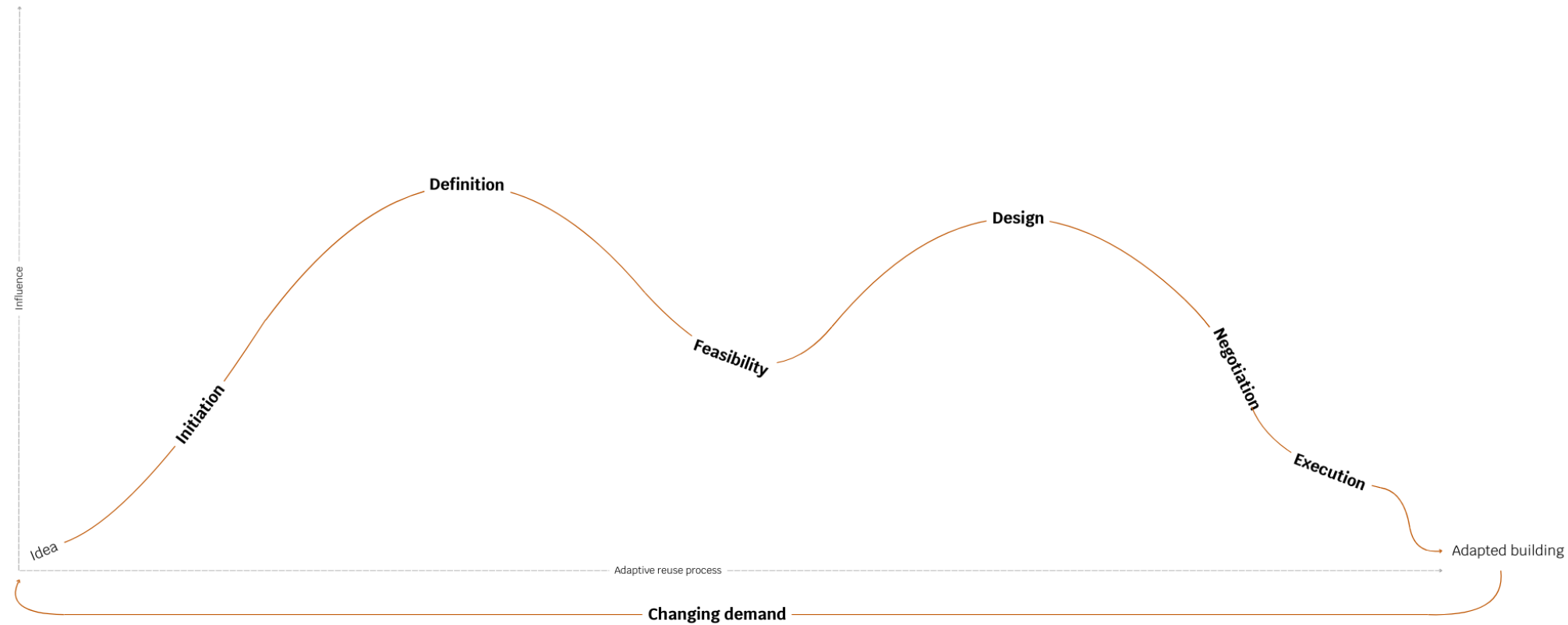
List.

Client

How to use

Strategy list

Visualisation



Legend

→ Time in the AR process

↑ Influence of the phase according to the ranking of the strategies

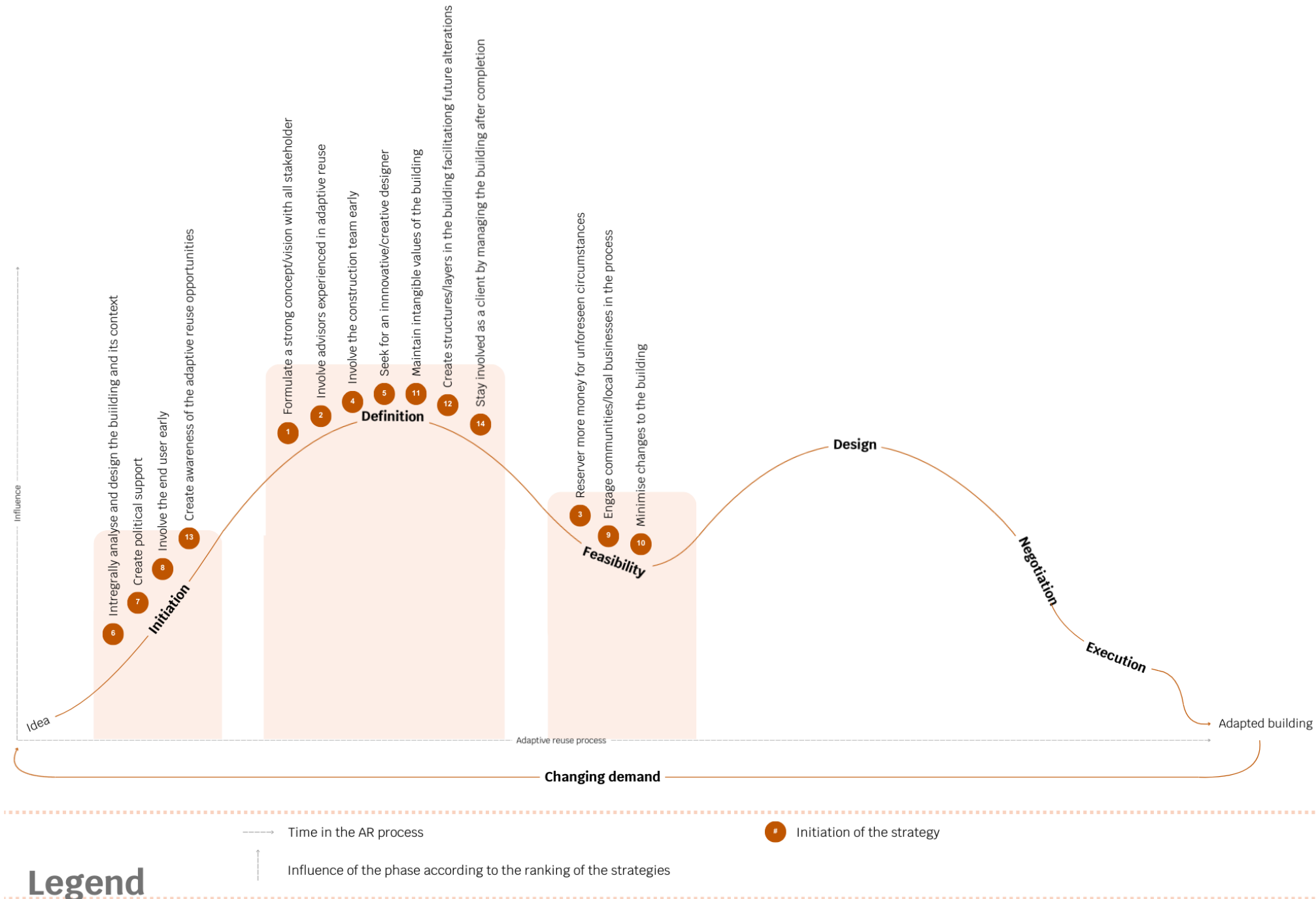
List.

Client

How to use

Strategy list

Visualisation



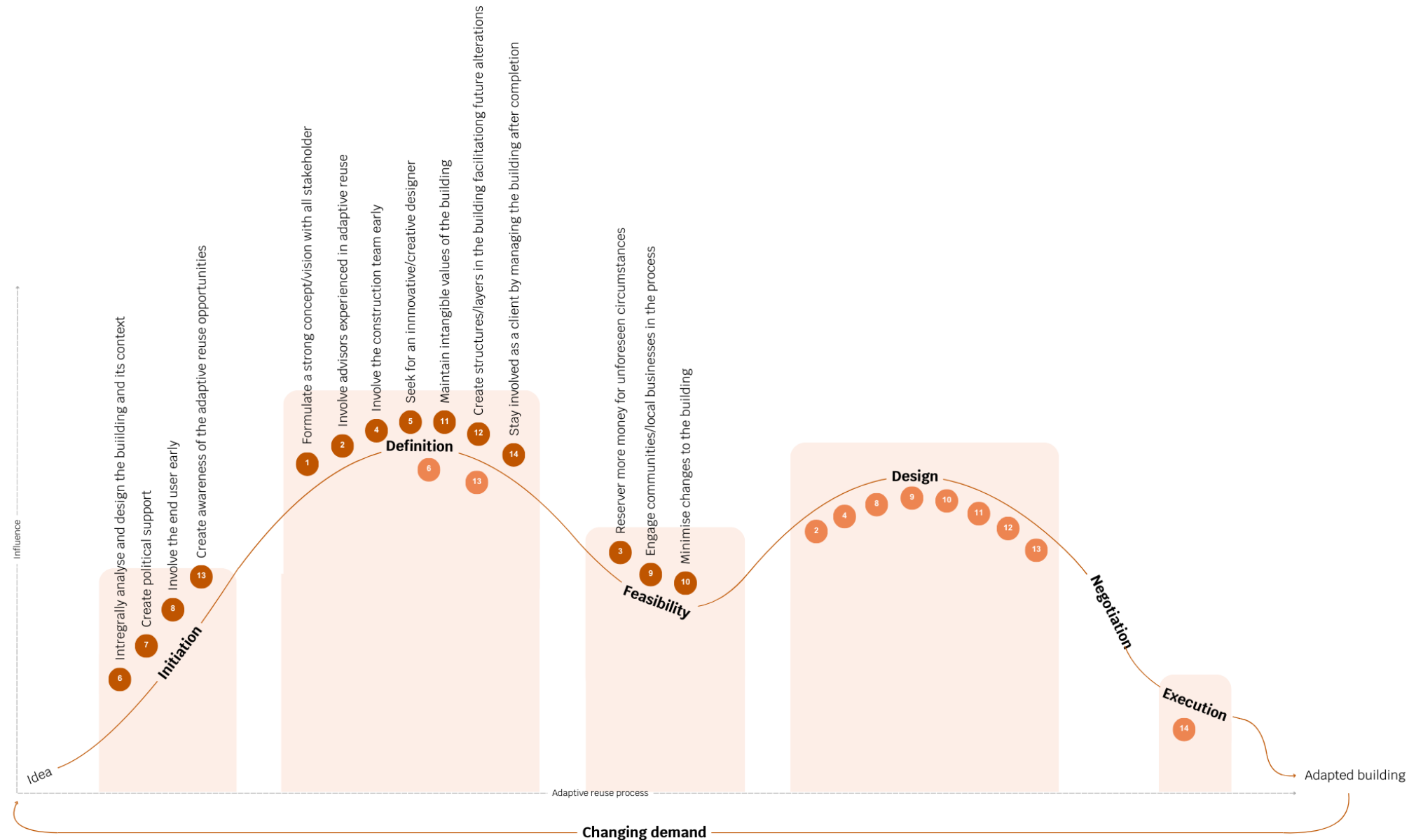
List.

Client

How to use

Strategy list

Visualisation



Legend

→ Time in the AR process



Influence of the phase according to the ranking of the strategies

● Initiation of the strategy

● Reoccurrence of the strategy

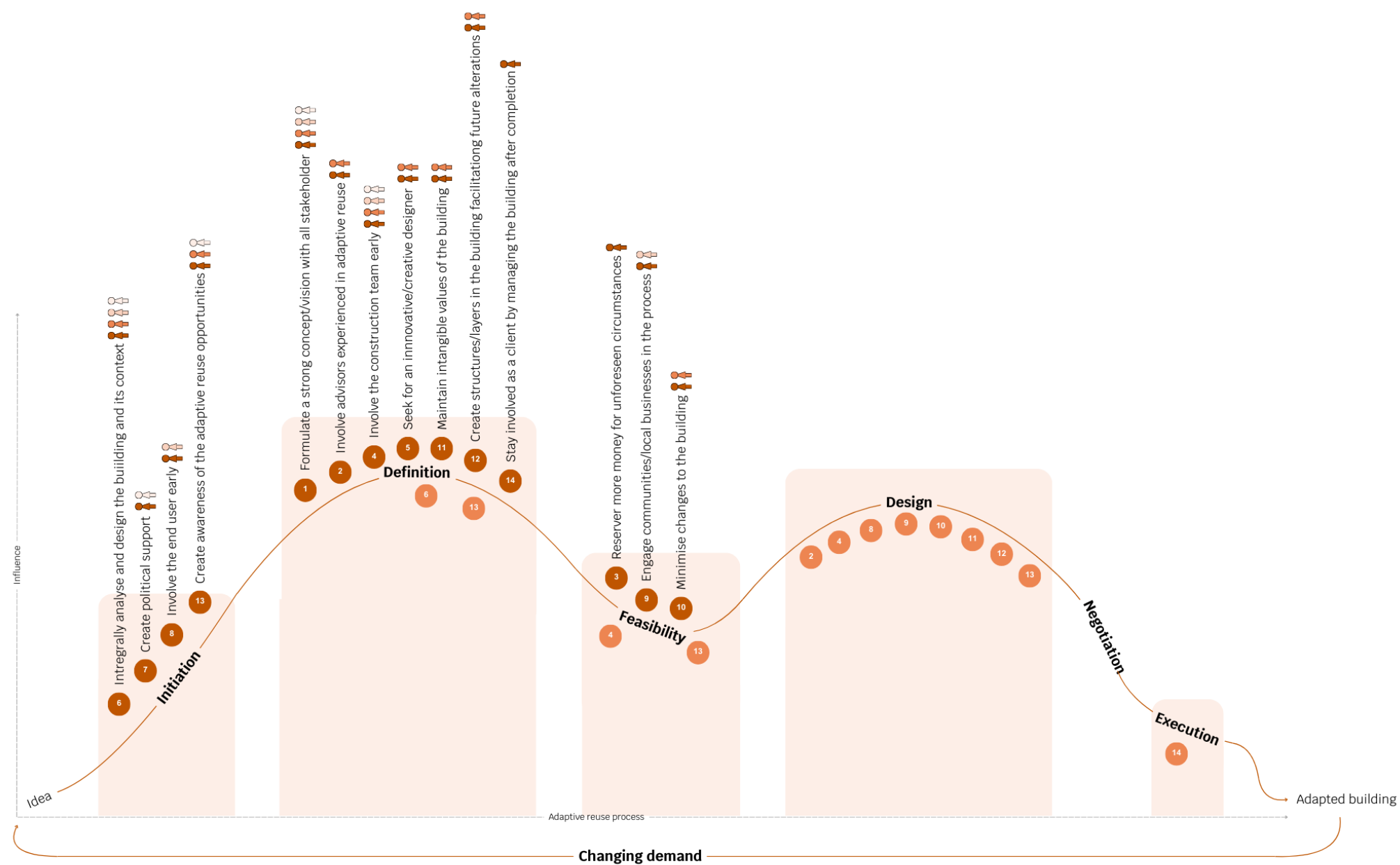
List.

Client

How to use

Strategy list

Visualisation



Legend

→ Time in the AR process



Influence of the phase according to the ranking of the strategies

● Initiation of the strategy

● Reoccurrence of the strategy

● Investors

● Producers

● Users

● Regulators

Discussion & Conclusion.

Discussion & Limitations.

Theory

Problem versus findings

Definition of a strategy

Measuring effectiveness

Stakeholder groups

Discussion & Limitations.

Theory

Problem versus findings

Definition of a strategy

Measuring effectiveness

Stakeholder groups

Empirical research

Stakeholder
representation

Experts influence

Discussion & Limitations.

Theory

Problem versus findings

Definition of a strategy

Measuring effectiveness

Stakeholder groups

Empirical research

Stakeholder
representation

Experts influence

Implication

Application

Context

Conclusion.

"Development of a list of strategies to improve the adaptive reuse process in mixed-use areas in The Netherlands."

Conclusion.

The **initiation and definition phase** of the adaptive reuse process are most complex. Most strategies assessed as **highly effective** on improving the outcome of the process are allocated to these phases;

Conclusion.

The **initiation and definition phase** of the adaptive reuse process are most complex. Most strategies assessed as **highly effective** on improving the outcome of the process are allocated to these phases;

Out of the fourteen most effective strategies, **seven are from the theme 'preparation'**. This emphasises the importance of this theme;

Conclusion.

The **initiation and definition phase** of the adaptive reuse process are most complex. Most strategies assessed as **highly effective** on improving the outcome of the process are allocated to these phases;

Out of the fourteen most effective strategies, **seven are from the theme 'preparation'**. This emphasises the importance of this theme;

The fourteen most effective strategies are predominantly **initiated by the client**. To be able to apply the strategies the client needs to know **when** and **how** these should be implemented, and **which stakeholders should be involved**;

Conclusion.

The **initiation and definition phase** of the adaptive reuse process are most complex. Most strategies assessed as **highly effective** on improving the outcome of the process are allocated to these phases;

Out of the fourteen most effective strategies, **seven are from the theme 'preparation'**. This emphasises the importance of this theme;

The fourteen most effective strategies are predominantly **initiated by the client**. To be able to apply the strategies the client needs to know **when** and **how** these should be implemented, and **which stakeholders should be involved**;

Ultimately the strategy list provides with **overview** for the client and can be used during the process both to **communicate** with stakeholders, and as a **checklist** when compiling **contract documents**.

Recommendations.

...for practice

Use the list for communication and in
compiling contracts

Focus on preparation

Foster knowledge exchange

Adapt the list to project specific needs

...for research

Validate in practice

Incorporate circularity considerations

Reassess project success and effectiveness

Different geographical contexts

Specification of stakeholders

Relevance for new-build

Recommendations.

...for practice

Use the list for communication and in
compiling contracts

Focus on preparation

Foster knowledge exchange

Adapt the list to project specific needs

...for research

Validate the strategies in practice

Incorporate circularity considerations

Reassess project success and effectiveness

Regard different contexts

Specify stakeholders

Thank you.
Questions?

P5 presentation
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Improving the adaptive reuse process

The adaptive reuse process is dynamic and complex. The checklist presented in this document is compiled to aid the client of the project. It aims to create clarity by presenting actionable choices, referred to as strategies, which are most effective to improve the adaptive reuse process. This document can be used as a supplement to contracting documents with stakeholders in the early stages of the adaptive reuse process, to ensure that the application of the strategies is safeguarded.


How to use?


The visualisation of the strategy list on the next page is to be read from left to right. On the X-axis the time in the AR process and the corresponding phases are visualised. On the Y-axis the level of influence of each phase is shown, which is based on the strategy ranking.


At the upper part of the process line, the implication of the strategies is shown. Each strategy is described in the 'strategy checklist' part, on this page. At the lower part of the process line, the reoccurrence of the strategies is shown.


The adaptive reuse process knows four groups of stakeholders: investors, producers, users, and regulators. For each strategy in the tool, the involved stakeholder groups are designated.

Stakeholders

 **Investors:** bring in monetary resources and have a pragmatic view on the project.

 **Producers:** Take part in decision-making processes and prepare and actualise the building.

 **Users:** Represent the demand for future use.

 **Regulators:** Aim to accomplish goals regarding the areas' economics, environment and socio-cultural aspects.

Strategy checklist

1 Formulate a strong vision/concept together with all stakeholders

Involving all stakeholders in the creation of the vision fosters authenticity and enthusiasm across all parties. Such involvement ensures continued commitment and generates widespread support, thereby increasing the feasibility of the project.

2 Involve advisors experienced in adaptive reuse

Adaptive reuse projects demand specific expertise from advisors, who must possess a thorough understanding of the existing building. The knowledge and experience of advisors are critical drivers of project feasibility.

3 Reserve more money for unforeseen circumstances

High complexity in adaptive reuse results in higher risks. Reserving extra money reduces the impact of these risks. Involvement of a financial expert aids in making informed choices and increases financial feasibility.

4 Involve the construction team (bouwteam) early

Early involvement of the construction team leads to more accurate planning and budget estimations. Expertise (especially the contractor) brought into the project at an early stage reduces risks later and supports informed decision-making.

5 Seek for an innovative/creative designer

The architect acts as a key stakeholder and carries the vision, while also playing a vital role in communicating ambitions and alternative solutions to the municipality and other stakeholders. A heterogeneous architectural team incorporates diverse perspectives.

6 Integrally analyse and design the building and its context

Awareness that adaptive reuse projects necessitate an integrated approach is a precondition. The client must organise the team, engage a suitable architect, and consult the municipality regarding opportunities and risks to conduct and comprehensive research.

7 Create political support

Early engagement of alderman (or even the mayor) fosters trust and allows regulating parties to contribute ideas, which can be crucial for accelerating permit procedures and changes to zoning plans. Political support can also lead to financial assistance.

8 Involve the end user early

Early involvement of end users introduces diversity into the project team and enables the programme to be tested against user expectations. By granting a clear mandate, the end users' input can support the assessment of the redesign's social value.

9 Engage communities/local businesses in the process

Local communities and businesses can offer insights that may not be apparent to the project team. Their repeated involvement builds mutual trust and fosters support throughout the process.

10 Minimise changes to the building

Minimising alterations helps to preserve the building's identity, fosters broader support, and simplifies complex permit processes. The extent to which changes should be limited depends on the specific building, making thorough analysis critical.

11 Maintain intangible values

Existing buildings always have a historical, cultural or emotional value. Comprehensive research into the building is essential to identify and define its intangible values. Governments can play a supporting role.

12 Create structures/layers in the building which facilitate future alterations

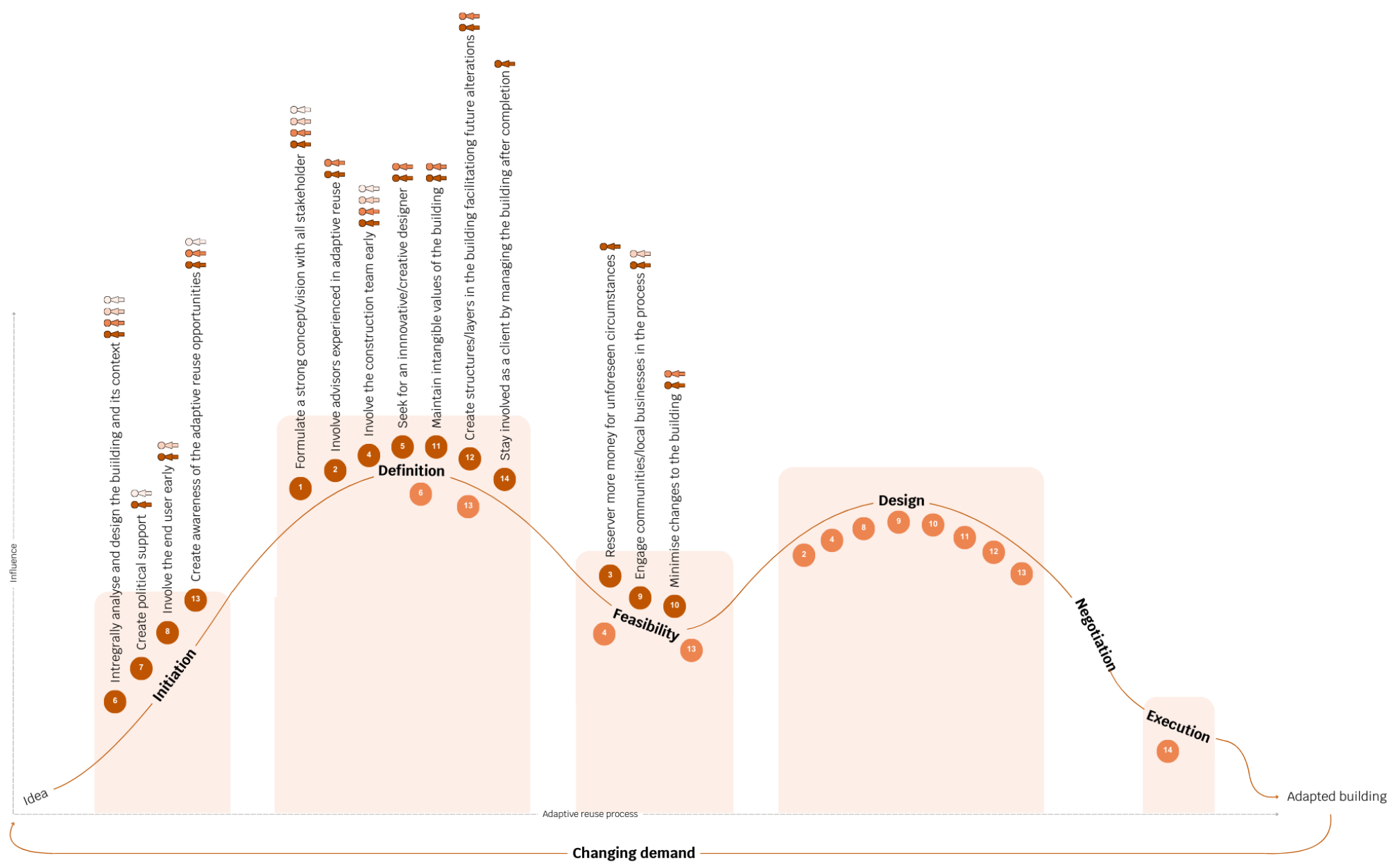
Anticipation on potential future changes in the building's function should be incorporated into the design tender. Future transformations can be facilitated by features such as sufficient daylight, generous spatial arrangements, the use of natural materials, and flexible structural systems.

13 Create awareness of the adaptive reuse opportunities

Experience within the design and construction teams plays a vital role for creating awareness. Awareness can be raised through innovative thinking, the avoidance of the most straightforward solutions, and the creation of multifunctional programmes and spaces.

14 Stay involved as a client by managing the building after completion

Continued client involvement following project completion allows the original visions and ambitions to be further developed in use. The client's intimate understanding of their own design choices ensures that the intended user groups remain engaged.



Legend

→ Time in the AR process

↑ Influence of the phase according to the ranking of the strategies

Initiation of the strategy

Reoccurrence of the strategy

Investors

Users

Producers

Regulators

Method.

1. Theory

Semi-systematic literature review

SQ1. What is the adaptive reuse process?

SQ2. What are the benefits of adaptive reuse in mixed-use areas?

SQ3. How can effectiveness be measured in adaptive reuse?

SQ4. What strategies are applicable in the adaptive reuse process?

SQ5. What strategies can most effectively improve the adaptive reuse process?

2. Empirical research

Delphi method
Semi-structured interview

Survey

3. Synthesis

Implementation

"Development of a list of strategies to improve the adaptive reuse process in mixed-use areas in The Netherland"

Method.

1. Theory

Semi-systematic literature review

Defining adaptive reuse

SQ1

Benefits of adaptive reuse in mixed-use areas

SQ2

Defining effectiveness in adaptive reuse

SQ3

Strategies from existing frameworks

SQ4

2. Empirical research

Delphi method

Semi-structured interview

Survey

3. Synthesis

Implementation

