

EFFECTIVE SOCIAL PARTICIPATION IMPLEMENTATION IN THE ADAPTIVE REUSE DEVELOPMENT PROCESS

**LESSONS LEARNED FROM 3 CASES
IN TENDERED
INNER-CITY DEVELOPMENTS IN THE
NETHERLANDS**

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PREFACE

This report contains my graduation thesis about the implementation of participation in the adaptive reuse process in the department of design & construction management from the master track Management in the Built Environment. This report is the final assignment after studying both the bachelor and masters at Delft University of Technology.

I have always found social inclusivity in the built environment one of the aspects that motivated me. Even in my earliest design courses in the bachelor Architecture I found myself naturally drawn towards implementing social practices in the design of my buildings. This aspect, combined with my natural love for transformation projects seemed to be the perfect mix to finish my masters degree with.

I would like to thank my graduation supervisors, Queena Qian and Hilde Remøy for all your input, expertise and support. Your feedback has constantly motivated me to carry on with the research. Next to that, I would like to thank my colleagues at KondorWessels Vastgoed and G&S& developments. Thankyou for generating insights and an understanding of development in practice. In particular, I would like to thank Erik Segeren for your guidance last year and helping me in finalising this thesis.

Lastly, I would like to thank the interviewees that contributed to this research. Your input was of invaluable importance in the making of this report.

Your input generated the basis of this research and could not have been done without you.

Enjoy reading this thesis!

Thankyou,

Danielle van Wijk
Delft, 3 July 2024

EXECUTIVE SUMMARY

Momentarily the Netherlands is facing a considerable housing shortage with the ambition of the Dutch government to add 1 million homes before 2030. This vast development comes with an impact on the environment, as the construction industry momentarily is a large shareholder in the emission of greenhouse gases. No less than 37% of CO2 emissions annually originate from the building industry (UNEP, 2022).

Adaptive reuse offers the potential to facilitate inner city development of residential buildings through transformation. This means “any intervention to adjust, reuse or upgrade a building to suit new conditions or requirements” (Douglas, 2006, p.4). This type of development can provide a sustainable alternative to demolition or reconstruction of existing buildings (Jla & Brostrom, 2015).

Moreover, the government of The Netherlands has implemented a new category in social sustainability when applying for an environmental permit. The implementation of participation in the development process will be assessed in applying for an environmental permit as per January 1st 2024 (Woudenberg, 2022).

Though adaptive reuse is said to contribute to local community life, very often profit making mechanisms take precedence over social concerns (Yung & Chan, 2012). The adaptive reuse processes can create a new tourist venue or gentrification in the area, which makes it hard for local communities to maintain their community life. Literature states this also depends on the scale of the renovations, where the larger the project, the more it impacts local community life (Yung & Chan, 2012; Fauzi & Ghani, 2022).

With the implementation of this newly mandatory participation mentioning method, adaptive reuse

projects are to assess whether participation is needed and integrate them in their development processes. The larger the development, the bigger and more integrated the participation is expected to be by the municipality. Private market developers are bound to the organisation of participation practices and implementing this form of social sustainability will bear its consequences and inevitably impact the resources and way of working of private developing companies. No guidelines are formulated on when to implement what type of participation, or how to effectively integrate the participation process in the development process.

Therefore this research aims to answer the main question:

How can the efficiency of the adaptive reuse development process be improved when social participation with local communities is implemented?

2. Literature

Starting January 1st 2024, the environmental permit in The Netherlands will be revised. It will be mandatory to include participation practices in the application for an environmental permit. It will only be necessary to mention the type and extent of participation practices that have been carried out. Transparency, rather than participation itself, is mandatory. No formal guidelines on participation have been found, rather suggestions. One ground rule for participation is that the scale of the development should match the intensity of the participation process.

In the process, several stakeholders are important. These are divided into 4 categories: initiators, producers, regulators and users. The role of the initiator is to start and develop the project. Producers

are the entities that deliver a service in support of the project, regulators are public entities that guard the rules and legislation of the development and users concern local communities and end-users or companies that end up using the building. In the implementation of participation into building processes the most important stakeholders are the regulators, initiators and the users. Especially the dynamic between the initiator and the users (participants) is important, as this process has to be passed on in the application of an environmental permit.

The adaptive reuse process includes the phases of initiation, feasibility, design, execution and the maintenance & occupancy phase. Three main decision making points are found within the process.

1. Initiative phase: Starting the adaptation process, with economic viability as decision making criterium
2. Feasibility phase: Deciding on the functional and conservational changes within regulatory boundaries, based on an extensive analysis of the existing building
3. Design phase: Final decision making, dealing with contracts and building strategy

These decisions are taken by the initiator of the project, supported by the project party consisting of producers.

The involvement of citizens is often depicted as a ladder, starting at level 1 through level 9. For participation in the context of acquiring an environmental permit, only levels 4 through 6 are examined. Important aspects in the participation process contain formal administration, stakeholder targeting, stage of involvement, methods, information distribution, governance and goals.

Participation barriers that have been found are mostly regarding the interpersonal communication between developing parties and participation par-

ties. Next to that, the needed skills in order to face complex decision making have been mentioned, as well as attitudes of participants and developers not taking the process seriously.

3. Empirical

The found results depict a possible display of the impact of participation practices on the adaptive reuse process, based on the results from the cross case analysis. Important to note is that the following points will have to be taken into account in synthesising the results:

1. The location, context, function and size is most influential in the tendering development. In the initiative phase, this becomes less and becomes more in the development of the sketch design in the feasibility phase.
2. The implementation of participation processes should happen as early as possible, meaning in the tendering stage, where the main themes for the entire development are being determined. Herein, the participation strategy should be made. This in turn impacts the tendering stage. The initiative stage where the developer steps in remains unchanged. No participation impact happens here, and dependent on the participation process the feasibility can be impacted by participation. However, it's also possible that participation starts in the feasibility stage.
3. The barriers that are found are bound to the point where participation practices take place. These are dependent on the type of participation process that is generated.
4. The tendering stage is where the tender document is made. Herein, the most leading themes of the development will be determined. In the feasibility stage an elaboration and design is made based on this vision/themes.
5. In the initiative phase, the initial feasibility for the project is assessed based on the developers resources, in this stage the decision will be made to carry on with the project or to terminate the project.

6. In the feasibility stage the sketch design will be made. Herein, the project party is assembled and decisions are taken that fall within the boundaries of the tender development document. Later on, this design, along with the bid for the building will be assessed by the municipality based on the selection criteria that were previously made in the tender document.

Several barriers have been found in the process, , mostly allocated to the developer and regulator as initiator, occurring mostly in the tendering phase and the feasibility phase, depending on when the participation is carried out.

With the implementation of participation, several outcomes can be mentioned as well. Participation has the potential to lift several barriers in the adaptive reuse process, mainly in the social, legal and political domain, lifting barriers for the initiator, regulator and the user. These barriers occur mostly in the feasibility and use phase.

4. Conclusion

This research focused on effectively implementing participation in the adaptive reuse development process by researching the adaptive reuse development process, finding structure in the participation process and discovering timing and barriers of integrating these processes. This was done through a cross case analysis and lessons learned approach of 3 non-monumental tendered cases in inner G4 cities in The Netherlands.

The research revealed that the local context such as the specific location, function and scale are important considerations, especially during the development of the tender document. Early involvement of participants is highly recommended, as the projects core themes can be influenced in an early stage. The process analysis shows that participation must be well defined and consider the participation aspects to be formalised in a plan. These entail *goals; stage of involvement; methods to be used; stakeholder*

targeting; information distribution and the *governance* form. Later, in carrying out the participation, the aspects of information distribution and methods are relevant. The success of these participation practices can be endorsed by involving the citizens early and to implement digital techniques in order to reach a wider and more diverse stakeholder group. Though, barriers have also been found in the research. These can be categorised in *stakeholder alignment, involvement, attitudes* and *resources*. Most barriers are appointed to the initiator of the participation process, whether that would be the regulator or a developer. However, developers have 2 specific barriers that the regulator as initiator does not deal with.

The benefits of implementing participation are allocated to several stakeholders, among who the regulator and client with most benefits, followed closely by the local community in terms of plans that better correspond with community needs, promote innovation, less objection from local citizens and shift tender selection criteria toward social rather than economic reasons. Next to that, the research indicated that several barriers in the adaptive reuse process may be lifted as well. These barriers mostly occur in the use and feasibility phase, with the initiator having most barriers solved, closely followed by the regulator and the user.

Different participation mechanisms have been distinguished, each for a specific situation dependent on the choice of implementing risk management practices or implementing social sustainability. These mechanisms have shown that different methods involve a different number of stakeholders, meaning that the least intensive participation measure reaches a broader spectrum of citizens and the most intensive participation methods includes the least local communities. The typology of the participation levels are mostly dependent on the type of feedback structure, where level 4 deals with efficiently dealing with specific feedback on a small

part of the design, level 5 personal and detailed feedback on multiple parts, however more time consuming and creates long-term commitment and level 6 deals with the involvement of a small group of locals, letting them give continuous feedback on the design and thereby the opportunity to implement social sustainability exists.

The results largely overlap with the found literature, highlighting the need to take participation processes seriously and focusing on clear communication, proper attitudes and avoiding tokenism. Though, in the implementation of participation practices, the developer is bound to answer to a new type of stakeholder. This new stakeholder group is not a professional workgroup and possibly requires a different management approach.

Though this research focused on the moment of integration of the two processes, no conclusive results were found: merely indications, though a strong commonality among all interviewees was that participation practices should be implemented as early as possible. In the specific scope of tendered projects this would be in the development of the tender document. Yet, the pragmatic limitation occurs on dealing with multiple contenders and being able to properly carry out the participation process without having to opiate every design that is contending

for the option agreement.

Future projects should consider the participation mechanisms for each phase. A mix of different participation methods can be used, depending on the stage, local importance of the building and the goal of the design. A strong focus on clear communication and transparency is advised.

In conclusion, implementing participation in adaptive reuse projects proves to benefit more stakeholders than solely the local community. This research highlights the need for early involvement, digital techniques and formally creating a participation plan tailored to the local context. Whilst challenges still exist in the forms of stakeholder alignment; attitude of stakeholders; involvement and resources, barriers can still be overcome by the initiator of the participation process and development. Next to that, there is an indication that participation practices can lift some of the barriers in the adaptive reuse process.

Moving forward, a participation plan that is taken seriously with proper implementation of different participation methods along with clear communication and transparency will be essential in realising sustainable and socially inclusive urban environments.

ABSTRACT

Starting January 1, 2024 the environmental permit requires a new aspect in the application for an environmental permit: participation. The government requires transparency on the used methods and involved stakeholders herein, though specific guidelines are lacking. This research investigates on implementing these participation practices efficiently and effectively through a cross case analysis in tendered projects with a lessons learned approach. Findings indicate that participation

can improve project outcomes, reduce objections from local citizens and bring forth innovation in a project. However, barriers include stakeholder management, involvement, attitudes between stakeholder groups and resource allocation. For effective implementation early involvement as early as the tender development is recommended, along with using different types of participation methods, emphasising clear communication & transparency and formulating an official participation plan.

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1

INTRODUCTION

INTRODUCTION

1.1 PROBLEM STATEMENT

Momentarily the Netherlands is facing a considerable housing shortage with the ambition of the Dutch government to add 1 million homes before 2030. This vast development comes with an impact on the environment, as the construction industry momentarily is a large shareholder in the emission of greenhouse gases. No less than 37% of CO₂ emissions annually originate from the building industry (UNEP, 2022).

Adaptive reuse offers the potential to facilitate inner city development of residential buildings through transformation. This means “*any intervention to adjust, reuse or upgrade a building to suit new conditions or requirements*” (Douglas, 2006, p.4). This type of development can provide a sustainable alternative to demolition or reconstruction of existing buildings (Jla & Brostrom, 2015). Environmental benefits include lower material usage, less transport, less energy consumption and less pollution (Yung and Chan, 2012; Aigwi et al., 2023). Some benefits related to economic factors include the increase of affordable housing and; increased economic opportunities (Aigwi et al., 2023). Social benefits contain the improvement of resilience; safeguarding historical values; encouragement of tourism; empowerment of community action and involvement; boosting social values; reduced crime incidence and improvement of quality of life (Aigwi et al., 2023), thereby contributing to the three main components of environmental, social and economical sustainability, otherwise known as sustainable development (DEH, 2004).

Moreover, the government of The Netherlands has implemented a new category in social sustainability when applying for an environmental permit. The implementation of participation in the development process will be assessed in applying for an environ-

mental permit as per January 1st 2024 (Woudenberg, 2022).

In this new category, developers will be faced with a reporting obligation on participation containing the level of involvement of local residents and results in participation in development projects (Informatiepunt Leefomgeving, n.d.).

Though adaptive reuse is said to contribute to local community life, very often profit making mechanisms take precedence over social concerns (Yung & Chan, 2012). The adaptive reuse processes can create a new tourist venue or gentrification in the area, which makes it hard for local communities to maintain their community life. Literature states this also depends on the scale of the renovations, where the larger the project, the more it impacts local community life (Yung & Chan, 2012; Fauzi & Ghani, 2022).

According to Remøy & Persoon (2020), the implementation of adaptive reuse projects can be used as a catalyst in support of urban area (re)development. In monumental adaptive reuse projects an average price increase of 7.1% has been found concerning the dwellings in a radius of 1300 metres around a monumental industrial adaptive reuse project (Remøy & Persoon, 2020). These rising prices can eventually lead to a physical displacement of the existing target group. Not only does it become too expensive to upgrade to another house in the neighbourhood, local ventures can also be victimised by the rising prices, being forced to leave their companies and being replaced by big chain public amenities (Teunissen, 2017). The ‘outsider’ invasion in gentrification turns out to be crucial. Redfernd (2003) emphasises that the impact of gentrification undermines the security of existing inhabitants. By claiming the space of the original

inhabitants and transforming it into a place that aligns with the preferences of gentrifiers -and not so much the original inhabitants- potential displacement comes into play. The tension between these groups are rooted in differences in style of life: the displaced not only lose their homes, but also the social and cultural environment that makes them feel at home (Redfernd, 2003). The loss of homes of displaced and the social and cultural environment can be described as the loss of a sense of belonging, or psychological displacement. Though the assumption in this research paper is that participation will help maintain the social and cultural environment of a neighbourhood.

With the implementation of this newly mandatory participation mentioning method, adaptive reuse projects are to assess whether participation is needed and integrate them in their development processes. The larger the development, the bigger and more integrated the participation is expected to be by the municipality. Private market developers are bound to the organisation of participation practices and implementing this form of social sustainability will bear its consequences and inevitably impact the resources and way of working of private developing companies. No guidelines are formulated on when to implement what type of participation, or how to effectively integrate the participation process in the development process.

1.2 RESEARCH QUESTIONS

Based on the problem statement, the main research question that will be answered is:

How can the efficiency of the adaptive reuse development process be improved when social participation with local communities is implemented?

1. Adaptive reuse: *What does the development process look like, where are the decision making moments and who is involved and what are the current barriers?*

Objective: Explorative/descriptive Map out the current adaptive reuse process, see where the barriers lie.

Methods: Literature review/case study/semi structured interviews/cross case analysis

2. Participation: *What types of participation are available and what does the process look like and are there barriers?*

Objective: Explorative/descriptive

Methods: Literature review

3. AR + participation: *What barriers are most prevalent in the interaction of participation aspects in adaptive reuse development?*

Objective: Finding most prevalent barriers in order to generate solutions in overcoming barriers

Methods: Case study/Semi-structured interviews/Cross case analysis

1.3 CONCEPTUAL FRAMEWORK

In order to answer the main research questions, the relations between the main research question and subquestions is indicated below. In the context of building in The Netherlands, the problem statement is found, this eventually leads to the scope, which is adaptive reuse of non monumental buildings in G4 cities in The Netherlands and this results in the research.

For the actual research the processes of the adaptive reuse development process and participation will be examined. RQ's 1 and 2 deal with these aspects. RQ 3 ensures the question of the combination of these

processes will be answered, which finally results in answering the main research question.

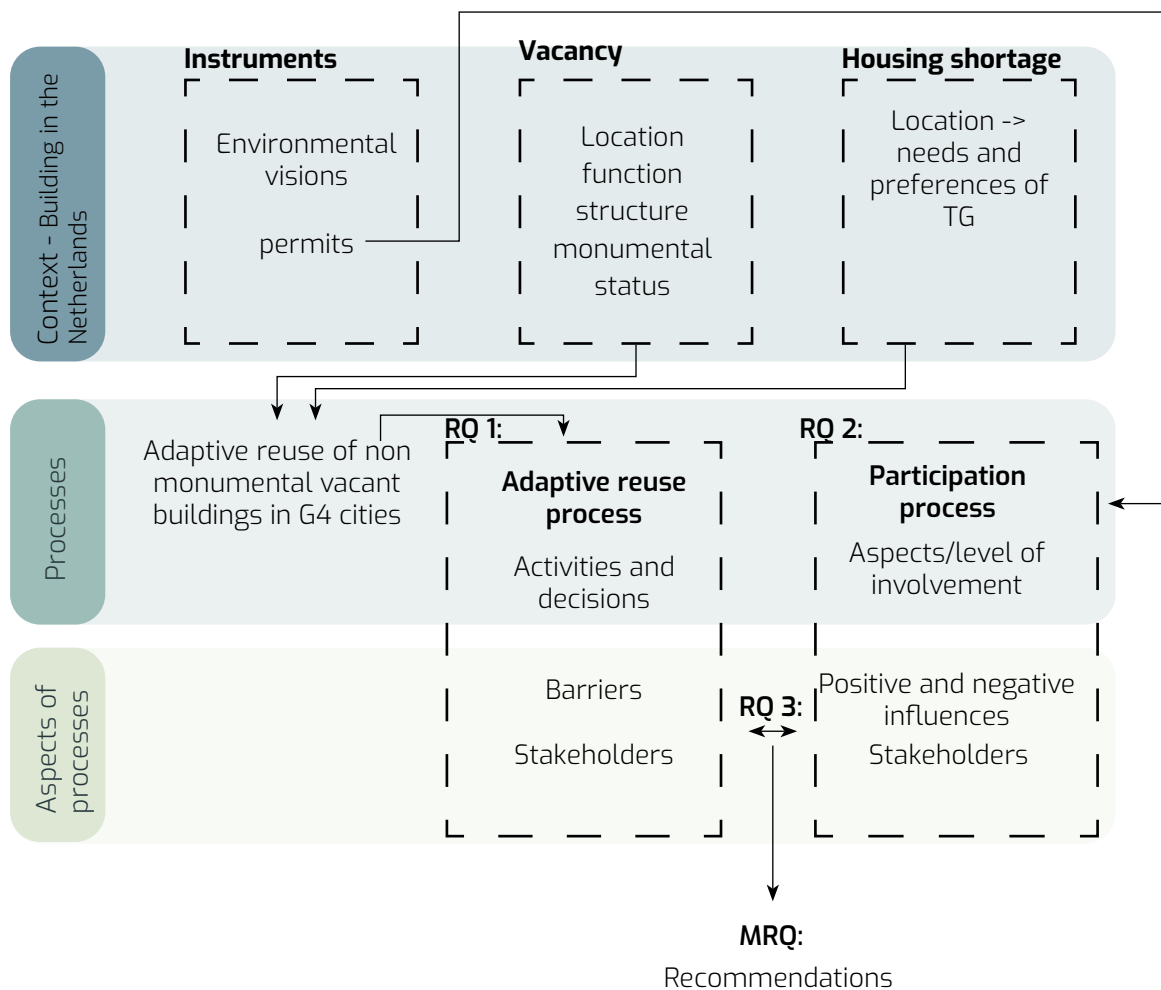


Figure 1: Conceptual framework of the research (Own figure)

2

LITERATURE STUDY

LITERATURE STUDY

2.1 BUILDING IN THE NETHERLANDS

2.1.1. DEFINING THE SCOPE

In order to carry out a project, several legality principles have been laid out. The government demands an environmental permit prior to any building activity in The Netherlands (Hobma, 2022). In order to get this document approved, the drawings of the design are tested against the land use plan; building decree; code regarding external appearance; building ordinance and the site development plan. However, of these 5 the land use plan is the most important in the testing against the land use plan (Hobma, 2022).

Going into effect on January 1st, 2024 the environmental permit has a new category that has to be taken into account. This is the participation category. This new law applies to all building projects, starting from 4 dwellings in newly built processes and all transformation processes, along with all drastic changes in the built environment (Woudenberg, 2022). With the implementation of participation practices, the initiator can estimate what the environment thinks of their project. This does not limit to solely surrounding neighbours. Through participation, opinions can be gathered and gives the initiator the option to adapt the project to the wishes of those who gave input. This is done in order to create more support for the project (Informatiepunt Leefomgeving, n.d.).

In the application of the environmental permit participation will be required. Several guidelines have been formed on how to organise the participation, however the environmental permit cannot be rejected on the basis of the participation outcomes. Momentarily, the developer only has an obligation to mention the participation practices.

However, if the development falls out of the scope of the environmental vision drawn up by the municipality and the applicant of the permit has not

carried out participation, the application will be disregarded. The only real obligation is that the participation method has to be fitting for the scale of the project (Informatiepunt Leefomgeving, n.d.). If the environmental permit is approved by the municipality, there is an objection period of 6 weeks. The total vacancy in The Netherlands contains about 2% of the real estate stock. In this paragraph, a short analysis will be made regarding the vacancy in The Netherlands.

The Netherlands has several functions regarding real estate. Each year CBS (2022) monitors and checks the number of square metres that is vacant in the Netherlands. According to CBS (2022) the following functions are taken into account.

1. Meeting function - This function entails the real estate meant for the congregation for art, culture, religion, communication or children's day care. A couple of examples for this type of real estate are a church, cinema, cafe or museum.
2. Healthcare - This type of real estate is categorised by the presence of medical research, nursing or caring for patients. Healthcare real estate examples are hospitals, medical centres or psychiatric instances.
3. Industrial - In the industrial functions the commercially processing or storing goods for agricultural processes.
4. Offices - Function for administrative purposes
5. Logies - Function for offering temporal stay to those who have a primary residence elsewhere. Vacation homes are excluded in this category.
6. Educational - Function for providing educational purposes. Schools or universities fall under this category

-
7. Sport - Functions related to sporting. Pools, sporthalls or tennis courts fall into this category.
 8. Retail - Function for selling materials, goods or services. Retail entails department stores, supermarkets, but also travelling agency's.

In table 1 it becomes apparent that the most vacant square metres fall under the category of retail, offices and industrial. Notable is that the percentage of vacancy twice as high is in retail and offices as in industrial functions.

Adaptive reuse provides a solid solution against the housing shortage. In order to contextualise this problem, finding out where the housing shortage is most relevant is crucial. Next to that, it's also important to take a look at the different functions in the area's the housing shortage is the highest.

According to Berg (2023) the housing shortage is most problematic in the area of Amsterdam and surrounding municipalities. These include Amstelveen, Ouder-Amstel, Oostzaan and Landsmeer. At least half of the measured housing shortage is measured in Amsterdam.

According to table 3 is the most potential in adaptive reuse to contribute to solving the housing crisis in offices or non-monumental buildings. This type of real estate has the most vacant square metres in the wanted areas. However, adaptive reuse in buildings happens almost automatically in areas that are pretty well developed. When a developer or market party spots a chance to adaptively reuse, the chance of a private led transformation initiative rises. These types of projects are called low hanging fruit and projects are mostly already carried out, this leaves the more complex projects left to be transformed (NEA, 2022). Though this report doesn't account for the new energy label that is obliged for offices in 2023. As per January 1, 2023, all offices are obliged

to have the energy label of a minimum of C. Per 2030 offices are expected to have an energy level A, though this is not legally mandated. However, this forecasts a shift in the need for offices with a higher energy label, leaving the lower energy labels to stay vacant, and potentially viable for transformation (Van 't Grunewold, 2023).

According to Savills, the biggest vacancy exists in offices that were built between 1990 and 2010 (Van 't Grunewold, 2023), located in secondary or tertiary locations. In the beginning of the '90's the phenomena of office districts was the trend. The archetype for the office buildings built in this time period can be described as a cubed box with perpendicular angles, with alternating extensions. The facade is often very rational, with mathematical precision. The keywords associated with this type of building are "neutral and technical". The typical floor plan of these types of offices, is a deep cubicle office with a wide ranging corridor, along with an impressive entrance, often seen with an atrium (Cultural Heritage Agency, 2022). This type of building makes up the biggest percentage of vacant buildings in the stock (76%). The remaining 23% is made up of buildings built after 2000. The archetype for this percentage of stock consists of buildings focused on accessibility. These type of buildings are often situated around train stations or have ample parking facilities on the plot. Through economic growth, employers could afford more luxury; and due to a direct countermovement on the office districts, these type of buildings are also situated in the inner cities. The floor plan consists of a plan libre, and often facilitate flexible workspaces. The architectural design language consists mostly of rectangular designs, however these facades usually focus on giving the building a more special appearance (Cultural Heritage Agency, 2022).

Table 1: m2 vacant per function in The Netherlands (Based on CBS, 2022)

Type of function	Vacant (temporary and permanently)		Total real estate stock		Percentage vacant	
Logies	484.200	m ²	59.477.460	m ²	0,80	%
Sport facilities	608.870	m ²	39.066.340	m ²	1,55	%
Healthcare	609.530	m ²	70.672.420	m ²	0,86	%
Educational	1.284.650	m ²	125.466.010	m ²	1,02	%
Meeting places	4.081.810	m ²	122.816.410	m ²	3,32	%
Non-residential	8.180.150	m ²	331.770.200	m ²	2,47	%
Retail	10.427.040	m²	188.705.390	m²	5,53	%
Offices	13.561.740	m²	241.081.450	m²	5,63	%
Industrial	25.735.910	m²	874.041.510	m²	2,94	%

Table 2: highest vacancy per province in the Netherlands (CBS, 2022)

Province	Retail		Offices		Industrial		Total
North-Holland	1.128.600	m ²	2.423.120	m ²	2.767.260	m ²	6.318.980
South-Holland	1.441.800	m ²	2.649.800	m ²	3.460.790	m ²	7.552.390
North-Brabant	991.490	m ²	1.443.550	m ²	3.728.340	m ²	6.163.380
Limburg	1.008.200	m ²	656.230	m ²	2.423.100	m ²	4.087.530
Total	4.570.090	m²	7.172.700	m²	12.379.490	m²	

Table 3: Vacancy per function in Amsterdam and surrounding municipalities (CBS, 2022)

Municipality	Industrial	Offices	Retail
Amsterdam	164.110	213.780	135.260
Amstelveen	16.090	16.760	4.660
Landsmeer	0	1.750	0
Oostzaan	0	0	0
Ouder-Amstel	4.540	9.630	0
Total:	184.740	241.920	139.920

2.1.2 ADAPTIVE REUSE

The definition of adaptive reuse is “any intervention to adjust, reuse or upgrade a building to suit new conditions or requirements” (Douglas, 2006, p.4) In figure 2 the decision making model for the assessment of adaptive reuse is depicted. Herein, the factors regarding the options for adaptation are discussed, and shows what adaptive reuse is and what not (Wilkinson et al., 2014). An item of the building stock is assessed whether it is under used/(partially) vacant or inappropriate or unsatisfactory for its current use and occupants. According to March et al., (2012) this can be the case when a building doesn't

perform properly in either economic, functional, social, legal, physical or aesthetic areas. When obsolescence occurs in one or more of these areas, assessment can take place whether something has to happen with the building.

According to figure 2 there are 8 outcomes for the building. As can be seen, part demolish and adapt; modify, refurbish and adapt and partly extend are eligible options for further extension of the life cycle. Adaptive reuse refers to adaptation across use and adaptation to mixed uses (Wilkinson et al., 2014).

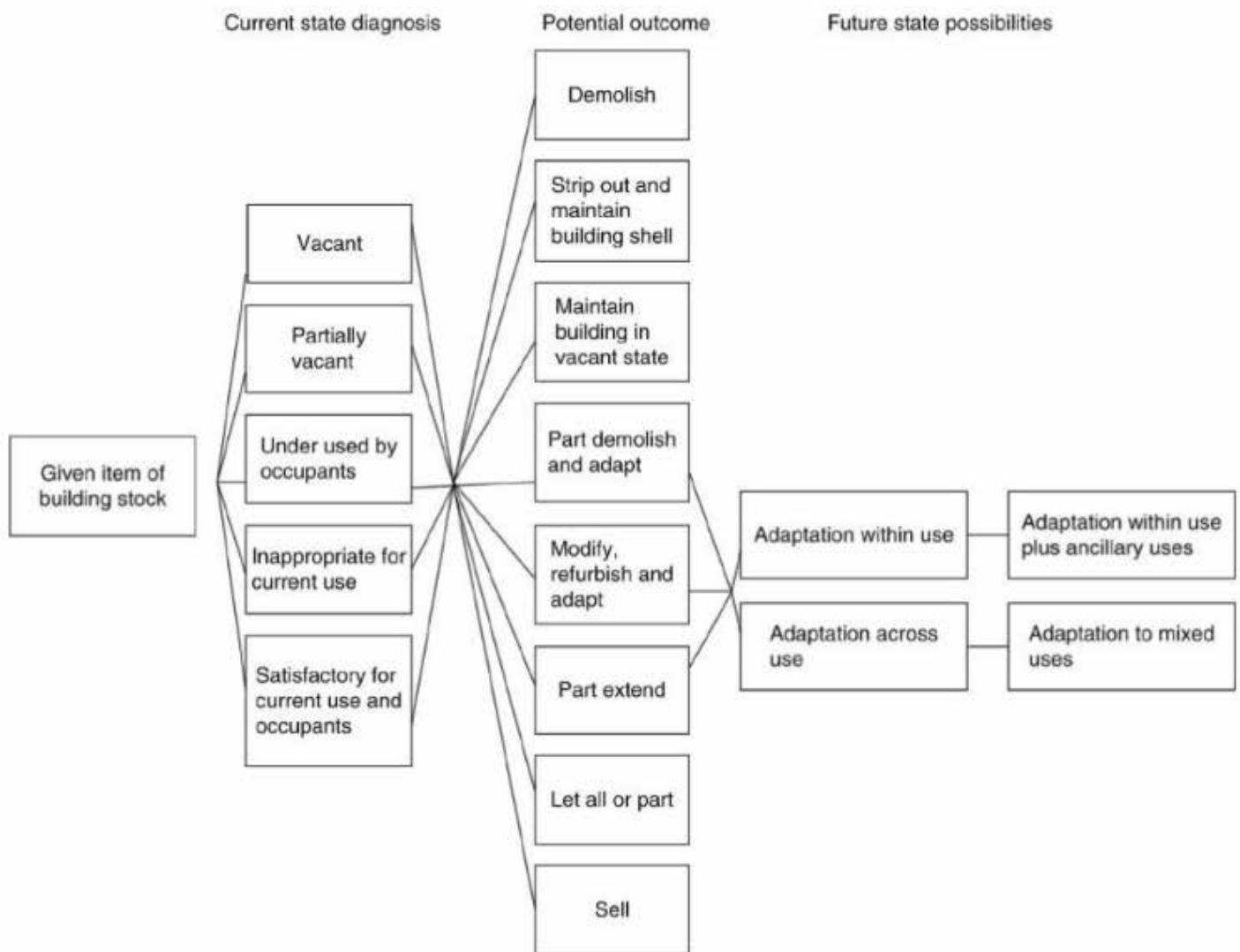


Figure 2: Adaptive reuse definitions (Taken from Wilkinson et al., 2014)

In the procurement of adaptive reuse projects several different types of initiation can be chosen from. The most common types for developers are tendering, direct agreement and direct ownership (Peek & Gehner, 2015).

1. Tenders

Tenders are being written out by the owner of the plot. This can either be the municipality or another owner of a building that is looking for a renewal, for example healthcare institutions. The main reason to put a project out to tender is to guarantee a fair process for all market parties and compare different bidders (Chao-Duivis et al., 2013). An important facet of this type of acquiring is the extensive list of criteria that the market party has to comply with (Peek & Gehner, 2015).

2. Direct agreement

In the direct agreement, the developer signs a contract with the client, which does not necessarily have to be the owner of the plot. In this type of agreement, the focus is not only laid on extensive criteria the developer has to comply with, but also the soft skills are being considered. Very often this type of agreement is done on the basis of reciprocity, so that developers help each other on board with projects (Peek & Gehner, 2015). This type of agreement is impossible to be carried out by the municipality, they have to stick to the tendering procedure, as to guarantee a fair process for all parties (Chao-Duivis et al., 2013).

3. Direct ownership

In direct ownership, the developer has the most control on the situation. In this type, the developer buys the plot and becomes the owner itself. However, since the financial crisis in 2008, most developers waive this type of ownership (Peek & Gehner, 2015).

LITERATURE STUDY

2.2 ADAPTIVE REUSE PROCESS AND DECISION MAKING

2.2.1. ADAPTIVE REUSE PROCESS

The building process differs per project. In the following paragraph an exploratory analysis is made to indicate the different building processes. Leading in the literature is the literature review on adaptive reuse processes by Arfa et al., (2022b).

1. *Pre-project phase*

In the first phase the initiative is the first step. Herein stakeholders will be selected and the project brief will be discussed. This may seem like a simple and straightforward step, but active input is necessary from all involved stakeholders. Conflict regarding profitability or different interests may hinder the process. Arfa et al. (2022b) emphasise the wide range of stakeholder views and the impact it has on the process. The main goal of this phase is to define the project and assess whether it will be financially feasible.

2. *Preparation phase*

For the second phase, the preparation phase, the most important objective is to recognise the function of the building. In step 4, the architect will check if the intended function will be possible and propose suggestions for the building. The main hinder in this phase is to align stakeholders' interest in choosing the appropriate function and predicting the effectiveness (Arfa et al., 2022b). In this phase the design strategy will be presented in step 5. This may entail contract, costs, time management and selection of appropriate stakeholders. This is usually done by the architect, however the developer may also work on the design strategy. Finally this design strategy is presented to other stakeholders and a final decision will be made in step 6 of the AR process.

3. *Implementation & Post-completion phase*

In the execution phase, the project gets carried out, both design and execution. Arfa et al. (2022b) emphasise that the biggest barriers in AR processes lie here. However, not enough literature is available for this phase (Arfa et al., 2022b). The final step is the post-completion phase. This phase may generate results for maintenance and management, feeding into the feedback loop for future AR projects.

The decision making process differs in adaptive reuse projects, as the starting point is not a clean slate. There are several decisions and factors that have to be taken into account (Arfa et al., 2022b)

In table 4 several processes have been depicted and compared to one another. These contain both reuse and newly built processes.

Table 4: Comparison of newly built processes and adaptive reuse process (based on references in table, own work)

Knotten et al. (2015)	Strategic definition		Preparation and brief	Concept design	Developed design	Technical design	Construction	Handover & Close out	
<i>Newly built</i>	Identification of project, strategic brief		First version of brief	Developing concept design	Developed design	Technical drawings	Execution	use	
Peek & Gehner (2017)	Initiative				Feasibility	Commitment	Execution	Maintenance	Occupancy
<i>Newly built</i>	Concept plan of requirements	Market research	Develop concept	sketch design	Preliminary design	Definitive design	Execution	Maintenance	Use
Wamelink (2010)	Initiative			Preparation			Execution	Use	
<i>Newly built</i>	Initiative, feasibility study, project definition			Sketch design	Preliminary design	Definitive design	Engineering drawings, pricing planning and execution, delivery	Exploitation and maintenance	
Arfa et al. (2022)	Pre-project		Preparation				Implementation	Post-completion	
<i>Reuse</i>	Initiative, idea forming, starting the process	Definition of actors	Analysis, feasibility, value assessment, mapping level of significance, definition of reuse potential	Decision on functional changes, design strategies, conservation actions, elaboration	Final decision making contract negotiation	Refining	Execution	Evaluation, maintenance conservation management	
Pallada (2017)	Idea forming	Refining ideas	Feasibility	Contract negotiation		Preparation for execution		Execution & use	
<i>Reuse</i>	Assessment of adaptation potential, first sketches, definition of actors, financial resources	Analysis of building state, conservation, definition of actors	Financial feasibility, legal feasibility	Preliminary design	Drawing and testing plan of approach	Definitive design	Signing contracts, tender & permits		

As mentioned in the literature, the adaptive reuse process and the newly built process are similar. The most prominent difference in the two processes is the extra feasibility studies needed in the adaptive reuse process, the further application corresponds with the newly built process. The most complex step in the adaptive reuse process is to generate all the information needed about the existing building (Andriessen, 1999)

The analysis in table 4 shows that the main difference between adaptive reuse processes and newly built processes is the research that needs to be done at the beginning of the process. As it is an existing building being dealt with, the workload has to comply with the existing structure and architecture. Secondly, The reuse process seems to be less structured. The newly built process offers a strict sketch, preliminary and definitive design. This seems to be not explicitly mentioned in the reuse process. As Pallada (2017) places the first sketches in the very first stage of the process. Arfa et al (2022) have no mention of specific designs in the process. The first two phases (initiative and preparation) differ the most in AR and newly built processes (Pallada,

2017). This is mostly due to the extensive analysis that has to be done in existing buildings (Pallada, 2017).

In table 5, the adaptive reuse process has been structured following the analysis of the building processes. In this process it becomes evident that phase 1 through 3 are most important for participation. This is where the design is made. In phase 4, the project will be carried out.

In the first phase the initiative is taken in order to start the project. An analysis is included to see what is being dealt with. The first definition of needed actors and stakeholders is included as well, and the first feasibility is assessed.

In participation it turns out these practices are often done in the late design stage. However, according to Geesing (2015) it is much more ideal to implement participation practices in the initiative and early design phase of the project.

Table 5: Generalised adaptive reuse process, based on the findings of table 4 (own work)

phase 1: Initiative	phase 2: feasibility	phase 3: Preparation	phase 4: Execution	phase 5: Use
Analysis of building/plot/market	Financial feasibility	Sketch design	Realisation	Evaluation
Definition of actors/stakeholders	Legal feasibility	Design & procurement strategy	Delivery	Maintenance
First feasibility study	Functional definition	Preliminary design		
Scoping the project	Conservation choice/aesthetics	Applying for permits		
Concept plan of requirements	Concept development	Definitive design		
Generate first ideas on function		Final decision making		
Go/no go decision		Contract negotiation		

2.2.2 DECISION MAKING MOMENTS

According to Arfa et al., (2022b) there are multiple decision making points in the process. These entail the go/no go decision, the functional change decision the conservation decision and final decision making

1. *Go/no go*

When assessing whether a building has to be demolished or adapted, several factors weigh into this. The decision on whether a building is eligible for Adaptive Reuse can be categorised in either complexity, building layout, technical specifications, historic quality, size of the building, location and previous target group (Bullen and love, 2010; Heidrich et al., 2017; Remøy & Wilkinson, 2012; Zaman, 2011). Next to these specific building decisions, the decision making is primarily based on economic, environmental, social, legal factors (Dyson et al., 2016; Remøy & Wilkinson, 2012).

Economic factors in the decision to reuse a building have to do with all financial aspects, such as achieving cost efficiency in the project (Yung and Chan, 2011). Adaptive reuse projects can contribute to an increase in affordable housing, increased economic opportunities and reduction of material and resource consumption (Aigwi et al., 2013) The driver for adaptation is often to yield returns from the project (Remøy and Wilkinson, 2012).

Though the economic factors do have its advantages, the found barriers in the literature shouldn't be left undiscussed. Adaptive reuse projects are notoriously known as complex, and with that comes higher uncertainty and more risk. This makes it harder for developers to find investors (Holyoake and Watt, 2022 as cited in Williams et al., 2014) Higher costs can also be the consequence of requirements due to listings or legislation (Williams et al., 2014). The economic viability of these projects is hard to predict, as well as the costs and the attitudes of stakeholders regarding the cost differ (Bullen, 2007; Williams et al., 2014; Yung and Chan, 2012).

These are some of the barriers that arise in Adaptive Reuse projects. However, the economic factors are often the decisive factors whether a project will choose to adopt AR strategies (Bullen and Love, 2010; Dyson et al., 2016). The payoff of environmental factors of Adaptive Reuse projects is one of the main benefits that is being praised. By extending the life cycle of existing buildings, the wasteful process of demolishing and rebuilding is being avoided. This in turn leads to the use of less material, less transport energy consumption and pollution (Aigwi et al., 2013; Yung and Chan, 2011).

However, due to the age of the buildings, there could reside harmful substances, which will slow down the process (Williams et al., 2014). According to Yung and Chan (2012) there is relatively less emphasis on environmentally sustainable adaptive reuse projects, and Bullen (2007) mentions it's difficult to predict the sustainable value of this type of project. Another environmental barrier is factors regarding environmental legislation, such as noise and pollution regulations, that turn out to hinder the process (Williams et al., 2014).

Social factors are considered to be two sided. Encouragement of tourism; empowerment of community action and involvement; boosting social values; reduced crime incidence and improvement of quality of life (Aigwi et al., 2023) are mentioned in the literature.

However, Adaptive Reuse projects can also contribute too much to the encouragement of tourism. Yung and Chan (2012) describe how profit-making mechanisms take precedence over social concerns. Touristification - Bottom-up space claimed by tourists - may occur to adaptive reuse projects, or gentrification arises.

Not only these phenomena can happen in the development of Adaptive Reuse projects, a negative load of original functions (prisons/churches); difficulties in retaining historic setting; difficulty in establishing a sense of place and identity; difficulty

in predicting social value of AR projects; overlooking the relationship between historic building and surrounding environment; unable to realise social goals and no effective and appropriate community engagement opportunity are all social barriers that are found specifically in Adaptive Reuse projects (Bromley et al., 2005; Bullen, 2007; Williams et al., 2014; Yung and Chan, 2011).

Momentarily, great emphasis is placed on the economic viability of the project. However, economically successful is not the same as successful outside spaces. (March et al., 2012). The consequences of adaptively reusing a building comes with significant changes in the neighbourhood. As a change in functions inherently comes with a change in target group. Not enough focus is laid on this sociological aspect of development (Zaman, 2011), though the pillars of sustainable development consist of economical, environmental and social sustainability (Elkington, 1998) and a balanced decision regarding the sustainability pillars should be made when considering reusing a building, as the conversion building should acquire a function in the life of the community (Philokyprou, 2014). When evaluating the viability of the building, user requirements and social equality are frequently left out of the decision-making process (Bullen and Love, 2011b). Users are the ones that ultimately decide whether the project is a success or not (Heidrich et al., 2017). Balancing these economical, environmental and social factors in decision making is essential in further investigation of adaptive reuse projects (Bullen and Love, 2011b).

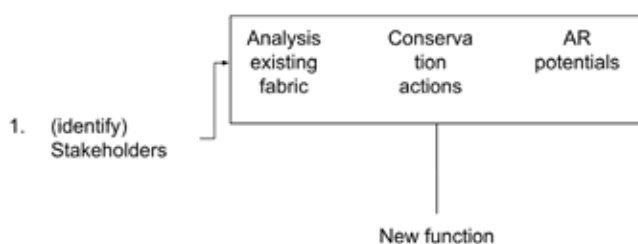


Figure 3: Simplified decision making process on new function (taken from Misilroy and Gunce, 2016)

2. Functional change decision

Even though adaptive reuse knows many benefits, Chuaand & Deguchi (2011) emphasise the effects of adaptive reuse projects on social and heritage aspects. Adaptive reuse projects make an environment more lively, but they also have the potential to reduce privacy and make the area too touristy and commercialised. According to Rhazaei et al. (2018), the success of adaptive reuse projects in the context of the local community is dependent on the decision making process. The points of view of the residents have to be taken into account and considering the basic needs of the residents is proven to be crucial in the adaptive reuse process. Very often, though, these types of participation initiatives are limited to surveys and actually don't have any impact on decision making mechanisms (Kheyroddin & Hamzehlou, 2017).

Research shows that the success of a reuse project is heavily dependent on the new function and location that is given to the building. These in turn are dependent on the local needs of the residents in the location of the adaptive reuse project. However, when considering the new function the nature of the building; its heritage values; location and accessibility should also be considered (Rhazaei et al., 2018). Additionally, locals themselves are also split into different groups of what they think the neighbourhood needs. This makes it hard to uniformly make a decision (Chuaand & Deguchi, 2011).

In order to make a decision, the stakeholders should be identified. These are important as every project is different, therefore every stakeholder analysis is different figure 3 shows a simplified process of choosing the new function. The decision making power in adaptive reuse projects lies largely with the investor or project initiator. In some projects it becomes apparent that in listed buildings, the regulators are decision makers (Misilroy and Gunce, 2016)

The existing building is the base for the new function. Several factors come into play when choosing a new function. The building has to be able to support the function and should not be forced, this can delay the project (BOEi, 2009). The analysis of the existing fabric is crucial herein. Heritage buildings can be categorised in residential/industrial/commercial/religious/military/agricultural/governmental/cultural/educational/health & office buildings. The identification of this type of original function is important to make an appropriate new function in the building.

Furthermore, analysis of physical characteristics and architectural heritage is important. This building analysis may contain materials, number of stories, spatial organisation etc.) (Misilroy and Gunce, 2016).

It is seen often in adaptive reuse projects, that the main decision maker is the initiator. The users of the building are hardly incorporated in decision making and regulators tend to play a big role as well (Misilroy and Gunce, 2016).

3. Conservation decision making

According to Arfa et al (2022b) this decision consists of a strategy to deal with the vacant building, mostly based on historic, cultural and other values of heritage buildings. This decision can be decided on what should be preserved and what should be demolished/newly built. In the case of offices built between 1985 and 1995, a couple of factors are important to consider here.

According to Plevoets & van Cleempt (2011) the decision can be made on the basis of a typological approach, a technical approach, a programmatic approach or a strategic approach. Each of these factors has its own benefits and limitations.

The typological approach argues that the conversion decision should be based and standardised on the building's typological archetype. The technical approach is more pragmatic and proclaims the technical aspects take precedence. A programmatic approach seeks to adapt to future use, this is a strategy that is often sought out by developers, as this maximises future use and therefore economical benefits. The strategic approach focuses on the

Table 6: Generalised adaptive reuse process, based on the findings of table 4 with decision making points highlighted in green (based on table 5, own work)

phase 1: Initiative	phase 2: feasibility	phase 3: Preparation	phase 4: Execution	phase 5: Use
Analysis of building/plot/market	Financial feasibility	Sketch design	Realisation	Evaluation
Definition of actors/stakeholders	Legal feasibility	Design & procurement strategy	Delivery	Maintenance
First feasibility study	Functional definition	Preliminary design		
Scoping the project	Conservation choice/aesthetics	Applying for permits		
Concept plan of requirements	Concept development	Definitive design		
Generate first ideas on function		Final decision making		
Go/no go decision		Contract negotiation		
		Engineering drawings		

palimpsest of the building and the specific context in which the building resides. Though these are four different strategies, the authors conclude that all considerations should be taken into account when deciding on a conversion strategy. Meaning that the factors associated with this decision should be the original typology, building constraints, future programme and the specific meaning and value of the building (Plevoets & Van Cleempoel, 2011)

The outcomes of this decision can be building within, building over, building alongside, building around, adapting to a new function, and building in the style of, and recycling materials of vestiges (Robert, 1989 as cited in Plevoets & Van Cleempoel, 2011) specifically for adaptive reuse processes. However, in this type of decision also aesthetics and welfare regulations will be incorporated.

4. Final decision making

Following the design strategy, is the final decision making. This is done in the final step of the process before execution. Not only is the design strategy being generated, the contracts and permits are also being negotiated. Aligning stakeholder views before execution proves to remain difficult (Arfa et al., 2022b). Further substantiated by Van Hout (2021) and Pallada (2017) the steps taken in this phase are finalising the contracts and negotiating permits. This is the final decision making, right before the execution phase of the project. The output of this process depicts the design as input for the technical drawings made by the engineer.

These important decision making moments take place during the first phase: initiative, where the go/no go decision is being made, and in phase 2: feasibility. Herein the concept is being developed. The decision making moments are highlighted in table 6.

LITERATURE STUDY

2.3 PARTICIPATION

2.3.1. LEVELS OF PARTICIPATION

Participation types

According to Voorberg, Bekker & Tummers (2015), there are 3 types of participation. These are named co-implementation, co-designing and citizen as initiator. In this literature review, it became evident that most uses of co-creation either fall under these three categories:

1. Co-implementation: this definition encompasses where the citizen is seen as a pawn on the board in order to implement a certain regime. An example of this is separating garbage. The government wants the garbage separated, however the public is needed for the implementation of this system.
2. Co-designer: Herein the citizens are actively involved in designing the service delivery.
3. Citizen as initiator: Herein the initiative comes from bottom-up: from the citizens.

The term co-creation applies to the process of giving decision making rights to the existing locals in a particular urban area where developments take place. According to Wright et al. (n.d.) several levels of participation have been described.

As can be seen in table 6, from level 6 and higher shared decision making comes into play although level 6 does not actually transfer any actual power. Though the description in table 7 at level 6 states: *“Consultation takes place regarding the target group. Herein, negotiations can be applied if it concerns important questions. Target group has no independent authority to make decisions.”* This indicates merely that the target group has no independent authority in the decision making process, as the end responsibility will be kept on the professional side.

However, in the process leading up to the decision, the target group will be included and giving input. Partial delegation to the local communities might be more complicated, due to financial feasibility and the lack of experience citizens have in project development. According to Winch (2010) the project success is largely dependent on the time, cost and quality of the project. Meaning that delays are unfavourable and the case should fall within the budget. These 3 success factors are intertwined, where delays can also result in an extended period, possibly surpassing the intended timeline.

Table 7: Different levels of participation along with examples and categorisation in co-implementation, co-design and citizen led initiatives (based on Wright et al., n.d.; Voorberg et al., 2015).

Type (Voorberg et al., 2015)	Level (Wright et al, n.d.)	Description
none	Level 1: Instrumentalisation	Decisions are made on the basis of the interests of the decision makers. Target groups may take part in consultations without knowing what they are for.
none	Level 2: Instruction	Professional decision makers put themselves in the target's groups shoes and resolve issues. Target groups perspectives and views are not taken into account.
none	Level 3: Information	Target's groups ' views are taken into account here, however decision makers are providing the target group with information, and the problems the target group will face from the perspective of decision makers. This is done to generate member acceptance and retention of provided messages.
Co-implementation	Level 4: Consultation	Targets groups' views are consulted. Decision making parties show interest in the target groups views and opinions, though there is no guarantee these views will be taken into account.
Co-implementation	Level 5: Inclusion	Decision makers ask advice from selected members of the target group. Advice is received, though the target group is not yet part of decision making processes.
Co-design	Level 6: Shared decision making	Consultation takes place regarding the target group. Herein, negotiations can be applied if it concerns important questions. Target group has no <i>independent</i> authority to make decisions.
Co-design	Level 7: Partial delegation over decision making authority	Overall intervention responsibility lies in the hands of the decision making authority, however the target group has a right to participation which should ensure that this group is able to determine particular aspects of the interventions.
Co-design	Level 8: Decision making authority	Equal partnership is established. Members of the target group determine all substantial aspects of the intervention. Members outside the target group can support or advise, however not make any decisions.
Citizen as initiator	Level 9: Community Owned initiatives	Responsibility for the innovation is transferred to the target group. All decision making will be done by the target group itself, along with implementation. Decision making group consists of the target group.

2.3.2. ASPECTS OF PARTICIPATION

The following aspects have been found in the literature on participation methods. The aspects are the aspects of the participation process (Brody et al., 2003). Bryson et al. (2013) conducted further research on the methods and design rules for the proper implementation of participation.

Table 8: different aspects of the participation design (Brody et al., 2003; Bryson et al., 2013; Loures et al., 2020 & Wilcox, 1994)

Aspect (Brody et al., 2003)	Methods (Bryson et al., 2013; Loures et al, 2020)	Design rules (Bryson et al., 2013)
Administration - How can we formally design the process? (Brody et al., 2003)	<ul style="list-style-type: none"> - None - Appointing a staff member to draw up a plan - Third party consultant 	<p>Seek Resources for and through Participation</p> <p>Develop Participation Evaluation Measures and an Evaluation Process That Supports the Desired Outcomes</p>
Objectives and goals - What is the goal of the participation? (Brody et al., 2003; Bryson et al., 2013; Wilcox, 1994)	<ul style="list-style-type: none"> - None - Educate citizens - Tap knowledge - Foster influence - Learn preference 	<p>Design to Address Contexts and Problems</p> <p>Identify Purposes and Design to Achieve Them</p>
Stage - When are we involving the citizens? (Brody et al., 2003; Bryson et al., 2013; Wilcox, 1994)	<ul style="list-style-type: none"> - Initiation - Design - Construction - Evaluation - Ongoing - In one or a couple of phases 	
Targeting - Who are we going to involve? (Brody et al., 2003; Bryson, 2013)	<ul style="list-style-type: none"> - Sample size - Types of organisations/individuals 	Analyse and Appropriately Involve Stakeholders
Techniques - Which techniques should we implement? (Brody et al., 2003; Loures et al., 2020)	<ul style="list-style-type: none"> - Formal public hearings - Open meetings where people talk to planning staff - Facilitated workshops - Visioning/charrette/workshop/strategies/designs - Community forums - Focus groups - Surveys - Referendum 	Use Information, Communication, and Other Technologies to Achieve the Purposes of Engagement

<p>Information - <i>What information are we going to give/do we have to generate? (Brody et al., 2003)</i></p>	<ul style="list-style-type: none"> - Maps of environmentally sensitive areas - Growth projections - Summaries of plan elements - Vision statements - Summaries of citizen input - Alternative planning design concepts or strategies - Miscellaneous other types of information 	
<p>Governance - <i>What will be the structure of the project? (Brody et al., 2003)</i></p>	<ul style="list-style-type: none"> - Citizen advisory committee - Subcommittee or workgroups 	<p>Analyse and Appropriately Involve Stakeholders</p> <p>Foster Effective Leadership</p> <p>Create Appropriate Rules and Structures to Guide the Process</p> <p>Use Inclusive Processes to Engage Diversity Productively</p>

For the scope of this research, levels 4 - 6 are investigated. The goal of implementing participation measures in obtaining the environmental permit is to create support in favour of the project and lessen complaints (Informatiepunt Leefomgeving, n.d.-b). For this reason, responsibility of decision making by citizens is ruled out, as well as non-participation (level 1, 2 and 3).

LITERATURE STUDY

2.4 STAKEHOLDERS

According to Winch (2010), stakeholders can be divided in several categories. Internal (demand & supply side) and External (private and public). The demand side can authoritatively brief the team. The supply side generates income through working and supplying work for the project. Internal stakeholders form the heart of the project, as they are seen to be working on the project itself (Winch, 2010).

However, external stakeholders can take an attitude towards the project. Most of the time, these stakeholders can be in favour, indifferent or against the project.

Table 9: Overview of stakeholders (Based on Winch, 2010; Van Hout, 2017; Verbeul, 2021 & Wilkinson et al., 2014)

Internal		External	
Demand (Project party)	Supply (Producers)	Private	Public (Regulators)
Client (Owner)	Architects	Local residents	Regulatory agencies
Financiers	Engineers	Local landowners	Local government
Client's employees	Principal contractors	Environmentalists	National government
Client's customers	Trade contractors	Conservationists	
Client's tenants	Material suppliers	Archaeologists	
Client's suppliers		Non-governmental organisations (NGO)	
Building owners		End-user	

2.4.1 INITIATORS

On the demand side, hereby referred to as the initiators are several roles included. The project initiator does not have to be the client per say. An investor, developer or project manager can all be the initiator of the project.

Owner

The owner is the owner of the real estate asset. In development firms, this is often the project party of the company (Peek & Gehner, 2017). This is the final decision maker in the process (Pallada, 2017). Among the activities of the owner fall among other defining the ambitions, negotiating with the other

roles, assessing the potential & financial resources and assessing possible yields (Pallada, 2017).

Investor

The role of the investor is to finance the project. Investors invest in projects when the required rate of return by the investor is met (Pallada, 2017). In developments, design and construction is often used in transformation project. Developers either work with or “for an investor”. When working with an investor, market risks are eliminated for the developer, however construction risks are still for the developer (Remøy, 2010). Though, it is very

Table 10: Types of developers (Peek & Gehner, 2015)

Type of developer	Description
1. Independent developer	This type of developer acts as an independent entity. Can be a single person or family companies.
2. Financial developer	<u>Developer</u> connected to financial <u>institute</u> , these can be banks for example.
3. Developer as part of contractor:	Developer as part of a large contractor. Goal of this type of developer from the contractor is to generate more security and safety in controlling the construction market.
4. Developing investor	Development section of an investor. Instead of buying housing stock, they are generating their own rate of return through developing.
5. Developing housing association	Social sector developing housing associations often develop their own projects. Sometimes even in the free sector, however this is less common, as private developers are often interested in these projects leaving less chance for housing associations to win these tenders/developing rights.
6. delegated project developer	Developer who accepts a paid <u>opdracht</u> from third parties. This can be seen as project management.
7. Designing developer	Sometimes, with projects for private clients architects or others can take on the role of project developer.
8. Project development as derivative	This type of developer acts out of need for real estate, in support of their own functions (commercial real estate management)

uncommon for investors to enter into the adaptive reuse market. If the investor does initiate the project, he usually sells this to a developer, and buys it back once the project is finished (Remøy, 2010).

Developers

A developer is a party that combines investment, project realisation and marketing (Wilkinson & Remøy, 2017). The role and responsibility of the developer depends on the final occupation of the building. Several types of developers are described in table 10. If the developer is the end-user of the building or the building is produced as an asset, there is a big chance the developer is more involved in the process, due to their stake regarding the functionality of the end product (Van Hout, 2021). The main responsibility of the developer is to deliver an end product and make it financially feasible. If the developer is (temporary) owner, they have the final say in the decision making process (Van Hout, 2021; Pallada 2007); he who pays, decides (Winch, 2010). There are multiple types of developers

The role of the client is very dependent on the specific project it concerns and its responsibilities shift thereby as well.

However, the client is the one who's ultimately responsible for the project. Not only does the decision making mechanism lie in the hands of the client, project and process management are a part of the client's responsibilities as well. Defining the scope of the project, as well as safeguarding the factors of the iron triangle of success (cost, time, quality) (Wamelink & Van Bennekom, 2010).

The drivers for the private developer to implement participation are mostly process related. The pro's for implementing participation in privately led developments can result in gaining trust and support from the government (Restauratiefonds, n.d.; Verheul, 2021). In turn, gaining this trust can facilitate winning tenders as a result of implementing participation initiatives and faster processes through better cooperation for granting the environmental

permit. Next to a faster process, participation turns out to minimise or avoid legal consequences. The chance of delays is smaller and may result in a better business case; the image of the private party is improved through positive media attention and participation may help in selling real estate faster (Verheul, 2021).

2.4.2 REGULATORS

The development starts with the rules and regulations laid out by the government/ municipality or the monumental committee, called regulators (Misilroy and Gunce, 2016) in which the development is intended. The municipality consists of the mayor & alderman, municipal council and civil servants. The municipal council switches every four years, through a democratically chosen election. The main goal of the local municipality is to formulate policy regarding public matters, the built environment included (ProDemos, n.d.) (Misilroy and gunce, 2016).

According to Verheul et al. (2021), the goal of the participation process for public parties consists of inclusion and democratic decision making. When democratic quality regarding the process is increased, participation has succeeded. A couple of questions that are relevant for the evaluation of success of participation processes are:

Are all relevant potential participants invited?
Did everyone who wanted to participate get the chance to participate?
Are non-participants involved and approached?
Are multiple participation interventions used?
Did the private party take the participants seriously?
And have they given the outcomes an appropriate place in the development plans?

Concrete drivers for public parties can be formulated as increasing democratic quality and input from citizens; stimulating citizenship and development of participants; minimising effort and costs for the government (Verheul et al., 2021).

Several challenges for this type of stakeholder lie in the measurement of the participation. Right now it's hard for public parties to evaluate how effective participation is and whether the private party acts appropriately. If participation turns out to not adequately promote the interests of the citizens, the public party has to deal with the ignored preferences in municipal policy (Verheul et al., 2021).

2.4.3 PRODUCERS

Architect

The architect plays a crucial role in the process of office transformation. Very often, the function feasibility is done by this stakeholder (Remøy, 2010). This is often done in the first phase of the project.

The responsibility of the architect is to eventually design the building (BCI central, 2023). However, unlike new construction projects, the architect develops the program of requirements alongside the developer. The assessment of the functional feasibility of transformation is also often done by architects (Remøy, 2010).

Engineers

Engineers are a supporting role. Either they are specialised in the product or process (Pallada, 2017). The engineer is not always selected by the client, this could also be done by the architect or project manager (Wamelink, 2010)

Contractor

The contractor can be involved early in case of a design & build type of contract. When complexity rises in projects, the contractor can also be early involved, as an advisor (Chao Duivis et al., 2013)

2.4.4 USERS

End-user

Eventually uses and maintains the building. Depending on the function of the building and the role of the end user the involvement can differ.

If the end-user is the client, then decision making involves the end-user. However, very often in the development process, the building is being developed and searched for potential buyers/renters.

Though, through implementation of the environmental permit in 2024, it becomes mandatory to report citizen participation in developments, the specific rules can differ per municipality, and there is a lot left to be defined (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2023).

Local communities

Another stakeholder in the construction process is the resident. As mentioned before, residents should be incorporated in the decision making process, as this often doesn't happen. Not only is there a societal need to involve residents, from 2024 onwards, developers are obligated to report the extent of the participation processes used in new developments (Informatiepunt Leefomgeving, n.d.). Currently, the local communities are able to appeal against the environmental permit, if they don't agree with what the decisions are.

In participation processes, these two groups are the participants. The process is designed so the participant will eventually benefit. The drivers for inclusion in participation for the participant are; being informed; being compensated; giving input; seeing the project adapted or successfully obstructing the project (Verheul, 2021). This indicates that several participants can have several attitudes regarding the project.

LITERATURE STUDY

2.5 BARRIERS

2.5.1 BARRIERS IN THE ADAPTIVE REUSE PROCESS

In the adaptive reuse process, several barriers have been found. These barriers have been summarised in table 10. The barriers are divided according to the PESTLET model (Rastogi & Trivedi, 2016) into the categories of political, economical, social, technological, legal, environmental & technical.

Most of these barriers occur in the feasibility phase, that is carried out by the initiator and the

least barriers are found in the execution phase. This is mostly due to the transfer of main responsibility to the contractor.

Overall the barriers in the adaptive reuse process seem to be allocated the most to the initiator of the project. Process related barriers such as technical and economical barriers impact the developing process.

Table 12: Overview of barriers in the adaptive reuse process, along with the phase the barrier occurs in and the stakeholder that is affected by the barrier (based on the literature references in the 'reference' column)

Domain	Barrier	Reference	Phase	Stakeholder
Economic	Social measures can't be expressed in monetary values	Golic et al., 2023	Feasibility	Initiator
Economic	On average higher costs in adaptive reuse	Bullen, 2007; Pintossi et al., 2023; De Silva & Perrera, 2023	Initiative, feasibility	Initiator
Economic	Less return on adaptive reuse projects	Bullen, 2007; Golic et al., 2023; De Silva & Perrera, 2016; Yung and Chan, 2012	Initiative, feasibility	Initiator
Environmental	Possible chance of contamination of land	De Silva & Perrera, 2023	Execution	Initiator
Environmental	On average less focus on sustainability for adaptive reuse projects	Bullen, 2007; De Silva & Perrera, 2016; Yung and Chan, 2012	Use	Regulator
Legal	No clear rules/measurements on how to implement social sustainability in buildings	Golic et al., 2023	Feasibility, use	Initiator, regulator, user
Legal	Letting project fit into the requirements of the building code and	De Silva & Perrera, 2023	Feasibility, preparation	Initiator
Management	Shortcoming of resources regarding, materials, skills and expertise	Pintossi et al., 2023; De Silva & Perrera, 2016	Initiative, feasibility, preparation, execution	Initiator
Management	Not enough expertise in the process of adaptive reuse	Pintossi et al., 2023; De Silva & Perrera, 2016	Initiative, feasibility, preparation	Initiator
Political	Lack of knowledge on social sustainability measures among legislators and regulators	Golic et al., 2023	Feasibility	Initiator
Political	Lack of inclusive and participatory urban planning and management	Golic et al., 2023	Use	Regulator, user
Political	Support from government needed for developing socially sustainable urban areas	Golic et al., 2023; Yung and Chan, 2012	Feasibility	Initiator, regulator
Social	Difficulty in establishing a sense of place and identity	Yung and Chan, 2012	Feasibility, preparation, use	Initiator, producer, regulator, user
Social	Lack of or limited participation, low willingness to participate	Pintossi et al., 2023	Preparation	Initiator, regulator, user
Social	Lack of or limited representation of certain groups	Pintossi et al., 2023	Use	Initiator, user
Social	Difficulties in maintaining or generating a sense of place and identity	Yung and Chan, 2012	Use	Initiator, regulator, user
Social	Too little community engagement in the building process	Pintossi et al., 2023; Yung and Chan, 2012	Feasibility, preparation	Regulator, user
Social	Hard to maintain lives of local community through new developments	De Silva & Perrera, 2023; Yung and Chan, 2012	Use	Regulator, user
Technical	Physical structure may not be adequate for adaptive reuse	Bullen, 2007; De Silva & Perrera, 2016	Initiative	Initiator
Technical	Innovative installations needed in order to match performance of new building	Bullen, 2007; De Silva & Perrera, 2016	Feasibility	Initiator
Technological	Lack of accurate information on defects or dimensional and material inconsistencies and drawings of heritage buildings	De Silva & Perrera, 2023	Feasibility, preparation, execution	Initiator

2.5.2 BARRIERS IN THE PARTICIPATION PROCESS

Table 13: Barriers in participation based on (Contreras-Espinosa et al., 2022; Torfing et al., 2019; Verheul, 2021; Wilcox, 1994;)

Barrier	Barrier for whom?	Reference
Initiator could fear loss of control and therefore be hesitant to transfer power	Initiator	(Wilcox, 1994)
Lack of definition in community, different groups in a community can have different interests	Citizens/initiator	(Wilcox, 1994)
Trust and commitment is needed in the process, but that takes a substantial amount of time	Initiator	(Wilcox, 1994)
Actually implementing ideas from the public, so citizens can have the feeling <i>they</i> generated the idea: Tokenism should be avoided	Initiator	(Torfing et al., 2019; Wilcox, 1994)
Training is needed in order for the target group to gain confidence in complex decision making, this will take time	Citizens/initiator	(Wilcox, 1994)
Participants' attitude towards such initiatives could hinder the process	Initiator	(Contreras-Espinosa et al., 2022)
Difficulty in establishing the effectiveness of participation	Regulator	(Verheul et al., 2021)
Short-term efficiency contributes to a zero-error culture, which is not desirable in co-creation processes	initiator	(Torfing et al., 2019)

In table 13 several barriers for the participation process have been found, though literature mostly focusses on co-creation processes, where decision making power is transferred to the users.

The barriers regarding participation for private parties are largely related to resource scarcity. Building trust and setting up a participation process costs a lot of time and money (Torfing et al., 2019; Wilcox, 1994). Social barriers have been mentioned as well such as tokenism taking place and the attitudes of participants. However, as can be seen in table 13, the initiator -again- deals with most barriers in the participation process.

LITERATURE STUDY

2.6 CONCLUSION

Starting January 1st 2024, the environmental permit in The Netherlands will be revised. It will be mandatory to include participation practices in the application for an environmental permit. This change affects developers the most, as they are usually the stakeholder group that applies for the aforementioned permit. However, though this change states that participation will be mandatory, for the application of an environmental permit it will only be necessary to mention the type and extent of participation practices that have been carried out. Transparency, rather than participation itself, is mandatory. Installed authorities cannot deny a permit solely due to insufficient participation. However, in the case of deviating from the municipality's environmental vision, participation may be required. No formal guidelines on participation have been found, rather suggestions. One ground rule for participation is that the scale of the development should match the intensity of the participation process.

The housing crisis in The Netherlands provides a canvas for further research to take place, particularly in vacant non-monumental functions such as offices, retail and abandoned industrial functions. Most prevalent in this category are offices, which face potential vacancy due to stricter energy label requirements and shifts in work habits post COVID-19.

In the process, several stakeholders are important. These are divided into 4 categories: *initiators*, *producers*, *regulators* and *users*. The role of the initiator is to start and develop the project. Producers are the entities that deliver a service in support of the project, regulators are public entities that guard the rules and legislation of the development and users concern local communities and end-users

or companies that end up using the building. In the implementation of participation into building processes the most important stakeholders are the regulators, initiators and the users. Especially the dynamic between the initiator and the users (participants) is important, as this process has to be passed on in the application of an environmental permit.

The adaptive reuse process includes the phases of *initiation*, *feasibility*, *design*, *execution* and the *maintenance & occupancy phase*. The initiative phase involves analysis and scoping of the project, in the feasibility the concept is developed, in the design phase the design is made, execution handles the realisation of the building and finally the maintenance and occupancy phase is where the building will be used and maintained. However, participation practices are most recommended in the initiative and feasibility phase. In these first three phases there are three main decision points:

1. Initiative phase: *Starting the adaptation process*, with economic viability as decision making criterium
2. Feasibility phase: *Deciding on the functional and conservational changes* within regulatory boundaries, based on an extensive analysis of the existing building
3. Design phase: *Final decision making*, dealing with contracts and building strategy

These decisions are taken by the initiator of the project, and decisions are mostly focused on the economic viability of the project but the decisions are supported by the project party consisting of producers. However the role of initiator can be transferred throughout the process, depending on the type of procurement the development deals with.

The barriers in the adaptive reuse process are mostly found in the economic and technical aspects. Generally, adaptive reuse projects tend to be more expensive and technically more complex, due to the existing structure of the building. However, in the social domain several barriers have been found as well. These mostly have to do with the preservation of the local sense of place. The participation barriers that have been found are mostly regarding the interpersonal communication between developing parties and participation parties. Next to that, the needed skills in order to face complex decision making have been mentioned, as well as attitudes of participants and developers not taking the process seriously. Most barriers that have been found are appointed to the initiator of the project in the feasibility and preparation phase, though the regulator and user face barriers in later stages of execution and use.

The pros of implementing participation in the building process differ per stakeholder. For the initiator the drivers for implementing participation include gaining trust and support from the government; this can lead to winning tenders. Another reason for initiators to implement participation practices is to generate a faster process through better cooperation and minimise and avoid legal consequences regarding the request of gaining an environmental permit.

Next to that, the image of the initiator is improved through positive media attention and the building may be sold faster.

For the regulator or public party the participation motives are different. Among the pro's of participation are increasing democratic quality and input from citizens, stimulating citizenship and development of participants and minimising effort and costs for the government. Several barriers for this stakeholder include the evaluation of participation processes: it's hard to determine whether the developing party has acted properly throughout the process. Another barrier for this stakeholder is the outcome of ignored preferences in municipal policy that didn't make the plan. Participants can have other intentions to board the participation process, among the goals of this group of stakeholders are: being informed; being compensated; giving input; seeing the project adapted or successfully obstructing the project. However, there can occur a lack of definition in the community itself, meaning that the opinions differ within this target group.

Most remarkable in the theoretical framework is that the moment of participation implementation, along with time of occurrence of the barriers for the participation process have yet to be defined.

THEORETICAL FRAMEWORK

Context
- Building
in the
Nether-
lands

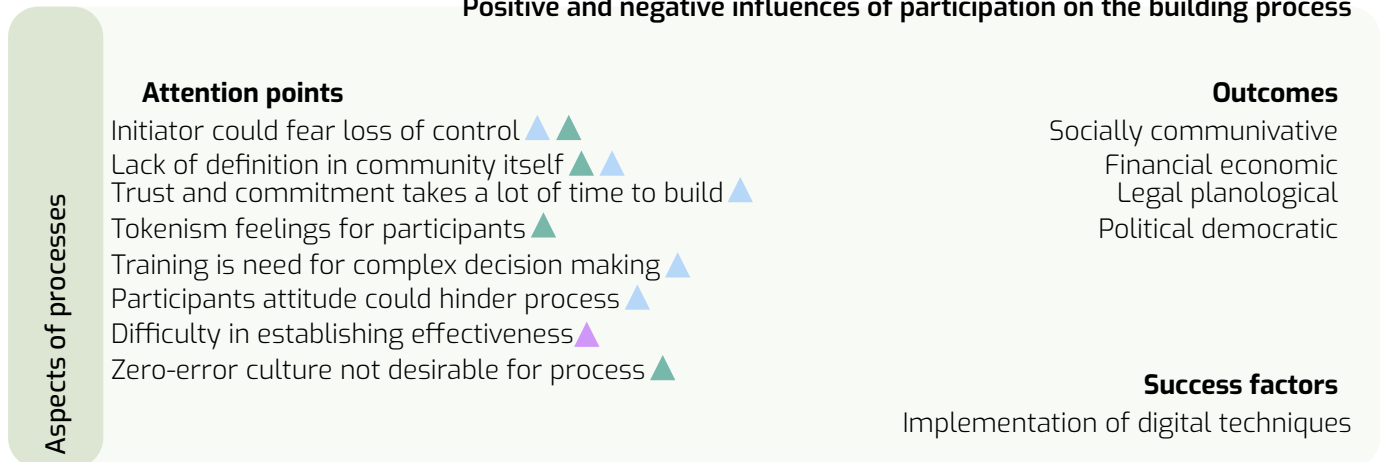
Function & size

Location

Complexity, building layout, technical
specification, previous target group



Positive and negative influences of participation on the building process



- ▲ Regulator
- ▲ Client
- ▲ Participant
- ▲ Project party

Figure 3: Theoretical framework of the thesis (Own work)

3

METHODOLOGY

METHODOLOGY

3.1 TYPES OF RESEARCH

The overall research can be classified as an explorative analysis. This research provides a brief overview of the integration between the participation process and the building process. Several conclusions are drawn which will lead to further recommendations to explore in this integrated field.

The sub research questions take an inductive, abductive and retroductive approach. SQ1 and SQ2 can be considered inductive. This is due to their descriptive nature of current practices and methods to gather existing literature and information in order to answer these questions. These research questions can be seen as rather inductive than deductive. In reality there are a lot of variations on processes and 1 process has to be chosen based on existing literature.

SQ1: Inductive logic of inquiry

This research question can be considered inductive. The aim of this subquestion is to define and gather information on existing processes. Being rather inductive than deductive, as the theory that will be the output of this rq is based on observations of different processes that already exist. The objective of the research question is to provide a base for further research, as the final product will contain a process. In this case, the process is focused on adaptive reuse processes, so naturally the AR processes will be researched through a literature review,

SQ2: Inductive logic of inquiry

This research question can be considered inductive. The aim of this subquestion is to define and gather information on existing processes. Being rather inductive than deductive, as the theory that will be the output of this research question is based on observations of different processes that already exist. Then again, this research question is needed in order to map out the existing processes regarding co-creation. These processes will need to be described in order to combine them with the AR process. Existing barriers regarding the implementation or new barriers will also have to be looked into. This research question will be answered through a literature review, later on substantiated with interviews and a cross case analysis. In here the goal of creating a sense of belonging will also be discussed.

SQ3: abductive logic of inquiry

For the third research question, an abductive logic of inquiry is appointed. This research question deals with the combination of previously mentioned research questions. The goal is to generate an integrated theoretical framework that combines the AR process with all the information of participation. Naturally, not everything will fit seamlessly. This research question is meant to identify the barriers in the process and aims to find what should be improved.

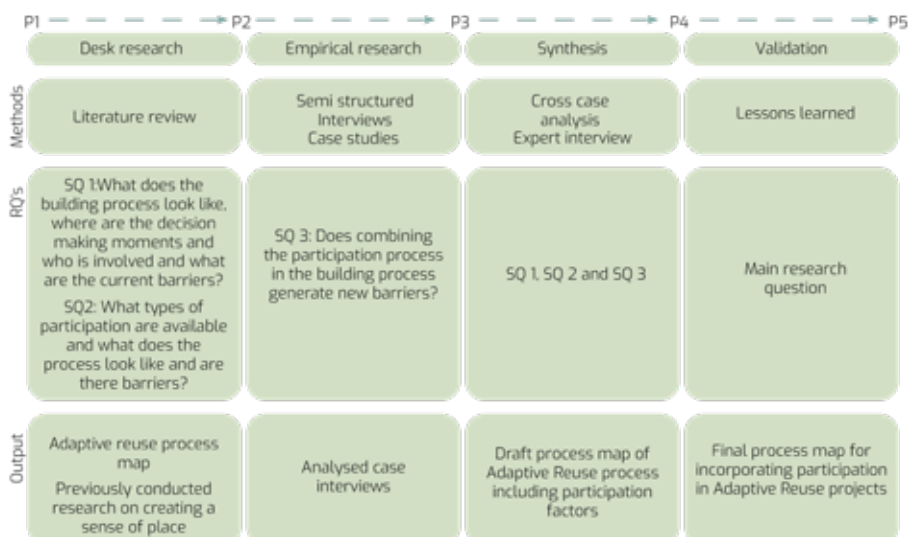


Figure 4: Research design of the thesis (own work)

METHODOLOGY

3.2 RESEARCH DESIGN

3.2.1 DATA COLLECTION

The collection of data will take place through literature review, interviews and a cross case analysis.

In the desk research phase, a literature review will be conducted based on available and previously written literature on the topics. This phase aims to create a solid base and eventually make a theoretical framework for the research to be based upon and eventually generate results. In this phase the adaptive reuse process and participation initiatives will be scrutinised.

The empirical phase consists of empirical research of gathering data through interviews in a multiple case study and a cross case analysis. The goal of this phase is to gather data from the field and people who have experience in these types of projects. In the cross case analysis, findings will be compared in order to spot similarities and differences to generalise the findings.

Finally in the synthesis phase, the findings will be combined and through a strategy will be drawn up to break down the barriers and implement participation in adaptive reuse projects.

3.2.2 DATA MANAGEMENT

The data will be collected through the FAIR guiding principles according to Wilkinson et al. (2016). These principles are based on findability, accessibility, interoperability and reusability. The report will take this point into account by depositing the thesis in the repository, additionally using the APA 7 format to improve findability of literature search. Interoperability is safeguarded through the language in the thesis, which is English and is widely used across scientific publications. Raw data will remain confidential, however processed data will be published and is allowed to be shared.

3.2.3 ETHICAL CONSIDERATIONS

This research involves human participants. The research aims to anonymise interviewees, as stakeholder views may clash. Additionally, this prevents the need to give politically correct answers. The data that is collected is solely accessible by the main researcher and team, safely stored on the organisation's drive. Interviewees will be asked to sign an informed consent letter, along with an interview protocol, for full data plan management, see appendix X.

3.2.4 RESEARCH METHODS

In figure 2 the research design is presented. As can be seen in this figure, several methods will be applied for data collection.

Literature review

For sub questions 1 and 2 an extensive literature review is needed. Herein the existing processes and findings will be combined to make the base of the theoretical framework that will eventually be presented. The literature review will be conducted through an online search in several scientific databases. Books will also be taken into account.

Conditions on found literature:

Literature does not have to be specified to the case of the Netherlands and literature does not have to apply to the built environment, as long as the concept of participation is explored

Case studies

In the case studies, multiple projects will be selected and be examined through the use of interviews and documents that are available on the case. In a multi case analysis, the validity of the data will be improved (Gustafsson, 2017).

Semi-structured interviews

In the empirical research method, semi structured interviews will be used to generate a more in-depth insight in the process.

The following criteria will apply for the interviewees

1. Interviewees should be involved in one of the cases
2. Should be from multiple parties involved in the project either initiator/regulator/participant/producer
3. Difference in experience in the field
4. Have different genders
5. Have different ages

Subjects to be discussed in the interviews, the full interview protocol can be found in appendix C:

General

In the general section, the role of the interviewee will be examined. How they got involved in the cases and their role in their respective organisations. How much experience they have etc.

Building Process

The second part of the interview will be focused on the building process. In here a brief summary will be presented how the building process took place, the goals the interviewees wanted to reach,

Participation process

In the last part of the interview, the participation process will be discussed. In this part the pros and cons of the participation process will be examined.

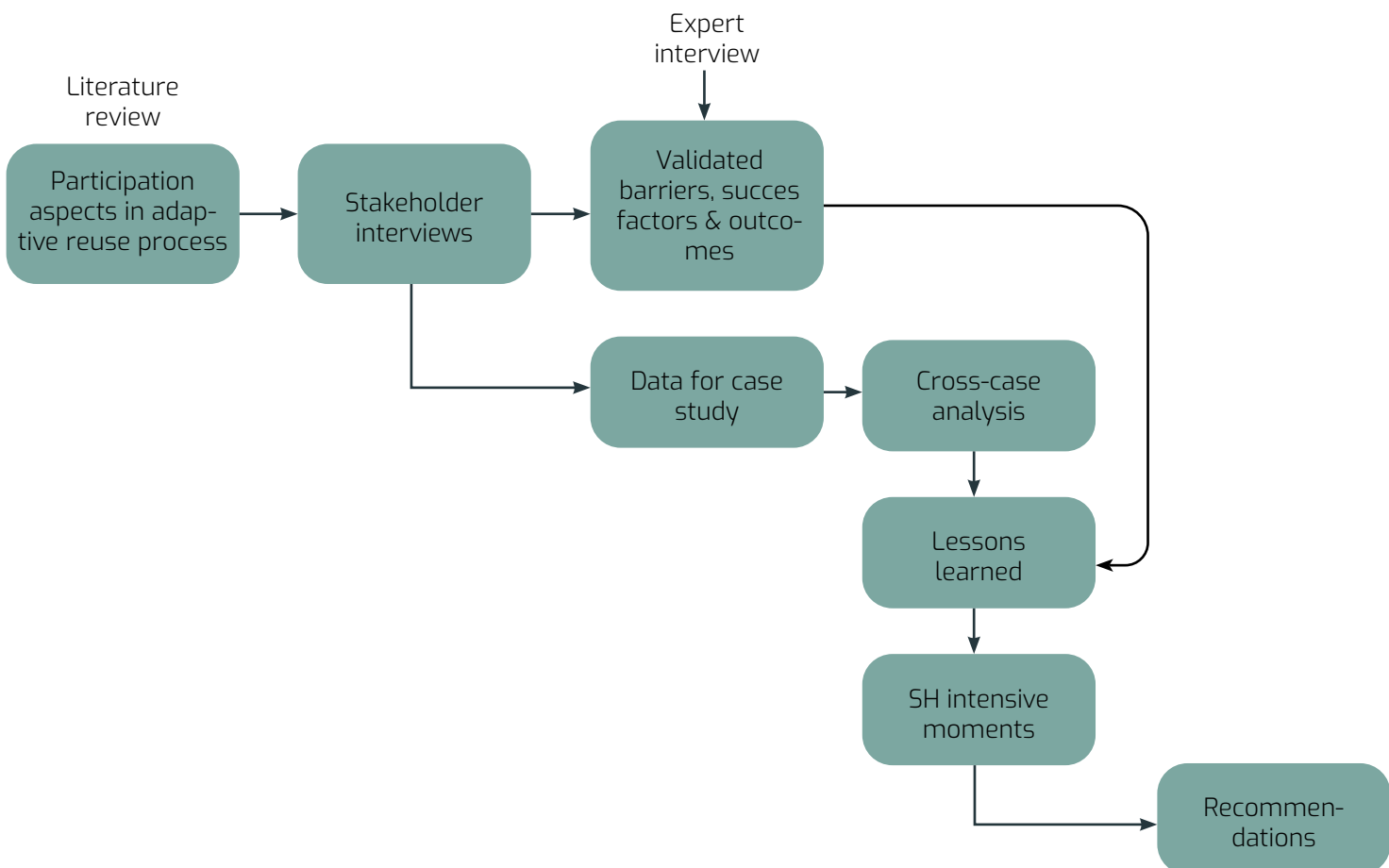


Figure 5: Research methods to be used (Own work)

Cross case analysis

Multiple case studies generate similarities and differences of different cases. This eventually leads to strong and reliable results.

The research will be limited to 3 cases. Due to different research methods, time constraints have to be taken into consideration. When looking at 3 cases, findings can be substantiated and may generate more credible results.

Since the participation measures in adaptive reuse projects that do not concern heritage values are limited, the chosen cases are not only adaptive

reuse projects. In an exploratory interview with a developer, it was confirmed that the theoretical framework corresponds to the steps taken in newly built projects. Most complexity in adaptive reuse projects have to do with monumental listings. The processes will be compared and general conclusions will be drawn.

Expert meeting

After the cross case analysis, expert meetings will be held to clear up any questions that were not previously answered by the interviews or data of the cases. An extra round of validation of the barriers will be done, as the barriers are taken from three different types of participation practices.

METHODOLOGY

3.3 RESEARCH OUTPUT

3.3.1 SOCIAL AND ACADEMIC GOALS

The societal goal of this thesis can be defined as the following: “*to improve the efficiency of the participation process in adaptive reuse processes*”. These projects often have a lasting impact on its surroundings and community life. How can these projects be used to *add* to the existing communities instead of *renewing*?

The scientific goals can be interpreted as:

1. To contribute to the integration of different target groups in neighbourhoods
2. Generate an understanding of different methods to implement participation and what should be taken into account
3. Provide a process map for insights in this way of developing
4. Do an exploratory research to also identify what needs to be researched further

Deliverables

5. The output of the research questions will be
6. Adaptive reuse process map
7. Participation process map
8. List of barriers and involved stakeholders in deliverable 3
9. Recommendations to lift the barriers in deliverable 4
10. Final thesis

3.3.2 DISSEMINATION AND AUDIENCES

This research is meant for project developers who are interested in societal matters. The tools provided in this research should aim to contribute to participation processes specifically in AR projects.

Developers - Developers who want to take the existing residents into account but don't know

how this can be done can use the final result as a guideline

Potential participation initiators - The participation process can add complexity. It could be very well possible that firms or initiatives will become specialised in participation processes in the built environment.

3.3.3 LIST OF CONTENTS

The following overview indicates the contents for the final report:

Abstract	Brief overview of the research
Table of contents	
Introduction	Problem statement Research Questions Conceptual framework
Literature review	Building process Participation process
Research method & output	Types of research Research design Data management and ethical considerations Research planning Limitations Goals and objectives Deliverables Dissemination and audiences Case introduction and selection criteria
Results	In depth description of cases Cross case analysis Synthesis Lessons learned
Discussion & Recommendations	
Conclusion	
Reflection	
References	
Appendices	

METHODOLOGY

3.4 CASE SELECTION

3.4.1 CASE SELECTION CRITERIA

For the empirical part of this research, cases need to be studied. 3 different case projects will be taken and examined further in how participation practices impact the building process.

For the case selection criteria the following rules apply according to table 14.

Table 14: Case selection criteria

	Criteria	Reasoning
Required	Non monumental function	Scope
	Located in the Netherlands	Scope
	Must have made use of participation practices	Scope
	Located in G4 cities	Scope
	Should have >50 dwellings	Scope
	Developer in private sector	Scope
	Mixed function building	Scope
Desired	Must have surpassed sketch design	The project must have surpassed sketch design, meaning the initial concept has been laid out. Literature states that the most important phases in participation occur in the first phases.
	All cases must have different types of participation	In order to generalise the impact of <i>all</i> participation projects in the development process, several techniques will be reviewed and compared.
	Adaptive Reuse building	Information on adaptive reuse buildings specifically is desired, however this is not a requirement.

Following the case selection criteria, 3 case projects have been chosen in order to generate information for the input for the analysis. These cases all have a different type of participation and were carefully selected in order to analyse the similarities and differences in using more or less intense participation practices. Though these projects are not yet delivered, the constraints in the participation section have been leading in the decision for the cases. The tender selection period and the development of the sketch design will be considered in the results, as this is the most ideal situation to implement participation (Geesing, 2015).

Table 15: Cases chosen for the research based on the case selection criteria in table 14

Case	Project Phase	Project Initiator	Participation type	Building Typologies	Stakeholders Involved	Stakeholders Interviewed
Former Pieter Baan Centre	Preparation phase (Preliminary design)	Municipality & Developer	Advisory board	Residential (social and private), Public amenities, Privately owned, cultural hub, adaptive reuse, tendered project	Municipality, Residents, Developer, Architect, Contractors	Developer, participants
De Baak	Delivered	Municipality & Developer	Survey	Residential (mid sector), Public amenities, Privately owned, newly built, tendered project	Municipality, Residents, Developer, Architect, contractor, Communications bureau (specialised in participation)	Developer & Communications Bureau
Sample	Preliminary design (project forfeit)	Municipality & Developer	Co-creation	Residential (social and private), Privately owned, Public amenities, newly built, tendered project	Municipality, Residential developer, developer, architects, contractor	Developer & Residential developer

3.4.2 STAKEHOLDER INTERVIEWS

Table 16 depicts the stakeholders that were interviewed in this study, along with roles and specifications. Semi-structured interviews were conducted with 9 interviewees in order to gain insights in the process of participation in development practices and additional barriers, success factors and outcomes. The interviewees are categorised based on the main stakeholder groups in participation implementation, allowing relevancy to be lent to the results. These main stakeholders in The Netherlands are limited to the participating party (local community/end-user), Mixed use function developers and the municipality. However, due to the inability to find proper interviewees of the municipality, these have been excluded.

Table 16: Profiles of interviewed stakeholders

Interview	Role of the interviewee	Specification
LC 1	Local community	Co-creation participant
LC 2	Local community	Advisory board member
LC 3	Local community	Advisory board member
LC 4	Local community	Advisory board member
D1	Developer	Developer Survey
D2	Developer	Developer Co-creation
D3	Developer	Developer Advisory board
C1	Producer	Participation expert
E1	End-user	Current Resident

In the interviews the development process has been discussed, along with the participation process and barriers herein.

3.4.3 DATA ANALYSIS

Case 1 is an adaptive reuse case, case 2 and 3 are newly built cases. However, these cases do not only differ in nature, they also differ in participation method. Case 2 has the minimum participation input: in this case a survey was distributed among local residents to ask what they needed in the neighbourhood. Case 1 makes use of an advisory board, this group generates feedback on the design, which will be taken into account. Case 3 is the most far-reaching form of participation and herein a group of local residents make up a part of the project team and are actively involved in developing the plan.

Level 4: Consultation - The Baak
Level 5: Inclusion - Former Pieter Baan Centre
Level 6: Shared decision making - Sample

METHODOLOGY

3.4 CASE INTRODUCTION



Figure 6: The Former Pieter Baan Centre (Photo taken from Nu.nl)

The first case is an adaptive reuse case in the centre of Utrecht. The old function of this building is a psychiatric observation clinic and prison and will be transformed to residential, offices and public amenities with a focus on dwellings for at-risk youngsters.

The former Pieter Baan centre is an old psychiatric observation and prison clinic in Utrecht. The original owner was The Central government Real Estate agency. This observational building has been used since 1897, during the war a barrack was added to the site. During the 70's an additional observation clinic was realised. Later, offices were also added on to the site (Developer 3, Kondor Wessels Vastgoed).

The old building was no longer needed for psychiatric observations and was vacant for a while. During this time, the municipality wrote out a tender for a market party who was willing to transform this old clinic to a mix of residential and work-related functions.

This building had a strong focus point on the social

3.4.1 FORMER PIETER BAAN CENTRE

Typology:	<i>Adaptive reuse</i>
Themes:	<i>Conservation/urban integration</i>
Procurement Type:	<i>Tender</i>
Participation method:	<i>Advisory board</i>
Gross floor program:	<i>15.500 m2 GFA</i>
Year of start:	<i>2020</i>
Location:	<i>Utrecht, Gansstraat 180</i>
Old Program:	<i>Old penitentiary</i>
New program:	<i>housing, offices, creative offices</i>
Initiator:	<i>Municipality of Utrecht</i>
Developer/client:	<i>KondorWessels Vastgoed</i>
Contractor transformation:	<i>De Bonth Hulten</i>
Architect:	<i>RAPP + RAPP</i>

factors, with the extra boundary of developing special residential housing for vulnerable target groups. Considering the reuse in this building, another important notion was the acceptance of local residents and implementation of the building regarding its existing surroundings (Gemeente Utrecht, 2021).

The participation measures in this case concerned large scale meetings in an early phase, initiated by the Municipality of Utrecht. Consequently, after the tender was won, the participation practices were continued with a smaller advisory board.

3.4.2 DE BAAK



Figure 7: The Baak (Photo taken from KondorWessels.nl)

De Baak is a building in the Amsterdam neighbourhood Geuzenveld. In this area a lot of new developments are ongoing. This development that was initiated by the municipality through tender. The building is situated in a relatively newly developed part of Amsterdam, consisting of 135 mid-sector rental dwellings and operated by a private pension fund. The decision to make a collective function on the ground floor was made by the developer in the initiation phase of the development. Along with a communications bureau that is specialised in participation measures in the built environment the decision to distribute a survey was made. Eventually through the input of local communities the choice had fallen on a publicly accessible living room. This project has been put out to tender by the municipality of Amsterdam, Kondor Wessels Vastgoed won this tender in 2019. The building was delivered in Q1 of 2023, and consists of mid rental segment housing, along with a communal area space on the ground floor.



Figure 8: Collective living room render of The Baak (Photo taken from KondorWessels.nl)

Typology:	<i>Newly Built</i>
Themes:	<i>Spatial quality and urban integration</i>
Procurement Type:	<i>Tender</i>
Participation method:	<i>Survey</i>
Gross floor program:	<i>11.725 m2 GFA</i>
Year of start:	<i>2019</i>
Location:	<i>Amsterdam, Dr H. Colijnstraat</i>
Old Program:	<i>n/a</i>
New program:	<i>Housing, collective living room</i>
Initiator:	<i>Municipality of Amsterdam</i>
Developer/client:	<i>KondorWessels Vastgoed</i>
Contractor:	<i>Wessels Zeist</i>
Architect:	<i>OZ & FLUX</i>

3.4.3 SAMPLE

Typology:	<i>Newly Built</i>	Location:	<i>Amsterdam, Papaverweg</i>
Themes:	<i>Circularity & sustainability</i>	Old Program:	<i>n/a</i>
Procurement Type:	<i>Tender</i>	New program:	<i>(social) Housing, commercial space</i>
Participation method:	<i>Co-creation</i>	Initiator:	<i>Municipality of Amsterdam</i>
Gross floor program:	<i>48.000 m2 GFA</i>	Developer/client:	<i>KondorWessels Vastgoed</i>
Year of start:	<i>2022</i>	Contractor:	<i>n/a</i>
		Architect:	<i>Mecanoo/Space&Matter/Zus</i>

This case concerns a newly built building in Buiksloterham in Amsterdam North. Through co-creation this building reached its unique form of development. It concerns an apartment building with over 300 apartments, offices and public amenities. However, due to reorganisations within Volker Wessels, this project has been cancelled. The option agreement was transferred towards the second place of the tender. Located in the Buiksloterham in the North of Amsterdam, this building is part of a small circular neighbourhood. The area development around has been going on for quite some time and the municipality decided to tender the plot of Buiksloterham lot 19 A+B to a market party for the development of a circular building.

The Buiksloterham area in the North of Amsterdam is currently being redeveloped. Leading themes

like circularity are found in different parts of the neighbourhood.

Through the many developments in Amsterdam North, the dissatisfaction of current residents has been rising. New residents pulled towards the area, transforming it to a location of their liking, letting the original inhabitants feeling displaced and not taken seriously. Verdedig Noord is a party that strides against gentrification and displacement in this area. In the tender announcement, one of the themes the developers could score points on was the involvement of the local communities in the development of the tender.

KondorWessels Vastgoed approached Verdedig Noord and successfully negotiated the terms and conditions on co-creating in this development.



Figure 9: Sample (Photo taken from KondorWessels.nl)

4

RESULTS

RESULTS

4.1 FORMER PIETER BAAN CENTRE

Administration	<i>The initiator, the municipality had already founded an advisory board group. The local communities received an invitation, anyone who was interested was eligible to participate in this advisory board group.</i>
Objectives & goals	<i>According to the municipality the goal of the participation is to “make sure more residents of Utrecht feel involved and influence developments in the city” (Gemeente Utrecht, 2021). Participants attended this advisory board to make sure they will remain satisfied with the environment; to see what is happening in their neighborhood and become more involved with the neighborhood. Among things they wanted to control participants mentioned they found the parking spots important, along with the placement of the high rise buildings and the function of the building .</i>
Stage	<i>The participants were involved during the development of the urban plan of requirements in the initiative phase</i>
Targeting	<i>The municipality distributed information letters among those who lived in a certain radius of the Pieter Baan Centre. Anyone who was interested and willing could participate in the advisory board.</i>
Techniques	<i>The advisory board structure was chosen for this project. In the first meeting, a lot of people showed up, up to 70 people. Afterwards less people registered for the advisory board.</i>
Information	<i>In the beginning, the participants could vote on statements of the function of the building. Afterwards the sessions turned to a presentation - feedback structure.</i>
Governance	<i>Consultation, advisory board</i>

4.1.1 TENDER DEVELOPMENT

This building has been put out to tender. After evaluation by the Governmental Real estate Agency, the building was decided to be no longer effective for its original function (Developer 3, Kondor Wessels Vastgoed).

In the tender document, a few things became apparent: the focus of this adaptive reuse building lay mostly on the spatial integration and preservation of the building itself.

In this process, several decision making processes have been identified. First of all, in the initiative phase, the decision making mechanism for the boundaries of the tender document have been decided. The decisions are made by the initiator of the case, which is the municipality. (Gemeente Utrecht, 2021)

The municipality as the initiator started to work on an urban plan of requirements. In this phase the first contact with local communities took place (Gemeente Utrecht, 2021). The role of the citizens was to check and give feedback on the urban plan of requirements. Starting from 2020, the process began with the development of the urban plan of requirements. In this phase the local communities had

been involved. In a series of three online meetings - due to corona - the feedback given by the local communities was incorporated in the urban plan of requirements (Gemeente Utrecht, 2021).

The participation process consisted of 3 meetings in this stage. The first meeting took place on Oct 6, 2020. This meeting had no form of discussion, it was merely an opportunity to pose questions as a local community. The second meeting was held on nov 24 2020 and in this meeting input was wished. Attendees were asked what they thought of the existing building and what should be preserved and they were asked about the function of the place. Not only were these questions asked in the meeting, they were also distributed through a card, delivered to local residents. In the third meeting the vision for the redevelopment was presented and asked to give feedback (Gemeente Utrecht, 2021).

Overall, this approach was perceived as very good (Local Community 4).

Among the most important guidelines fall the boundaries of the functional change of the building. These consist of dwellings, cultural spaces and housing for vulnerable target groups (Gemeente Utrecht, 2021). This part was done with the input of local communities, participants were given an

option to evaluate whether they thought the function would be appropriate in the neighbourhood or not (Gemeente Utrecht, 2021; Local community 4). The amount of square metres per dwelling segment (social/mid/high) was determined by the municipality (Gemeente Utrecht, 2021; Developer 3, Kondor Wessels Vastgoed)

Next to the functional change, the conservation boundaries are a theme that is also largely developed. The boundaries on what needs to be preserved and what can be changed have to do with the cultural fabric and the timeline of the building itself. This theme has also been widely discussed with the participants, they had influence on the height and the place of the high rise newly built part (Gemeente Utrecht, 2021; Local community 4). The local communities approved in the first instance of the high rise part in a place, but later it turned out that that place had been changed by the developer. This wasn't a big problem for the local communities, so they didn't object to this design (local community 4).

The boundaries on the surrounding landscape and the integration of the building in the neighbourhood is touched upon, participants had a say in the public space around the existing building. The prerequisites for maintenance and feasibility have been described in the tender document. For the maintenance and feasibility, a special plan for cultural and social maintenance had to be submitted, as well as the integration of sustainable exploitation in the plan (Gemeente Utrecht, 2021).

For the urban and landscape integration of the building in the existing fabric, several boundaries have been formulated. The orientation of the complex should connect to the surrounding fabric, height measures have been formulated and several boundaries on the mobility and especially parking were mentioned, this was the result of one of the meetings with participants, it became evident that participants had sorrows on the parking in the

neighbourhood (Gemeente Utrecht, 2021; Local community 4).

4.1.2 DEVELOPING THE SKETCH DESIGN

In the sketch design the project team had to decide on how to conform to the municipality's ambitions. Decisions on how the themes of the municipality were implemented are important here. The prerequisites given by the municipality of Utrecht were used to create 4 main themes in which the decisions have taken place (Developer 3, Kondor Wessels Vastgoed). These themes are cultural history; conservation and urban integration; functional programme and maintenance and feasibility.

In the development of the sketch design the winning project team asked local citizens what they thought was important in the neighbourhood (Developer 3, Kondor Wessels Vastgoed). During the sketch design phase, 18 developers competed for the option agreement of the building (Developer 3, Kondor Wessels Vastgoed). In the tender document, there was a requirement that the building should focus on vulnerable target groups, eventually the decision of the concept had fallen on the protection of at-risk youngsters (Developer 3, Kondor Wessels Vastgoed). In the development of the sketch design the developer of the project was involved, as well as the architects, advisors, investor and a corporation. The contractors of the project were involved in a later stage (Developer 3, Kondor Wessels Vastgoed).

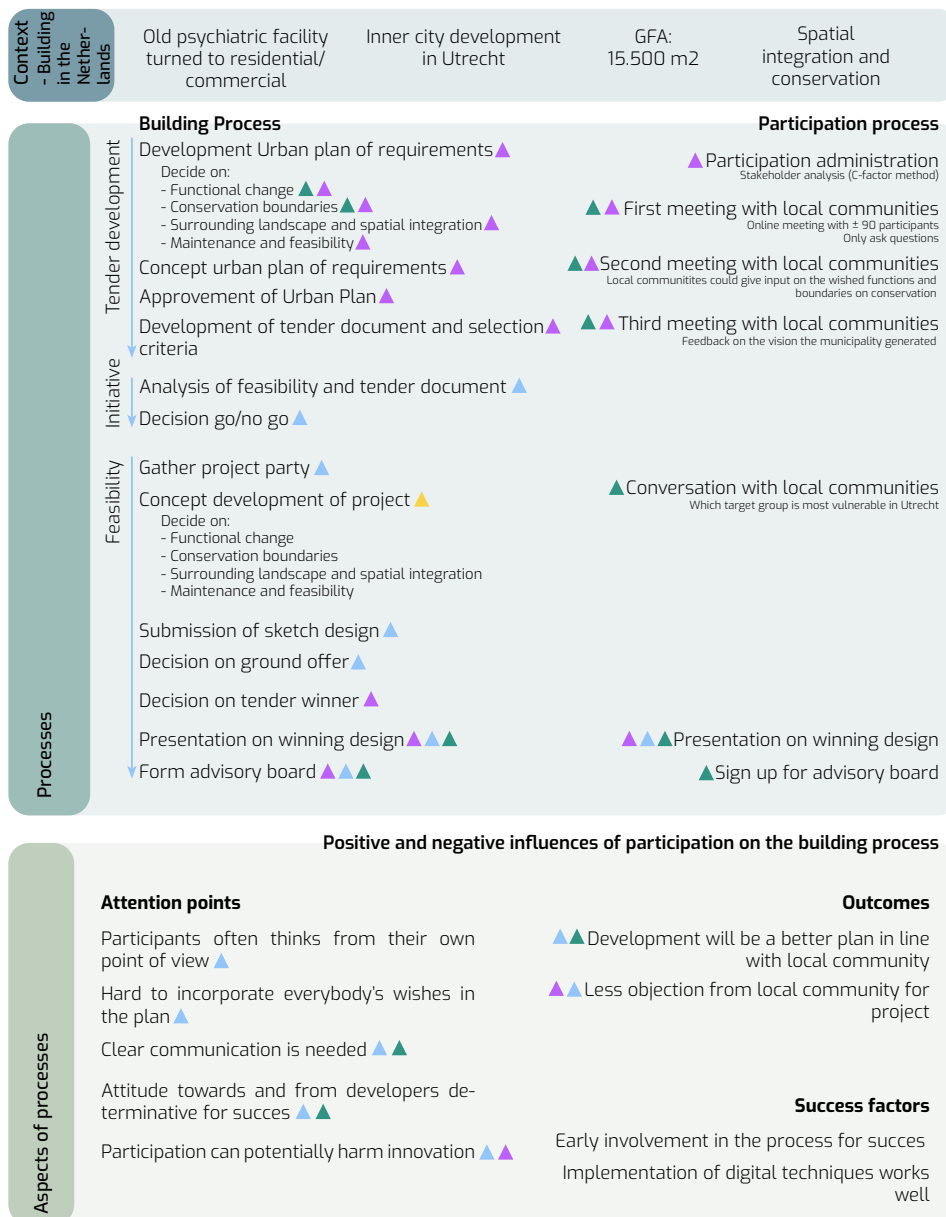
Afterwards, the sketch design had been submitted, the developer placed a bid and was awarded the option agreement. The project team presented the plan to the current residents after winning the tender. In consultation with the residents, it was decided to form an advisory board to track the progress of the design (Developer 3, Kondor Wessels Vastgoed).

After the developer that won was announced, the municipality along with the developer organised a meeting for the previously mentioned involved

local communities to present the winning plan. In this meeting the participation method was further established and an advisory board was formed (Developer 3, Kondor Wessels Vastgoed); (Local community 4).

For the developer of the building, the main goal was to win the tender and generate a financially feasible plan. Next to that, the goal of the project was to add cultural historic value to the place and become a site by and for the citizens of Utrecht, especially for vulnerable target groups (Developer 3, Kondor Wessels Vastgoed).

Case 1: Pieter Baan Centrum Advisory board



Among the participants goals were mentioned to check whether the developer would keep the promises made to the municipality (local community 4), next to that one of the participants mentioned that this building was basically their backyard, so they were curious to see what the plans were (Local community 4). Other goals for participants were being involved in the neighbourhood (local community 2) and to have a grip on the consequences of developments in the neighbourhood, meaning that the residents will be satisfied with the result (local community 3).

Figure 10: Overview of the development process and participation process in the case of The Former Pieter Baan Centre (Own work)

4.1.3 BARRIERS AND DRIVERS

The barriers that have become apparent from the interviews conducted with those involved, are mentioned below.

1. *Participants often think from their own point of view*

Developer 3 mentioned that participants often think from their own point of view. It's hard to align stakeholders that way. A couple of things that are often mentioned in development plans in participation are the view from the houses of participants, parking spots or the height of the building. This point is further substantiated by LC 2, who mentions:

“Of course you will have to separate the individual wishes from local communities. It's an art to separate and incorporate the things that genuinely influence the project”. - LC 2.

2. *Piled up ambitions decreases stakeholder satisfaction*

In the development of a plan a couple of stakeholders are involved, D3 mentioned that developers have their own ambitions & goals, but the municipality piles up more ambitions and eventually participants add on to this as well. It's hard to incorporate all of it.

3. *Clear communication is needed*

Clear communication turns out to be a prerequisite from the participants point of view. All 3 interviewed local communities had a point on this matter. LC 3 mentioned they valued honest clarifications over the realisation of his feedback. This also had to do with the feeling of being taken seriously.

“It's crucial to explain why something can't be done” - LC 3

All 3 participants mentioned to be very satisfied with the overall participation process. This was mostly due to the transparency in the communication.

LC2 mentioned they were very satisfied with the response rate of the developer and LC 3 mentioned that clarity in information provision is crucial for them. LC 4 mentioned they appreciate being able to talk to the developers directly, instead of having a third party in between them. The communication was also smooth as the use of jargon was limited to a minimum. LC 4 mentioned that the project members were very well prepared, had nice visuals and they appreciated the presence of experts from the field.

Points of improvement that were mentioned are having the same contact person (LC 2), so contact will be initiated more easily and the developer being more clear in the timeline of the development (LC 4).

4. *Early involvement in the process for success*

The interviewees mentioned that early involvement of the participants is very important. LC 2 mentioned that participation should take place in an early stage. They also had good experiences with that in their day to day job. LC 4 mentioned that they would like to be involved in the concept development stage of the project. LC 4 mentioned this is also very important in adaptive reuse projects. The building defines the space around it, and now it's changing. They advocate to have a say in the concept, not only on the elaboration.

“What's important, in a plan like this, is that it fits in the environment. This environment has been defined by this building for a very long time” - LC 4

5. *Development will be a better plan in line with the local community*

Developer 3 mentioned that participation can also contribute to a plan that is better in line with the local community. This is important for developers, as they also want to make a qualitatively high plan. This in turn will contribute to the reputation the company has. A good reputation is important as this will facilitate more future projects.

LC 4 mentions on this topic that participation is important in project success: they mention that eventually the local communities ‘decide’ if the project is successful or not.

“When you’re talking about development, I think it’s very important to include the locals. Even if it’s only because they can eventually determine the success or failure of a plan.” - LC 4

6. *Less objection from local community for project*

A general commonality among all interviewees is that participation will lead to less objections. D1 mentions that participation contributes to the acceptance of the plan and LC 4 mentions it’s wise to involve those who have the most stake in the project. These are often the people that can thwart the process.

7. *Attitude towards and from developers determinative for project*

The attitude of the developer towards the participation project is of influence on the process. LC 3 and LC 4 mention to be satisfied by the process. They mentioned the developers come across as trustworthy and honest. This makes both of them look more positively against the process. LC 3 mentions the opposite of this attitude would lead to feelings of being not taken seriously and tokenism.

“Those who presented the plan and involved us, I feel as if they’re very honest in this process. Otherwise they’re just ticking off boxes and don’t take the feedback into account.” - LC 3

“Often, developers fall into 1 of 2 categories: those who connect people and technical developers. Developer 3 was perfect for this case. He really listened and tried to be interactive.” - LC 4

8. *Other topics mentioned*

LC 4 mentioned in the department of information techniques that digital meetings worked very well. They mentioned the discussion came more easily than meetings in person. This can aid in the accessibility of participation practices.

Developer 3 mentioned that one of the downsides of participation is that it can put a stop to innovation. They mention that new plans often evoke resistance with participants. When asking what the needs are, sometimes participants can only think of what they already know. Therefore ‘blocking’ innovative ideas, however this was not specific to this case.

4.1.4 THEORY VS PRACTICE

In the initiation stage there is a big difference between theory and practice, as this case concerns a tendered project. Herein, the initiator is the municipality. The municipality has different goals than a developer, namely to act in the interests of the public good. In this tendering stage, the participation administration took place. A c-factor analysis was made to see what stakeholders needed to be involved in the participation process. It is not clear whether the other participation aspects were formally elaborated upon. Different techniques were implemented in the participation process and they started in the tender development phase. The first meeting was an informative meeting, herein questions could be posed, but no real input was given by the participants. In the second meeting the preferences of the local community were examined and in the third meeting the local communities could give feedback on the urban plan. This shows that different techniques can be implemented throughout the participation process. The moment of integration of participation practices in the development process started as early as the development of the tender document.

4.1.5 MAIN LINE

Overall, the interviewees were satisfied with the process. This was mostly due to the open communication from the developer and trustworthy attitude from the lead developer on the case. Decisions that were taken in this project had a large focus on preservation and integration of urban space and re-development. The main thing the local communities want to control are parking, traffic and other day to day inconveniences that could be consequences of having many new neighbours in this neighbourhood.

Development

The process started out with the development of the urban plan. This document contained the 4 most important themes the end product has to comply with. The themes were cultural history; conservation and urban integration; functional programme and maintenance & feasibility

The municipality wrote this plan and was approved by the local council. This document was the basis for the tender document.

This tender document subsequently became the guidance for the client, Kondor Wessels Vastgoed. They took this document and built the design according to these 4 themes. This was done with the developer, architects, advisors, investor and a housing corporation. However, the developer was in the lead and acted as the client.

After the development of the sketch design, this was handed in and 5 out of 18 parties were admitted to place a bid on the building and plot. Eventually, KondorWessels vastgoed was selected winner of the tender.

Participation

In the initiative phase of the urban plan of requirements the participation process was initiated by the municipality. In the development of the boundaries of the building several meetings were held. The first was an information evening, where participants could pose questions, but no substantive discussion was held. The second meeting did feature feedback. In this meeting was asked what the participants would like to see as the function of the building

and several questions on the preservation of the building were posed. This feedback was taken into account and an urban plan was developed where local communities could then give feedback again. Eventually the urban plan of requirements was approved by the local council. This was the basis for the tender document.

In the sketch design phase the developer did not have contact with the local community. This contact was established after the developer won the tender. The developer organised a meeting in order to present the winning plan and there was room for questions. Following this meeting an advisory board was formed for the rest of the process.

There were different reasons for the stakeholders to join the participation process. The developer did not mention the reason to join in the participation process, though they had no choice, as participation was mandated by the municipality. The urban plan of requirements (Gemeente Utrecht, 2021) mentioned the municipality started this process to make sure more residents of Utrecht feel involved and influence developments in the city and the participants

Barriers

The barriers and drivers mentioned by the developer and the local communities are summarised in two categories: beneficial to the process and limiting the process.

Beneficial to the process:

1. Development will be a better plan in line with the local community
2. Less objection from local community for project
3. Early involvement in the process for success
4. Digital meetings

Limiting the process:

1. Participants often think from their own point of view
2. Hard to incorporate everybody's wishes in plan
3. Clear communication is needed
4. Attitude towards and from developers determinative for project

RESULTS

4.2 THE BAAK

Administration	<i>Developer approached a participation expert, asking how to implement participation. Participation expert mentioned they had good experiences with a survey. However, municipality didn't approve of participation measures, and didn't allow any method going any further than surveys</i>
Objectives & goals	<i>Goal was to win the tender and to generate social value in the neighborhood</i>
Stage	<i>Only involved in the initiative phase.</i>
Targeting	<i>Distribution of survey</i>
Techniques	<i>Generated opinions and wishes through a survey in the neighborhood</i>
Information	<i>Local community had to be given basic information of the building: information was already public through the announcement of the tender by the municipality. Local community had to generate their wishes and opinions on the public space they wanted to have in the neighborhood</i>
Governance	<i>Consultation</i>

4.2.1 TENDER DEVELOPMENT

This new building was put out to tender by the municipality of Amsterdam, as an impulse to generate more dwellings in the mid-segment rental department. The points in the process and several decisions have been taken out of the tender document made by the Municipality of Amsterdam (2019).

The tender development started off with the development of a function. In this case the functions of living and parking have been chosen. In order to develop this programme, the municipality selected the boundaries for mid-segment rental housing, along with an underground parking garage. Consequently, the decision for the target group, maximum rent and maximum increase of rent per year was made. Also the building rules were decided in this phase, meaning the height, depth and width of the building along with technical, and aesthetic boundaries. The decision on the boundaries of the important factors of the buildings was decided on as well. These entail important boundaries on the spatial quality and quality of the dwellings as well as the sustainability measures (Gemeente Amsterdam, 2019).

The tender of this building consisted of 2 rounds. The pre-selection and definitive selection. In order to progress to the definitive round, the preselection has to be approved (Gemeente Amsterdam, 2019).

In the pre-selection round, several decisions have to be made. These are in line with the most important themes that were decided on by the municipality regarding sustainability and spatial quality. In terms of sustainability, a vision should be presented on mobility/flexibility and how to reach an EPC score of <0,15.

These 2 prerequisites are complemented by the guidelines for the spatial quality of the building. These decisions entail the integration of the programme and attractiveness, the aesthetic of the building, along with the integration in the surrounding environment, both regarding high rise and public space. And finally: the decision of the plinth in relation to liveability (Gemeente Amsterdam, 2019).

4.2.2 DEVELOPING THE SKETCH DESIGN

These decisions have to be taken in the pre-selection. If the vision is sufficient, parties can enrol into the definitive selection phase. Herein 4 themes have to be further developed: Spatial quality, architectural design, entrance and plinth and integration in the surrounding built environment. These decisions largely overlap with the decisions in the selection phase, however these decisions seem to be smaller than the decisions in the pre-selection phase. In the definitive phase, the design will be elaborated

further upon. Several smaller decisions will have to be taken, such as the orientation of the building, designs for different dwelling typologies and solutions for parking (Gemeente Amsterdam, 2019).

The focus in this tender was laid on the spatial quality of the building itself and the added value of

the public space around the building of the existing neighbourhood. Though there was a focus on the integration of the building in the existing urban fabric, the municipality allowed no contact in the tendering phase, thereby limiting the participation measures taken in the development of this building (Communications Expert 1, De Wijde Blik).

Case 2: De Baak Survey

Context - Building in the Netherlands	127 dwellings and a public living room	Development in relatively new neighborhood in Amsterdam	GFA: 11.725 m2	Spatial integration and quality
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Positive and negative influences of participation on the building process

Aspects of processes	Attention points	Outcomes
	<ul style="list-style-type: none"> Not in my back yard attitude hinders processes Not taking the process seriously results in faulty participation process Hard to involve proper target group Herd behaviour can lead to negative attitudes 	<ul style="list-style-type: none"> Plan better in line with community Less objection and complaint by local community
		Success factors
		Early involvement for success

- ▲ Regulator
- ▲ Client
- ▲ Participant
- ▲ Project party

The participation measures taken in this case were the least of the three cases. In this case, during the development of the sketch design, a survey was held by the project team (Developer 1, Kondor Wessels Vastgoed). An external communication party specialised in participation was involved in this process. However, due to restrictions of the municipality the only measure that was taken in this tender was a survey on the needs of the local community (CE1).

The participants in the existing neighbourhood mentioned they would like to have a communal space that can be used for multiple purposes. These purposes could be in the form of homework coaching for children, work spaces or a small community library (D1). However, after the delivery of the building about 6 months ago the living room hasn't been used and is still empty (EU1). There is also confusion amongst the tenants and residents in the neighbourhood who's responsible and who is eligible to use this room (EU1).

The building was sold to an investor, in the transfer of the building the responsibility of the

Figure 11: Overview of the development process and participation process in the case of The Baak (Own work)

communal area was lost (Communications Expert 1). Next to that, there still exists a tension between new and old residents (EU1).

The interviewees mentioned the response led to the need for a community living room (D1). Also, the developer received a lot of enthusiastic feedback and ideas to implement in the building (D1). This was done in the beginning of the sketch design phase, where afterwards this input was used to develop the more specific implementation of the programme. In this case, the result of the survey was to make a communal area on the ground floor, which could be used by both the tenants of the building, as well as the local citizens (D1).

After the sketch design was finished, the submission was handed in. The tender was won by the project party and they started developing the plan further on the basis of the handed in tender document. After the preliminary design phase, the definitive design was made and execution took place. This building was delivered in the spring of 2023, however the communal space area is still left untouched by both the residents and the local communities (EU1).

4.2.3 BARRIERS AND DRIVERS

Among mentioned barriers the following have been mentioned.

Multiple opinions slow down the participation process

Most participants think from their own point of view

NIMBY views can hinder the process

Negative view on project developers by residents

External communications expert needed for facilitation

If social factors don't fit in the business case, it will never happen

Municipality won't allow contact with neighborhood during tender phase

Little freedom for innovation due to restrictions of the municipality

Transfer of ownership of community spaces causes confusion regarding responsibilities for community spaces

Early involvement in the process is most important

Too little time results in faulty participation process

Process not taken seriously

Participants are inclined to draw towards negative people's and opinions in groups

Older people causing more resistance due to habituation

Target group does not represent younger residents

No one size fits all solution for participation

Participation being done too late, so that participants experience tokenism

Communication between stakeholders is not optimal due to jargon

Participation does not solve tension between new and old residents

These points have been summarised in the following barriers:

1. *Plan better in line with community*

In this specific development in the New West of Amsterdam, a high concentration of multicultural families are nested. According to Developer 3, one of the main reasons to make use of the survey was to adhere to the wishes of the current target group. Developer 1 mentions that the neighbourhood is multicultural, emphasising the difference in preferences for dwellings.

"A simple example is that we prefer open kitchens in our dwellings. However in other cultures an open kitchen is seen as something dirty." - D1

When asked what participation adds to the building process, developer 1 mentions that through the implementation of the survey, the plan will also be better in line with the current neighbours. In this survey they mentioned their preferences and developer 1 mentioned this was done with quite a lot of enthusiasm.

"We have had a lot of input from the residents and this was the final product. Also, I did notice in the process that there were still people who just grabbed our general mail and then started telling us that they also had something that they needed to

fill in there. Which might also sometimes have been different from the final votes. But it's nice to see that people will then take initiative.” - D1

“We have had quite a lot of response, and also in the tender proposition we submitted, the wishes from the neighbourhood were honoured in the design of the building” - CE1

Communication expert 1 mentioned participation is a method to critically see what the people in that certain area are in need of. *“Another goal is to see what this specific area needs. Something extra that makes people feel proud of the buildings that are placed here and can also make use of.” - CE1*

2. Less objection and complaints by neighbours
According to both developer 3 and the communications expert less objections will be filed when participation is implemented. This can eventually lead to a faster process in applying for an environmental permit. Communications Expert 1 mentioned that people are less inclined to start an objection procedure out of frustration of being left out and this leads to a bigger chance of approval for the environmental permit. Next to this, communication expert 1 also mentions the need for participation, as the environmental permit will require all applicants to have run through a participation process.

“The barrier that will be solved is that people will no longer file unnecessary procedures out of frustration as they are not involved and that people will start an objection procedure because their interests have been adversely affected.” - CE1

3. Not in my back yard attitude hinders process
The attitude of several participants can cause barriers. Specifically mentioned are that most participants think from their own point of view (Developer 1) and when participation is too big, it can actually slow the process down, as many viewpoints have to be taken into account. Developer 3 also mentioned the not in my backyard principle. This is where ev-

erything that is placed on the participants' terrain is not good enough, as it's your garden being meddled in (Developer 1).

4. Not taking the process seriously
Communication advisor 1 mentioned that too little time often results in a faulty participation process. Also the process needs to be taken seriously by the developer. During the interview, CE1 also mentioned the importance of communicating on the same level. This could be hindered due to jargon.

5. Choosing the right target group
This point was mentioned by communications expert 1. They mentioned that often older people show up at participation meetings and that the people in this age group are most resistant towards change. However, the younger target group often has no time to participate in these practices, so CE1 mentions it's essential to go out and actively involve this target group as well by showing up to the places that this target group would go. For instance, this could be at the local supermarket.

6. Herd behaviour can lead to negative attitudes
Communications Expert 1 mentions that very often in his experience, people side with whomever is being loudest. That would mean that people follow the behaviour of those - who have no strong opinion at the commencement of the participation process - will follow the largest group. This can also be done with positive people, so using this knowledge and building a strategy around it is really important in the participation process (Communication expert 1).

4.2.4 THEORY VS PRACTICE

In this case no formal participation administration has been done. In a conversation between the developer and the communication expert loosely agreed on the choice of a survey in the neighbourhood. One technique was implemented and the moment of involvement was in the feasibility phase of the development.

In this case, one technique was used.

The time of involvement of the participation was by the developer and communication expert in the feasibility stage of the project.

4.2.5 MAIN LINE

Development

The building process started off with the initiation by the municipality. A new building was needed in the New West neighbourhood of Amsterdam. This neighbourhood is a relatively new development with lots of newly built dwellings. The tender development focused on several themes, mostly on spatial integration and the integration of high rise buildings in the rest of the existing urban fabric.

In this phase, the segment of the dwellings was determined: mid sector rent and the maximum price was determined as well. Several boundaries for the aesthetics and shape of the building were formulated and the needed sustainability measures.

After the tender document was made, the developer performed an initial feasibility test and analysis of the tender document. After the decision to go, the developer involved a communication expert on participation with the question how to involve local communities. Eventually they decided on a survey. The communication expert had good experience with that form of participation. However, the municipality did not allow any further measures regarding participation. The development of the concept began after the go/no go decision. The result from the survey in the local neighborhood was that local communities had a need for a place where children could do their homework, like a public living room, so this was implemented in the design. Eventually, after the pre-selection, the developer had to work out several other points that were previously formulated in the definitive stage of the tender and the developer had to decide on a ground offer. Afterwards the municipality chose the winner of the tender and the sketch design was

turned into a definitive design and executed

Participation

The participation in this case was minimal. It concerned the lowest level of the three cases: a survey. The input was taken in the beginning of the process and was used to fill in the function on the ground floor. After the go/no go decision a communications bureau with a sole focus on participation in developments was involved. After some deliberation, they settled on the choice of a survey. However, due to restrictions of the municipality they could not go any further in participation measures. The developer received very enthusiastic feedback and eventually it became clear that the local communities were in need of a public living room, so this function was realised on the ground floor.

Barriers

The barriers and drivers mentioned by the developer and the communications expert are summarised in two categories: beneficial to the process and limiting the process.

Beneficial to the process:

1. Plan better in line with community
2. Less objection and complaints by local community
3. Early involvement for success

Limiting the process:

1. Not in my back yard attitude hinders processes
2. Not taking the process seriously results in faulty participation process
3. Hard to involve the proper target group
4. Herd behaviour in participation can lead to negative attitudes

RESULTS

4.3 SAMPLE

Administration	<i>Developer approached local communities for far reaching participation trajectory. Local community accepted, but wanted to negotiate on their terms. Developer agreed. Administration was done in accordance with the participants themselves</i>
Objectives & goals	<i>Goal was to win the tender and to include the local community life in the new building.</i>
Stage	<i>Involved from the first stage in the sketch design phase. One of the first steps to be done was to approach the local communities</i>
Targeting	<i>Targeting was done through an existing local activist party, who strive against gentrification in the North of Amsterdam</i>
Techniques	<i>Implementation of design teams in the entire process. Collaboration with architects and advisors along with local communities and developers to develop tender proposition</i>
Information	<i>Access to all information, as embedded in the project party</i>
Governance	<i>Equal partnership, shared decision making</i>

4.3.1 TENDER DEVELOPMENT

This building started off with the development of a tender document. This document had to fit in the overarching urban development programme of the neighbourhood Buiksloterham of North Amsterdam. This entire neighbourhood is built on the pillars of sustainability and circularity (Gemeente Amsterdam, n.d.). This means the strong points in the design of Sample are also sustainability and circularity. However, not only environmental sustainability is targeted in the design, social sustainability is taken into account as well (Gemeente Amsterdam, 2022; Local community 1, Verdedig Noord). Next to a strong emphasis on sustainability and circularity, several other factors were important for the development of a sketch design in this process. The functions of the dwellings and the boundaries of the entire building were decided on and taken as a guideline in the tender, as well as an emphasis on the accessibility of the apartments (Gemeente Amsterdam, 2022). During the tender, the municipality formulated the boundaries which the building had to comply with. In the development of the tender, several boundaries were assigned to themes. Mostly this concerned the programmatic implementation, such as the number of dwellings, type of dwellings, number of square metres, special attention to certain target groups (Gemeente Amsterdam, 2022).

In this phase, the decision on the most important themes also had to be taken. In this case, the most important themes are spatial quality, circularity and sustainability and programmatic quality. These decisions have been made by the initiator; the municipality of Amsterdam (Gemeente Amsterdam, 2022). In the case of Sample, the local communities were a part of the project coalition, so it is seen that the aspects that are important for participation have been done in the beginning of the development of the tender (Developer 2, Kondor Wessels Vastgoed). As can be seen in the timeline (figure XX) the timeline consists of 2 parts: the pre-selection and the definitive selection. In this case, the process by the developer started out with the analysis of the tender document (Developer 2, Kondor Wessels Vastgoed). Herein the prerequisites regarding the programme have been laid out by the municipality. The developer will then assemble a project party after the initial assessment on the basis of the tender feasibility and make a design that complies with the wishes of the municipality.

4.3.2 DEVELOPING THE SKETCH DESIGN

In the decision making moment of the Sketch design, several decisions had to be taken. First of all, for the pre-selection. Herein the decisions that needed to be taken had to do with the themes of the programme, spatial quality, circularity & sus-

tainability and organisation & reference projects. Among these decisions fell the orientations of the dwellings, user quality, decision on the plinths, concept of circular building and the translation of vision and goals to the realisation in the building (Gemeente Amsterdam, 2022). As mentioned before, the participation process in this case was far

reaching. The local communities have been involved as a developing party. This far reaching form of participation took a lot of time and Verdedig Noord have officially registered as developers (Local community 1, Verdedig Noord). The participation process had been structured in the form of “Design Tables”. Every table had a different theme to work

on, and the local communities could work together with the rest of the design team to work on the project (Developer 2, Kondor Wessels Vastgoed). Among decisions that the local community had influence the accessibility of the building, the size of social housing dwellings (Local community 1, Verdedig Noord). Not only was the participation implemented in the building process and decisions, it was intertwined into the entire process. The development of this building was sure to have integrated local communities wherever possible. For instance, LC1 (Verdedig Noord) mentioned that in building events, such as the first foundation pole or reaching the highest floor in construction, the local communities could contribute to the catering for example. They mentioned doing this would be very beneficial for the local community. The developer of the project was acquainted with the building territory. Having lived there themselves, and knowing of the current developments in the North of Amsterdam led to the collaboration with Verdedig Noord (Developer 2, Kondor Wessels Vastgoed). The integration with the neighbourhood was a desired criterion in the tender, or

Case 3: Sample Co-creation

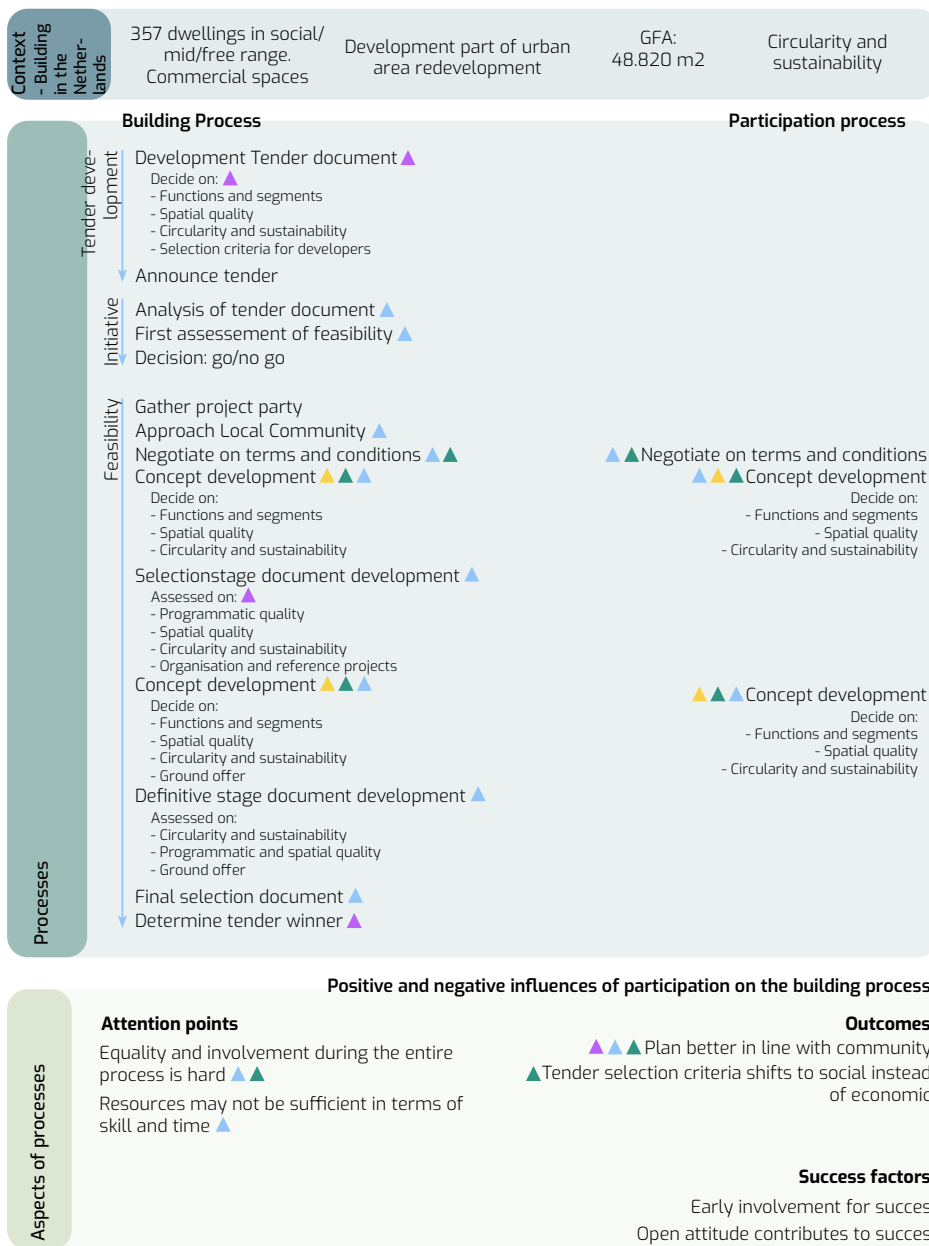


Figure 12: Overview of the development process and participation process in the case of Sample (Own work)

the involvement of local communities (Gemeente Amsterdam, 2022), which was the impulse for Kondor Wessels Vastgoed to also contact Verdedig Noord (Developer 2, Kondor Wessels Vastgoed). Several design teams were set up regarding each theme. These design teams were interdependent on each other; meaning if one component was changed, it directly affected the other design teams. Verdedig Noord was included in these design teams, generating input for the design (Developer 2, Kondor Wessels Vastgoed), as they are considered specialists on the needs of the district and what would and wouldn't work in the area. Not only this, Verdedig Noord also strived for a couple of matters. The amount of square metres in the social housing was something they strived for, along with the accessibility and meeting spots in the circulation of the building (Local community 1, Verdedig Noord). The need in the North of Amsterdam for larger social housing was there, and thanks to this input of Verdedig Noord, this could be realised (Local community 1, Verdedig Noord).

After the pre-selection, a second round was held. Herein another set of decisions had to be made. These decisions were mainly focussed on circularity and sustainability and the quality of the building. Among these themes fell the decisions of the energy quality, circular building concept, quality of dwellings, commercial spaces and plinth and routing (Gemeente Amsterdam, 2022).

These decisions have been made in the design teams. In the design teams, Verdedig Noord was present to represent the needs of the local community (Developer 2, Kondor Wessels Vastgoed).

In the further development of the preliminary and definitive design, an advisory board group will also be set up. This advisory board consists of future residents, compiled by Eigen Haard and Verdedig Noord. This advisory board was meant to be able to give input on several parts of decisions (Kondor Wessels Vastgoed & Verdedig Noord, 2023). This measure was to be implemented further along in the process. However, conversations were held with the

social housing corporation in order to let Verdedig Noord be the curator of the social housing apartments. This would mean that the people who have lived here for longer would have a bigger chance of transferring within their neighbourhood. However, the social housing corporation was hesitant to allow this (Local community 4, Verdedig Noord).

4.3.3 BARRIERS

Among mentioned problems fall the following:

- Municipality already made barriers, lessens freedom in designing
- Hard to keep participants equally involved in all stages
- Hard to strive for equivalence between participant and initiating party in all stages
- Participants want participation over participation process
- Paternalistic views may generate negative feelings towards initiator
- Participants do not feel heard/taken seriously
- Feedback is missing, not very clear what happens to input
- Disagreement between parties on views of reward for participants
- Freedom to implement high level participation not always approved by initiators company
- Time and skills can be inadequate for proper communication with participants
- Further in the process making reports can take up too much time
- Hard to involve participants in all stages
- Unfamiliarity with the process can result in faulty communication
- Much emotion in the process
- Takes a lot of time to make sure participants are properly informed

These barriers have been summarised into the following points:

1. *Tender selection criteria shifts to more social instead of economic*
- According to the interviewees, the positive aspect

of this far reaching form of participation is that the tender winning criteria were also based upon social goals, instead of the highest ground bid. The social goals would take prevalence over the highest ground offer.

“So also, when the municipality is, if that’s what we all want, that solidar city, we should have to select this team. And they didn’t choose a team with the highest ground offer. They chose a team that would add the most social value to the project.” - LC 1

“I think it really helped to win the tender, to make a good plan but also to do the participation right later” - D1

2. Equality and involvement during the process

A barrier that was mentioned by the interviewees was the equal involvement of the participants during the entire process. With a total of 5 mentions in 2 interviews, this may be the most discussed barrier in the interviews. In this specific type of participation the local communities were actively involved in the project coalition and registered as developers. A barrier in this process was proved to find equivalence in the relationship between the initiating developing party and the local community developing party. LC1 mentions the most important thing in this project was to be equally treated and equally involved in the entire process. Along this line falls the mention of the obligation of participation. LC 1 mentions that in participation generally -in their experience- no feedback is given what is being done with the input of the citizens. Further substantiated and confirmed by D1, who mentioned that he indeed had to do a lot of communication with the local community and that wouldn’t always run smoothly.

“We were involved in this project on the basis of a couple of agreements. The most important thing is, we just want to be involved in the team. And that team is pretty big.” - LC 1

“I think we might be too moralistic, or paternalistic even. In the sense of.. No, we’re the experts and we decide when it’s a good moment for you to generate input” - LC 1

“And too often, this is something local residents feel, for example in SouthEast, where there were participation strikes. Very often because the local residents get the feeling that they are ‘summoned’ to generate their input. Afterwards, they do not get to see what is done with their input (...) there is no reciprocity in the process” - LC 1

“Are we being taken seriously and are we indeed part of the process? So do we actually have something to say about when we want to hear what is happening to our feedback?” - LC 1

“At a certain point, the development has to go on. And, yeah, sometimes it happens that they don’t feel as if they could keep up. (..) For us (developers), this is a very normal process, so I had to come down and explain several things. Then it went okay for a while, and then we were talking at cross purposes. So there was a lot of communication I had to do.” -D1

“And especially after winning the tender, so after winning the tender has the project coalition been pretty intensive, but after winning the tender, and it also has something to do with all sorts of struggles within the communication, the communication is less intensive. But you would like to have a situation where we are also involved in these kinds of struggles. Even though we -as sub contractors- formally don’t have any decision making powers.” - LC 1

“I think that the handover of the project from developer to the team that won the tender, that the entire team should be the developer. I think that’s the most important. Because, are we as a team the developing party? And how are you going to make

arrangements? So will it be equal? Or will it be an unequal situation where one party is a little bit more owner than the other one? And on what basis? I think that's the most important right now. That's something you will have to discuss" - LC 1

3. Early involvement for succes

Both the developer and the local community agreed on the time of involvement. D1 emphasises that it's best to involve local communities as early as possible, and this is confirmed by LC 1. Due to the development of the concept where local communities can exert real influence, this point is stressed throughout the interviews.

LC 1 advocates for influence on the participation measures as well.

"I think the most important point in participation is, or the most important critique in participation is, that the method is often decided on by the one who is in the most powerful position. (...) While you actually want to discuss with the local community what the subjects should be on participation. It's about ownership of the process. So it's actually most important that the ownership of the participation process is shared" - LC 1

"I think what's different in this project is that we are involved in the front-end, before submitting the tender. And so, we can generate input for the concept development. So that you can leave your trace in the very capillaries of the project and can contribute to the added value for the community of the North of Amsterdam." - LC 1

"Start with involving the local community as early as possible. That's the key." - D1

4. Resources may not be sufficient, in terms of skills and time

Communication between the parties proves to remain a problem. As mentioned before, in this case it was important for the local communities to

be treated equally. However, due to the experience the developer has and local communities don't, more resources had to go into the communication to streamline the processes. D1 mentioned that there was no third party involved to streamline the communication. They mentioned that they wanted to show they took the participants seriously. However, further along in the process, rapports have to be made and such. This will take more time, so then a third party would be needed.

"But yeah. Further along in the process, then you will have to make all sorts of rapports. That is something another party will have to do" - D1

5. Open attitude contributes to project success

Among positive points in this process LC 1 mentioned that the main project coalition had a very open attitude towards this type of participation.

"We notice that things are being done as usual. With the developer and the rest of the team the collaboration was really good. And that mostly has to do with being able to address each other." - LC 1

However, they mentioned that the buyer of the social rent dwellings didn't share this enthusiasm and therefore obstructed the process. Open attitudes are also required from higher management. Even though the developer has the decision making power in the project, unconventional collaborations such as this one do have to be approved by higher management.

"But everyone has a very open attitude. What we did notice with the social housing corporation, is that they were forced to buy the dwellings in the social rentor sector, and along with that came a very negative and closed attitude" - LC 1

6. Plan better in line with local community

In this case, the participants had a very large impact on the decision making of the sketch design. Both developer and local community mention that the plan is better in line with the local community.

Not only this, but the innovation of the plan is also to mention. In this project, local communities had something to say about the types of social rental apartments, as the input of the local communities was that there was a shortage of big family homes. Not only this was put in the tender design, LC 1 mentioned that they also made sustainability accessible for those who rent socially, and are planning to let the local communities curate the social rental dwellings. D1 mentioned that by implementing participation, projects are accepted more easily. They emphasised it creates a support base for the project.

“So if you develop your own floating neighbourhood, you will get to choose what sort of energy system you will make. But, if you rent in the social sector, then it will be chosen for you. (...) So in this project, we focused on sustainability and circularity, but then available for everyone.” - LC 1

“I’m usually a fan of far-reaching methods of participation. Mostly, because I know that if you organise the front of the project well, you’ll have a bigger chance projects are accepted more easily” - D1

4.3.4 THEORY VS PRACTICE

The process of sample started off with the tender development.

The administration of the participation process took place in the feasibility stage of the project, this was done in the form of negotiation between the developer and the local community. What is notable in this stage is that the form of participation was determined together with the local communities, this is the only case that did that.

4.3.5 MAIN LINE

Development

In this process, the project was initiated by the municipality. The first step herein was to develop the tender document and determine the leading themes the building has to comply with. These themes were functions and segments; spatial quality and circular-

ity and sustainability. The tender process consisted of two parts: the pre-selection and the definitive selection. The developer had to pass the pre-selection in order to be eligible for the definitive selection. The developer became involved after the tender was announced and after the initial feasibility test, they decided to contact Verdedig Noord and involve them in the project. Verdedig Noord wanted to join, however they had several terms and conditions and entered in negotiations. The developer agreed and they formed a project party, where Verdedig Noord was a developer in the process. They were involved in the design teams in the concept development of the design. After the selection phase of the tender, the developer had to elaborate the design in order to hand in the documents for the definitive phase. In this phase, a ground offer had to be submitted as well. However, the developer did not win on the basis of this ground offer, but on the added social sustainability aspects of the design.

Participation

In this far reaching form of participation, more power is shifted towards the participant. However, this does come with the obligation of trusting the participants more and treating them as equals. More innovative decisions are taken, such as sustainable housing made accessible for those who rent in the social sector and the curation that will fall into the hands of the local communities.

The collaboration was enforced by an open attitude of all stakeholders, though communication problems were sometimes present. It turns out it’s hard to keep participants equally involved in all stages, as mentioned due to different experience with the building process within the project team. What is quite evident in this case is that the emphasis lies on equality in this project. Something that has not always been felt.

In the case of Sample, shared decision making was applied. In this form of participation and in this specific case, the local communities were involved in the development of the concept. Attending meetings

and giving input on the culture, needs and environment of the area. The participants were involved by the developer, in the feasibility stage of the project. This was done because the municipality had written in the tender document that the involvement of local communities was appreciated. The developer has lived in the North of Amsterdam themselves, so they knew what was going on in the community.

Barriers

The barriers and drivers mentioned are summarised in two categories: beneficial to the process limiting the process.

Beneficial to the process:

1. Plan better in line with community
2. Tender selection criteria shift to social instead of economic
3. Early involvement of participants for success
4. Open attitude of developers and participants

Limiting the process:

1. Keeping participants equally involved throughout entire process
2. Resources may not be sufficient in terms of skills and time

RESULTS

4.4 CROSS CASE ANALYSIS

Table 17: Project details for the cross case analysis based on the results of the case studies

	Pieter Baan Centre	The Baak	Sample
Type of building	Healthcare	Newly built	Newly built
Size	15.500 m2 GFA	11.725 m2 GFA	48.820 m2 GFA
number of dwellings		127	357
Setting	Inner city redevelopment	Inner city development	Development in urban area renewal
Focus on themes	Conservation & urban integration	Quality and urban integration	Circularity & Sustainability
Monumental listing	None	-	-
Old use	Penitentiary	-	-
New use	Housing, commercial space	-	-
Initiating party	Municipality	Municipality	Municipality
Client	Developer	Developer	Developer
End-user	tbd	Investor	Project cancelled
Starting year	2018	2019	2022
Tender phase	3 years	Data unavailable	Data unavailable
Initiative phase	± 5 weeks	± 6 weeks	±3 weeks

In this part, the cases will be compared to each other and the differences and similarities between the cases will be further examined. This is done on the basis of the components of the theoretical framework (figure 3, pp 33) The project details will be compared with each other, as well as the process in terms of steps, and the moment of integration of participation in the building process and finally the barriers, outcomes and success factors will be validated.

4.4.1 PROJECT DETAILS

1. Location and context

All developments take place in one of the G4 cities, Amsterdam and Utrecht. The case of the Pieter Baan Centre deals with an existing urban fabric; this building has been in the neighbourhood since 1978. In contrast to the case of De Baak, where this concerns a newly built development, however in a relatively new location that has existed for about 70 years. In the case of sample, the location is especially new: this is an ongoing urban area redevelopment. This former industrial area strives

to be transformed to a completely circular and sustainable new living-working area, the developments are still at full blast. Sample is part of the renewal of this area. Though situated next to an existing neighbourhood that was built in the 1920's.

Similarities: All three cases are situated in G4 cities, and are part of an inner city development.

Differences: The scale and longevity of the projects differ, The Pieter Baan centre concerns the change of a building in an existing setting, de Baak adds a building to an existing setting and Sample is part of an urban area redevelopment.

2. Size & functions

The Pieter Baan centre contains about 15.500 m² GFA, of which 10.000 m² consists of dwellings; 1.500 m² for offices; 500 m² for social services and 3.000 m² reserved for the hospitality industry. The available square metres in De Baak contain 11.725 m² GFA, of which XX is part of the dwellings and XXX m² is reserved for a public living room, open to the neighbourhood. Sample's plan consists of 48.820 m². Of this, approximately 25.560 consists of dwellings in the social/mid and free rental sector, 1.000 m² is available for special housing forms in the form of child protection and special forms of care homes; 8.900 m² for commercial space and

Similarities: All projects have some form of social sustainability functions: Pieter Baan Centre focuses on dwellings for at-risk youngsters, De Baak developed a common living room and Sample focuses on child protections and care homes. All cases contain residential functions, Sample and Pieter Baan centre have a mix of rental segments in their buildings.

Differences: The size of the projects differ, starting with De Baak, which is the smallest, then Pieter Baan Centre and ending with Sample. De Baak is the only case that has 1 rental segment.

3. Themes

The themes that are leading in the cases are conser-

vation & urban integration for Pieter Baan Centre, quality & spatial integration for De Baak and circularity & sustainability for Sample. In the case of The Pieter Baan Centre, the local communities had influence on these themes due to the participation process. In De Baak and Sample, the municipality decided on these themes without participation. However, in the case of Sample, the surrounding urban area redevelopment is based on the themes of sustainability and circularity.

Similarities: They all have themes that are determinative for the eventual end product. Next to that, the themes are defined through their local context in the tender document.

Differences: The themes themselves differ per project

4. Timeframe

The timeframe of the projects in terms of the initiative and feasibility done by the developer seem to be quite similar. The deadlines are predetermined by the municipality in the tendering stage. However, no information was found on the duration of the tendering stage in case 2 and case 3. For case 1, this stage lasted approximately 3 years. However, adaptive reuse projects are known to have a longer run-up time in the beginning of the building process.

Similarities: Initiative and feasibility phase in tenders by developer seem to be equal

Differences: Tender stage in the Pieter Baan centre could possibly be longer.

4.4.2 DEVELOPMENT PROCESS

1. Tendering stage

In the tendering stage in The Pieter Baan Centre, the main themes for the entire project have been fabricated. Herein the functions were chosen and the choice to conserve/demolish has been made. In the tendering stage in the case of De Baak, the functions have been determined, as well as other important aspects regarding the shape of the building and the needed spatial integration into the neighbourhood.

Similarities: All three cases show that the tendering phase is the definition phase. The most important guidelines and themes are being determined. The decision for functions and conservation is being made in the tendering stage.

Differences: The themes of the cases differ.

2. Initiative stage

In this phase the first feasibility of the project is mapped out. This is where the developer takes on the project. In all 3 cases will be assessed whether the project has sufficient resources to carry on.

Similarities: steps that are taken are largely the same, initial analysis on the tender document and assessment of resources.

Differences: -

3. Feasibility stage

Substantive decisions will be taken in this phase. This is the phase where the development of the sketch design is going on. Decisions that are taken fall within the boundaries made in the tendering phase in all cases. However, in the previous paragraph it was established that the decisions for the functions and conservations (aesthetics) are being decided in the tender stage. In all 3 cases the functions have been elaborated upon and extended. Therefore this decision returns to the feasibility stage of the developer.

Similarities: Decisions are taken based on the themes and comply with the tender document that were determined in the tendering stage. Sketch design is developer along with the project party.

Differences: The process regarding the pre- and definitive selection differ according to the tender process made up by the municipality.

The tender stage is meant for the development of the tender document. This has been done by the municipality as initiator in all three cases. In this phase, the decision for the functions and conservation/

aesthetics take place. The main themes that have to be focusses on are also generated in this phase.

The initiative phase is where the developer steps in. In this phase an initial feasibility test will be made, to see whether they will take on the project. Afterwards, the go/no go decision is made and the development of the sketch design will begin.

Producers will be sought to take on the project, the concept development will fall inside the boundaries made by the municipality in the tendering phase. Own input is possible, if it falls within the vision the municipality has of the location.

The output of the feasibility phase will be assessed by the municipality, against the criteria that were previously formulated in the tendering stage/document. Eventually the municipality will take the decision on which sketch design is most fitting for the development.

4.4.3 PARTICIPATION PROCESS

Participation Aspects

In table 18 the participation aspects per case are described. These are in line with the theoretical framework (figure 3, pp. 33)

1. Administration

In the case of sample the administration was done quite clearly. Herein the participants and the developer negotiated on the terms of the cooperation. In De Baak, there was no formal administration of the participation plan. In the Pieter Baan Centre, the administration was done according to the factor C analysis, a communication strategy provided by the government to use in participation methods.

Similarities: In the participation cases where the participation was placed on a higher ladder, administration was applied

Difference: In the low participation case, no formal administration was applied. The developer and communications expert came to these terms as the communications expert had good experiences with a survey.

Table 18: Participation aspect details for the cross case analysis based on the results of the case studies

	Pieter Baan Centrum	De Baak	Sample
Participation initiator	Municipality	Developer	Developer
Participation Administration	Participation administration done by municipality	Done in initiative stage along with third party communications bureau	Done in accordance with local community
Participation Objectives and goals	make residents feel involved; for participants to get a grip of their neighbourhood	To win tender and generate social value	Win tender and generate social value
Participation stage	Tendering stage	Initiative stage	Initiative stage
Participation Targeting	Letters/c-factor method	-	Contact local cooperation
Participation Techniques	online meetings, feedback sessions	Survey	Design teams with participants
Participation Information	Presentation	Survey	Access to all information
Participation Governance	Inclusion	Consultation	Shared decision making

2. Objectives and goals

In the case of Sample and De Baak the focus was on adding social sustainability in the design and to have extra points to win the tender. In the case of The Pieter Baan Centre, the focus in the tender was already laid on vulnerable target groups. In Sample, although the focus was laid on sustainability and circularity, through the involvement of the local communities, the local culture was preserved and included in the design process.

The participation goals differ for the different stakeholders. The municipality acts in the interests of the participants: they want to make them feel involved. The developer was driven by winning the tender, additionally adding social sustainability in the development.

Similarities: In all of the cases there was some part that is focused on social sustainability or preservation of local culture. However, the main goal of the developer in de Baak and Sample was to win the tender.

Differences: -

3. Stage of involvement

In the case of the Pieter Baan Centre the municipality was the initiating party for the participation process, in Sample and De Baak the developers took the initiative after the announcement of the tender. In all cases the stage/moment of involvement differed. The Pieter Baan Centre involved the participants in the development of the tender document and Sample and De Baak did not.

Similarities: In the case of the Baak and Sample, the municipality did not initiate the participation process. In these cases the developer took the first step towards setting up the participation initiative.

Differences: In the case of The Pieter Baan Centre, the municipality was the initiator of the participation process. This means that only in the case of the Pieter Baan Centre, the surrounding neighbours were involved in the development of the actual plan in terms of functions and important themes the

design had to comply with.

4. Targeting

The Pieter Baan Centre used the C-factor method provided by the government to analyse the stakeholders that should be involved. In the case of Sample the targeting was done through a local party that strives for preservation of the local culture in the neighbourhood and De Baak targeted the survey in the neighbourhood.

Similarities: In the case of De Baak and Sample, no formal targeting was done. The involved stakeholders came naturally with the chosen involvement method.

Difference: Different methods were used to target the stakeholders, depending on the involvement that was necessary for the participation methods. The municipality carried out a formal stakeholder analysis

5. Techniques

The techniques in the cases varied from a survey in the least intensive participation case until shared decision making in design teams in the most intensive participation case. In the case of the Pieter Baan Centre, meetings were held, both online and offline. In one of the meetings, questions about the function were being asked and the local communities could vote 'for' or against. In this same meeting, a digital board was made where local communities could give their input on what to preserve of the original building.

Similarities: -

Difference: Each participation form comes with its own technique, this is somewhat bound to the type of participation that is applied.

6. Information

In the case of The Pieter Baan Centre, presentations were given. These were the main source of input towards the participants. In the case of The Baak,

the information distribution took place through the survey. This decision was directly based upon the needs of the residents, as the question of what they wanted to see was posed. In Sample, the information distribution was through the design meetings. Verdedig Noord actively took part in these processes.

Similarities: Information was applied in all cases

Difference: The more involved the participants are, the more access to information they have. All information distribution systems varied.

7. Governance

The governance structure varied in all cases. In the case of Pieter Baan Centre, there was an advisory board formed, in Sample a project coalition was formed and in De Baak there was made use of consultation. The decision for the governance of the participation differed in the cases, the municipality decided on the governance in case 1 initially and after the feasibility phase, along with the participants the choice fell on an advisory board. In case 2 and 3, the developer decided on the governance form.

Similarities: The developer made the choice in 2 of the cases

Difference: All cases had different governance forms, decisions on governance were taken in different ways.

Participation in stages

In table 19 the participation aspects have been depicted against the phases in the building process. It becomes evident that the participation aspects are all determined in the same phase. The involvement where a higher level of participation took place are ongoing in the process. In the case with the most participation, targeting takes place throughout the process. This is due to the involvement of local parties in the end product. In case 3, local communities tried to get involved through the network of Verdedig Noord to be able to secure a place within

Table 19: Occurrence of participation aspects in all three cases for the cross case analysis based on the results of the case studies

	Case 1							Case 2							Case 3							
Participation aspects	Administration	Objectives and goals	Involvement	Targeting	Techniques	Information	Governance	Administration	Objectives and goals	Involvement	Targeting	Techniques	Information	Governance	Administration	Objectives and goals	Involvement	Targeting	Techniques	Information	Governance	
Tender stage	x	x	x	x	x	x	x															
Initiative stage																						
Feasibility stage								x	x	x	x	x	x	x	x	x	x	x	x	x	x	
Post feasibility			x		x	x	x															

the commercial space. Also, targeting was done through local catering businesses for events during the process. Along with the involvement, techniques have to be carried out, as well as information has to be given, so this is also ongoing throughout the process. Eventually we see that the governance in case 1 has two moments. This has to do with the governance structure in the tendering phase and afterwards when the developer was involved, a decision was made on how to go on from there. In case 3, the governance was decided in the negotiation of the terms with Verdedig Noord. Throughout the process this governance mechanism stayed the same.

In case 1 and 3 we see that the participation is ongoing, spreading over more than 1 phase. In the case 2 it becomes apparent that participation was merely used as an input mechanism, leaving it at one point involvement.

The definition of the participation process takes place in 1 phase, herein the most important aspects are determined and a participation strategy will be made. Then, the actual implementation of participation will be done according to the strategy and herein the techniques and information distribution are present. It could be that the process needs to be adjusted, then targeting and governance can take place in a latter stage.

4.4.4 BARRIERS

In the interview several drivers and barriers have been mentioned. In table XX these are summarised on how many times they have been mentioned. However, due to the inherent differences in the participation cases, not all barriers have been validated. In the expert interview some clarification was needed on the barriers in the participation process. Due to the nature of the different methods and involvement implemented, some barriers could be relevant, but only to that specific type of participation. In the expert interview, the list of barriers was presented and assessed whether they were relevant in the opinion of the expert in participation implementation of the building process.

The points mentioned in the interviews have been divided into several categories. In the process, we have to do with project outcomes, success factors and barriers. These in turn affect the building process in different places.

For the validation of the barriers, a mention analysis has been used. The influences will be compared according to 4 points where they could have been mentioned: the literature study, in 1 of the 3 cases, or validated in the expert interview. See table 20 for the validation of the barriers. In order to validate these influences, the total mentions should be >2.

Table 20: Overview of barriers of literature, cases, expert interview along with the stages, types and stakeholders

Barriers, drivers and success factors	Stage			Stakeholder						
	Tendering stage	Initiative	Feasibility	Type	Regulator	Reg as Initiator	Client	Producer	LC	Mentions
Lack of definition in community	x	x	barrier		x	x				4
Attitude towards and from developers determinative for project			barrier		x	x				4
Development will be a better plan in line with the local community			outcome		x		x	x	x	4
Less objection from local community for project			outcome		x	x				4
Early involvement in the process for success	x		success factor		x					4
Hard to incorporate everybody's wishes in plan	x	x	barrier		x	x				3
Clear communication is needed	x	x	barrier		x	x				3
Tokenism should be avoided	x	x	barrier		x	x				3
Herd behaviour can lead to negative attitudes	x	x	barrier		x	x				3
Resources may not be sufficient, in terms of skills and time	x	x	barrier		x	x				3
Equality and involvement during the entire process is hard	x	x	barrier				x		x	2
innovation is stimulated			outcome		x	x	x		x	2
Tender selection criteria shifts to more social instead of economic	x		outcome		x				x	2
Shifting to online participation works well	x	x	success factor		-					2
Innovation is blocked	-		-		-					1
Hard to involve proper target group	-		-		-					1
Training is needed in order for the target group to gain confidence in complex decision making, this will take -	-		-		-					1
Initiator could fear loss of control and therefore be hesitant to transfer power	-		-		-					1
Difficulty in establishing the effectiveness of participation	-		-		-					1
Short-term efficiency contributes to a zero-error culture, which is not desirable in co-creation processes	-		-		-					1

For the final list of influences the following apply:

Success factors:

1. Early involvement in the process contributes to success
2. Implementing digital techniques

Outcomes:

1. Development will be better in line with local community
2. Innovation is stimulated through participation
3. Tender selection criteria shift to more social instead of economic
4. Less objection from local community for project

Barriers:

1. Lack of definition in community
2. Hard to incorporate everybody's wishes
3. Clear communication is needed
4. Attitude towards and from developers is determinative for success
5. Tokenism leads to a faulty participation process
6. Herd behaviour can lead to negative attitudes
7. Keeping participants equally involved throughout entire process
8. Resources may not be sufficient in terms of skills and time

RESULTS

4.5 SYNTHESIS

The goal of this research was to gain insight in the building process and how participation aspects impact this process. Through the results generated in the previous paragraph several handles can be formulated for the synthesis of the research.

The model is based on the research questions that are formulated in paragraph 1.2. The findings of sub research question 1, 2 and 3 will be integrated in the final depiction of the results. The goal of this map is to make insightful what steps are added to the process through the implementation of participation practices. The final model will depict the adaptive reuse process, the steps that are taken in participation, the barriers, drivers and outcomes linked to participation and the stakeholders that are involved in the process.

The final model depicts a possible display of the impact of participation practices on the adaptive reuse process, based on the results from the cross case analysis. Important to note is that the following points will have to be taken into account in synthesising the results:

1. The location, context, function and size is most influential in the tendering development. In the initiative phase, this becomes less and becomes more in the development of the sketch design in the feasibility phase.

2. The implementation of participation processes should happen as early as possible, meaning in the tendering stage, where the main themes for the entire development are being determined. Herein, the participation strategy should be made. This in turn impacts the tendering stage. The initiative stage where the developer steps in remains unchanged. No participation impact happens here, and dependent on the participation process the feasibility can be impacted by participation. However, it's also

possible that participation starts in the feasibility stage.

3. The barriers that are found are bound to the point where participation practices take place. These are dependent on the type of participation process that is generated.

4. The tendering stage is where the tender document is made. Herein, the most leading themes of the development will be determined. In the feasibility stage an elaboration and design is made based on this vision/themes.

5. In the initiative phase, the initial feasibility for the project is assessed based on the developers resources, in this stage the decision will be made to carry on with the project or to terminate the project.

6. In the feasibility stage the sketch design will be made. Herein, the project party is assembled and decisions are taken that fall within the boundaries of the tender development document. Later on, this design, along with the bid for the building will be assessed by the municipality based on the selection criteria that have been formulated in the tendering stage.

Impact of location and context

The scale of the case projects differed from a single new building in a relatively new neighbourhood to an ongoing urban area development. Regarding the scale of the projects, it seems that the more extensive the scale is, the more participation was applied in the processes.

The same rule applies to the size of the building, the smallest building had the least intensive participation process and the largest the most extensive. All cases had a focus on social sustainability or have added social functions in the vision of the project.

The themes that were developed in the tender document have a big impact on the final output of the project. The selection criteria turn out to be de-

terminative in the development of a sketch design. The timeframe of the tender development is similar in the cases, the initiation phase takes less time than the feasibility phase. In the case of the Pieter Baan centre, the tender phase was extensive, however no statement can be made on the tendering phase of the other 2 cases, as this information was not accessible. The literature study and expert interview (Expert 1) on the other hand confirmed that the start of an adaptive reuse project takes longer than newly built projects.

The process in the cases was largely consistent. The process starts with an existing building or empty plot. However, the context in which the cases take place influences the decision making done by the municipality in the tender documents. Each case has a focus on different themes that follow from the existing context. This is seen in the cases with the Pieter Baan centre where participation was needed to find out what the building meant in the specific context, de Baak where focus was laid on spatial integration, meaning the integration of the building within the context and Sample, where the entire urban area complies with the leading themes. After the development of the sketch design, an initiative taker is being sought through the tender procedure. For the initiator in this stage of the process, it begins with an initial assessment of the resources available and analysis of the context and tender document. This results in a go/no go decision to carry on with the project and invest time and money in the development of a sketch design to win the tender. In the feasibility phase, the main points are to actually develop the design. Scoping in on the important themes/guidelines provided by the municipality are carried out. Decisions on the scoping on functions, aesthetics are taken.

The impact of participation practices on the building

process turns out to be categorised in 2 things. Defining the participation measures and carrying them out. In the development of the participation process, there are 2 types of aspects: one time and ongoing. The ongoing aspects have to be defined in the aspects that are one timers. This essentially means administration, formulation of objectives and goals, stage of involvement, targeting strategy, techniques, information distribution and governance have to be defined up front and techniques and information distribution are ongoing in the process.

The barriers, drivers and outcomes for participation turned out to be the following:

Success factors:

1. Early involvement in the process contributes to success
2. Implementing digital techniques

Outcomes:

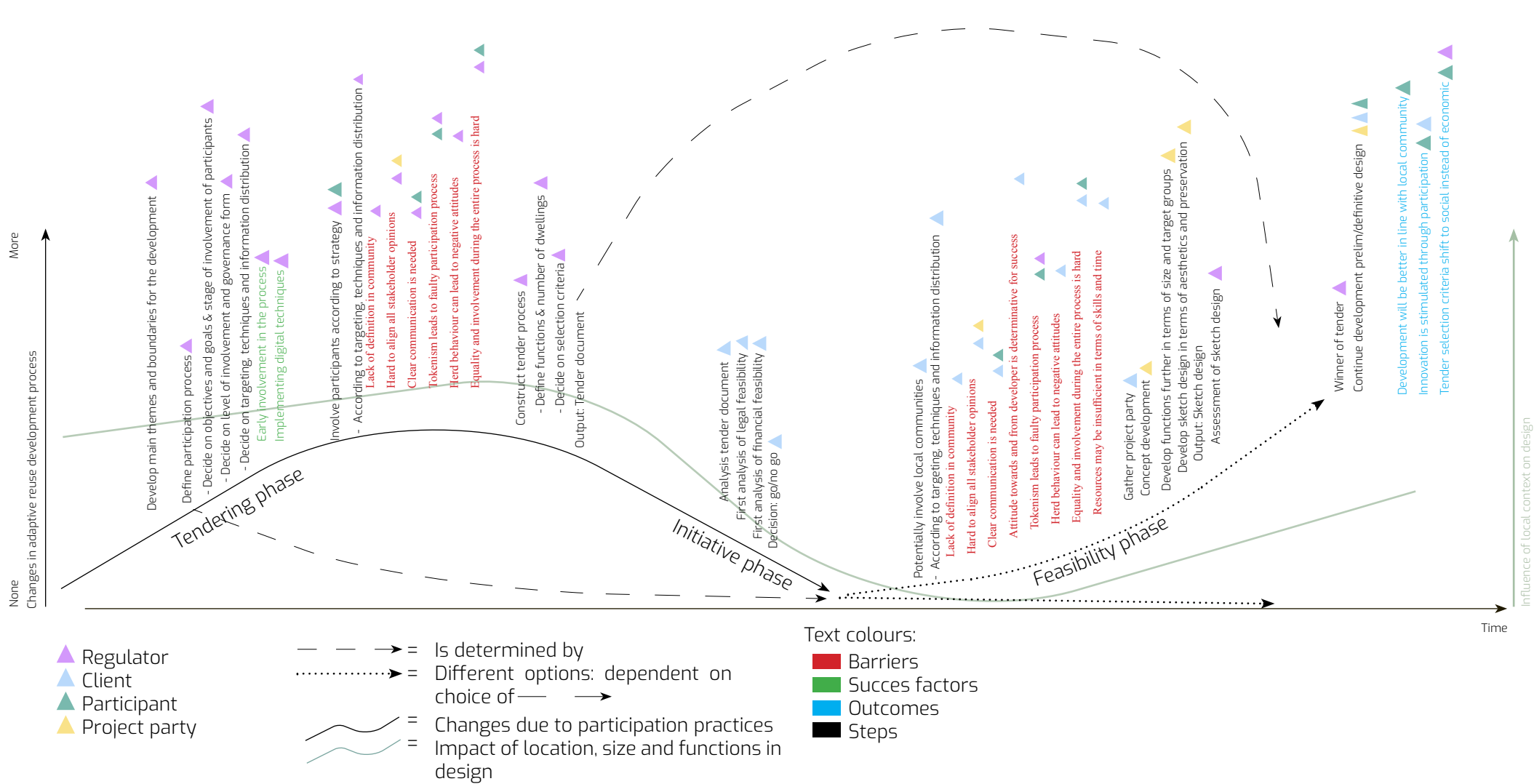
1. Development will be better in line with local community
2. Innovation is stimulated through participation
3. Tender selection criteria shift to more social instead of economic

Barriers:

1. Lack of definition in community
2. Hard to incorporate everybody's wishes
3. Clear communication is needed
4. Attitude towards and from developers is determinative for success
5. Tokenism leads to a faulty participation process
6. Herd behaviour can lead to negative attitudes
7. Equality and involvement during the entire process is hard
8. Resources may not be sufficient in terms of skills and time

Figure 13: Overview of the changes in the tendered adaptive reuse process with steps, stakeholders, impact of location, size and functions on the development process as well as barriers, drivers and succes factors in the tendering, initiative and feasibility phase(Own work)

Influence of contextual factors on the development process and changes in the development process due to implementation of participation from beginning of tendering until option agreement



RESULTS

4.6 LESSONS LEARNED

Following from the synthesis, there are a couple of lessons we can extract from the process.

4.6.1 ADAPTIVE REUSE DEVELOPMENT PROCESS

All three cases depicted three phases in the development process. From initiation until sketch design, the process encompasses the tendering stage, the initiative stage and the feasibility stage. It is important to note that these specific cases were all initiated by

the municipality and therefore have to comply with the European Procurement Law, meaning they will procure the project through a tendering procedure (Chao-Duivis et al., 2013).

The process starts with an existing building or empty plot. However, the context in which the cases take place influences the decision making done by the municipality in the tender documents. Each case

has a focus on different themes that follow from the existing context. This is seen in the cases with the Pieter Baan centre where participation was needed to find out what the building meant in the specific context, de Baak where focus was laid on spatial integration, meaning the integration of the building within the context and Sample, where the entire urban area complies with the leading themes of circularity and sustainability. After the development of the tender document, an initiative taker is being sought through the tender procedure. For the initiator in this stage of the process, it begins with an initial assessment of the resources available and analysis of the context and tender document. This results in a go/no go decision to carry on with the project and invest time and money in the development of a sketch design to win the tender. In the feasibility phase, the main points are to actually develop the design. Scoping

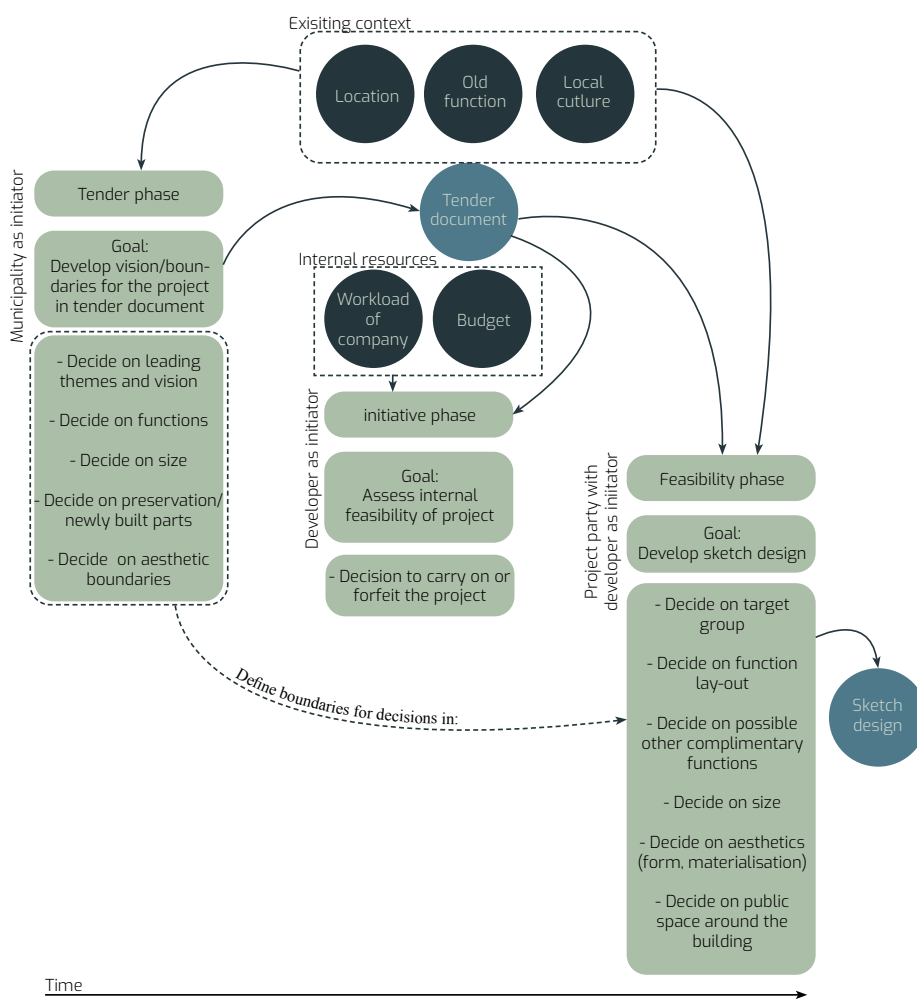


Figure 14: Overview of the adaptive reuse development process without participation implementation (Own work)

in on the important themes/guidelines provided by the municipality are carried out. Decisions on the scoping on functions and aesthetics are taken. These decisions have to fall within the boundaries of the tender document, as well as in the financial and legal feasibility.

The timeframe of the tender development is similar in the cases, the initiation phase takes less time than the feasibility phase. In the case of the Pieter Baan centre, the tender phase was extensive, however no statement can be made on the tendering phase of the other 2 cases, as this information was not accessible. The literature study and expert interview (Expert 1) on the other hand confirmed that the start of an adaptive reuse project takes longer than newly built projects.

1. The tendering stage is where the tender document is made. Herein, the most leading themes of the development will be determined. In the feasibility stage an elaboration and design is made based on this vision/themes.
2. In the initiative phase, the initial feasibility for the project is assessed based on the developers resources, in this stage the decision will be made to carry on with the project or to terminate the project.
3. In the feasibility stage the sketch design will be made. Herein, the project party is assembled and decisions are taken that fall within the boundaries of the tender development document. Later on, this design, along with the bid for the building will be assessed by the municipality based on the selection criteria that have been formulated in the tendering stage.
4. The location, context, function and size is most influential in the tendering development. In the initiative phase, this becomes

less and becomes more in the development of the sketch design in the feasibility phase. This impact is used in the definition of the vision and leading themes the development should incorporate in the design.

4.6.2 PARTICIPATION MEASURES

The participation practices were found either within the tendering or feasibility phase. However, this depended on the project and the goals of the stakeholder. The steps that were found in practice can be seen as formally administering the plan and carrying the plan out. The relevant aspects that have been determined in the literature study are divided, as can be seen in figure XX.

It became apparent in the three cases that the participation plan was made up before carrying it out. A significant notion to the difference in stages is the formal administration of the plan of approach. It became evident this is to happen in the early stages of the project, due to flexibility of the design and decisions. In tendered projects, the regulator will thoroughly review the site and generate boundaries & leading themes for the developers to effectuate said vision. Participation measures affect this stage, as the administration of the participation process will require experience, resources and time. The impact of participation practices on the building process turns out to be categorised in 2 things.

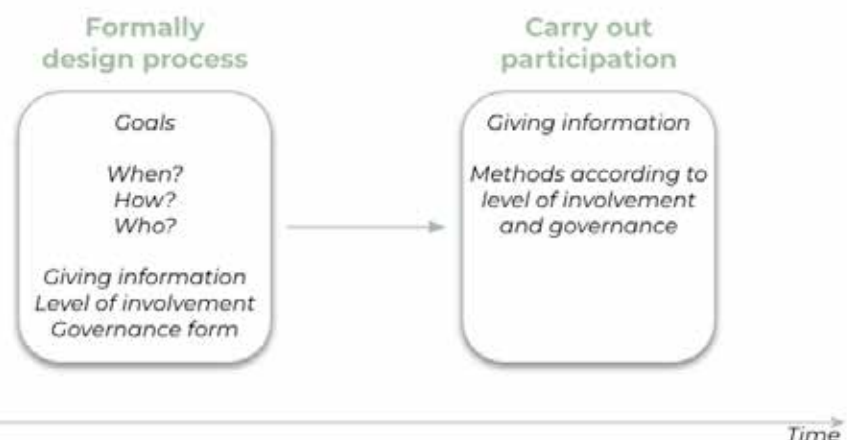


Figure 15: Participation aspects in timeline divided in the organisation of the project and carrying out the project (Own work)

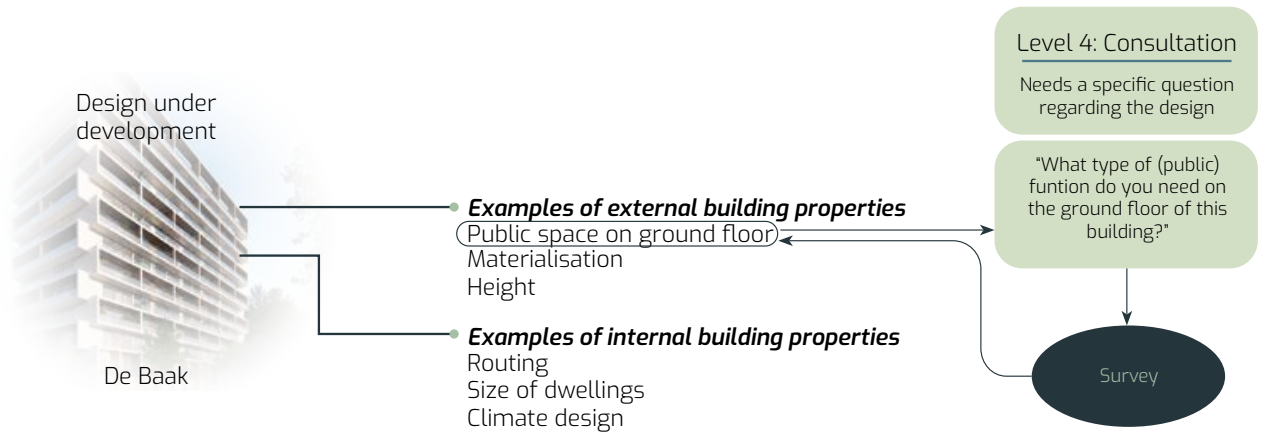


Figure 16: Level 4: consultation participation mechanism (Own work)

Defining the participation measures and carrying them out. In the development of the participation process, there are 2 types of aspects: one time and ongoing. The ongoing aspects, meaning carrying out the participation, have to be defined up front, this is done once. This essentially means administration, formulation of objectives and goals, stage of involvement, targeting strategy, techniques, information distribution and governance have to be defined up front and techniques and information distribution are carried out in the process.

However, the decisions that need to be made in the administration of the participation process define the type of participation. In the case studies, three types of participation have been examined. These types will be most relevant for social participation between local communities and private developers

in large scale mixed-use projects as level 1, 2 and 3 are not considered social participation and level 7, 8 and 9 require participants to be responsible for decision making, therefore are excluded from the scope.

The main difference between consultation, inclusion and shared decision making is the level of input that is given by the local communities. In level 4, consultation, input is needed on a specific part of the design. This could for instance be an opinion on the needed public amenities in the area, or more pragmatic like the colour of the materialisation or other previously determined areas of the design. Level 5, inclusion, incorporates participants in the process. This type of participation deals with a feedback structure. The project party will develop the design and participants are able to give feedback on the design, where the project party will afterwards alter

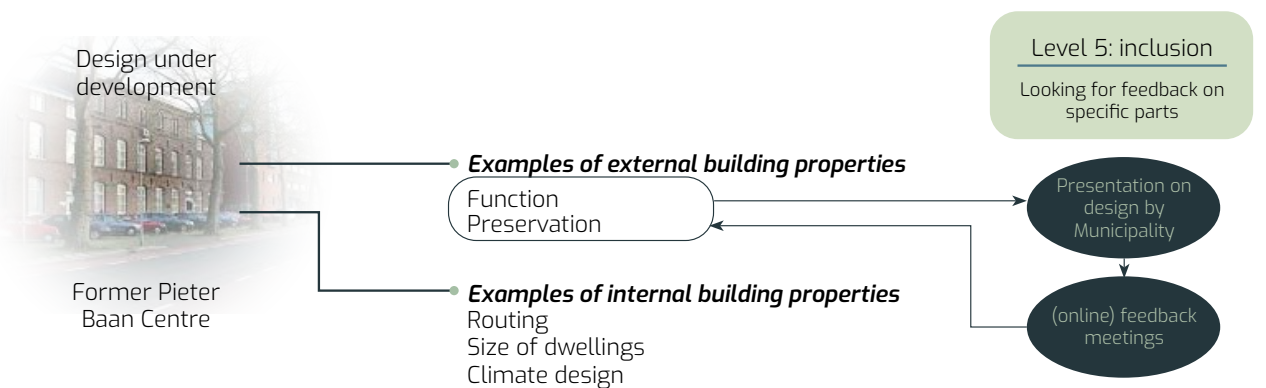


Figure 17: Level 5: Inclusion participation mechanism (Own work)

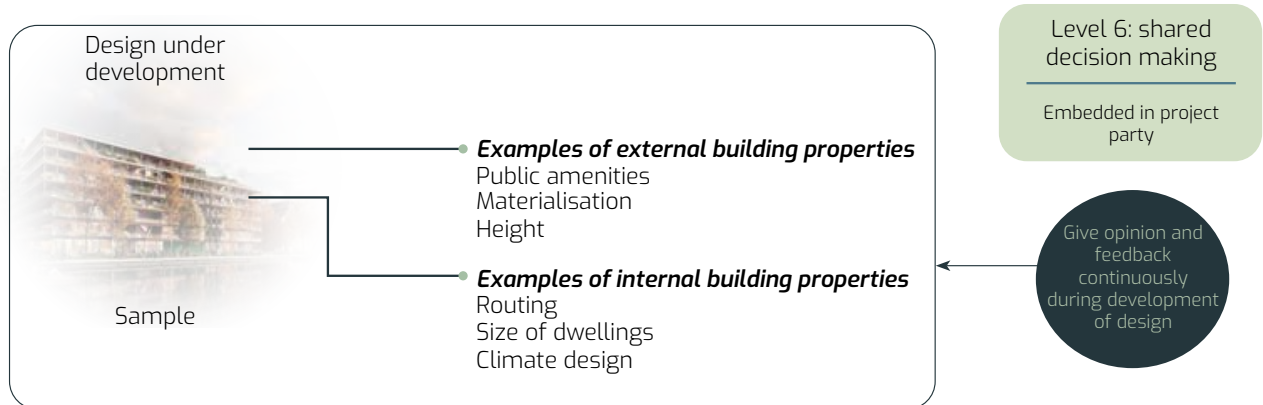


Figure 18: Level 6: Shared decision making participation mechanism (Own work)

the design according to input of the local communities, however this feedback is not mandatory to implement. This type of participation is suited for risk management and in minimising the chance for objection on the environmental permit. The highest level of participation examined, level 7: shared decision making, deals with the implementation of participants in the project party. Participants can attend design meetings, making it easy to instantly give feedback on the design and facilitate the implementation of social sustainability in all aspects of the project.

According to the interviewees, early involvement in the process is a factor that contributes to the success of the participation. Not only participants mentioned this, a communication advisor specialised in participation in the built environment as well as developers mentioned this as well. This general rule applies to all levels of participation, however small nuances can be found in the different types of participation. Starting with level 4 (consultation), this concerns a

specific question that is needed. Depending on the question, this type can either be implemented in the beginning of the stage or later. A question that can be answered with this level can for instance be: “*What are your thoughts on transforming this old church into a hotel?*” or in the beginning of the tendering phase this could be “*What does the building mean to you in this neighbourhood?*”. As level 5 (inclusion) binds the initiator to a process, instead of a one time consult, this can be implemented in various stages of the phase. However, the main difference herein is that participants will expect feedback and see what is done with their input. Feedback sessions will take more time and effort, also from the participants, so feedback to the participants on how their input is incorporated is then necessary. Level 6 (shared decision making) should be implemented as early as possible. This type of participation binds the initiator to a certain group as partners, meaning that if they are involved, they are bound to the rest of the process.

4.6.3 BARRIERS

In table 21 the validated barriers are pictured. These have been analysed through a cross case analysis, the interviews have been coded and later the

more projects.

Moreover, social sustainability is added to the built environment. As mentioned before, the specific context and location are highly influential in the development of a new project. Innovative and new

Table 21: Final list of validated barriers along with the phase and stakeholder

Final list of validated barriers		Phase	Stakeholder
Stakeholder alignment	Lack of definition in community	Tendering, feasibility	Reg as initiator, client
	Hard to incorporate everybody's wishes into the plan	Tendering, feasibility	Reg as initiator, client
Involvement	Clear communication is needed	Tendering, feasibility	Reg as initiator, client
	Tokenism should be avoided	Tendering, feasibility	Reg as initiator, client
	Keeping participants equally involved throughout entire process	Feasibility	Client
Attitudes	Herd behaviour can lead to negative attitudes	Tendering, feasibility	Reg as initiator, client
	Attitude towards and from developers determinative for succes	Feasibility	Client
Resources	Resources may not be sufficient in terms of skills and time	Tendering, feasibility	Reg as initiator, client

occurrence in the cases, along with literature was compared.

Among the influences fall the negative influences, seen as barriers, positive influences, in the form of drivers and outcomes, what participation will eventually facilitate in the end-product.

This eventually led to the following validated influences: Depending on the nature of the developing company, a goal for this stakeholder can be to add value to a neighbourhood. During the research, several interviewees (D2, D1) mentioned how participation can contribute to a plan that will be better in line with the local community. This directly contributes to the added value and quality of our built environment. Though, specific locations and context require tailor made designs, as D2 mentions. LC 4 and D2 agree that the eventual product success is determined by the end user, thereby implementing specific preferences of certain target groups, with participation input can be given on the needs of the district.

This positive influence does not only come in favour of the local community or end user, the developers reputation can be affected as well. Project success is mentioned to contribute to the reputation of the developer's company (D3), thereby generating more credibility and a positive reputation, initiating

solutions, concerning but not limited to the size of social rent apartments for example. Combating the negative effects of gentrification, it was shown in one case the curation of social housing would be done by local communities, preserving local culture and going against physical displacement (LC1). One case has shown to be able to make renewable energy sources accessible for those who rent in the social housing sector. These points benefit the local community, however it was shown that tender selection criteria shift from economic to social perspectives (LC1).

Significant delays can arise in the application for an environmental permit, as surrounding residents hold the power to go into objection over permits that can potentially concern their daily lives and environment. Participation can be used as a risk assessment tool: participants will be less inclined to start an objection procedure out of frustration of being left out (CE1). Support can be garnered for projects if participation measures are applied correctly. In order to successfully implement participation measures, all cases mentioned early involvement. Not only due to the flexibility of the design, but also through gathering information in an early stage that can be used as input on the genius loci (LC 4). Especially in adaptive reuse projects, gathering

information on the building and what it once meant in its original context and what should be preserved is important to note here (LC4). LC 1 mentioned in more extensive participation measures, input has been given and local communities could give input on the very capillaries of the project, making the entire end product socially sustainable and embedded in the existing local context. Though, not only the participants advocated this, CE1, D1 and D3, from a developers viewpoint shared such viewpoints.

However, involving the proper target group remains a problem. CE1 mentioned that the same people often show up to participation meetings, who are generally in the same age group. CE 1 mentions this is often due to time and resource constraints of certain target groups, who normally would contribute to valuable input. A solution that was mentioned and had good evaluations was the implementation of digital techniques such as zoom meetings into the participation process (CE1, LC4).

Though a variety of local communities is advocated for, problems arise in participation measures due to a lack of definition in the community. Adding more target groups will not contribute to stakeholder alignment. With a variety in target groups, personal statements can become overwhelming (D3) and not only add on to the ambitions of local communities, but the ambitions of municipalities as well, along with the internal goals of the developing companies. Those who have no previous experience with developing large buildings, may want to jump to the details of the plan (CE1). Details like materialisation and parking spots are topics that are often mentioned (D3), whilst developers and producers will start with a vision and identifying themes. Separating and incorporating input that actually influences the project is an art in the impact of the project (LC2). Working with groups can be challenging, especially if stakeholders are not aligned on their goals. Generally speaking in participation processes, participants tend to side with the one who is being loudest, showing that herd behaviour occurs in meetings (CE1, D3).

As another stakeholder is involved in the process, additional steps and paperwork is added into the development process. An example of this is the clear communication that is needed in the process. Especially in far reaching participation measures, where participants are to be treated equally, involvement and lack of experience in the development process poses a barrier (D1). Communication can be hindered by the use of jargon, then again this has to do with the little experience participants have in managing the built environment (CE1). But clear communication is not limited to a higher level of participation, several interviewees mentioned the added value of clear communication, especially in giving feedback on what is done with their input, along with a bigger attachment to honest clarification on why something cannot be done rather than the actual implementation of their ideas (LC3). Transparency in the process is mentioned to be one of the most important things, in several types of participation. Examples of facilitation on transparency is having the same developer during the process; being able to talk to the developer directly; giving unambiguous information on the development; limited or no use of jargon and being prepared for the meetings.

Personal factors influence the process and perception of the participants. Developers seem to have a negative reputation, being seen as greedy and only there for the revenue (D2). Interviewees mentioned that character traits in the process influence the success of the meetings. Mentioned were coming across as trustworthy and honest (LC3, LC4). Further substantiated is that an open attitude contributes to the success of participation practices (LC1), as well as taking the process seriously and avoiding tokenism (CE1).

The results showed the tendering and feasibility stage to be most prevalent in the analysis, as the initiation stage is solely for the initiator to assess internal feasibility for the project. One could argue the tendering stage consists of an initiation and feasibility stage, but executed by a regulating

party. However, the barriers that have been found are repeated within the participation process. The occurrence of barriers is highly dependent on the decisions made in the first phase, or where participation definition occurs. Municipalities in the Netherlands are currently working on developing guidelines, and are more obliged to implement mandatory participation measures. Their role as delegate of citizens aligns with this approach.

4.6.4 PARTICIPATION MEASURES IN THE ADAPTIVE REUSE DEVELOPMENT PROCESS

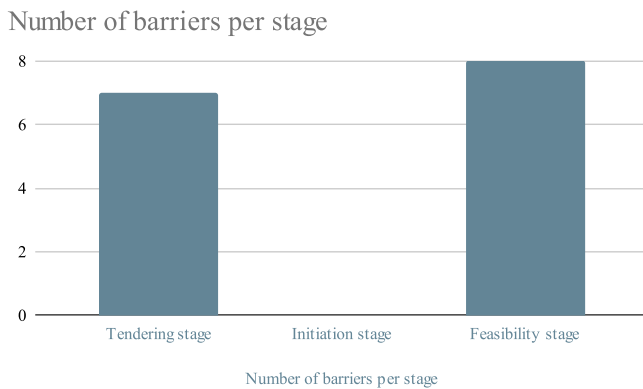


Figure 19: Number of barriers per stage, including the tendering, initiation and feasibility stage as defined previously (Own work)

When combining the processes and the influences it becomes apparent that the tendering and feasibility phase is impacted the most. This is due to the added steps of integrating social participation in the adaptive reuse development process that are inherently bound to the barriers that come with it.

1. Tendering stage

As these projects were all tendered by the municipality, the tendering stage is included in this research. In the tendering stage, the main goal is to develop a tender document. In this document the main vision and programme of requirements has to be laid out. The results indicated that participation can either begin in the tendering stage or in the feasibility stage, however this is dependent on the goals and

decisions of the initiators. In the tendering stage the municipality is responsible for a proper tendering document. A part of the responsibilities of the municipality is advocacy in favour of the citizens of the city. Assigning and planning urban development in the form of environmental visions, legally bound with the zoning plan in order to create high quality living environments fall under the responsibilities of the municipality. With this position in mind, the municipality as initiator for a redevelopment is able to implement social participation in the tendering stage as a part of creating projects that align with the local communities in a specific area.

In this stage, the formal administration of a plan has to be carried out. Decisions on the goal of the participation and stage of involvement have to be taken first. Following these decisions, the involvement of local communities can be defined, along with techniques to obtain opinions and a way to distribute information. The stakeholders need to be mapped out, defining what type of residents would have what type of input. However, this also depends on the type of participation and the goal of the project. If social participation is seen as risk management and to minimise objections from the local community, then the municipality could opt for more influence for direct neighbours of the project for instance.

The formal administration of the participation plan

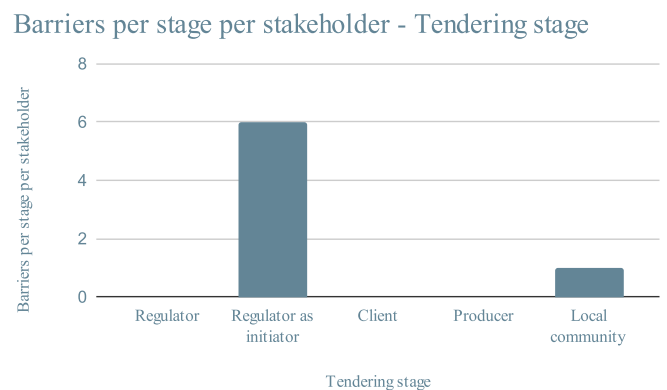


Figure 20: Number of barriers per stakeholder in the tendering stage as defined previously (Own work)

is to be done in the beginning of the tendering phase. The tender document will define the boundaries for the rest of the development and will greatly influence the end-product. As the flexibility of the design is maximised in the beginning of this stage, the formal administration of participation practices should be defined in the beginning of the tendering stage. The results showed that early involvement of participants is considered a success factor, as well as implementing digital techniques such as zoom meetings or online surveys.

Next to the formal administration, the participation protocol has to actually be carried out. The impact of these steps in the tendering phase mostly have to do with the barriers that are mentioned by the participants. Most prevalent in this stage, specifically for the municipality as initiator could be a lack of definition in the community; implementing clear communication and feedback; avoiding tokenism; avoiding herd behaviour; overcoming insufficient resources and maintaining level of involvement and equality.

2. Initiative stage

The initiative stage is where the developer as initiator starts with the process. This stage is internal to the developers firm, where resources will be assessed, the tender document will be analysed and the decision to take on the project will be made.

3. Feasibility stage

The feasibility stage is carried out by the developer as initiator, along with producing stakeholders in favour of giving input for the design. The main goal

of this phase is to develop a sketch design.

Participation practices in this stage are dependent on the tendering stage and the formal administration plan. Due to the nature of the tendering procedure, in this stage several designs will be admitted, meaning that multiple stakeholders are working on the same project. In this stage it's important to have defined how participation is to be defined for tendering parties and how they can implement feedback in the design if the municipality already made a formal participation plan.

Another observed situation in this phase is that herein the first participation measures are taken. These are inherently bound to a design of the developer as a single party initiates the participation process and carries it out as a part of their design routine. In this case, the steps to be taken in the tendering phase will be transferred to this feasibility phase. However, as tendering procedures have a set deadline, adding steps in a specified timeframe will require a more intensive sketch design procedure. The barriers in carrying out the participation procedure are largely the same, with the exception of the attitude of the developer towards the participants. The interviews have shown that the personal traits and attitude of the developer are influential on the success of the participation process. Traits like honesty and trustworthiness were mentioned as influential.

Though not only barriers have been explored. As mentioned in the interviews, early involvement influences successful participation as well as implementing digital techniques in order to reach a more diverse and extensive stakeholder group.

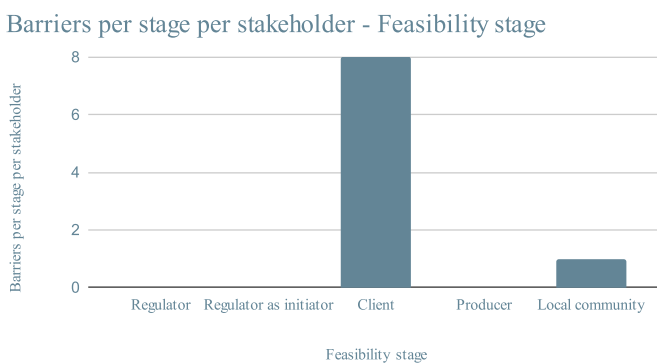


Figure 21: Number of barriers per stakeholder in the feasibility stage as defined previously (Own work)

4.6.5 PARTICIPATION FOR STAKEHOLDERS

Overall, the barriers that have been found seem to impact the initiator of the (participation) process most. These include the regulator as initiator in the case of a tender development and the client in the feasibility stage, when developing the sketch design.

Though, not only barriers have been found. Following the interviews participation leads to the following:

Table 22: List of outcomes and who benefits from the implementation of participation

Final list of outcomes	Stakeholder
Development will be a better plan in line with the local community	Regulator, client, local community
Less objection from local community for project	Regulator, client
innovation is stimulated	Regulator, client, local community
Tender selection criteria shifts to more social instead of economic	Regulator, client, local community

1. Development will be a better plan in line with the local community
2. Less objection from local community for project
3. Innovation is stimulated
4. Tender selection criteria shifts to more social instead of economic

These outcomes can be allocated to stakeholders who will benefit and this allocation can be seen in table 22. Overall the regulator and client benefit from all outcomes. The development will fit better in its existing environment, and from the viewpoint of regulator - who is responsible for the quality of living - this can be seen as a benefit. The client will add this project to their portfolio, potentially improving their reputation as developer, as mentioned by Verheul et al. (2021). The local community are left with an environment that suits their needs and values.

More process related is the objection of the local community in the environmental permit. This prevents time loss in the development process and benefits the client mostly, but also the regulator as more housing will be delivered on time. The benefit of stimulated innovation eventually benefits the

regulator, client and local community and the tender selection criteria shifting towards social instead of economic mostly benefits the local community, and the client as the costs for the purchase of the building may be lower. However, this does mean that the client will have to implement participation, maybe even far reaching which will inevitably also cost resources.

The tender selection criteria shifting towards social practices fits with the goal of the regulator to contribute to high quality living environments, though the income of the regulator may be diminished.

Not only these benefits may come from participation, several existing barriers in the adaptive reuse process may be lifted as well. As can be seen in table 23, participation has the potential to lift barriers in the legal, political and social domain. Most barriers that are lifted fall in the use phase, contributing to a more high quality living environment. The feasibility phase comes next, and lastly the preparation phase.

The stakeholders that will have less barriers, not counting new barriers, are the initiator and the regulator, though the user also benefits from having these barriers lifted in the development process.

Table 23: Barriers found in the current adaptive reuse process that may be solved by implementing participation practices

Domain	Barrier	Source	Phase	Beneficiary
Legal	No clear rules/measurements on how to implement social sustainability in buildings	Golic et al., 2023	Feasibility, use	Initiator, regulator, user
Political	Lack of knowledge on social sustainability measures among legislators and regulators	Golic et al., 2023	Feasibility	Initiator
Social	Difficulty in establishing a sense of place and identity	Yung and Chan, 2012	Feasibility, preparation, use	Initiator, producer, regulator, user
Social	Lack of or limited participation, low willingness to participate	Pintossi et al., 2023	Preparation	Initiator, regulator, user
Social	Lack of or limited representation of certain groups	Pintossi et al., 2023	Use	Initiator, user
Social	Difficulties in maintaining or generating a sense of place and identity	Yung and Chan, 2012	Use	Initiator, regulator, user
Social	Too little community engagement in the building process	Pintossi et al., 2023; Yung and Chan, 2012	Feasibility, preparation	Regulator, user
Social	Hard to maintain lives of local community through new developments	De Silva & Perrera, 2023; Yung and Chan, 2012	Use	Regulator, user

5

DISCUSSION & RECOMMENDATION

DISCUSSION & RECOMMENDATION

5.1 PROCESS

All three cases were tendered by the local municipality where the project took place. This means a difference in the process compared to privately initiated development projects. When looking at the findings and comparing them to the generalised adaptive reuse process in the literature study it appears the tendering stage done by the municipality matches the initiative and feasibility phase of the adaptive reuse process. In the initiative phase in the literature study, the most important goal is to decide whether to take on a project or forfeit. This is done through an analysis of the building, a first feasibility study and generating a concept plan of requirements and the first ideas of a function. In the feasibility phase according to the literature study, the financial and legal feasibility is assessed, as well as functional definition and the preservation of the building. This phase ends with the concept development or a vision. As is seen in the tender document the concept has been laid out, along with a functional definition and boundaries on the preservation of the building. This part is in line with the existing literature, Arfa et al. (2022), though tendered projects are a specific type of process.

It was unanimously decided by almost all interviewees that early involvement of the local community was regarded as a success factor for the implementation of participation in the development process. This was mostly due to the flexibility of the design in the beginning stages as opposed to the latter stages. In all three cases it became evident that there are three distinct phases in the development of a sketch design in a tendered procurement. The tendering

phase was done by the local municipality in all three cases. The influence of the location, local culture or specific context were seen back in the main vision of all three tender documents. Early involvement in this stage is highly recommended, as this is one of the points that interviewees agreed on most, this is in line with the findings of Geesing (2015). However, in order to involve local communities, first needs to be determined who to involve, when to involve, how to involve, how to give information and the goal of participation. This can be seen as formally designing the process. Time and resources should be adequately allocated in order to facilitate early involvement and formal administration of the participation plan. All aforementioned aspects developed by Brody et al (2003) have been found in the results, though the timing and internal coherency of the aspects has been further developed in this research.

Since all cases examined were part of a tendered development, one question that needs answering is how to effectively implement participation during the development of a sketch design. When contending with multiple parties, it would be very inefficient to have local communities be involved with all those that are interested in redeveloping the building. Municipalities are able to decide their own winning criteria through the most economically advantageous tender, implementing a citizens panel could be an option, however this is not yet implemented and literature on the topic in the built environment is missing.

DISCUSSION & RECOMMENDATION

5.2 PARTICIPATION

In the cases examined, three different levels have been investigated. Consultation with the local communities was done in the form of a survey. In this case, a specific question was posed and implemented in the design during the development of the sketch design in a tender. Overall, the developer received a lot of reactions, unanimously voting for a public living room on the ground floor in the first building. A consultation on a very specific or demarcated part of the design was used and proven to have generalised an opinion amongst local communities. Interviewees mentioned it's hard to incorporate a mix of stakeholders, however when using a survey, it's easier to reach several target groups due to easy information spreading and limited time that is needed to give an opinion.

Inclusion can be implemented as a feedback structure on multiple parts of a design or the design as a whole. Methods that fit this type of participation are meetings, however these types of methods are more time-intensive and less accessible for diverse stakeholders. Motivation is needed in order to actively participate in this type of governance. As the participants are more involved, the expectancy of being informed goes up as well. Information management should be applied, as well as carefully updating local communities and giving unambiguous information. Due to the feedback nature, participants should also be kept up to date on why their input is not being used or how the input is implemented in the design. If the initiator fails to do this, risks of having the participation seen as tokenism are improved.

Shared decision making is the most intensive level of participation in this research. It's important to note that no decision making powers are transferred,

but local communities are able to give input when a decision is made through close collaboration on the design. In this type of participation, it's important to keep the participant equally involved in all stages, or at least to do some expectation management if participation will be done in 1 stage or will become less as the design progresses. Then again, this should be formulated in the formal administration of the participation process.

In the formal administration of the participation type, the goal of the participation should be assessed in order to choose the right type of governance form. All developers mentioned that one of the goals of implementing participation was to make it easier to gain an environmental permit, or to win the tender. However, through the in-depth case study it became apparent that all projects were also focussed on implementing social sustainability in the project. Social participation can be considered to be embedded in the risk management of the project. In order to assess possible opinions against the project, participation can be implemented in the development process in order to anticipate and mitigate the risks in not getting an environmental permit. However, the extent to which the focus is placed on implementing social sustainability is probably more important in choosing a governance form. All participation types have been seen to gain a support base from the local communities, but the difference in the governance decides how much the local culture is embedded in the project, with consultation and inclusion mostly seen as risk management and shared decision making for implementing social sustainability.

DISCUSSION & RECOMMENDATION

5.3 BARRIERS

As it turns out, the initiator of the project faces most barriers. As the initiator is owner and organiser of the participation process, responsibilities are transferred to the initiator. Most barriers have to do with avoiding tokenism, communication and personal traits and attitudes. Managing and extending the developers role to social participation comes with barriers. It has been mentioned several times that -especially- developers deal with more barriers than the regulator as initiator. Mentioned were the reputation of developers that is disadvantageous when implementing social participation with local communities. Most barriers found have to do with taking participation seriously. Participants want to know what happens to their input, why something can't be done, being taken seriously, and being communicated clearly and understandably to. This is largely in line with the found literature, though most literature on the topic of participation focusses on shared decision making, where decision making powers are actually transferred to participants. Though, barriers in articles of Wilcox (1994) seem to touch upon the same topics as the barriers that were found in this research.

Implementing digital techniques into the participation process was conceived as successful by the participants. The communications expert interviewee also mentioned one of the barriers they encountered was involving the proper target group, as not all relevant stakeholder groups have the resources to give time to participation initiatives. Further substantiated by Renteria & Varela Castro

(2023), found that online collaboration in participation practices can facilitate involving a diverse group of stakeholders, as well as reducing the costs of participation and aid in interaction among participants. Further barriers that have been explored fall under the interpersonal relationship between developer and participant. Personal traits and attitude are influential in the success of participation practices.

The role of the developer is to align stakeholders and manage the process in terms of communication, legal and financial feasibility. However, with the implementation of social participation a new type of communication.

The outcomes for implementing participation practices in the development process seem to benefit the regulator, client and the local communities. It's easy to assume that participation is implemented in favour of only the local community, but this research showed that benefits for other stakeholder groups are very plausible. This is in line with the findings of Verheul et al. (2023), who drew the same conclusion. Participation may solve some of the barriers that have been found in the adaptive reuse process. These barriers have to do with implementing social sustainability; maintaining the genius loci; and implementing participation. These barriers mostly affected the initiator and the regulator. Most prevalent occurring phases were the use and feasibility phase.

DISCUSSION & RECOMMENDATION

5.4 RECOMMENDATIONS FOR PRACTICE

Ultimately, participation is a tool in order to involve and align the stakeholders involved in a development project, in particular the local citizens. In order to align these goals, the main objectives of the different stakeholder groups need to be identified. According to previous analysis early involvement is important, as well as using digital techniques.

When implementing developments in an existing area, changes occur in the daily lives of participants. In order to manage participation tools in development processes the following points are recommended.

When choosing a participation type or types for the development, several factors have to be included. Indications on when to implement what type of participation are elaborated upon below:

Consultation: consultation is a feedback mechanism on a demarcated part of a design. Whether this would be the initial assessment whether a function would be accepted to a quiz on the material of the design. The main advantage of implementing consultation is that it's very time efficient and several target groups can be targeted, thereby creating a generalised opinion of a large group in the area of a new development. Downsides of this are that this method can be considered non-participation due to the sheer involvement in the development. This method can be preferable in early stages of developing the vision for the end-product. This form of participation can be especially suitable for risk management, where specific feedback is needed quickly and efficiently.

Inclusion: Inclusion is probably seen as the most standard form of participation. Herein, citizens are involved in either an advisory board or in meetings with a large amount of participants of a feedback

mechanism that requires long term commitment between parties. In this type of participation, more feedback on several parts of the design can be explored, however this type costs more time and resources compared to the consultation participation practice. In addition are the stakeholders more involved and with that comes the expectancy to be kept up to date on developments as well as being part of the process. This means that information distribution channels should be kept up to date and careful information management regarding unambiguous data should be implemented. For this type of participation, involvement can be done in thinking along with the project party on the types of functions, preservation of a building but also generating input on the local identity of the area. Early concerns about the development, such as for example parking and direct impact on houses of the local citizens can be explored and heard in an early stage. This type of participation is ideal for detailed feedback on multiple design aspects. This provides the decision makers with material to make a strategy to mitigate the risk of locals going into appeal against the application of an environmental permit.

Shared decision making: Though the name of this type of participation is misleading as no actual responsibility for decision making is transferred to local communities, shared decision making can be implemented as a way to incorporate social sustainability into the roots of a project. In this type of participation a small group of representatives are involved in the development process as developers. Unique insights can be shared, as local ideology is implemented in discussions on different parts of the design. Shared decision making is no form of risk management, the project party has to be willing to really involve citizens in this type of participation, as the involvement requires a lot of time of the

participants as they will be working alongside the developer. Though this type of participation is not ideal to generalise the opinion of a large group of stakeholders, for projects that are situated in areas where participation fatigue occurs and tokenism has arisen on multiple occasions, shared decision making may be an option to involve citizens and make real impact.

Though these mechanisms come with an inherent set of barriers. According to Kurkula et al. (2023) the model for participation management comes down to three main pillars. Enabling organisational structures, supportive organisational culture and adequate resources. This approach leads to a change in the roots of the company, not only affecting the development process, but overall company work structure.

DISCUSSION & RECOMMENDATION

5.5 RECOMMENDATIONS FOR RESEARCH

1. Difference in context

The cases that have been studied are situated in G4 cities. In smaller towns, people are inclined to be more involved in what happens around them, the life in the city is overall more high paced. There could be a difference in the need for participation in cities and towns. This point can extend to the further research recommendations, to see what the difference is in participation in the building process in cities and towns.

2. Transferability to other forms of procurement

In this research, the case studies that were used all were initiated through a tender. This specific type of initiation may not be transferable towards other types of initiation. It would be a recommendation point towards further research to compare the different types of procurement and how this impacts the implementation of participation in building processes

3. Research on different participation methods and typology of buildings

Though an indication is given, different techniques can be further researched. In this research, 3 case studies with different participation techniques were examined. Research on a specific type of participation practice can be further researched to create a coherent picture of the specific drivers and barriers per type of participation.

4. Extend research to urban area development

In cities, we see that old urban areas are being redeveloped. For example, in the last 2 decades the ongoing development of NDSM in Amsterdam, office area Amstel III in Amsterdam and Office area Merwede in Utrecht are currently being redeveloped. Extending the scope of the research towards the interaction between urban area's is a point that could be further examined.

5. Research in communication strategies between business and personal stakeholders

Finally, integrating social sciences with the management of the built environment is to scope in on the research. Strategies in order to deal with the barriers could be very beneficial in the future, where participation practices will become increasingly important.

DISCUSSION & RECOMMENDATION

5.7 LIMITATIONS

1. Time, resource and skill constraints

Writing this research is a first acquaintance with conducting academic research. Conducting this type of research needs proper training and with the time and skill constraints led to pressurised decision making. In hindsight, this research could have had more value if determinative decisions were taken with more skills.

2. Same developer for case studies

The cases that have been examined were initiated by the same developer. This may have influenced the results, as the process for example largely overlaps due to overlapping project members that worked on the project. This developer is in favour of participation processes. However, including cases by other types of developers would have been interesting to create a more general line on participation practices, for example a developer who is not in favour could generate different boundaries or highlight different outcomes in the research.

3. Lack of interest of participants

It was hard to come into contact with some interviewees, some didn't respond at all or didn't show up to the meeting and didn't respond to messages. No public parties were interviewed, though this research focuses on the developer, it would have been good to involve public party stakeholders in the interviews in order to generate a more complete picture of the entire process.

DISCUSSION & RECOMMENDATION

5.6 RESEARCH QUESTIONS

The initial hypothesis that participation would minimise the effects of gentrification in the area still proves to be inconclusive. As has been shown from the results, the project party decides on what and how the participants will be involved. In 1 case, the effects of displacement were minimised through the involvement of local communities and the intention of letting them curate the social housing dwellings. Also the direct needs from the current residents were implemented in the design, as there was a big need for big social housing dwellings. However, many types of participation practices are available, so the initial answer is that the hypothesis is rejected. However, effects of gentrification can be combated through specific implementation of participation practices.

Another hypothesis was that the impact on participation processes would impact the building process greatly. This hypothesis was confirmed. The implementation of participation practices adds extra steps to the building process. These steps come with new stakeholder dynamics, extra work and potentially with extra knowledge to be obtained by the developers.

The outcomes of the research are mostly in line with findings in the field. One conclusion was that participants should be involved as early as possible, this is in line with the research of Geesing (2015).

The themes on the barriers that have been found in literature and practice tend to take on the same

themes, most barriers fell into the interpersonal communication category and the results showed the same outcome.

A difference in results is found in the barriers of participation. In the literature review, several barriers have been identified, however some of these were not validated through the cross case analysis. These mostly have to do with co-creation practices such as the need for participants to be skilled in complex decision making. In the co-creation process, the participants were involved in the design teams, but had no decision making authority. These results therefore differ and can be explained.

The contribution of this research consists of a visual representation of the participation practices per phase. No formal guidelines on participation have yet been formulated and this research contributes to the formulation of these guidelines in terms of moment of involvement and process mapping.

This research focused on adaptive reuse. However, 2 cases were implemented that contained newly built projects. Through the synthesis of the results, the most important difference in AR vs newly built processes highlighted that the tendering phase takes longer and needs more input, as the local culture around the building already exists.

6

CONCLUSION

CONCLUSION

This research focused on effectively implementing participation in the adaptive reuse development process by researching the adaptive reuse development process, finding structure in the participation process and discovering timing and barriers of integrating these processes. This was done through a cross case analysis and lessons learned approach of 3 non-monumental tendered cases in inner G4 cities in The Netherlands.

The research revealed that the local context such as the specific location, function and scale are important considerations, especially during the development of the tender document. Early involvement of participants is highly recommended, as the projects core themes can be influenced in an early stage. The process analysis shows that participation must be well defined and consider the participation aspects to be formalised in a plan. These entail *goals; stage of involvement; methods to be used; stakeholder targeting; information distribution* and the *governance* form. Later, in carrying out the participation, the aspects of information distribution and methods are relevant. The success of these participation practices can be endorsed by involving the citizens early and to implement digital techniques in order to reach a wider and more diverse stakeholder group. Though, barriers have also been found in the research. These can be categorised in *stakeholder alignment, involvement, attitudes* and *resources*. Most barriers are appointed to the initiator of the participation process, whether that would be the regulator or a developer. However, developers have 2 specific barriers that the regulator as initiator does not deal with.

The benefits of implementing participation are allocated to several stakeholders, among who the regulator and client with most benefits, followed

closely by the local community in terms of plans that better correspond with community needs, promote innovation, less objection from local citizens and shift tender selection criteria toward social rather than economic reasons. Next to that, the research indicated that several barriers in the adaptive reuse process may be lifted as well. These barriers mostly occur in the use and feasibility phase, with the initiator having most barriers solved, closely followed by the regulator and the user.

Different participation mechanisms have been distinguished, each for a specific situation dependent on the choice of implementing risk management practices or implementing social sustainability. These mechanisms have shown that different methods involve a different number of stakeholders, meaning that the least intensive participation measure reaches a broader spectrum of citizens and the most intensive participation methods includes the least local communities. The typology of the participation levels are mostly dependent on the type of feedback structure, where level 4 deals with efficiently dealing with specific feedback on a small part of the design, level 5 personal and detailed feedback on multiple parts, however more time consuming and creates long-term commitment and level 6 deals with the involvement of a small group of locals, letting them give continuous feedback on the design and thereby the opportunity to implement social sustainability exists.

The results largely overlap with the found literature, highlighting the need to take participation processes seriously and focusing on clear communication, proper attitudes and avoiding tokenism. Though, in the implementation of participation practices, the developer is bound to answer to a new type of stakeholder. This new stakeholder group is not

a professional workgroup and possibly requires a different management approach.

Though this research focused on the moment of integration of the two processes, no conclusive results were found: merely indications, though a strong commonality among all interviewees was that participation practices should be implemented as early as possible. In the specific scope of tendered projects this would be in the development of the tender document. Yet, the pragmatic limitation occurs on dealing with multiple contenders and being able to properly carry out the participation process without having to opinate every design that is contending for the option agreement.

Future projects should consider the participation mechanisms for each phase. A mix of different participation methods can be used, depending on the stage, local importance of the building and the goal of the design. A strong focus on clear communication and transparency is advised.

In conclusion, implementing participation in adaptive reuse projects proves to benefit more stakeholders than solely the local community. This research highlights the need for early involvement, digital techniques and formally creating a participation plan tailored to the local context. Whilst challenges still exist in the forms of stakeholder alignment; attitude of stakeholders; involvement and resources, barriers can still be overcome by the initiator of the participation process and development. Next to that, there is an indication that participation practices can lift some of the barriers in the adaptive reuse process.

Moving forward, a participation plan that is taken seriously with proper implementation of different participation methods along with clear communication and transparency will be essential in realising sustainable and socially inclusive urban environments.

REFLECTION

Academic Reflection

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Q. Qian & H. Remøy

1. What is the relation between your graduation project topic, your master track (A, U, BT, LA, MBE), and your master programme (MSc AUBS)? The relation between this research topic, the master programme and the graduation project mostly lies in the improvement of processes in the built environment. The MSc in Architecture focuses on urban landscaping and the built environment. Within this master, the track management in the built environment deals mostly with the process of developing the market side of the built environment.

This research aims to contribute to creating an including, high quality built environment for all who live there. This is done through researching development processes and see where the gaps are for more inclusiveness in terms of citizen engagement.

2. How did your research influence your design/recommendations and how did the design/recommendations influence your research?

The recommendations section directly derives from the conclusion of the research. However, backtracking and adjusting the research question so that the results overlap with the posed questions was a part of this process. In a perfect world, you make a plan and you execute it. I found out through this process it's not always as easy and straightforward as it looks. You'll never know what comes out of such a process. In the end, this graduation thesis proved to be an interactive process.

3. How do you assess the value of your way of working (your approach, your used methods, used methodology)?

For me, I had a personal fascination for both adaptive reuse projects and a philanthropic need to investigate co-creation practices. This has led to an unstable process. I was unable to let go of my initial ideas and already had formed a hypothesis. This was proven to get me stuck multiple times. I should have killed my darlings in the beginning of the process and see where the literature study would have taken me. Instead, during the research, I had difficulty scoping down, as I wanted to have my story remain the same. This led to some faulty decisions in the process, such as the case study choices. Eventually it worked, but the process of getting there was tiresome and could have been made a lot easier if I would have been able to let go of my initial ideas.

Prematurely drawing conclusions has been proven to not be effective. When one does this, it influences the design strategy and the results.

4. How do you assess the academic and societal value, scope and implication of your graduation project, including ethical aspects?

The methodology may not have been optimal, this was mostly due to the reason to implement high societal and academic insights. This research is very relevant, as it is in line with the discussions and regulations that are being spoken of right now. Starting in January 2024, applying for an environmental permit requires participation measures. However, this law has been pushed back multiple times. Not only this, gentrification of big cities is a theme that should be talked about more. Housing prices have risen enormously over the past 7 years and this leads to exclusion of certain target groups. With this research I hope to draw attention towards this point and open new paths through the recommendation section to encourage other researchers to investigate this matter further.

5. How do you assess the value of the transferability of your project results? (how can it be extrapolated in other cases? Is it generalised enough?)

The research was carried out through a multiple case study and a cross case analysis. This would have to generate transferable results. However, the cases were initiated by the same developer, so it could be that the transferability of the results is not optimal. Then again, the analysis of the cases was done in a structured manner and general conclusions were drawn out of this.

6. How do you assess the extent of the environment during the graduation that influenced your research? I did an internship at Kondor Wessels Vastgoed. This naturally led to having easy access to developers on the matter, along with other parties they worked with. However, every company has a certain attitude and company culture. At Kondor Wessels Vastgoed, participation was considered a good thing. I think this may have led to speaking with individuals who thought along the same line. There are also developing companies who just organise a meeting and then throw the input in the garbage. The influence of the company may have generated assumptions on the need to implement participation in the building process.

7. What is your overall takeaway over the past year? First of all, the overall takeaway is that processes never are linear. We cannot possibly take everything into account and then devise a plan and stick to it. Academic research has no road map to success, every research is different and what works for another student doesn't necessarily work for your research. Next to that I enjoyed talking to people that I usually don't come across, the new viewpoints were inspiring to me, sparking my motivation to carry on with the project.

I learned that most decisions can be justified, however some key decisions that I have made cannot be undone. I learned that sometimes you have to accept that you took a wrong turn somewhere, and

decisions have to be made especially considering time pressure. Furthermore I learned through the reorganisation at Kondor Wessels Vastgoed that you should enjoy good things while they last, nothing is permanent and no company is the same.

8. What lessons can you take from the bankruptcy of the project developer?

From the redevelopment game we learned how to anticipate and respond to unforeseen circumstances. During my internship, I encountered one of these first hand: my graduation company had terminated. It really showed me a peek inside the mechanisms of a business culture. Also, the projects that were in a beginning stage with a lot of risk were terminated. This also included the 3rd case: Sample.

References

- Aigwi, I. E., Duberia, A., & Nwadike, A. N. (2023). Adaptive reuse of existing buildings as a sustainable tool for climate change mitigation within the built environment. *Sustainable Energy Technologies and Assessments*, 56, 102945. <https://doi.org/10.1016/j.seta.2022.102945>
- Andriessen, J. W. (1999). *Procesmanagement van Transformatie* [Thesis, Delft University of Technology]. <https://repository.tudelft.nl/islandora/object/uuid%3A87173067-c244-4be0-97ac-a6aaf481f647>
- Ardill, N., & De Oliveira, F. L. (2018). Social innovation in urban spaces. *International Journal of Urban Sustainable Development*, 10(3), 207–221. <https://doi.org/10.1080/19463138.2018.1526177>
- Arfa, F. H., Lubelli, B., Zijlstra, H., & Quist, W. (2022a). Criteria of “Effectiveness” and Related Aspects in Adaptive Reuse Projects of Heritage Buildings. *Sustainability*, 14(3), 1251. <https://doi.org/10.3390/su14031251>
- Arfa, F. H., Zijlstra, H., Lubelli, B., & Quist, W. (2022b). Adaptive Reuse of Heritage Buildings: From a Literature Review to a Model of Practice. *The Historic Environment*, 13(2), 148–170. <https://doi.org/10.1080/17567505.2022.2058551>
- BCI Central. (2023). Decision makers in the building and construction industry. *BCI Central*. <https://www.bcicentral.com/blog/decision-makers-in-the-building-and-construction-industry/>
- Berg, N. (2023, September 1). *Atlas voor gemeenten 2022 - Wonen - Atlas Research*. Atlas Research. <https://atlasresearch.nl/atlas-voor-gemeenten-2022-wonen/>
- BOEi. (2009). EHBH: Eerste Hulp Bij Herbestemmen. In *Herbestemming.nl*. Retrieved September 18, 2023, from https://www.herbestemming.nl/files/2017-04/ehbh_eerste_hulp_bij_herbestemmen_boei__0.pdf
- Brody, S. D., Godschalk, D. R., & Burby, R. J. (2003). Mandating Citizen Participation in Plan Making: Six Strategic Planning Choices. *Journal of the American Planning Association*, 69(3), 245–264. <https://doi.org/10.1080/01944360308978018>

- Bullen, P. A. (2007). Adaptive reuse and sustainability of commercial buildings. *Facilities*, 25(1/2), 20–31. <https://doi.org/10.1108/02632770710716911>
- Bullen, P. A., & Love, P. E. (2010). The rhetoric of adaptive reuse or reality of demolition: Views from the field. *Cities*, 27(4), 215–224. <https://doi.org/10.1016/j.cities.2009.12.005>
- Bullen, P. A., & Love, P. E. (2011a). Adaptive reuse of heritage buildings. *Structural Survey*, 29(5), 411–421. <https://doi.org/10.1108/02630801111182439>
- Bullen, P. A., & Love, P. E. (2011b). A new future for the past: a model for adaptive reuse decision-making. *Built Environment Project and Asset Management*, 1(1), 32–44. <https://doi.org/10.1108/20441241111143768>
- Bulloch, B., & Sullivan, J. (2010). The Key to the Real Estate Development Process. *Cornell Real Estate Review*, 8, 78–87. <https://ecommons.cornell.edu/server/api/core/bitstreams/64b22a3f-98b0-4ff9-bb6d-81114c096a2e/content>
- CBS. (2022, December 13). *Minder leegstaande woningen, kantoren en winkels*. Centraal Bureau Voor De Statistiek. Retrieved April 11, 2023, from <https://www.cbs.nl/nl-nl/nieuws/2022/50/minder-leegstaande-woningen-kantoren-en-winkels#:~:text=Op%201%20januari%202022%20stonden,jaar%20eerder%20ook%20al%20leeg.>
- Chao-Duivis, M. a. B., Koning, A. Z. R., & Ubink, A. M. (2013). *A practical guide to Dutch building contracts*.
- Contreras-Espinosa, R. S., Frisiello, A., Eguia-Gomez, J. L., & Blanco, A. (2022). Co-creation, Co-design, and Co-production: Enablers and Barriers for Implementation and Use of Digital Technologies. In *Smart Innovation, Systems and Technologies* (pp. 81–90). https://doi.org/10.1007/978-981-19-6347-6_8
- Cultural Heritage Agency of the Netherlands. (2013). *Kantoorgebouwen in Nederland 1945 - 2015: cultuurhistorische en typologische QUICKSCAN*. Retrieved October 6, 2023, from <https://www.cultureelerfgoed.nl/>

- Davis, A., & Andrew, J. (2017). Co-creating Urban Environments to Engage Citizens in a Low-carbon Future. *Procedia Engineering*, 180, 651–657.
<https://doi.org/10.1016/j.proeng.2017.04.224>
- De Silva, D., & Perera, K. K. S. (Eds.). (2016). *Barriers and Challenges of Adaptive Reuse of Buildings*.
https://www.researchgate.net/publication/319879628_Barriers_and_Challenges_of_Adaptive_Reuse_of_Buildings
- Douglas, J. (2006). *Building adaptation*. Routledge.
- Elkington, J. (1998). *Cannibals with Forks: The Triple Bottom Line of 21st Century Business*.
- Erjavec, I., & Ruchinskaya, T. (2019). A Spotlight of Co-creation and Inclusiveness of Public Open Spaces. In *Lecture Notes in Computer Science* (pp. 209–223). Springer Science+Business Media. https://doi.org/10.1007/978-3-030-13417-4_17
- Fauzi, T. a. B. E., & Ghani, N. A. (2022). Challenges in Conserving Heritage Buildings in Terengganu, Malaysia. *International Journal of Academic Research in Business & Social Sciences*, 12(10). <https://doi.org/10.6007/ijarbss/v12-i10/15287>
- Geesing, C. (2015). *Public engagement from a developer's perspective* [Master scriptie, Delft University of Technology].
<https://repository.tudelft.nl/islandora/object/uuid%3A71bbb369-b74d-40be-b436-04b4de31f7a8>
- Gemeente Amsterdam. (n.d.). *Buiksloterham: duurzame herontwikkeling tot werk- en woongebied*. Retrieved March 3, 2024, from
<https://www.amsterdam.nl/projecten/buiksloterham/>
- Gemeente Amsterdam. (2019). *Tenderbrochure Bakema park zuid*.
- Gemeente Amsterdam. (2022). *Selectiebrochure kavel 19A, B, C Buiksloterham*.
- Gemeente Amsterdam. (2023, March 24). Winnende plan Sample geeft vorm aan circulaire samenleving. *Amsterdam.nl*. Retrieved April 10, 2023, from
<https://www.amsterdam.nl/wonen-leefomgeving/vastgoedprofessionals/nieuws-vastgoedprofessionals/winnende-plan-sample-geeft-vorm/>

- Gemeente Utrecht. (2021). *Selectiebrochure PBC Leidraad*.
- Golić, K., Kosorić, V., Kosić, T., Vučković, S. S., & Kujundžić, K. (2023). A platform of Critical Barriers to socially sustainable residential Buildings: Experts' perspective. *Sustainability*, 15(9), 7485. <https://doi.org/10.3390/su15097485>
- Gustafsson, J. (2017). *Single case studies vs. multiple case studies: A comparative study*. <http://hh.diva-portal.org/smash/record.jsf?pid=diva2%3A1064378>
- Hasnain, H., & Mohseni, F. (2018). Creative ideation and adaptive reuse: a solution to sustainable urban heritage conservation. *IOP Conference Series*, 126, 012075. <https://doi.org/10.1088/1755-1315/126/1/012075>
- Hobma, F. (2022, February 10). *Re-active governmental planning powers - Lecture week 1 Building Law* [Slide show; Brightspace]. Brightspace. <https://brightspace.tudelft.nl/d2l/le/content/398752/Home>
- Informatiepunt Leefomgeving. (n.d.-a). *Beleidsregels bij bevoegdheden op grond van de Omgevingswet*. <https://iplo.nl/regelgeving/instrumenten/beleidsregels/beleidsregels-bevoegdheden-omgevingswet/#h0e7a0ad8-c058-4f75-9afb-ac0bfd25803a>
- Informatiepunt Leefomgeving. (n.d.-b). *Participatie bij de omgevingsvergunning*. Retrieved May 27, 2024, from <https://iplo.nl/regelgeving/omgevingswet/participatie/participatie-instrumenten/participatie-omgevingsvergunning/#:~:text=De%20omgeving%20vroeg%20bij%20een,om%20aan%20participatie%20te%20doen>.
- Kheyroddin, R., & Hamzehlou, S. (2019). Analyzing the Obstacles to the Realization of Citizens' Participation in the Context of City Council Elections Law. *Creative City Design*, 2(1), 104–111.
- Knotten, V., Svalestuen, F., Hansen, G. K., & Lædre, O. (2015). Design Management in the Building Process - A review of current literature. *Procedia. Economics and Finance*, 21, 120–127. [https://doi.org/10.1016/s2212-5671\(15\)00158-6](https://doi.org/10.1016/s2212-5671(15)00158-6)
- Kondor Wessels Vastgoed & Verdedig Noord. (2023). *Sample Ruimtelijke en Programmatistische kwaliteit*.

- Kurkela, K., Kork, A., Jäntti, A., & Paananen, H. (2023). Citizen participation as an organisational challenge in local government. *International Journal of Public Sector Management*, 37(1), 124–140. <https://doi.org/10.1108/ijpsm-08-2022-0179>
- Leading Cities. (2014). Co-creating cities: Defining co-creation as a means of citizen engagement. In *Leading Cities*. Retrieved June 9, 2023, from <https://leadingcities2014.files.wordpress.com/2014/02/co-creation-formatted-draft-6.pdf>
- Loures, L., Gómez, J. I. A., Loures, L., & Loures, A. (2020). Benefits and Limitations of Public Involvement Processes in Landscape Redevelopment Projects—Learning from Practice. In *Regional intelligence* (pp. 29–48). Springer Nature Switzerland. https://doi.org/10.1007/978-3-030-36479-3_3
- Mahar, A. L., Cobigo, V., & Stuart, H. (2012). Conceptualizing belonging. *Disability and Rehabilitation*, 35(12), 1026–1032. <https://doi.org/10.3109/09638288.2012.717584>
- March, A., Rijal, Y., Wilkinson, S., & Özgür, E. F. (2012). Measuring building adaptability and street vitality. *Planning Practice and Research*, 27(5), 531–552. <https://doi.org/10.1080/02697459.2012.715813>
- Ministerie van Algemene Zaken. (2022, November 18). *Kan ik bezwaar maken tegen de bouwplannen of omgevingsvergunning van mijn buren?* Rijksoverheid.nl. <https://www.rijksoverheid.nl/onderwerpen/bouwregelgeving/vraag-en-antwoord/kan-ik-bezwaar-maken-tegen-de-bouwplannen-of-omgevingsvergunning-van-mijn-buren>
- Ministerie van Binnenlandse Zaken en Koninkrijksrelaties. (2023a, March 16). *Groen licht Eerste Kamer: Invoering Omgevingswet op 1 januari 2024*. Nieuwsbericht | Rijksoverheid.nl. <https://www.rijksoverheid.nl/actueel/nieuws/2023/03/14/groen-licht-eerste-kamer-invoering-omgevingswet-op-1-januari-2024>
- Ministerie van Binnenlandse Zaken en Koninkrijksrelaties. (2023b, August 1). *Het statistisch woningtekort nader uitgelegd*. Home | Volkshuisvesting Nederland. <https://www.volkshuisvestingnederland.nl/onderwerpen/berekening->

https://kuleuven.limo.libis.be/discovery/fulldisplay?docid=lirias2324199&context=SearchWebhook&vid=32KUL_KUL:Lirias&lang=en&search_scope=lirias_profile&adaptor=SearchWebhook&tab=LIRIAS&query=any,contains,LIRIAS2324199&offset=0

ProDemos. (n.d.). *Organisatie van het bestuur van de gemeente*.

<https://prodemos.nl/kennis/informatie-over-politiek/de-gemeente/de-organisatie-3/>

Rastogi, N., & Trivedi, M. K. (2016). PESTLE Technique - A tool to identify external risks in construction projects. *International Research Journal of Engineering and Technology (IRJET)*, 03(1), 2395–0056. https://www.researchgate.net/profile/Manoj-Trivedi-2/publication/363640549_PESTLE_TECHNIQUE_-A_TOOL_TO_IDENTIFY_EXTERNAL_RISKS_IN_CONSTRUCTION_PROJECTS/links/6326de560a70852150026dfc/PESTLE-TECHNIQUE-A-TOOL-TO-IDENTIFY-EXTERNAL-RISKS-IN-CONSTRUCTION-PROJECTS.pdf

Redfern, P. (2003). What Makes Gentrification “Gentrification”? *Urban Studies*, 40(12), 2351–2366. <https://doi.org/10.1080/0042098032000136101>

Remøy, H. (2010). *Out of Office: A study on the cause of office vacancy and transformation as a means to cope and prevent*. <http://resolver.tudelft.nl/uuid:9c24b779-1c61-4a88-921a-04d3e12a8e46>

Remøy, H., & Persoon, T. (2020). De toegevoegde waarde van herbestemming van industrieel erfgoed: Het prijseffect op omliggende woningen. *Real Estate Research Quarterly*, 20(1), 1–10. <https://www.vogon.nl/artikelen/vogon-publicaties>

Renteria, C., & Varela-Castro, S. (2023). A landscape of participatory platform architectures: Ideas, decisions, and mapping. *Information Polity*, 28(3), 341–358. <https://doi.org/10.3233/ip-211520>

Restauratiefonds. (n.d.). *Succesfactoren & aandachtspunten*. Herbestemming.nl. Retrieved September 14, 2023, from <https://www.herbestemming.nl/kennisdossiers/succesfactoren-aandachtspunten>

- Rezaei, N., Rasouli, M., & Azhdari, B. (2018). The attitude of the local community to the impact of building reuse: Three cases in an old neighborhood of Tehran. *Heritage and Society*, 11(2), 105–125. <https://doi.org/10.1080/2159032x.2019.1583805>
- RIBA. (2013). RIBA Plan of Work 2013. In https://www.ucl.ac.uk/estates/sites/estates/files/riba_plan_of_work_2013_-_overview.pdf.
- Rijksdienst voor Ondernemend Nederland. (2022). *Rapportage Expertteam Vastgoedtransformatie | 2022*. Retrieved April 5, 2023, from <https://www.rvo.nl/sites/default/files/2022-07/rapportage-transformatie-in-cijfers-heden-verleden-en-perspectief.pdf>
- Teunissen, P. (2017, March 12). *Gentrificatie in de stad: "Wie zeurt moet wegwezen."* Het parool.nl. Retrieved November 1, 2023, from <https://www.parool.nl/nieuws/gentrificatie-in-de-stad-wie-zeurt-moet-wegwezen~b4d2e858/>
- The Economist. (2023, September 14). The hard right is getting closer to power all over Europe. *The Economist*. <https://www.economist.com/briefing/2023/09/14/the-hard-right-is-getting-closer-to-power-all-over-europe>
- The Mayor. (2021). The New European Bauhaus – creating longevity for a new movement. *TheMayor.EU*. Retrieved August 15, 2023, from <https://www.themayor.eu/en/a/view/the-new-european-bauhaus-creating-longevity-for-a-new-movement-8861>
- Timmermans, R. (2022). Omgevingswet participatie: kansen voor burgerparticipatie! *Gemeentepeiler*. <https://www.gemeentepeiler.nl/omgevingswet-participatie/#:~:text=Volgens%20die%20nieuwe%20Omgevingswet%20worden,en%20dus%20voor%20omgevingswet%20participatie>
- Torring, J., Sørensen, E., & Røiseland, A. (2019). Transforming the Public Sector Into an Arena for Co-Creation: Barriers, Drivers, Benefits, and Ways Forward. *Administration & Society*, 51(5), 795–825. <https://doi.org/10.1177/0095399716680057>

- UNEP. (2022). 2022 Global status report for buildings and construction: Towards a Zero-emission, Efficient and Resilient Buildings and Construction Sector. In *Globalabc.org*. https://globalabc.org/sites/default/files/2023-03/2022%20Global%20Status%20Report%20for%20Buildings%20and%20Construction_1.pdf
- Van Eijkelenburg, K. (2008). *Transformatie van kantoren in multifunctionele gebieden: een studie vanuit het ontwikkelaarsperspectief* [Master thesis, Rijksuniversiteit Groningen]. <https://frw.studenttheses.ub.rug.nl/628/1/kvaneijkelenburg.pdf>
- Van Hout, J. (2021). *Successfully reusing heritage* [Master thesis]. Delft university of Technology.
- Van 't Grunewold, W. (2023, August 23). *De “stranded assets” van de Nederlandse kantorenmarkt*. <http://www.savills.nl>. Retrieved October 5, 2023, from <https://www.savills.nl/insight-and-opinion/savills-nieuws/350846-0/de--stranded-assets--van-de-nederlandse-kantorenmarkt>
- Verheul, W. J., Heurkens, E., & Hobma, F. (2023). *Nieuwe verhoudingen in omgevingsparticipatie: Participatie georganiseerd door private partijen*. Stedelijke Transformatie. Retrieved January 11, 2024, from https://stedelijketransformatie.nl/uploads/media_item/media_item/160/17/Essay_Participatie_door_private_partijen_2021-1626334799.pdf
- Wamelink, J. W. F., Geraedts, R. P., Hobma, F. a. M., Lousberg, L. H. M. J., & De Jong, P. (2009). *Inleiding Bouwmanagement*.
- Wamelink, J. W. F., & Van Bennekom, H. (2010). *Inleiding bouwmanagement*.
- Wilcox, D. (1994). *The Guide to Effective Participation*.
- Wilkinson, M. D., Dumontier, M., Aalbersberg, I. J., Appleton, G., Axton, M., Baak, A., Blomberg, N., Boiten, J., Da Silva Santos, L. O. B., Bourne, P. E., Bouwman, J., Brookes, A. J., Clark, T. W., Crosas, M., Dillo, I., Dumon, O., Edmunds, S., Evelo, C. T., Finkers, R., . . . Mons, B. (2016). The FAIR Guiding Principles for scientific data

management and stewardship. *Scientific Data*, 3(1).

<https://doi.org/10.1038/sdata.2016.18>

Wilkinson, S. J., Remøy, H., & Langston, C. (2014). *Sustainable Building Adaptation: Innovations in Decision-making*. John Wiley & Sons.

Wilkinson, S., & Remøy, H. (2017). Adaptive reuse of Sydney offices and sustainability. *Sustainable Buildings*, 2, 6. <https://doi.org/10.1051/sbuild/2017002>

Woudenberg. (2022, February 3). *Verplichte participatie ex artikel 16.55 lid 7 Omgevingswet*. Lokale Wet- En Regelgeving. <https://lokaleregelgeving.overheid.nl/CVDR672353/1>

Wright, Block, & Unger. (n.d.). *Levels of Participation*. pq-HIV. Retrieved May 11, 2023, from <https://www.pq-hiv.de/en/levels-participation>

Yung, E. H., & Chan, E. H. (2011). Problem issues of public participation in built-heritage conservation: Two controversial cases in Hong Kong. *Habitat International*, 35(3), 457–466. <https://doi.org/10.1016/j.habitatint.2010.12.004>

Yung, E. H., & Chan, E. H. (2012). Implementation challenges to the adaptive reuse of heritage buildings: Towards the goals of sustainable, low carbon cities. *Habitat International*, 36(3), 352–361. <https://doi.org/10.1016/j.habitatint.2011.11.001>

Zaman, Q. M. (2011). Adaptive Re-Use and Urban Regeneration in Dhaka - A theoretical exploration. *Open House International*, 36(2), 45–58. <https://doi.org/10.1108/ohi-02-2011-b0006>

Participants:

Algemeen:

Kunt u zichzelf even voorstellen?

1. Kunt u wat vertellen over uw rol bij [NAAM BEDRIJF/ORGANISATIE]
 - a. Wat was uw rol tijdens het project?
 - b. Wanneer bent u betrokken geraakt bij dit project?
 - c. Bent u nog steeds betrokken bij het project?
2. Heeft u eerdere ervaring met participatie?
3. Wat was de aanleiding om mee te doen aan een participatieproject?
4. Hoe bent u in aanraking gekomen met het project?

Participation Process

1. Kunt u mij vertellen hoe het hele proces is verlopen?
Zou u dit proces kunnen opdelen in fases?
2. Kunt u mij vertellen welk soort samenwerkingsmethoden werden gebruikt?
Hoe zag 1 zo'n workshop/meeting/andere interventie eruit?
Wat vond u fijn aan deze vorm van interactie?
Wat vond u minder fijn aan deze vorm van interactie?
3. Hoe is de samenwerking verlopen in dit participatie proces?
Wat waren de aspecten aan de samenwerking die u fijn vond?
Wat waren aspecten die u minder fijn vond?
4. Op welke gebieden heeft u inspraak gehad?
Welke van deze gebieden vond u het belangrijkste, en waarom?
Welke van deze gebieden vond u het minst belangrijk, en waarom?
Zou u de inspraak kunnen rangschikken van meest relevant naar meest irrelevant?

Goals

1. Bent u tevreden over de uitkomsten, en waarom?
2. Zijn er gebieden waar u inspraak in gehad zou willen hebben, die niet aan de orde zijn gekomen?
3. Wat zou u in de toekomst aanpassen aan het proces?
4. Wat hoopte u te bereiken door mee te doen aan de participatie?
Heeft u uw doel behaald?
Waarom wel/niet?

Initiators:

Algemeen

1. Kunt u wat vertellen over uw rol bij [NAAM BEDRIJF/ORGANISATIE]
 - a. Wat was uw rol tijdens het project?
 - b. Wanneer bent u betrokken geraakt bij dit project?
 - c. Bent u nog steeds betrokken bij het project sinds de oplevering?
2. Heeft u eerdere ervaring met participatie?
3. Wat was de aanleiding om mee te doen aan een participatieproject
4. Hoe bent u in aanraking gekomen met het project?

Participation Process

1. Kunt u vertellen hoe het hele proces is verlopen?
 - a. Zou u dit proces kunnen opdelen in fases?
2. Kunt u mij vertellen welk soort samenwerkingsmethoden werden gebruikt?
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 - b. Wat vond u fijn aan deze vorm van interactie?
 - c. Wat vond u minder fijn aan deze vorm van interactie?
3. Hoe is de samenwerking verlopen in dit participatie proces?
 - a. Wat waren de aspecten aan de samenwerking die u fijn vond?
 - b. Wat waren aspecten die u minder fijn vond?
4. Op welke gebieden heeft u inspraak gehad?
 - a. Welke van deze gebieden vond u het minst belangrijk, en waarom?
 - b. Zou u de inspraak kunnen rangschikken van meest relevant naar meest irrelevant?

Goals

1. Bent u tevreden over de uitkomsten, en waarom?
2. Zijn er gebieden waar u inspraak in gehad zou willen hebben, die niet aan de orde zijn gekomen?
 3. Wat zou u in de toekomst aanpassen aan het proces?
 4. Wat hoopte u te bereiken door mee te doen aan de participatie?
 - a. Heeft u uw doel behaald?
 - b. Waarom wel/niet?
5. Denkt u dat participatie iets toevoegt in uw werk?

Regulators

Algemeen

1. Kunt u wat vertellen over uw rol bij [NAAM BEDRIJF/ORGANISATIE]
 - a. Wat was uw rol tijdens het project?
 - b. Wanneer bent u betrokken geraakt bij dit project?
 - c. Bent u nog steeds betrokken bij het project sinds de oplevering?
2. Heeft u eerdere ervaring met participatie?
3. Wat was de aanleiding om mee te doen aan een participatieproject?
4. Hoe bent u in aanraking gekomen met het project?

Participation Process

1. Kunt u vertellen hoe het hele proces is verlopen?
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 - b. Zou u de inspraak kunnen rangschikken van meest relevant naar meest irrelevant?

Goals

1. Bent u tevreden over de uitkomsten, en waarom?
2. Zijn er gebieden waar u inspraak in gehad zou willen hebben, die niet aan de orde zijn gekomen?
3. Wat zou u in de toekomst aanpassen aan het proces?
4. Wat hoopte u te bereiken door mee te doen aan de participatie?
 - a. Heeft u uw doel behaald?
 - b. Waarom wel/niet?
5. Denkt u dat participatie iets toevoegt in uw werk?

Producers

Algemeen

1. Kunt u wat vertellen over uw rol bij [NAAM BEDRIJF/ORGANISATIE]
 - a. Wat was uw rol tijdens het project?
 - b. Wanneer bent u betrokken geraakt bij dit project?
 - c. Bent u nog steeds betrokken bij het project sinds de oplevering?
2. Heeft u eerdere ervaring met participatie?
3. Wat was de aanleiding om mee te doen aan een participatieproject?
4. Hoe bent u in aanraking gekomen met het project?

Participation Process

1. Kunt u vertellen hoe het hele proces is verlopen?
 - a. Zou u dit proces kunnen opdelen in fases?
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 - a. Hoe zag 1 zo'n workshop/meeting/andere interventie eruit?
 - b. Wat vond u fijn aan deze vorm van interactie?
 - c. Wat vond u minder fijn aan deze vorm van interactie?
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 - b. Zou u de inspraak kunnen rangschikken van meest relevant naar meest irrelevant?

Goals

1. Bent u tevreden over de uitkomsten, en waarom?
2. Zijn er gebieden waar u inspraak in gehad zou willen hebben, die niet aan de orde zijn gekomen?
3. Wat zou u in de toekomst aanpassen aan het proces?
4. Wat hoopte u te bereiken door mee te doen aan de participatie?
 - a. Heeft u uw doel behaald?
 - b. Waarom wel/niet?
5. Denkt u dat participatie iets toevoegt in uw werk?

Plan Overview

A Data Management Plan created using DMPonline

Title: Participation implementation: a research into the barriers of implementing participation practices in adaptive reuse projects

Creator: Danielle van Wijk

Affiliation: Delft University of Technology

Template: TU Delft Data Management Plan template (2021)

Project abstract:

Adaptive reuse is implemented more and more, as it is a more sustainable way to extend the life cycle of an existing building when it outgrows its original function compared to demolition and new build. Not only is it more sustainable, cultural values will be able to be preserved through adaptive reuse and is seen as an essential component of sustainable building. However, the eventual effect these adaptive reuse have on the local community can be negative towards local communities. By touristification and gentrification of the area, local communities will be displaced and lose their sense of belonging in their neighbourhoods. This research aims to identify the barriers that will be solved by implementing participation in adaptive reuse projects.

ID: 137698

Start date: 01-02-2023

End date: 19-01-2024

Last modified: 20-11-2023

Participation implementation: a research into the barriers of implementing participation practices in adaptive reuse projects

0. Administrative questions

1. Name of data management support staff consulted during the preparation of this plan.

Diana Popa

2. Date of consultation with support staff.

I. Data description and collection or re-use of existing data

3. Provide a general description of the type of data you will be working with, including any re-used data:

Type of data	File format(s)	How will data be collected (for re-used data: source and terms of use)?	Purpose of processing	Storage location	Who will have access to the data
Audio and video recordings	.mp4 files generated through teams	Interviews	In order to transcribe interviews. Video will only be used when meeting takes place online	Designated project drive in organisation's server	Main researcher and supervisors
Anonymised Interview transcripts	.docx files, derived from aforementioned .mp4 files	Gathered from interviews		Designated project drive in organisation's server, personal drive	Main researcher and supervisors
Signed consent forms	.pdf	Gathered from interviews	Control the consent of interviewees	Designated project drive in organisation's server	Main researcher and supervisors
PII data, employer, name, email job title	.csv	From company database	To contact people from the case projects	Designated project drive in organisation's server	Main researcher and supervisors
Project data	.pdf, .csv	Company's database server	Case study data	Designated project drive in organisation's server	Main researcher and supervisors

4. How much data storage will you require during the project lifetime?

- < 250 GB

II. Documentation and data quality

5. What documentation will accompany data?

- Data will be deposited in a data repository at the end of the project (see section V) and data discoverability and re-usability will be ensured by adhering to the repository's metadata standards
- Methodology of data collection

III. Storage and backup during research process

6. Where will the data (and code, if applicable) be stored and backed-up during the project lifetime?

- OneDrive

Data will be stored on drive provided by organisation. However, a copy of the interview transcripts will be on the personal drive of the main researcher for analysis.

IV. Legal and ethical requirements, codes of conduct

7. Does your research involve human subjects or 3rd party datasets collected from human participants?

- Yes

8A. Will you work with personal data? (information about an identified or identifiable natural person)

If you are not sure which option to select, first ask your [Faculty Data Steward](#) for advice. You can also check with the [privacy website](#) . If you would like to contact the privacy team: privacy-tud@tudelft.nl, please bring your DMP.

- Yes

8B. Will you work with any other types of confidential or classified data or code as listed below? (tick all that apply)

If you are not sure which option to select, ask your [Faculty Data Steward](#) for advice.

- Yes, confidential data received from commercial, or other external partners

9. How will ownership of the data and intellectual property rights to the data be managed?

For projects involving commercially-sensitive research or research involving third parties, seek advice of your [Faculty Contract Manager](#) when answering this question. If this is not the case, you can use the example below.

The intellectual property rights produced by the intern during this internship shall be vested to the internship host

10. Which personal data will you process? Tick all that apply

- Other types of personal data - please explain below
- Telephone numbers
- Signed consent forms

- Photographs, video materials, performance appraisals or student results
- Email addresses and/or other addresses for digital communication
- Names and addresses

Job role and description

11. Please list the categories of data subjects

Developers, architects, users and participation experts

12. Will you be sharing personal data with individuals/organisations outside of the EEA (European Economic Area)?

- No

15. What is the legal ground for personal data processing?

- Informed consent

16. Please describe the informed consent procedure you will follow:

All participants will be asked to sign a form before the interview

17. Where will you store the signed consent forms?

- Same storage solutions as explained in question 6

18. Does the processing of the personal data result in a high risk to the data subjects?

If the processing of the personal data results in a high risk to the data subjects, it is required to perform [Data Protection Impact Assessment \(DPIA\)](#). In order to determine if there is a high risk for the data subjects, please check if any of the options below that are applicable to the processing of the personal data during your research (check all that apply).

If two or more of the options listed below apply, you will have to [complete the DPIA](#). Please get in touch with the privacy team: privacy-tud@tudelft.nl to receive support with DPIA.

If only one of the options listed below applies, your project might need a DPIA. Please get in touch with the privacy team: privacy-tud@tudelft.nl to get advice as to whether DPIA is necessary.

If you have any additional comments, please add them in the box below.

- None of the above applies

22. What will happen with personal research data after the end of the research project?

- Personal research data will be destroyed after the end of the research project
- Anonymised or aggregated data will be shared with others

23. How long will (pseudonymised) personal data be stored for?

24. What is the purpose of sharing personal data?

25. Will your study participants be asked for their consent for data sharing?

- Yes, in consent form - please explain below what you will do with data from participants who did not consent to data sharing

Personal data will be deleted after processing

V. Data sharing and long-term preservation

27. Apart from personal data mentioned in question 22, will any other data be publicly shared?

- All other non-personal data (and code) produced in the project

29. How will you share research data (and code), including the one mentioned in question 22?

- My data will be shared in a different way - please explain below

30. How much of your data will be shared in a research data repository?

- < 100 GB

31. When will the data (or code) be shared?

- At the end of the research project

32. Under what licence will be the data/code released?

Question not answered.

VI. Data management responsibilities and resources

33. Is TU Delft the lead institution for this project?

- Yes, leading the collaboration - please provide details of the type of collaboration and the involved parties below

34. If you leave TU Delft (or are unavailable), who is going to be responsible for the data resulting from this project?

First mentor, Queena Qian

35. What resources (for example financial and time) will be dedicated to data management and ensuring that data will be FAIR (Findable, Accessible, Interoperable, Re-usable)?

Question not answered.

Domain	Barrier	Mentions	Reference	phase							Stakeholder						
				Initiative	Feasibility	Preparation	Execution	Use	Initiator	Producer	Regulator	User					
				Bullen, 2007 Golic et al., 2023 Pintossi et al., 2023 De Silva & Perrera, 2016 Yung and Chan, 2012													
				Bullen, 2007 Golic et al., 2023 Pintossi et al., 2023 De Silva & Perrera, 2016 Yung and Chan, 2012													
Social	Difficulty in establishing a sense of place and identity	1	Yung and Chan, 2012					1	1								
Social	Lack of or limited participation, low willingness to participate	1	Pintossi et al., 2023			1			1				1				
Social	Lack of or limited representation of certain groups	1	Pintossi et al., 2023			1											
Political	Lack of knowledge on social sustainability measures among legislators and regulators	1	Golic et al., 2023			1			1								
Political	Lack of inclusive and participatory urban planning and management	1	Golic et al., 2023			1											
Economic	Social measures can't be expressed in monetary values	1	Golic et al., 2023			1			1								
Legal	No clear rules/measurements on how to implement social sustainability in buildings	1	Golic et al., 2023			1			1								
Social	Difficulties in maintaining or generating a sense of place and identity	1	Yung and Chan, 2012					1									
Environmental	Possible chance of contamination of land	1	De Silva & Perrera, 2023					1					1				
Technological	Lack of accurate information on defects or dimensional and material inconsistencies and drawings of heritage buildings	1	De Silva & Perrera, 2023					1	1				1				
Legal	Letting project fit into the requirements of the building code and :	1	De Silva & Perrera, 2023					1	1								
Social	Too little community engagement in the building process	2	Pintossi et al., 2023; Yung and Chan, 2012			1		1									
Political	Support from government needed for developing socially sustainable urban areas	2	Golic et al., 2023; Yung and Chan, 2012			1		1									
Social	Hard to maintain lives of local community through new developments	2	De Silva & Perrera, 2023; Yung and Chan, 2012					1	1								
Management	Shortcoming of resources regarding, materials, skills and expertise	2	Pintossi et al., 2023; De Silva & Perrera, 2016			1		1		1							
Technical	Physical structure may not be adequate for adaptive reuse	2	Bullen, 2007; De Silva & Perrera, 2016			1		1									
Technical	Innovative installations needed in order to match performance of new building	2	Bullen, 2007; De Silva & Perrera, 2016			1		1		1							
Management	Not enough expertise in the process of adaptive reuse	2	Pintossi et al., 2023; De Silva & Perrera, 2016			1		1		1							
Environmental	On average less focus on sustainability for adaptive reuse projects	3	Bullen, 2007; De Silva & Perrera, 2016; Yung and Chan, 2012			1		1		1							
Economic	On average higher costs in adaptive reuse	3	Bullen, 2007; Pintossi et al., 2023; De Silva & Perrera, 2023			1		1		1							
Economic	Less return on adaptive reuse projects	4	Bullen, 2007; Golic et al., 2023; De Silva & Perrera, 2016; Yung and Chan, 2012			1		1		1							