

From urban experimentation to management transformation:

Applying urban living lab findings to challenge business-as-usual management practices

Management in the Built Environment, Delft University of Technology

Theme 5: Sustainable Transitions

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Preface

As human beings, we always have learned and will always keep learning new things. As an individual, this is no different. Learning can be done efficiently or inefficiently, fast or slow, for the long-term or short-term. But it is always something that you as an individual do. It can make it possible to bring you to a new state of being, change your way of behaving or thinking, and eventually bring you to a new level of being you. That is what fascinates me about learning and transforming.

I took that fascination with me when I started my master's program *Management in the Built Environment* at the Delft University of Technology. The built environment is about buildings, interactions, materials, space, and above all people. And how those people interact is the core of every design assessment.

My fondness for the built environment, people, and all the complexities in between come together in this master's research. The focus is on the people in organizations who work on the built environment in an experimental way to learn and be able to transform the things we do just because we do them this way. I like to look a step further.

A word of thanks must go to my mentors Aksel Ersoy and Paul Chan for co-creating and collaborating over the past year. Both of you shared that desire to take a step further, to look for something new and not take the usual for granted.

Additionally, I would like to thank my colleagues at Fakton Energy, and in special my supervisor and mentor Jorn Mieras, for giving me the support, trust, and space I needed to come to the state I am now.

And finally, a word of thanks to all participants in the interviews who contributed to arriving at valuable insights at both the detailed and strategic levels. I will take the beautiful, open, and honest conversations we had with me to the next challenges in life.

And remember,

Be the game changer.

Feike Jansen

Delft, June 2024

Abstract

Recently, there has been a concern about the lack of information transfer of knowledge we learn from experimental projects to practice making the transition to sustainable cities possible. Previous studies have focused on what we learn from experimental projects. However, we know little about how to implement the lessons learned in business-as-usual management practices to catalyze sustainable urban transitions in the construction sector. This research investigates how management practices can learn from experimental projects to transform business-as-usual. The research is conducted in three parts: 1) the theoretical research, covering a theoretic review of concepts related to the learning-to-transforming dynamics; 2) empirical research, covering three nested case studies on urban area developments via semi-structured interviews and 3) syntheses, bringing all findings together in an overarching strategy on how to transform business-as-usual in organizations. It can be concluded that management practices learn inner-organizationally where learning is the process that comes before transforming. Whether learning from experiments results in transforming current ways of working depends on the *learning intent* and the *capacity to change*. With a high capacity to change, the opportunity to learn and transform as an organization significantly increases.

Keywords – lessons learned, transform business-as-usual, organizational change, experimental projects, Urban Living Labs, sustainability transition, capacity to change

Abbreviations

BAU	Business-as-usual
BINCK	Binckhorst
HAV	Haven-Stad
IGP	Integraal Gebiedsplan
MPL	Multi-level perspective
M4H	Merwe-Vierhavens
ULL	Urban Living Lab(s)

Executive summary

Introduction

This study explores how to get from learning for experimental projects to transforming business-as-usual to contribute to sustainable urban transitions. Recently, there has been a concern about the lack of information transfer of knowledge we learn from experimental projects to practice making the transition to sustainable cities possible (Dąbrowski, Varjú, & Amenta, 2019; Ersoy & van Bueren, 2020). The need for innovative ideas to redevelop our urban environment is high. Changing the current situation requires a sustainable transition in a variety of disciplines within the urban context and our organizations (Ayala & Alberton, 2020). But how do we implement this?

Previous studies have focused on what we learn in experimental projects (Stam, van Ewijk, & Chan, 2023). However, we know little about how to implement the lessons learned in business-as-usual management practices to catalyze sustainable urban transitions in the construction sector (Stam et al., 2023). There is a lack of knowledge on how focal actors should change their steering in projects and organizations to push toward a sustainable outcome in practice. This is needed to meet the sustainability goals. Therefore, the main research question is: *“How can management practices learn from experimental projects to transform business-as-usual to stimulate sustainable urban transitions?”*

Theoretical background

Figure 1 visualizes the relationship between the main concepts *learning from experimental projects* and *transforming business-as-usual*. To make sure the lessons learned from experimental projects can make the change in the cities we need, this research focuses on how we can implement these lessons learned to transform how we manage our projects focusing on the niche-regime interactions.

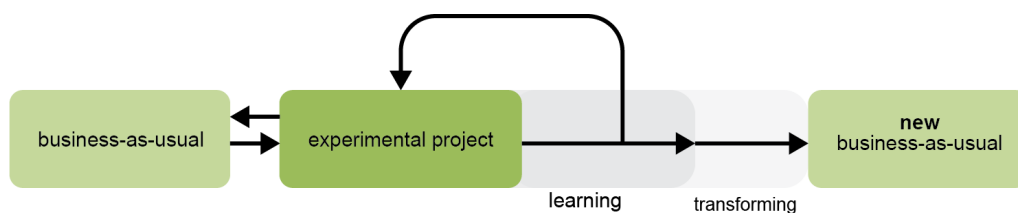


Figure 1. Conceptual model. (Author)

The research utilizes theoretical research definitions to set the outlines of the concepts studied, starting with an experimental project in the urban environment. For this research, an experimental project is an open innovation ecosystem designed as a forum for innovation. It integrates people as users and co-creators throughout the development process, employing methods to explore, experiment, and test new products, systems, services, and processes in real-life urban communities. The project should aim to integrate research and innovation processes to design, evaluate, and implement creative solutions that deliver transformative improvements across various urban domains, fostering change in sociotechnical and socioecological systems.

The term business-as-usual refers to the normal way of working, how people do work now, and forms the counterpart of the experimental project. Business-as-usual will be used to define a process, not a project.

Learning is seen as the starting point of the transition to transforming business-as-usual. The term learning refers to the process of gaining new knowledge through (social) network interaction paying attention to the different learning loops and types of learning.

From learning one gets to lessons learned. Lessons are defined as learned when a lesson has changed something. These lessons learned can be used to translate findings that are tested in an experimental project to a different scale or transform business-as-usual. This will be used as a starting point for transformation.

Transformation within this research is defined as a process to improve performance. Creating a behavioral change is key to transforming a process. It is important to be aware of the difficult and long-term process requiring persistent effort to make this change possible.

Research method

This study method focuses on a qualitative approach including theoretical and empirical research. The emphasis is on learning from previous studies and adding knowledge by exploring three nested case studies in the urban context. The findings come together in the cross-case analyses, where the results are presented before forming a conclusion. The methods used are shown in the research design summary in Figure 2.

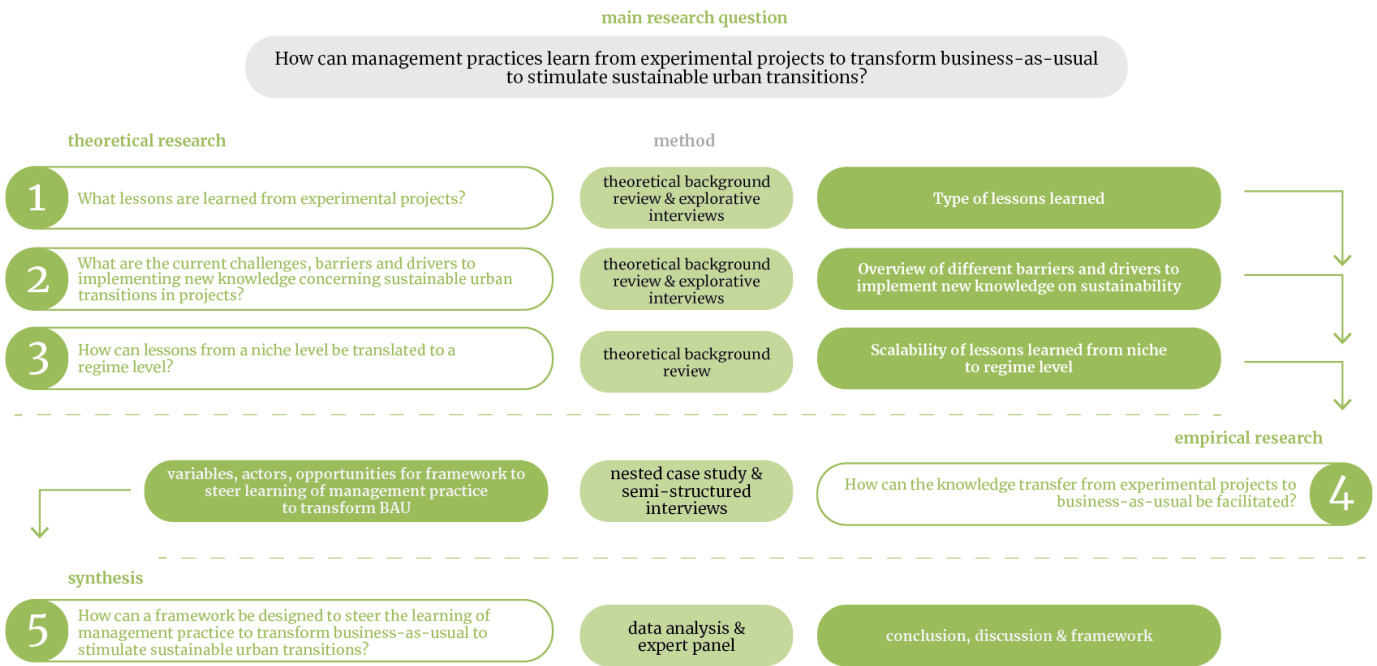


Figure 2. Research design. (Author)

The practical execution of the research involves exploring the three case studies. Here the theoretical knowledge is laid side by side with practice. A nested case study is conducted in three area developments with different compositions within one area development. Each case is part of/includes: a sustainable urban transition, an urban area development, business-as-usual way of working, an experimental instrument, and a parent organization. The selected case areas are Haven-Stad in Amsterdam, Merwe-Vierhavens in Rotterdam, and Binckhorst in Den Haag. Different focal actors from each case are asked about their experience with certain aspects of learning in the area developments and how this influenced or changed their way of working.

Results

The results of the interviews are clustered into two sections related to learning and transforming. The key takeaways of all three cases give an insight into how learning and transforming are reflected within the various area developments by the participants. Using the theory, the actions mentioned by the participants were translated into overarching themes to compare them with the other cases, see Figure 3.

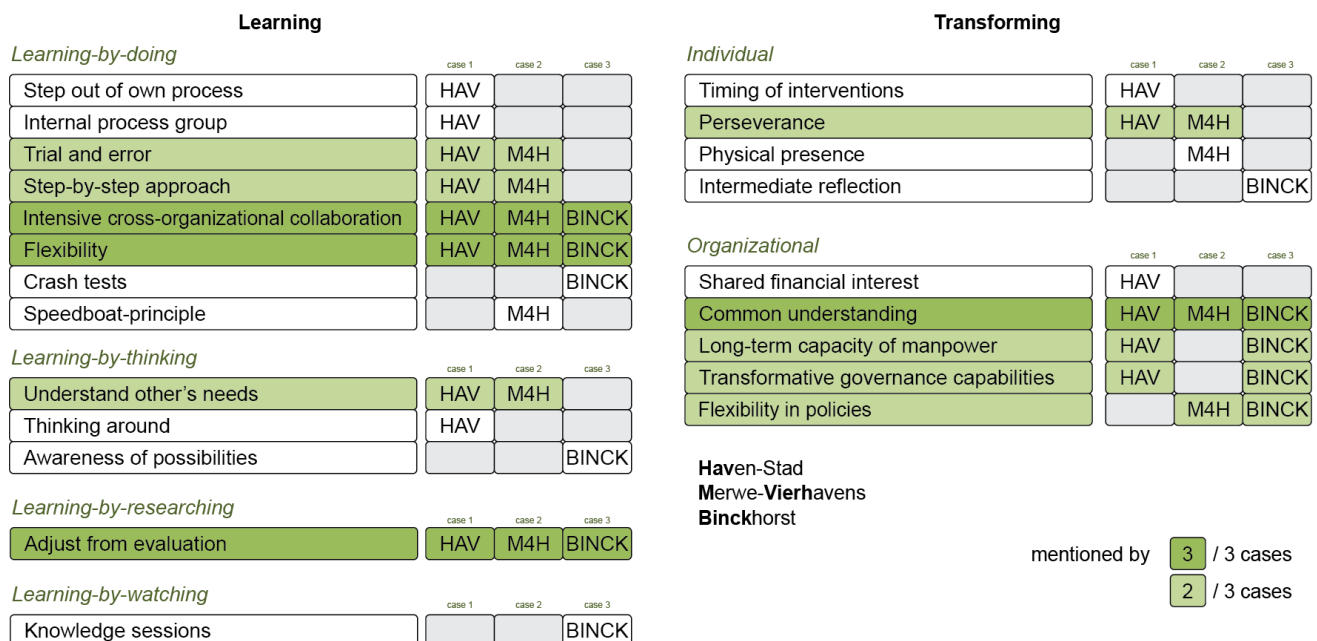


Figure 3. Key take-aways comparison of Haven-Stad, Merwe-Vierhavens and Binckhorst (Author).

Two inseparable factors emerge from the cross-case analysis: *learning intent* and the *capacity to change*. These factors are inextricably linked in four ways, see Figure 4.

Learning intent is divided into *problem-oriented* and *solution-oriented* learning, referring to the extent to which an individual or an organization intends to learn. Solution-oriented means one is focused on coming to the solution of an assignment, challenge, or task. Problem-oriented means that one is focused on solving the core problem of an assignment, challenge, or task. It is not about the solution but how to solve the core of the problem.

The capacity to change is divided into a *low* or *high* capacity. With low capacity, there is little room for change while high capacity refers to much room for change.

The boxes within the diagram show what type of learning is possible with the combination of the different factors. Findings from the interviews are linked to the four learning boxes, see Appendix 5.

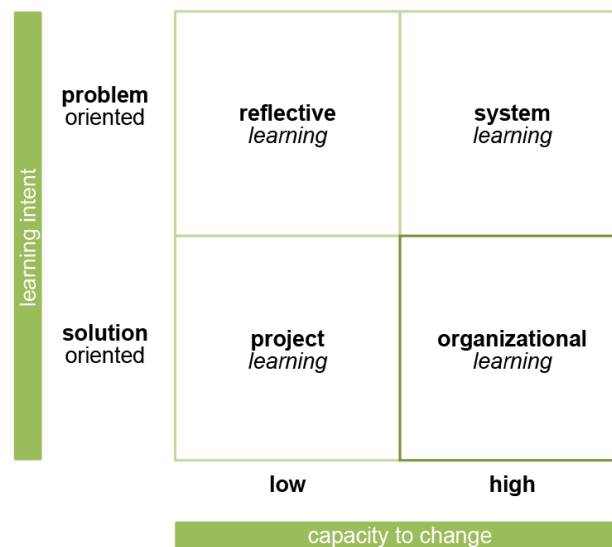


Figure 4. Learning intent vs. Capacity to change; focused on transforming business-as-usual. (Author).

Project learning refers to the engagement in an extended project to explore and apply knowledge and skills to foster a deeper understanding and practical application.

This way of learning is frequently reflected in the retrieved data. Participants highlighted how they learned of a specific occasion and emphasized certain moments in time when they gained knowledge about a framed piece of the overall task.

Reflective learning refers to the practice of self-evaluation to gain insights and improve future actions. Central is learning about why things happen in a certain way by evaluating situations.

Participants mentioned examples of reflective learning. Some more clearly and consciously than others. This often involves reflection on the actions of others or the organization, rather than one's own ability. Reflection is often about processes of collaboration, manner of leadership, and interpretation. The learning takes place when participants become aware of their own reflective capacity.

Organizational learning refers to the process by which organizations acquire, create, and transfer knowledge to adapt, innovate, and improve performance through shared experiences, collaboration, and a culture of continuous learning and development.

This learning type is questioned the most in this research and therefore substantiated by most of the data from the interviews with participants. Participants provided tools for learning in organizations based on their own experiences. The focus is on how things should be to change a way of working inner-organizationally. Examples verify from changing internal processes to practical problems to implement working methods with a focus on change from top-down.

System learning is about understanding the interconnectedness and dynamics of complex systems, emphasizing the relationships and interactions between components to identify patterns and leverage feedback for continuous improvement.

Since this learning box is about the interconnectedness of systems, it has been hard to discuss the related factors with individuals who were focused on projects and organizations. Some participants were able to touch this field by zooming out to the higher level above organizations. Here only the problem was cited but not the solution direction given. System learning thus requires a deeper dive to make practical implementation recommendations. Nevertheless, its existence and importance have been demonstrated.

The diagram shows that changing business-as-usual only occurs with a high capacity to change. This follows from the participant statements but also resonates with the literature.

In the process of distilling actions from experiences participants had, the theory confirmed that learning, and with that the learning intent, is the step before transforming. With the knowledge and lessons learned during the learning process, applying transformative actions with a high capacity to change can make the step toward a new way of working and cause transformation.

To facilitate the transfer of knowledge from an experimental environment to business-as-usual, the concepts of learning and transforming should be applied considering the playing field of the relevant urban and organizational context. The proposed transformation strategy is elaborated in the recommendations section.

Conclusion

It can be concluded that management practices learn inner-organizationally when it comes to working on area development. Within the organization, learning is stimulated by exploring experimental environments. Learning is the process that comes before transforming. From learning, transformation of current ways of working, business-as-usual, can occur, but this is not always true.

Whether learning from experiments results in transforming current ways of working depends on the *learning intent* and the *capacity to change*, see Figure 5. With a high capacity to change, the opportunity to learn and transform as an organization significantly increases. But to come to a transformed state, multiple phases, and with that learning boxes from the figure, must be passed.

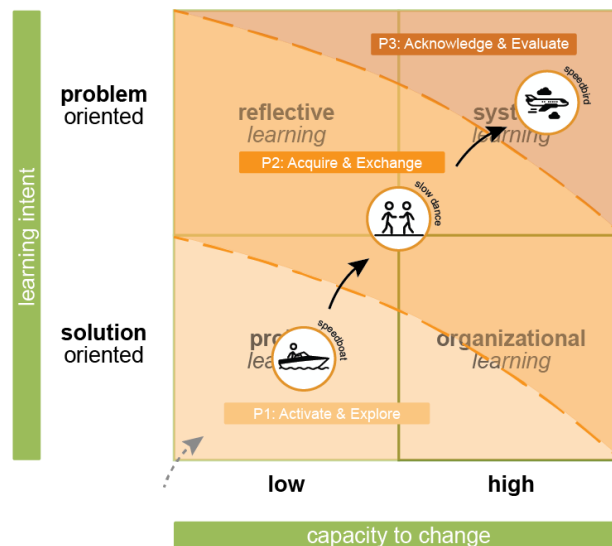


Figure 5. Learning intent vs. Capacity to change; focused on transforming business-as-usual (BAU). (Author).

Learning and transforming are non-linear processes that can be stimulated by undertaking certain actions in and outside one's organization and area development processes. Here, too, the capacity to change plays a major role. The actions organizations and individuals can take are compiled into the transformation strategy elaborated in this study.

All in all can be stated that when the process of inner-organizational learning and transformation of business-as-usual has occurred, a new state of business-as-usual has arrived. This gives space to work on the challenges of today, but maybe not even from tomorrow. The keynote is to keep activating, exploring, acquiring, exchanging, acknowledging, and evaluating to continue underlying innovation. The lessons learned from experimental projects remain key to transformative ways of working. Create space for the repeated process, only then the new business-as-usual will remain new.

Recommendations

Learning and transforming remain concepts that are hard to grasp. To implement the research findings in practice and continue working on these topics, the transformation strategy and recommendations for further research are set forth.

For practice

The transformation strategy focuses on the inner-organizational learning and transformation process to adapt to the never-ending demand for innovation. This transformation strategy helps organizations to activate their learning process and transform their way of working towards a new business-as-usual. The full strategy with actions is explained in §5.3.

The strategy starts at the base state *business-as-usual*, see Figure 6. From this state, the strategy presents three phases to come towards transformation, the state *new business-as-usual*. The first phase 'Activate & Explore' focuses on breaking loose from the stabilized organization through urban experimentation. This is done by a focal actor leading the way, supported by management for capacity. The second phase 'Acquire & Exchange' involves acquiring knowledge from the experiments, sharing it within the organization, and implementing lessons learned in the business-as-usual way of working, where management support is crucial for success. Finally, the third phase 'Acknowledge & Evaluate' focuses on employees collectively becoming focal actors of the transformed way of working, emphasizing continuous learning, evaluation, and communication from top leadership toward organizational acknowledgment and sustained transformation. Together this can result in the state transformation towards a new business-as-usual.

It is important to acknowledge that learning and transforming are not linear processes. This can be taken advantage of within an organization by exploring and learning in different directions.

For further research

To continue researching this topic, the following directions can be explored:

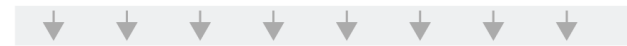
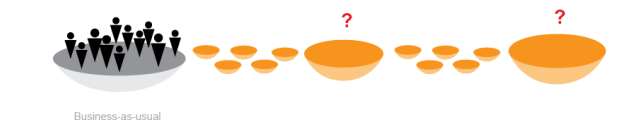
Implementation in different contexts - This research focused on organizations related to the built environment. The results suggest that the lessons on learning intent and the capacity to change are applicable in any organization regardless of context. This has not been proven with this research. Research within organizations in different contexts is needed to substantiate this.

Effectiveness on the long-term - It can be interesting to explore the long-term sustainability and effectiveness of the urban experimentation approach in driving organizational transformation. This study is based on findings from one moment in time with outcomes from some area developments that are not in practical development yet. Looking at the long-term effectiveness of the implementation of the strategy and the differences between the findings from these developments compared to others can be valuable.

Influence of external stakeholders - Exploring the influence of external stakeholders in the transformation process can be an interesting addition to the findings on business-as-usual transformation. Since this research focuses on inner-organizational learning, the scope can be broadened to a wider playing field with more diverse stakeholders. In this way, the connection is also sought with the larger system.

System learning - This research focused on inner-organizational change. Here the emphasis was on organizational learning. To broaden this field and look at the bigger picture, research needs to be done on system learning. System learning zooms out beyond organizational learning and looks at how human systems are set up and how they can be changed. This is very relevant to the larger issues of innovation.

State: **Business-as-usual**



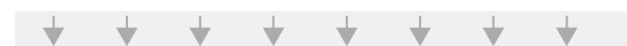
Phase 1: **Activate & Explore**



Phase 2: **Acquire & Exchange**



Phase 3: **Acknowledge & Evaluate**



State: **New business-as-usual**

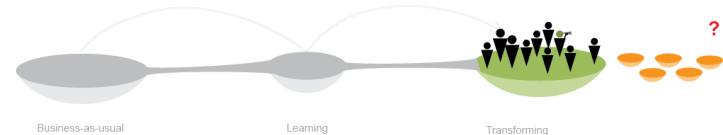


Figure 6. Transformation strategy: three phases (Author).

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1 Introduction

In the past decades, technological innovation changed the modern world at an exponentially growing pace adding more and more new systems to all areas of human activity (Hekkert, Suurs, Negro, Kuhlmann, & Smits, 2007; Rip & Kemp, 1998; Tidd & Bessant, 2020). There has been a much more significant change in innovation than was possible with earlier generations of tools. It influences the innovation work itself, changing work content, cooperation patterns, decision authority, organizational set-ups, governance structures, firm boundaries, and even entire ecosystems (Marion & Fixson, 2021).

Innovations come forward from try-outs experimenting on a small scale to know if these potential changes are applicable to be implemented. Transformative innovations are described as translocal, referring to locally rooted experimentation and globally connected output (Loorbach, Wittmayer, Avelino, von Wirth, & Frantzeskaki, 2020). When looking at the built environment, experimenting in the urban context is rather complex (Fuenfschilling, Frantzeskaki, & Coenen, 2019). Catalyzing change in the real estate sector turns out to be hard due to the long lead times while working on a scale that is way larger than the human dimension (van Bueren, 2020).

Our cities are not directly sensitive to daily innovation flows and are dependent on long-term processes (Kandt & Batty, 2021). Simultaneously, cities must change their business-as-usual to meet the sustainability goals to prevent further climate change. Cities contribute due to their high energy consumption (equal to about two-thirds of the global energy demand), CO₂ emissions (ca. 70%), and on top of that population growth (according to predictions, 58% of people will live in cities by 2070) (Fuenfschilling et al., 2019; IEA, 2022; United Nations Department of Economic and Social Affairs, 2022). Experimentation is a proven method to start such change (Von Wirth, Fuenfschilling, Frantzeskaki, & Coenen, 2019). An example of this is the growth in the number of Urban Living Labs (ULL), urban sites created for designing, testing, and learning of social and technical innovation in real-time (Marvin, Bulkeley, Mai, McCormick, & Palgan, 2018), as experimental spaces in cities (Fuenfschilling et al., 2019).

Experimental pilots such as ULLs have shown us for example how to make a specific building project more sustainable and adaptive. However, every project in the urban context is unique (Von Wirth et al., 2019). This makes the implementation of standardized lessons learned even more complex due to the differentiation of the projects and the wide variety of actors involved (Ersoy & van Bueren, 2020). This prompts the immediate question of whether and how we can implement the lessons learned from this urban experimentation to seek change.

1.1 Problem statement

Recently, there has been a concern about the lack of information transfer of knowledge we learn from experimental projects to practice making the transition to sustainable cities possible (Dąbrowski et al., 2019; Ersoy & van Bueren, 2020). The need for innovative ideas to redevelop our urban environment is high. Changing the current situation requires a sustainable transition in a variety of disciplines within the urban context and our organizations (Ayala & Alberton, 2020). But how do we implement this?

Previous studies have focused on what we learn in experimental projects (Stam et al., 2023). Many studies analyzed learning in the context of a pilot project, living lab, or innovation initiative while these settings are defined as niches (Kemp, Schot, & Hoogma, 1998). The learning itself has been suggested as a crucial component in transforming societal systems in a sustainable way (Stam et al., 2023).

However, we know little about how to implement the lessons learned in business-as-usual management practices to catalyze sustainable urban transitions in the construction sector (Stam et al., 2023). There is a lack of knowledge on how focal actors should change their steering in projects and organizations to push toward a sustainable outcome in practice. This is needed to meet the sustainability goals.

1.2 Scientific relevance

In recent years, innovative initiatives to reach sustainability goals popped out of the ground in different fields (Sengers, Wieczorek, & Raven, 2019). Especially in the built environment, experimenting with new solutions to create more sustainable cities is a hot topic. The findings of these pilots are there but the implementation in practice leaves much to be desired. There is almost no research on how to implement the findings to change business-as-usual from a management perspective, specifically to enable a cultural change within an organization. Therefore, this research aims to fill the knowledge gap by finding out how lessons learned from experimental projects can be implemented in practice to stimulate sustainable urban transitions.

1.3 Societal relevance

General awareness of the climate crisis has been raised among citizens in the past years (Calculli, D'Uggento, Labarile, & Ribeco, 2021). The demand is there for new solutions on how to adapt our daily lives for a sustainable future. The question is how do we implement new ideas in practice? Filling the knowledge gap on how to implement things we learn by focusing on the niche-regime interaction gives us the opportunity to take the next steps in creating more sustainable cities. The core of this issue is multi-deployable across different disciplines to continue working on the common goal of preventing global warming while living our daily lives.

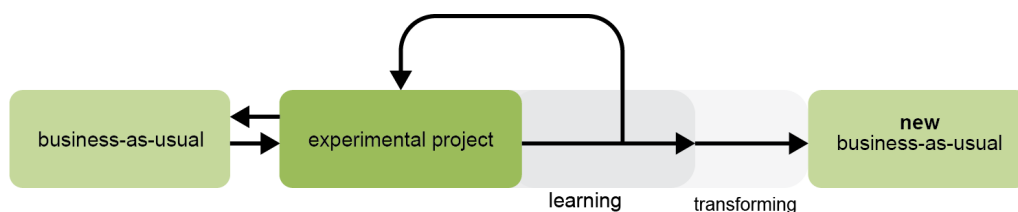


Figure 7. Conceptual model. (Author)

1.4 Research questions

To make sure the lessons learned from experimental projects can make the change in the cities we need, this research focuses on how we can implement these lessons learned to transform how we manage our projects focusing on the niche-regime interactions. This research gap translates into the main research question and associated sub-questions. The conceptual model in Figure 7 visualizes the relationship between the main concepts of the problem statement.

1.4.1 Main research question

Based on the problem statement, the following research question is formulated:

How can management practices learn from experimental projects to transform business-as-usual to stimulate sustainable urban transitions?

The main concepts in this research are ‘learning from experimental projects’ and ‘transforming business-as-usual’. The context of research is sustainable urban transitions, and the empirical context is Urban Living Labs. These subjects are elaborated on in chapter 2.

1.4.2 Research sub-questions

To answer the main research question, five sub-questions are set up to investigate the answer to the main question.

- 1) What lessons are learned from experimental projects?
- 2) What are the current challenges, barriers, and drivers to implementing new knowledge concerning sustainable urban transitions in projects?
- 3) How can lessons from a niche level be translated to a regime level?
- 4) How can the knowledge transfer from experimental projects to business-as-usual be facilitated?
- 5) How can a framework be designed to steer the learning of management practice to transform business-as-usual to stimulate sustainable urban transitions?

1.4.3 Relationship between the sub-questions

To find answers to the main research question, the sub-questions must be structured in a way that guides the research step by step toward the main goal. The interdependent relationship between these sub-questions is shown in Figure 8.

1.5 Goals and Objectives

In the past years, there has been a concern about the lack of information transfer of knowledge we learn from experimental projects to practice making the transition to sustainable cities possible (Dąbrowski et al., 2019; Ersoy & van Bueren, 2020). The need for innovative ideas to redevelop our urban environment is high which asks for a change in the current organizational culture to stimulate the sustainable urban transition in a variety of disciplines within the urban context (Ayala & Alberton, 2020). This research aims to find out how management practices can learn from experimental projects to stimulate sustainable urban transitions. The main objective of this research: “This thesis aims to explore how management practice can learn from experimental projects to transform business-as-usual to stimulate sustainable urban transitions.”



Figure 8. Relationship between sub-questions. (Author)

1.6 Contribution and audiences

This study is mainly intended for focal actors and organizations working on urban projects who foster a change in their way of working. The research provides a practical strategy to steer their role in transforming their business-as-usual to stimulate sustainable urban transitions. In other words, guidelines to transform the usual ways of working into management practices focused on more advanced sustainable outcomes, implementations, or processes.

The strategy steps in the academic gap where practical implementations of frameworks on how to transform inner-organizational business-as-usual barely exist when focusing on the urban context. This research will contribute to learning within the sustainable urban transitions to adapt our built environment to the demands of the future.

1.7 Personal study targets

In recent years, I have met the management profession in various ways: managing different committees as chairwoman, participating in a student board, guiding research meetings, and working as a project consultant and manager. This aroused my interest in this field and resulted in a curiosity about the theory behind it. How do people work and learn, and how do you get people from A to B? In addition, there is a personal interest in sustainability. How do you give people or an organization an incentive to want sustainable solutions and be willing to change their natural behavior or working culture? This forms the basis of this master thesis. With this research, I hope to achieve a deeper understanding of how these principles work in research and practice and be able to take these findings with me in my professional life.

1.8 Thesis outline

This thesis report is divided into six main chapters. The outline of the thesis is explained per chapter in Figure 9.

Chapter	Main content
1 Introduction	Introduction to the topic's context, problem statement, objectives, relevance, and research questions
2 Theoretical background	Background information based on previous academic research to conceptualize the topics learning from experimental projects and transforming business-as-usual, and all related concepts and contexts importantly mentioned or relevant in the research questions.
3 Research method	Methodological framework and description of the data collection methods used. The nested case-study approach is used to research three different area developments with an experimental element.
4 Empirical research	The explanation of the data analysis methods and results arising from the interviews and other analysis following from conducting the nested case-study method.
5 Synthesis	The synthesis chapter focused on validating the findings from the empirical research with an expert panel. The designed strategy as an answer to the main research question will be elaborated.
6 Discussion, conclusion, and reflection	Description of this research's contribution and its limitations. In the conclusion, the main research question will be answered by synthesizing the theory and findings from the empirical studies. Recommendations for practice and further research will be done before closing with the reflection on the whole process.

Figure 9. Thesis outline. (Author).

2 Theoretical background

This chapter dives into the relevant theories concerning the main question. The theoretical background will be explored about the two main concepts *learning from experimental projects* and *transforming business-as-usual*. Related relevant terms will be discussed which will form the red thread to examine different sides of the research problem and define the boundaries of interpretation.

2.1 Context

To fully understand the research problem, it is important to describe in which context the problem occurs (Bryman, Stephens, & a Campo, 1996). The goal of clarifying the following terms is to set the boundaries in which the research will be conducted.

2.1.1 Sustainable urban transition: a multi-dimensional transformation process that changes established systems

The umbrella term sustainability, and by extension sustainable transition, is nowadays applied in every desirable environment. With its application, it is important to define exactly what is meant in that particular context. Within this research, a transition is referred to as a set of processes that lead to a fundamental shift in a system or various systems (Kemp et al., 1998). Systems in this manner refer to sectors like energy supply, water supply, transportation, or real estate provision (Geels, 2006; Markard, Raven, & Truffer, 2012). In this study, we speak about urban transitions, referring to systems related to the urban context.

Wide-ranging changes occur during a transition along different dimensions, including material, organizational, institutional, technological, political, economic, and sociocultural. Transitions usually take place over extended periods of time (e.g., 50 years and more), involving a wide variety of actors. New organizations, business models, services, and products appear during such a shift, partially replacing and partially complementing the ones that already exist (Markard et al., 2012; Stam et al., 2023).

A sustainable urban transition is a long-term, multi-dimensional, and fundamental transformation process that changes established systems to more environmentally friendly production and consumption patterns in the urban context (Markard et al., 2012). A unique feature of sustainable urban transitions is the frequently specific role that advice and governance play (Smith, Stirling, & Berkhout, 2005). Long-term objectives, for example, may influence the transition's direction. A sustainable urban transition is a deliberate and planned transition. A wide range of actors are expected to cooperate in a well-organized manner. Political actors, institutional and regulatory support, and other factors are likely to be important in a guided transition. Additionally, it is important to mention that what is considered sustainable is ambiguous and could evolve over time (Garud, Gehman, & Karnøe, 2010; Markard et al., 2012).

In summary, this research considers a process part of a sustainable urban transition if there is a long-term, multi-dimensional, and fundamental transformation process that changes established systems, which are related to the urban context, to more environmentally friendly production and consumption patterns.

2.1.2 Urban area development: Adapting locations for socio-economic and spatial integration

In the past century, our built environment has become increasingly complex with the advent of new technologies. This makes experimenting and renewing the urban context rather complex (Fuenfschilling et al., 2019). To make these developments and innovations in the built environment manageable, one can speak of developments on an area scale. *Urban area development* has many definitions which allows one to model the concept according to their ideas (Zeeuw, 2018). With this research, the definition of Erwin Heurkens will be used: “*Urban area development is the process of physical adaptation of a specific location to socio-economic and spatial needs, by different parties using different tools and activities to realize an integrally-functioning area.*” (Heijer, Voordt, & Heurkens, 2013).

Within an area development, process, and content are inextricably intertwined. This involves the following components (Zeeuw, 2018):

- Graphic delimitation;
- Multiple functions, including public space;
- Stimulus for change prompted by market demand, social interest, or private interest (or a combination);
- Process approach, programming, and planning to realize the changes in the real estate (land and/or buildings);
- Public or private parties who take the initiative for this and know how to organize investment capacity;

These five components form the basis for the case-selecting criteria elaborated in §3.3.

2.1.3 Experimental project: Open innovation ecosystem to test transformative urban improvements

Innovations arise from try-outs experimenting on a small scale to test if new ideas have the potential to lead to desired changes. This can be referred to as an experimental project. Sengers et al. (2019) defined an experiment as “*an inclusive, practice-based, and challenge-led initiative designed to promote system innovation through social learning under conditions of uncertainty and ambiguity*”.

When experimenting on a project basis within the urban environment, it is often mentioned as Urban Living Labs (ULLs) or Urban laboratories. ULLs are defined as “*a forum for innovation, applied to the development of new products, systems, services, and processes, employing working methods to integrate people into the entire development process as users and co-creators, to explore, examine, experiment, test and evaluate new ideas, scenarios, processes, systems, concepts and creative solutions in complex and real contexts.*” in Ersoy and van Bueren (2020). A ULL aims to overcome barriers to implementing new ways of working. Karvonen and Van Heur (2014) and Bulkeley et al. (2019) state that the key achievements of urban laboratories are situatedness, change orientation, and contingency. They add that urban laboratories are not only for testing solutions but also for learning from outcomes. These key indicators are also retained in this research concerning an experimental project.

In Florez Ayala, Alberton, and Ersoy (2022), ULLs are defined “*as a user-centered open innovation ecosystem based on a systematic user co-creation approach, integrating research and innovation processes in real-life communities and settings.*” Von Wirth et al. (2019) add that “*ULLs represent*

sites in cities that allow stakeholders to design, test, and learn from sociotechnical innovations in real-time. Urban living labs seek to deliver innovative and transformative improvements across the urban environment, from buildings to green spaces, transport to energy systems, and local food to sustainable forms of consumption. They work within and across the urban sociotechnical and socioecological system to mobilize change."

Together, these two definitions form the basis of what an Urban Living Lab, as part of the experimental projects area, could be. It still does not let itself get trapped in a box. As broad as the definition is, there is a lot of academic research that interferes with how things should be.

In conclusion can be said that an experimental project in the urban environment is seen as quite a general and widely applicable concept that supports learning and experimenting of any kind in the specific field. For this research, an experimental project is an open innovation ecosystem designed as a forum for innovation. It integrates people as users and co-creators throughout the development process, employing methods to explore, experiment, and test new products, systems, services, and processes in real-life urban communities. The project should aim to integrate research and innovation processes to design, evaluate, and implement creative solutions that deliver transformative improvements across various urban domains, fostering change in sociotechnical and socioecological systems.

2.1.4 Business-as-usual: The normal way of working

In this study, experimental projects are contrasted next to the "normal" way of working: business-as-usual. As the definition of an experimental project is defined in §2.1.3, the meaning of business-as-usual is about the process of conducting how work is usually done.

A clear definition of the term "business-as-usual" in the literature is lacking. Doern, Williams, and Vorley (2019) uses the concept 'business-as-usual' in contrast with the terms "unusual," "uncommon" or "represents a new way of usual". These are terms that can be associated with the definition of an experimental project. The mentioning of business-as-usual does not specifically discuss business-as-usual in the urban area.

In this research, the term business-as-usual will refer to the normal way of working, how people do work now, and form the counterpart of the experimental project. Business-as-usual will be used to define a process, not a project. Therefore, there will not be spoken about business-as-usual projects, but about business-as-usual on its own.

2.2 Process

Within the explained context, several processes take place that are of relevance to the addressed research problem. The following concepts are elaborated to give a clear view of the actions to be researched and the principles involved.

2.2.1 Learning: Gaining new knowledge through social network interaction

Learning within an experimental project is one of the main reasons to set up such an environment (Ersoy & van Bueren, 2020). The term learning refers to the process of gaining new knowledge through (social) network interaction (Domènech, March, Vallès, & Saurí, 2015). Here is also the focus of this research. Numerous studies emphasized multi-actor situations where learning took place when participants with various viewpoints and objectives addressed a specific challenge and potential solutions (Stam et al., 2023).

To define different types of learning, Argyris (1982) speaks about the concept of multi-loop learning. Learning in organizations is defined as the process of identifying and fixing mistakes made by the organization. When mistakes are addressed without challenging the underlying beliefs and values that direct the behavior, this is known as single-loop learning. Double-loop learning is the process of rectifying mistakes by first analyzing and changing underlying beliefs and values, and then by acting accordingly (Argyris, 1982; Schon, 1983).

Subsequently, some presented a third learning loop, known as triple-loop learning, which is defined in a variety of ways and refers to a deeper degree of learning than single- and double-loop learning. "A transformation of the structural context and factors that determine the frame of reference," is how Pahl-Wostl (2009) described triple-loop learning. This type of social learning relates to changes within the whole regime (Stam et al., 2023). The different learning loops are visualized in Figure 10.

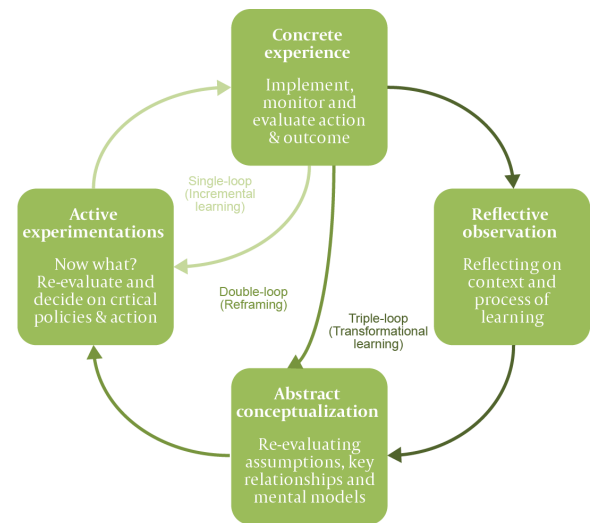


Figure 10. Different pathways of single-, double- and triple-loop learning (Based on Argyris, 1982; Pahl-Wostl, 2009)

In the learning process, key aspects are networks, trust, disagreement, and power (Stam et al., 2023). To implement these key aspects to the transition process, the relation must be made between how these aspects interact in organizational structures, but also what is wanted for the specific case. Tosey, Visser, and Saunders (2012) state that transition learning consists of monitoring, evaluation, and reflexive activities aiming at understanding the present state and the dynamics in a system and the possible ways from present to future situations. This can be the starting point for an organization to visualize what needs to be done to get to a desired point, being aware of the key aspects of the learning process.

In this research, learning is seen as the starting point of the transition to transforming business-as-usual. The term learning refers to the process of gaining new knowledge through (social) network interaction paying attention to the different learning loops. Networks, trust, disagreement, and power are defined as the key aspects of the learning process.

2.2.2 Lessons learned: Capture and scale experimental findings

Since experimental projects are defined as a source of interest among the research community to test urban interventions stimulating innovation and supporting urban sustainability (Bulkeley et al., 2019), the experiment's goal can be to find out if ideas are implementable in a city context.

To be able to translate findings, it is needed to identify what lessons are learned in the experimental environment and which lessons are project-specific or more versatile.

Theory gives various definitions of a lesson and distinguishes between identifying a lesson (learning) and transforming a lesson into a lesson learned (L. Rhodes & Dawson, 2013). Milton (2010) offers multiple indicators regarding the necessary conditions for a lesson to qualify as such. He clarified that learning necessitates real change, not just the possibility of change. Consequently, until anything changes as a result, a lesson is not truly learned. A lesson needs to be applicable and something that other people may learn from. Moreover, this idea is applied to organizations by Swieringa and Wierdsma (1994), those who claim that organizational learning entails a modification of organizational behavior. For this research, the definition is used in which a lesson is not learned until something has changed as a consequence.

Ersoy and van Bueren (2020) state that learning processes, from which lessons learned are extracted, are especially concerned within a particular ULL learning setting. This shows a mismatch between the expectations of policymakers, industry, citizens, and knowledge institutions. Stakeholder management within these expectations seems like an important point of attention for the focal actor in the field when it comes to extracting and implementing lessons learned. This will be included in Section 3.3.

Additionally, the question can be asked how the lessons learned can be useful for other contexts. This refers to the gap that is of interest in this study and will mainly be answered in the empirical research part. Also is indicated that one should be aware of the difference between learning in theory and practice. Ersoy and van Bueren (2020) point out that not the Urban Living Labs should apply the lessons, but other projects must do. This can be true either way. Learning in ULLs is almost as important as in BAU.

Altogether, it becomes clear that lessons are defined as learned when a lesson has changed something. These lessons learned can be used to translate findings that are tested in an experimental project to a different scale or transform business-as-usual. This will be used as a starting point for transformation.

2.2.3 Transforming: the process to change performance

The lessons learned, as explained in the previous section, are meant to create a change. This change relates to transformation. The goal of a transformation is to improve the performance (Hope, 2012). However, a performance improvement is not in every case transformational. Transforming should create a behavioral change, which can be a difficult and long-term process that may require management's concerted and persistent effort (Blumenthal & Haspeslagh, 1994).

In this research, transforming within the urban context is at the center. According to Crumley et al. (2022), the transformation of urban environments hinges on embracing diversity across natural resources, people, ideas, views, and institutions. This diversity fosters adaptability and durability, empowering these spaces to confront and evolve with changing challenges and risks. The transformation factor implies to be woven into the various facets of the built environment and thus indicates applicability in various domains.

How transforming works is again case-specific. The theory provides frameworks for specific case situations on how to transform a certain project or organization

(Blumenthal & Haspeslagh, 1994; Geels, 2006; Hope, 2012; Marion & Fixson, 2021). However, the transformation regarding lessons learned in the urban context lacks examples. This question will receive attention in the empirical research part.

In conclusion, transformation within this research is defined as a process to improve performance. Creating a behavioral change is key to transforming a process. It is important to be aware of the difficult and long-term process requiring persistent effort to make this change possible.

2.2.4 Niche vs regime level: Different levels through which learning is distributed

When speaking about learning from experimental projects, but also learning in general, the connection is made to the multi-level perspectives of niches, regimes, and landscapes (Markard et al., 2012). This is a central framework in transition research that focuses on the different levels through which learning is distributed (Stam et al., 2023) and transformation is initiated.

When diving deeper into the multi-level perspective (MLP), it is further defined as a theoretical framework for understanding socio-technical transitions, according to Hodson and Marvin (2010). The three levels are considered niche innovations, socio-technical regimes, and exogenous landscapes. Cities can influence transitions by creating niches for innovation and interacting with regimes and landscapes (Hodson & Marvin, 2010). Niches have been conceptualized as safe havens, specific markets, or application areas, where radical ideas can emerge free from the selection pressure of the overall regime (Kemp et al., 1998). The dynamic multi-level perspective is visualized in Figure 11.

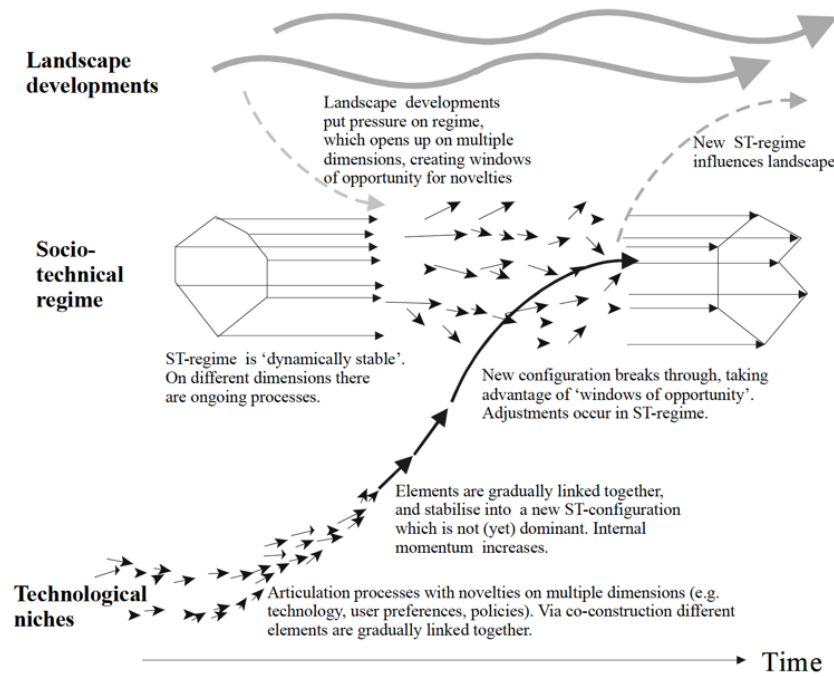


Figure 11. A dynamic multi-level perspective on system innovations (Geels, 2002).

When zooming in on the niche level, Von Wirth et al (2019) suggest three processes of diffusion between ULLs and socio-spatial contexts. They describe scaling, embedding, and translating as the main diffusion options (Figure 12). When talking about the niche to regime-level transformation, the scaling and translating process seems the most applicable.

According to the MLP, a broad transition policy approach to scale from niche to regime and landscape level has to have two things. On the one hand, more pressure should be applied to the existing regime. Conversely, it is important to encourage the emergence of radical breakthroughs in niches (Geels, 2006). Geels (2006) suggests that this translation from niche to regime can be supported by policies. These policies depend on windows of opportunity which indicate that small interventions at the right time can have large impacts later on. He made the following suggestions:

- Identify not only the appropriate initial niche to experiment with new technologies but also think in terms of trajectories of niche accumulation.
- Rather than focusing on single technologies as solutions, look for interesting combinations of multiple technologies.
- Search for possibilities of technical add-ons and hybridization as stepping-stones.
- Take advantage of market dynamics
- Use new technologies to experiment with new functionalities and new user patterns.
- Try to bring outsiders into the game.

(Geels, 2006)

Additionally, the different transition policies in the different phases are visualized in Appendix 1.

To make these policy suggestions implementable, they should be defined more precisely and translated concerning the practicalities of a specific project. Therefore, the focus should be shifted toward analyzing regime-level learning to increase the understanding of how learning contributes to system transformation (Stam et al., 2023). A research gap

becomes visible here related to the problem statement of this research.

Altogether, niches, regimes, and landscapes interplay in the multi-level perspective of learning and transformation in transition research. It highlights the pivotal role of niches as incubators for radical ideas, shaping interactions with socio-technical regimes. Scaling and translating processes at the niche level are instrumental in driving niche-to-regime transformations. Transition policies underscore the necessity for both regime pressure and niche breakthroughs to facilitate system change, emphasizing the importance of precise definition and translation in policy implementation.

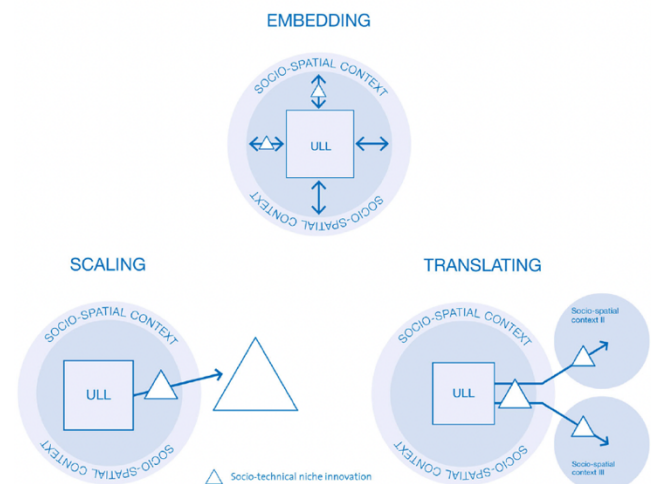


Figure 12. Three processes of diffusion between ULL and socio-spatial contexts. (Von Wirth et al, 2019)

2.3 Actors

Within a given context and in a certain process, a transformation can be initiated by human actors (Crawford, 2020). The following sections describe how management can initiate change and elaborate on the various actors who have influence or are of importance in transforming business-as-usual.

2.3.1 Management practice: Balancing control and creativity

Theory on knowledge transfer shows the limitations of policy implementations, especially when it is about the simple transfer in practice from place A to place B which causes suboptimal solutions (Dąbrowski et al., 2019). In contrast is stated that management is a tool that can participate in every step of the transition process with the most influence on human behavior (Carver & Scheier, 1983). Taking these two statements together creates a possibility to explore the use of management practices to learn from experimental projects to transform business-as-usual.

Overall from a management perspective, it is important to develop indicators and metrics to help evaluate the effectiveness of interventions in guiding technological and societal change (Hodson & Marvin, 2010). Additionally, a type of planning and policy should be applied to create a controllable space (Savini & Bertolini, 2019). One should watch out for putting too much pressure on the reporting of the process. A controlled space can be good, but room for creativity can lead to innovative ways of working. A balance between both is the way to go.

When diving deeper into how different actors work together in a project, it is interesting to look at the Actor-Network Theory (ANT). ANT examines how power dynamics and relationships are constructed, maintained, and influenced in processes (Callon, 1984). Figure 13 shows the key concepts of the theory with the four moments of translation. Because the application of the ANT is a general implication, it can be hard to create a specific implementation. The process of the specific transformation of business-as-usual in the urban context needs to be examined empirically to be able to implement the concepts within the desired management strategy.

Moreover, Florez Ayala et al. (2022) state that the main pathways for sustainable urban transitions are:

- Knowledge production;
- Policymaking;
- Co-creation;
- Geographical embeddedness;
- Urban transitions;
- Networks of cooperation among institutions;
- Culture change;
- Collaborative engagement;

These pathways give the management perspective handles to work with regarding pulling the process of transformation. Fulfillment of this should be specifically stipulated per domain regarding the pulling of the process.

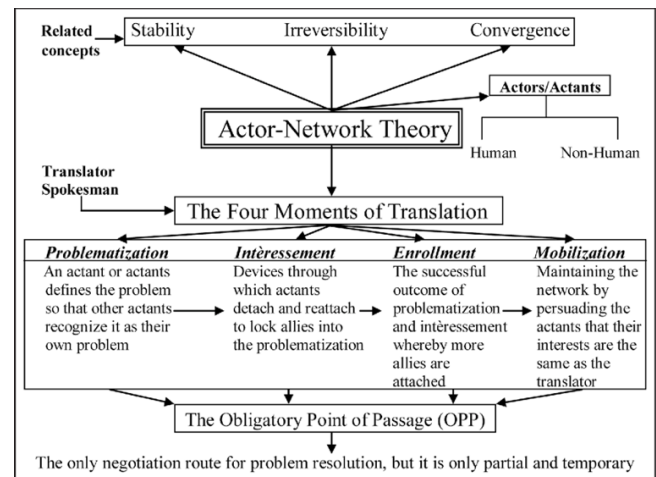


Figure 13. ANT key concepts and translation moments. (J. Rhodes, 2009).

2.3.2 Type of actors: Steering or steered actors in the organizational structure

In urban experimental projects, various actors are involved in the process of establishing and executing the project. These human actors are also referred to as stakeholders in theory. While working on experimental projects, various organizations can work together with various organizational structures and cultures. Within this difference, there is a thread that emerges as the most standard setup. Figure 14 shows the important human actors involved in urban experimental projects.

Since this research focuses on focal actors, the research is conducted from the perspective of the parent organization and its steering role in changing processes inner-organizational. The parent organization is shown as the initiator of change.

Actor category	Example
Initiator	Actor from Parent organization • Private organization • Public organization • Semi-public organization • Non-profit organization
Top-leadership Management	Member of Executive board • Person ultimately responsible
Mid-leadership Mid-manager	Project manager
Team member	Delegated project manager / consultant
Executor	Employee within parent organization
Advisor	Employee with operational knowledge
Regulator	Consultant (internal or external)
	Municipality
	Policy maker(s) / civil servant(s)

Figure 14. Actors in urban experimental projects. (O-In, 2013)

As a focal actor, one can be steering or steered in various contexts. The same actor can take on different roles in different contexts. This influences the way one learns or contributes to transformation. What and how this contributes is not defined in academic research yet.

2.4 Learning-to-transforming dynamics

Combining the context, process, and actors, specified in the learning-to-transforming question, comes together in Figure 15 as an overview of the explained theoretical background on learning and transforming up to this paragraph.

	Context	Process	Actors
Learning	<i>Experimental projects</i> in the urban context can be in the form of an <i>Urban Living Lab</i> (ULL). • ULLs represent sites in cities that allow stakeholders to design, test, and learn from sociotechnical innovations in real time. • A ULL aims to overcome barriers to implementing new ways of working. • The key achievements of ULLs are situatedness, change orientation, and contingency.	The term <i>learning</i> refers to the process of gaining new knowledge through (social) network interaction. • What is learned from a project or process, is defined as a <i>learned lesson</i>. A lesson is not learned until something has changed as a consequence. • Organizational learning entails a modification of organizational behavior. • Awareness of differentiation in <i>single-loop</i> (acute problem solving), <i>double-loop</i> (based on patterns and insights), and <i>triple-loop learning</i> (based on context). • In the learning process, key aspects are networks, trust, disagreement, and power. • <i>Transition learning</i> consists of monitoring, evaluation, and reflexive activities aiming at understanding the present state and the dynamics in a system and the possible ways from present to future situations.	Actor categories involved: • Initiator • Top-leadership Management • Mid-leadership Mid-manager • Team member • Executor • Advisor • Regulator Steering and steered focal actor
Transforming	<i>Business-as-usual</i> in the urban context refers to the process of conducting how work or processes are usually done. • To seek sustainable urban transitions, fueled by innovations and network, organizational or governance changes, business-as-usual must be transformed.	Transforming should create a behavioral change, which can be a difficult and long-term process that may require management's concerted and persistent effort. • <i>Stakeholder management</i> within these expectations seems like an important point of attention for the focal actor in the field when it comes to extracting and implementing lessons learned. • Transformation regarding lessons learned in the urban context lacks examples. Translate lessons learned from experimental projects to business-as-usual according to the <i>multi-level perspective</i> (MLP). • Pressure on the <i>existing regime</i> (business-as-usual). • Encourage the emergence of radical breakthroughs in <i>niches</i> (experimental projects).	Management as a tool can participate in every step of the transition process to influence human behavior. • It is important to develop indicators and metrics to help evaluate the effectiveness of interventions in guiding technological and societal change. • A type of planning and policy should be applied to create a controllable space. The main pathways for sustainable urban transitions to pull the process to the transformation.: • Knowledge production • Policymaking • Co-creation • Geographical embeddedness • Urban transitions • Networks of cooperation among institutions • Culture change • Collaborative engagement

Figure 15. Learning-to-transforming dynamics. (Based on Argyris, 1982; Blumenthal & Haspeslagh, 1994; Bulkeley et al., 2019; Carver & Scheier, 1983; Doern et al., 2019; Domènech et al., 2015; Ersoy & van Bueren, 2020; Florez Ayala et al., 2022; Geels, 2006; Hodson & Marvin, 2010; Karvonen & Van Heur, 2014; Pahl-Wostl, 2009; Savini & Bertolini, 2019; Schon, 1983; Stam et al., 2023; Swieringa & Wierdsma, 1994; Tosey et al., 2012; Von Wirth et al., 2019).

2.5 Factors

In addition to the conceptualization of the relevant concepts regarding the research questions, the feasibility of business-as-usual transformation from the perspective of the parent company depends on several factors. The factors encompass various elements that either present difficulties or obstacles (challenges), hinder progress (barriers), or propel or facilitate it (drivers).

2.5.1 Challenges

To make the step from learning from experimental projects to transforming business-as-usual to stimulate sustainable urban transitions various challenges are indicated in theory of which one should be aware when executing the transition. These challenges are shown in Figure 16.

Type	Challenges for transforming B-A-U
Behavioral	General resistance to change
	Scepticism towards the new way of working
	Top-down mandate creates resistance
	Management unwilling to change
	Old commitments kept
Educational	Lack of coaching
	Lack of training
	Lack of awareness and engagement
	Challenge in rearranging physical spaces
	Complexity in skill transition
Governance	Interfacing between teams difficult
	Autonomous team
	Achieving technical consistency
	Different interpretation of the transformation
	Different approaches of the transformation
	Conflicting priorities across departments
Regulatory	Inconsistent decision-making process
	Lack of supportive policies
	Policy inconsistencies
	Insufficient enforcement mechanisms
	Limited involvement of stakeholders in policy formulation

Figure 16. Challenges to transform business-as-usual. (Based on (Beqaj, 2016; Dikert, Paasivaara, & Lassenius, 2016).

To get a complete overview of challenges occurring when making the step to transformation, these challenges form the basis for empirical research to test the theory with practice.

2.5.2 Barriers

In addressing the challenges, several barriers may arise. According to the four identified types, these barriers are shown in Figure 17.

Type	Barriers for transforming B-A-U
Behavioral	Apathy and complacency
	Fear of uncertainty
	Cognitive biases
	Short-term thinking
Educational	Resistance to change mindsets
	Information overload
	Resistance to unfamiliar methods
	Inadequate learning resources
Governance	Bureaucratic hurdles
	Lack of clear responsibilities
	Resistance to collaboration
	Leadership misalignment
Regulatory	Policy lag
	Policy fragmentation
	Lack of flexibility in regulations
	Resource constraints

Figure 17. Challenges to transform business-as-usual. (Based on (Beqaj, 2016; Dąbrowski et al., 2019; Dikert et al., 2016).

Awareness of these barriers can prevent transition problems in future scenarios (Dąbrowski et al., 2019).

2.5.3 Drivers

To overcome the barriers in the transformation process, various drivers may help in transforming business-as-usual. The drivers are shown in Figure 18.

Type	Drivers for transforming B-A-U
Behavioral	Effective communication and engagement
	Incentivizing change
	Leadership support and role modelling
	Competition
Educational	Comprehensive training
	Continuous learning
	Practical application
	Peer learning and mentorship
Governance	Collaborative decision-making
	Clear organizational vision and strategy
	Effective interdepartmental coordination
	Transparent and accountable leadership
	Focus on small wins
Regulatory	Flexibility in regulations
	Stakeholder participation in policy development
	Government involvement

Figure 18. Drivers to transform business-as-usual. (Based on (Beqaj, 2016; Dąbrowski et al., 2019; Dikert et al., 2016; Yang, 2010)

3 Research method

This chapter elaborates on the methods used to answer the research questions. First, the research design is explained, Second, the four parts of the design are outlined explaining the method and techniques, data collection, and analyses that will be used.

3.1 Research design

The methods for this research are split into four parts, theoretical and empirical research, synthesis, and validation. The first three parts are related to the research questions as shown in the research design summary in Figure 19. The research design visualizes the relationship between the (sub)questions, the conceptual framework, and the research methods and techniques used.

To conduct this research, the following qualitative methods are used: theoretical background review, explorative interviews, semi-structured interviews, nested case studies, and group interviews (Blaikie & Priest, 2019).

In the theoretical research part, the literature review and explorative interviews provide knowledge about the type of lessons learned in experimental projects, the scalability of lessons learned from a niche to regime level in urban projects, and an overview of the different challenges, barriers, and drivers of the implementation of new knowledge in urban projects. This together forms the basis for the second part.

The empirical research focuses on the nested case study in three area developments and explores different settings relevant to the case. This part contains ten semi-structured interviews, three or four per area, to generate input for the synthesis, the variables, actors, and input for the strategy to steer learning of management practice to transform business-as-usual.

After the first conclusions, the validation part will take place containing an expert panel interview with three experts to validate and improve the earlier conclusions and

test them with practice. The purpose of this validation is to ensure the accuracy and confirm reproducibility of the research results. The method, goal, and expected output of the four parts are shown in Figure 20 and will be explained in more detail in the following sections.

3.2 Theoretical research

The theoretical research covers the first three sub-questions of the study. In this part, the theoretical background is explored about the two main concepts related to the three sub-questions. These concepts are:

- Learning from experimental projects
- Transforming business-as-usual

Within the explanation of these two concepts, relevant terms are discussed to define how this research looks at the different sub-concepts that are used in the sub-questions. Terms such as experimental projects, lessons learned, new knowledge, sustainable urban transition, and niche vs. regime level are explained based on academic definitions in Chapter 2.

Additionally, explorative interviews have been conducted to get a wider understanding of the key terms in practice. These interviews are conducted with people who do not particularly have a relation with the selected cases in the empirical part but have a relation with learning-to-transforming dynamics as explained in §2.4.

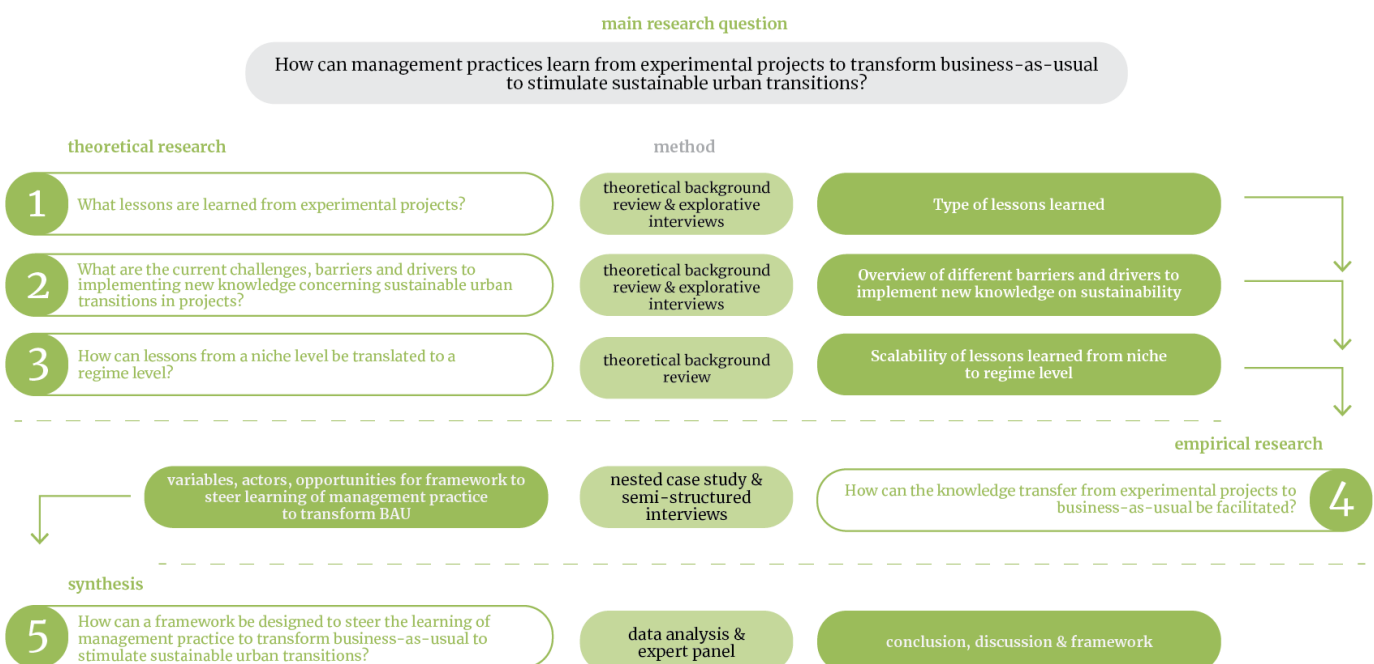


Figure 19. Research design. (Author)

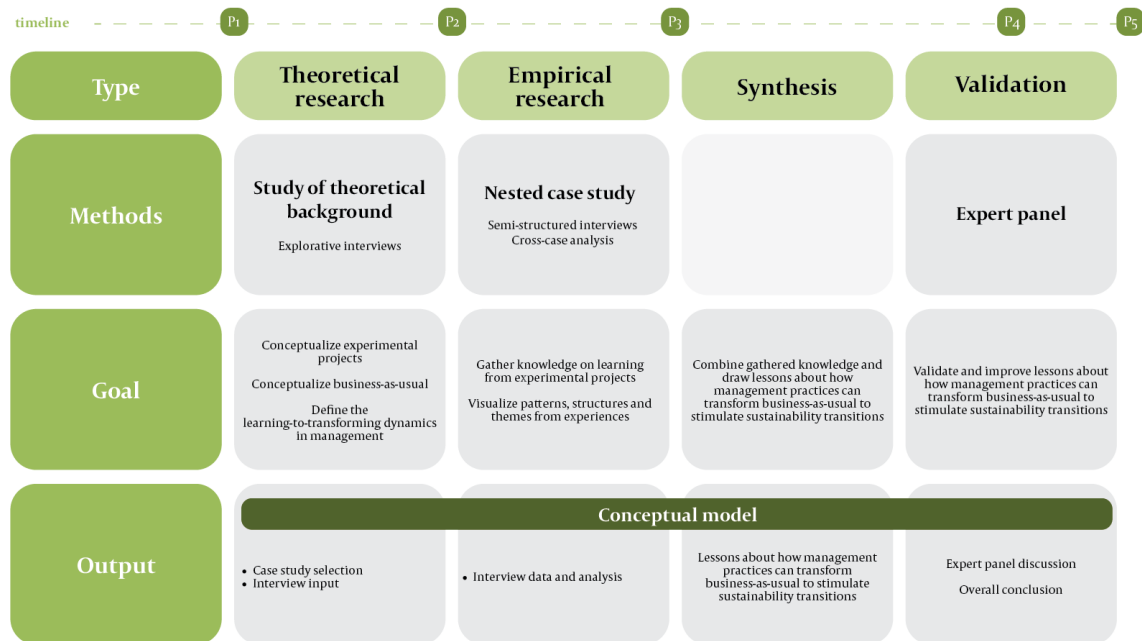


Figure 20. Methodological framework. (Author).

3.3 Empirical research

The empirical research part focuses on the fourth sub-question and contains the exploration of the case studies. Here the theoretical knowledge is laid side by side with practice. A nested case study is conducted in three area developments with different compositions within one area development. Different focal actors are asked about their experience with certain aspects of learning in the projects and processes to find the answer to sub-question four.

3.3.1 Case study selection

The nested case study will be conducted in three cases with different compositions including an experimental instrument, see Figure 21. The compositions are differentiated into *the goal*, the *experimental instrument*, and the *parent organizations*. These cases can be defined as nested because of the layered relationship between the components, see Figure 22. The structure of the components

is seen as an unfolding Matryoshka, also known as the Russian Doll (Chong & Graham, 2013). This nested approach is chosen not to compare and contrast the nine different components, but to identify empirical regularities and better understand processes and results within the business-as-usual and experimental instrument (George & Bennett, 2005).

Analyzing three cases and the learning process within the nested components allows for a balanced yet sufficiently diverse representation within the area development and offers depth without over-complexity within the set research time. There is specifically chosen to pick three cases because the number of entities strikes a balance between depth of analysis and manageability. This enables a comprehensive exploration of the empirical regularities and nuanced understanding within the relevant levels. All three cases should represent another focus to make sure the experimental entities are not overlapping.

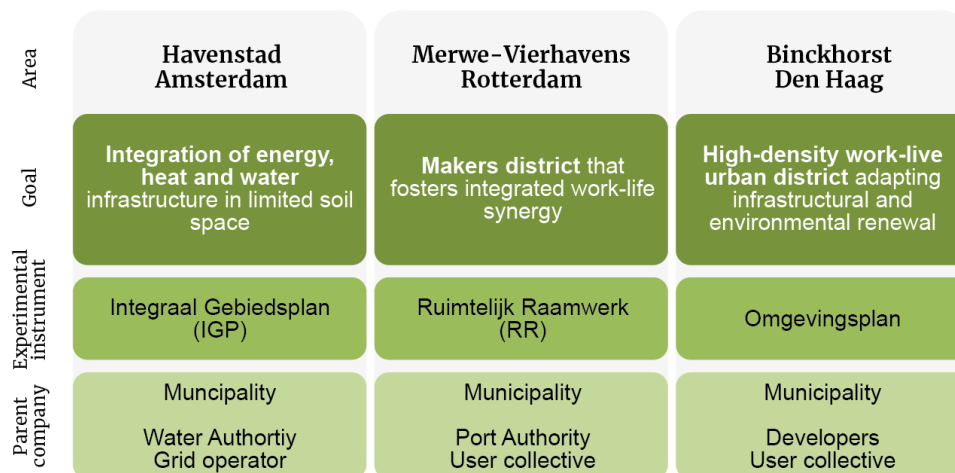


Figure 21. Nested case study structure. (Author)

To select the three nested cases, the following criteria were established based on the theoretical research:

- The case is part of a sustainable urban transition.
- The case is part of an urban area development.
- In the case, a business-as-usual way of working is used or has been used.
- The case includes an experimental instrument.
- The case has a parent organization.

Various talks with experts have taken place to identify what cases fit best with the proposed research strategy. The cases selected are Havenstad in Amsterdam, Merwe-Vierhavens in Rotterdam, and Binckhorst in Den Haag. All cases are elaborated on in §4.1.

3.3.2 Semi-structured interviews

The semi-structured interviews are set up to get various responses from individuals to a certain situation they have experienced. The semi-structured interview method makes use of a semi-extensive interview list, which is based on the responses of the participants. The researcher is encouraged to go deeper into the replies given by the interviewees in response to these open-ended questions (McIntosh & Morse, 2015). The interviewer conducting interviews for this research followed the traveler approach as explained by Kvale and Brinkmann (2009): The traveler approach involves adopting a flexible, explorative stance to understand an individual's lived experiences by engaging in a dialogue, allowing for the journey-like exploration of various perspectives and meanings.

Interviews are held with people involved in or related to the nine pointed-out components of the nested case to gather empirical data on the processes of learning-to-transforming, see Figure 22. Per selected parent organization, one or two interviews will be held with different interviewees. In total three or four interviews have been held per case.

An interview is split up into five parts to be able to gather data about all important topics related to the research. These topics are: 'function and organization', 'collaboration', 'challenges', 'transformations', and 'lessons learned'. The complete interview protocol can be found in Appendix 3. Deviation from the protocol may be made throughout the interview process if desired by the researcher to get the necessary data.

Participants for the interviews are chosen based on criteria to gather representative data. The criteria for a participant are as follows:

- The participant is involved in a selected case component and relevant organization.
- The participant is aware of the presence of the various instruments within the case.
- The participant is familiar with the terms 'learning', 'transition', and 'transformation' concerning their selected case component.

To achieve the gathering of representative data, purposive actor sampling is used as an additional selection criterion based on relevant actors as mentioned in theory in §2.3.

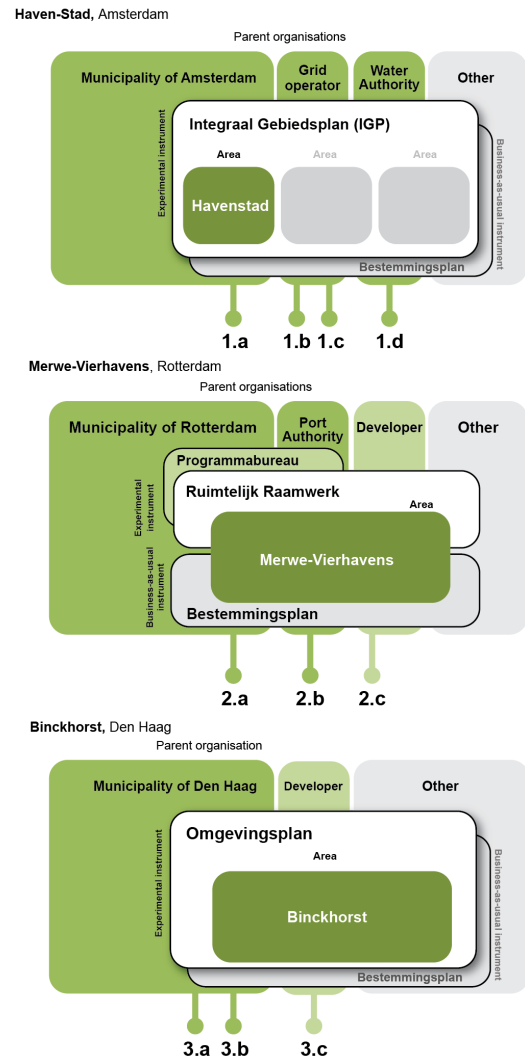


Figure 22. Nested case studies with interviewees. (Author).

The preferred participants for the interviews, as visualized in Figure 22, are:

- 1.a Someone from the *municipality* who was involved in setting up the IGP for Haven-Stad.
- 1.b Someone from the grid operator who was involved in setting up and working with the IGP for Haven-Stad.
- 1.c Someone from the grid operator who is well known with the IGP for Haven-Stad.
- 1.d Someone from the water authority who was involved in setting up and working with the IGP for Haven-Stad.
- 2.a Someone from the municipality who was involved in setting up and working with the Ruimtelijk Raamwerk for M4H.
- 2.b Someone from the port authority who is well known with the Ruimtelijk Raamwerk for M4H.
- 2.c Someone who is developing or planning to in M4H and knows about the Ruimtelijk Raamwerk *from a private organizational perspective*.
- 3.a Someone from the *municipality* who was involved in the implementation of the Omgevingsplan pilot in the Binckhorst.
- 3.b Someone from the *municipality* who works with the Omgevingsplan pilot in the Binckhorst.
- 3.c Someone who works as developer in the Binckhorst area and has long been involved in the Omgevingsplan pilot.

3.4 Data analysis and data plan

When all interviews were conducted, the collected information was translated and organized into a coding tree to help identify the relationships and themes between the data. The data is analyzed by using two ways of coding. Firstly, pre-defined codes from theory are used to link the data to the learning-to-transforming dynamics scheme. Secondly, codes are subtracted from the data to find themes from the core of the information. In this part, the interview data is analyzed from the raw data to first-order concepts, then second-order concepts, and finally the aggregate dimensions to determine the relevant themes. The content of the coding tree is explained in §4.2.

The data and themes from all interviews of the various case components from the different area developments will be compared in a cross-case analysis to reach conclusions.

The FAIR guiding principles will be used to clarify what happens with the data during and after the project. Four guiding principles, *Findability*, *Accessibility*, *Interoperability*, and *Reusability*, are mentioned by Wilkinson et al. (2016) to assist data producers and publishers in maximizing the benefits of using and reusing data in formal publishing.

Regarding findability and accessibility, the completed thesis can be found in the Delft University of Technology Repository (<https://repository.tudelft.nl/>) by the end of June 2024. For interoperability, this thesis is written in English. This study uses a variety of qualified sources which are all included at the end of the thesis report in APA format to facilitate reuse. Additionally, all (privacy-) sensitive data will be stored in a secured cloud environment and erased after the research is fully conducted.

3.5 Synthesis and validation

The combination of theoretical research and empirical research forms the basis for the synthesis. Here all findings come together to produce the final product of the research: a strategy on how to transform business-as-usual. Before the final strategy is produced, an expert panel is used to validate the findings. The expert panel will consist of three experts that meet the following criteria:

- All experts are familiar with various organizational structures.
- All experts are familiar with transition management.
- All experts have multiple years of experience in working with learning-to-transforming dynamics.

Every expert is asked to reflect on the conclusions presented and elaborate on the proposed framework. The findings from the expert discussion will help to eventually develop an effective strategy to steer learning of management practices to transform business-as-usual.

The preferred participants for the expert panel, as shown in Figure 23, are:

- 4.a A professional from a private company with knowledge about sustainable transitions initiated by management in the urban context
- 4.b A professional with knowledge about learning of and transforming from organizations from a management perspective
- 4.c A professional with knowledge about learning and transforming processes in organizations.

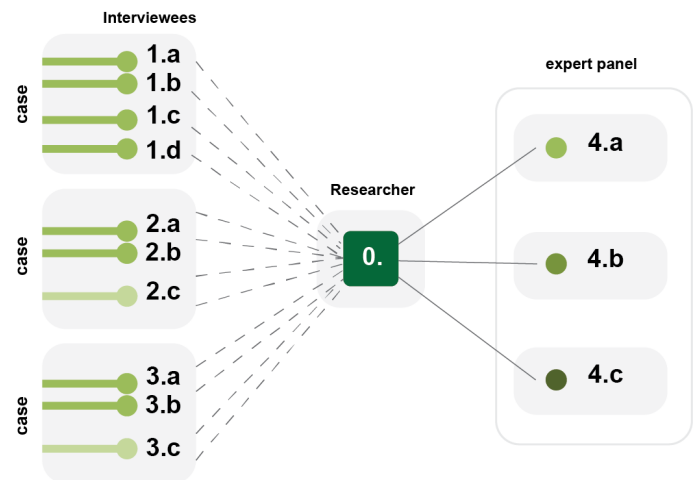


Figure 23. Participant structure. (Author).

3.6 Ethical considerations

Since this research will be published in the TU Delft Repository, it is important to protect the rights of its participants, strengthen the research validity, and maintain the academic integrity requested by the TU Delft.

Therefore, every participant received the informed consent letter explaining the purpose of the research, the voluntary nature of participating in an interview, and the right not to answer a question or withdraw themselves at any moment without reasoning, see Appendix 2. Besides, the letters asked for permission to record the interview and use the anonymized data for research purposes. This is asked again verbally at the start of every interview. Finally, participants are asked if they want to validate the statements made that will be used anonymized in the publication.

The complete approach, method, and processing of information in this research is validated by the TU Delft Ethics Committee and approved.

4 Empirical research

This chapter covers the empirical research. Firstly, the three cases are elaborated briefly to give an inside into what areas the empirical research is done. Next, the analytical part is explained and gives an elaboration on what methods are used and how the conducted interviews are analyzed. Following this, the results from analyzing the data are presented to give an inside in how management practices can learn from experimental projects to transform business-as-usual stimulating sustainable transitions.

4.1 Case overview

The three cases that are selected are Haven-Stad in Amsterdam, Merwe-Vierhavens (M4H) in Rotterdam, and Binckhorst in Den Haag. All three cases meet the case criteria as elaborated in §3.3.1.

In those cases, learning and exploring a new way of working is key to pushing toward the area's development goals. The transformation of their usual way of doing business gives them the power to find new solutions to solve complex interdisciplinary problems. The environments created give space to learning and sharing knowledge to broaden the perspective of the initiators on a strategic level to create handles for future sustainable developments.

4.1.1 Case 1: Haven-Stad, Amsterdam

The area development Haven-Stad in Amsterdam is a huge development with a plan for the realization of full-fledged commuter neighborhoods with in total of up to 70,000 housing units and 58,000 jobs. Havenstad consists of 12 subareas to the west and northwest of the city center, including Sloterdijk, Westerpark, Coen- and Vlothaven, and a part of the Noordelijke IJ-oever (Koppelkansen, 2018).

A phased transformation from (port) activity to mixed city is taking place in the area. The medium-long term offers room for the innovative arrangement of energy, raw material, and transport flows with the goal of co-creation to achieve a high-quality, future-proof living environment at high density (Amsterdam, 2020).

Goal and ambitions: integration of energy, heat and water infrastructure in limited soil space

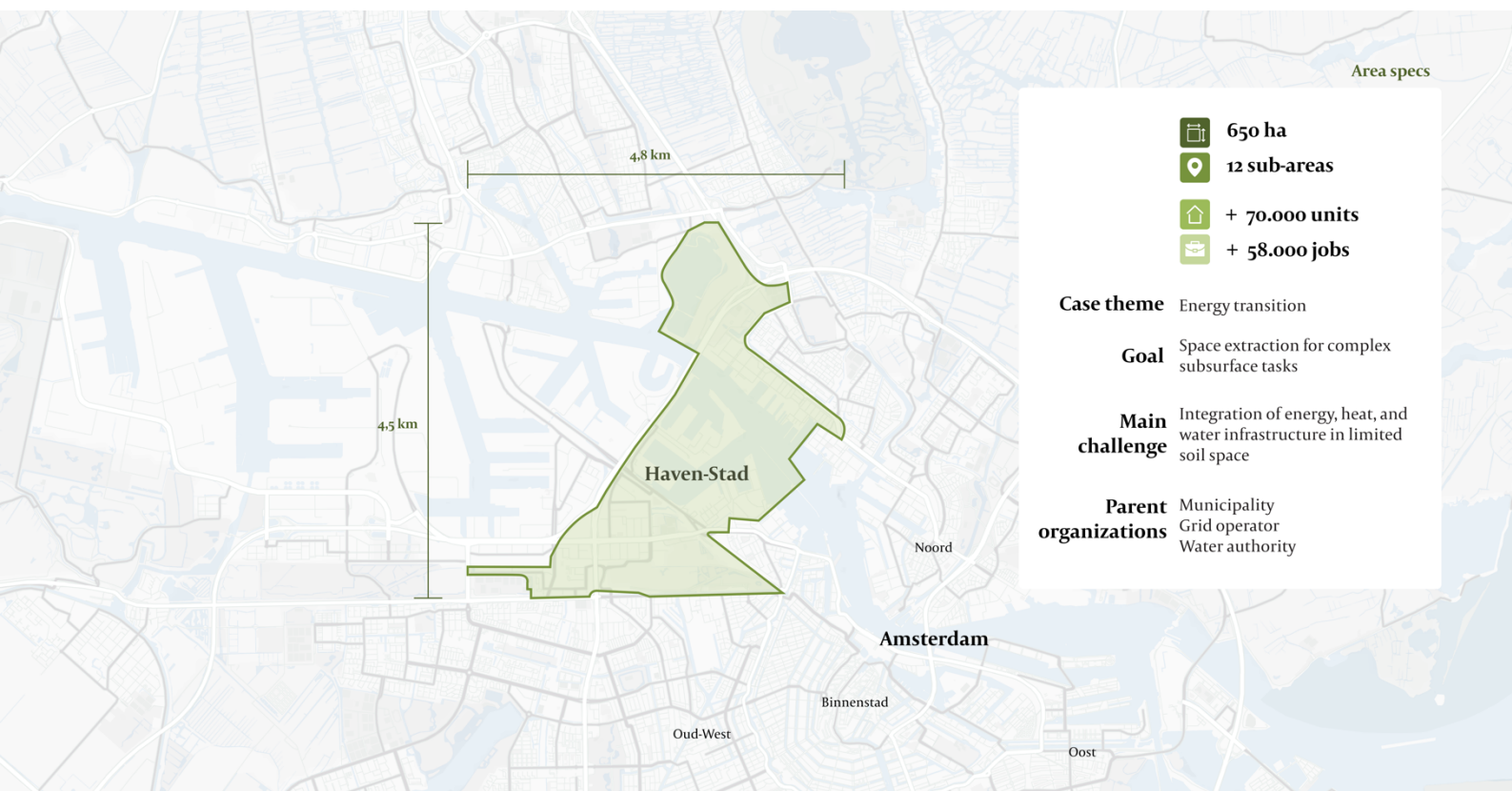
In this area, the municipality, grid operator, and water authority work together with other stakeholders on the infrastructural tasks in the context of increasing subsurface congestion, rising implementation costs, and new, complex development tasks (Koppelkansen, 2018). All three parties realize that they share these challenges and that a different way of working is needed (#1 - Municipality), or in other words a transformation from business-as-usual.

Their goal is to extract space for complex subsurface tasks. They together face the main challenge of the integration of energy heat and water infrastructure in the limited soil space (#4 - Grid operator).

Experimental instrument: Koppelkansen and Integraal Gebiedsplan

The three parties, along with different research institutions, set up Koppelkansen and developed the Integraal Gebiedsplan (IGP) to achieve their goal and ambitions.

Koppelkansen, in English *Linking Opportunities*, is a learning network in which the various organizations work integrally on the challenges of the management and development of a sustainable city. Within Koppelkansen, there is a focus on learning from an iterative approach. Innovative ideas are developed during a specific process of collaboration. This integrally brings together the points of view of stakeholders in various positions, specialisms, and organizational layers. They also build on knowledge and experiences from other projects. By building circular steps into the process, both the innovations and the process of cooperation are subject to continuous improvement. Within Koppelkansen, the co-creative approach to innovation and knowledge development is specified as *Wezenlijke Winstpunten* (Koppelkansen, 2018).



Three area developments are considered within the Koppelkansen network: Amstelstad, Binnenstad, and Haven-Stad (Koppelkansen, 2018). The last area will be used in this research.

Within Koppelkansen, they commit themselves with partners in the field and science to the joint development of new working methods and integrated cooperation (#1 - Municipality). What connects the parties is the need and ambition to realize a sustainable and circular living environment (Koppelkansen, 2018). The experimentation is within the Integraal Gebiedsplan (IGP), a specially designed document containing the plan and ideas about how to develop this huge area, as a counterpart to the *bestemmingsplan*. The IGP is considered the experimental instrument in this case.

The IGP serves as a new policy tool aimed at facilitating comprehensive planning and execution strategies within the urban areas of Haven-Stad. The IGP document delineates a structured approach involving the identification of systemic barriers, the formation of specialized teams for IGP development, and reflection on progress. It acknowledges obstacles such as deductive planning logic and functional differentiation of utility services, highlighting the need for cohesive urban planning. Through engagement with stakeholders and utility providers, it aims to integrate utility considerations into broader area planning, with flexibility in its implementation as written documents, digital maps, portals, or story maps (Koppelkansen, 2018). Ultimately, the IGP strives to be a handhold for the large developments to come, steers to overcome system barriers, and contributes to breaking fixed corporate cultures (#1 - Municipality, #2 - Water authority).

Parent organizations: Municipality, water authority and grid operator

The initiating parties are considered as the parent organizations in case 1. These include the municipality, water authority, and grid operator.

Municipality: public organization

The municipality plays a directing role in the Haven-Stad area. In doing so, it advises on energy transition and underground infrastructure. Responsibilities include advising on heat projects, electricity, and grid congestion, as well as integrating these aspects into spatial design. The municipality is closely involved in the preparation of the Haven-Stad Integraal Gebiedsplan (IGP), operating under both the engineering office and the energy implementation directorate for the city. The municipality has a keen interest in Haven-Stad developments because of the scale of urban expansion and the energy challenge involved. The role of the municipality within Koppelkansen and the IGP includes coordinating multidisciplinary cooperation between various departments, utilities, and other stakeholders to achieve integrated and sustainable solutions for the area developments (#1 - Municipality).

Water Authority: semi-public organization

The Water Authority in Haven-Stad is responsible for exploring different forms of collaboration and developing new ways of working to address water issues in an integrated way. They are interested in the developments in Haven-Stad because of the urgent problems such as scarcity of space, lack of time, financial and personnel shortages, and the increasing complexity of water and energy facilities. Within the Koppelkansen trajectory and the IGP, the Water Authority is playing a role in developing a new working method in which various parties cooperate intensively and budgets are pooled for smart design and implementation solutions. This approach requires breaking down system barriers and adapting existing practices to achieve a more integrated approach to water and energy services (#2 - Water Authority).

Grid operator: semi-public organization

The Grid operator's role within Haven-Stad is to integrate the core activities of a grid operator into urban development. This includes managing and maintaining the energy network in the area to meet the growing energy demand of the new developments in Haven-Stad. Additionally, the grid operator focuses on coordinating stakeholders and facilitating cooperation within the Koppelkansen program relevant to the need for underground construction. The grid operator plays a crucial role in promoting the energy transition within Haven-Stad, for example, by adapting to the request for renewable energy sources and implementing smart energy grids (#3 - Grid operator, #4 - Grid operator).

The interest in Haven-Stad stems from the recognition of the area as an important hub for urban growth and renewal. The limited space in the underground asks for an integral plan to adapt to future needs. As a Grid operator, it sees the development of Haven-Stad as an opportunity to implement innovative energy solutions to contribute to a more sustainable and resilient city. By combining its core activities with the coming urban developments in Haven-Stad, the grid operator wants to play an integral role in realizing a future-proof energy network that meets the needs of the community and the ambitions of the city (#3 - Grid operator, #4 - Grid operator).

4.1.2 Case 2: Merwe-Vierhavens, Rotterdam

The area development Merwe-Vierhavens in Rotterdam, also known as M4H, is supposed to be the large city-port area of the future. The plan for this area allows for 7,000 additional homes and should create 10,000 new jobs. The M4H development is situated between the city centers of Schiedam and Rotterdam and contains within itself seven sub-areas with unique characteristics (Rotterdam, 2019).

The municipality and the port authority want to develop the area into an innovative living and working environment, optimally equipped for the innovative manufacturing industry and with a mix of working, living, culture, horeca, sports, and education (Rotterdam, 2019). Because of the existing industries in the area and an old zoning plan that descends from 1937, various challenges occur during the execution of the plan ambitions (#5 - Municipality).

Goal and ambitions: Makers district that fosters integrated work-life synergy

The municipality and the port authority want M4H to become a Makers District that fosters integrated work-life synergy. Their ambition is to combine the existing port activities and users with the future residents (#5 - Municipality). The area should be the breeding ground, testing ground, and showcase for the circular economy of the entire region and aim to show the possibilities of involving the port in city life. All of this should happen with an eye on the future (Rotterdam, 2019).

Experimental instrument: Programmabureau and Ruimtelijk Raamwerk

To achieve these ambitions, the Programmabureau was created. This Programmabureau consists of delegates from both the municipality and the port authority and aims to facilitate integrated cooperation between the two organizations. Due to the great complexity of the area and lack of clear steering from the municipality, the Programmabureau has commissioned the preparation of a central document to reflect the guidelines for the area: the Ruimtelijk Raamwerk.

The Ruimtelijk Raamwerk is a strategic plan that establishes the vision and principles for the Merwe-Vierhavens area. It is designed to give direction to the transformation of the area and to coordinate various interests and developments. The document was developed in response to the in 2017 renewed ambition for M4H, linked to RDM Rotterdam, and because of the growing interest and need for a clear framework for both private and public investment in the area. It aims to provide potential investors with clarity on what to expect in the area and to guide the actions of the municipality and the Port Authority, including infrastructure, zoning, and quality assurance.

The introduction of the Programmabureau and this document is considered new as well as working on such a large and complex area development in the city of Rotterdam (#5 - Municipality). That is why this document is considered an experimental instrument in this research.

Parent organizations: Municipality, Port authority and developer

The initiating parties are considered as the parent organizations in case 2. These include the municipality and port authority. Additionally, these organizations work closely with the current users within this area. Therefore, the user collective is also included in the study to validate the initiators' findings.

Municipality: public organization

The municipality's main focus is the preparation and direction of area development, such as decision-making on housing developments and the preparation of zoning plans. They are responsible for coordinating their internal teams, conducting technical and ecological studies, and drafting contracts and cooperation agreements. The municipality is interested in developments in M4H because of its ambition to create a liveable neighborhood that meets sustainability standards and balances various interests, such as those of businesses and residents (#5 - Municipality).



Within the Programmabureau and the Ruimtelijk Raamwerk, the municipality acts as a connecting factor, ensuring that all aspects of the area development are mapped, comply with regulations, and gain political support. The municipality works closely with various parties, both internal and external, to direct and realize the development of M4H (#5 - Municipality).

Port Authority: public organization

The Port Authority of Rotterdam is responsible for managing and operating the port area and infrastructure, promoting global trade, and ensuring safety and the environment. Besides those core activities, they also develop real estate and invest in innovation and digitalization to promote efficiency and sustainability (Port of Rotterdam, 2023) (#7 - Port Authority).

Developer: private organization

The developers in the area M4H are closely involved in the development of the whole district as they are one of the type of users in the area. The users contain of various stakeholders from small creative and cultural business owners to large industrial institutions and even long-settled residents. The developer represents this wide group of users in this research because of the collaboration with the municipality when it comes to building permits, agreements and implementation of the Ruimtelijk Raamwerk. (#6 - Developers).

4.1.3 Case 3: Binckhorst, Den Haag

The area development the Binckhorst in Den Haag is the largest inner-city development of the Netherlands (#9 - Municipality). The area should give room to 12.500 new houses and 15.000 extra jobs.

Goal and ambitions: high-density work-live urban district adapting infrastructural and environmental renewal

The redevelopment of the Binckhorst has the overall goal of creating a high-quality, densely populated urban area where living and working come together. Ambitions include adapting infrastructure and environment to create a modern and sustainable living and working environment. These ambitions stem from wanting to stimulate economic growth, improve liveability, and contribute to a green future (#9 - Municipality). In addition, the area serves to densify the city due to its favourable location and the addition of housing should have a positive contribution to the housing shortage (Den Haag, 2024).

Experimental instrument: Pilot area for new Omgevingswet

To reach the goal and ambitions, the municipality decided in 2017 to participate in a pilot to test the new Omgevingswet, in English *Environmental Act*, in the area the Binckhorst. The Omgevingswet requires every municipality to adopt an Omgevingsplan for the entire territory of municipality. This new instrument replaced the usual zoning plan and became an example for other municipalities in the Netherlands (Den Haag, 2021). The handling of the Omgevingswet took effect nationwide on Jan. 1, 2024. The Omgevingsplan is considered to be the experimental instrument of this case.

The Omgevingsplan is seen as an opportunity for flexibility. The municipality wants to stimulate the transformation of the area by promoting new initiatives from various organizations and protecting pre-existing activities in the area (#9 - Municipality). In the past years, the involved organizations experienced the pilot and can reflect on the pilot process. This experimental instrument is the furthest advanced in the area development process of the three cases.



Parent organizations: Municipality, and developers

The municipality initiated participation in the pilot process of the new Omgevingsplan. With this decision, they forced other organizations to join their experimental process. With this, developers and users got involved. The municipality and developers are seen as the parent organizations. The user collective is included in the study to validate the other organization's findings.

Municipality: public organization

The municipality plays a crucial role in the redevelopment of the Binckhorst. Its responsibilities include facilitating spatial planning, granting permits, and ensuring the liveability and sustainability of public space. In doing so, the municipality also plays the directing role. The municipality is interested in the developments because of economic growth and urban renewal close to the city center (#8 - Municipality, #9 - Municipality). With the new Omgevingsplan, the municipality has more control over spatial developments and the incorporated space but also asks for initiatives from the market. Its goal is to use this instrument to implement integrated policies for a more innovative and sustainable city (Den Haag, 2021).

Developers: private organization

The transformation of the Binckhorst is partly shaped by developers. Their goal is to initiate, develop, and realize real estate projects in the area. From the concept phase to completion, they bear full responsibility. The ultimate goal is to sell the projects with a profit margin to recoup their investment. During the whole process, they must comply with the regulations of the municipality and the Omgevingswet.

Working with the Omgevingsplan seemed to be a challenge from the developers' perspective (#10 - Developer). The complexity of the documents and requested studies, whose responsibility to create them now lies with the developer, results in difficulties. In practice, it is seen that every application needs at least one revision (#9 - Municipality).

4.2 Data analysis

For each case discussed, data was collected to answer or to support to answer the sub-questions of the study. The analysis starts with the conducted interviews and explains the analysis method on how to come to results. These results are outlined by case and then discussed cross-case. The following results form the basis for the conclusion and final transformation strategy.

4.2.1 Interviewees: what organizations and functions

As part of the elaborated nested case study method, see §3.3, ten interviews are conducted to gather empirical data. The organizations and functions of the interviewees are shown in Figure 24.

#	Organization	Function	Case
1	Municipality	Project manager	Haven-Stad
2	Water Authority	Project developer (Sr.)	
3	Grid operator	Area director	
4	Grid operator	Project manager (Sr.)	Merwe-Vierhavens
5	Municipality	Project manager (Sr.)	
6	Developer	Concept developer (Sr.)	
7	Port Authority	Program manager (Sr.)	Binckhorst
8	Municipality	Project manager (Sr.)	
9	Municipality	Project manager (Jr.)	
10	Developer	Development manager (Sr.)	

Figure 24. Overview of interviewees (Author).

All interviews are transcribed and shared with the participants before the analysis.

4.2.2 Analysis methods

The analysis of the gathered data is divided into three steps.

1. Data allocation: two coding systems

The collected interview data is coded at the start of the analysis and allocated into two types of code-categories. At first, the interview data is connected to a predefined coding tree that results from the learning-to-transforming dynamics table, see Figure 15. Every block in the table is divided into the four factor categories *behavioral*, *educational*, *governance*, and *regulatory*, as defined in §2.5. Relevant data is fit into the learning-to-transforming dynamics table to understand the lessons learned and transformation opportunities within the various cases. The main focus here is to evaluate the experimental instruments to gain valuable information about transforming business-as-usual.

At the same time, the interview data is also coded according to themes that emerged during the analysis. These afterward devised codes will be used to support the set-up of the final strategy. After this, the relationship is made with the data findings from the dynamics table to concretize the initial outline of the strategy. Both coding systems are shown in

Figure 25.

1) Pre-defined coding system

	1. Context	2. Proces	3. Actor
Learning A.			
Transforming B.			

Figure 10. Learning-to-transforming dynamics table

	1. Context	2. Proces	3. Actor
Learning A.	I. Behavioral II. Educational III. Governance IV. Regulatory	I. Behavioral II. Educational III. Governance IV. Regulatory	I. Behavioral II. Educational III. Governance IV. Regulatory
Transforming B.	I. Behavioral II. Educational III. Governance IV. Regulatory	I. Behavioral II. Educational III. Governance IV. Regulatory	I. Behavioral II. Educational III. Governance IV. Regulatory

	1. Context	2. Proces	3. Actor
Learning A.	I. Behavioral II. Educational III. Governance IV. Regulatory	I. Behavioral II. Educational III. Governance IV. Regulatory	I. Behavioral II. Educational III. Governance IV. Regulatory
Transforming B.	I. Behavioral II. Educational III. Governance IV. Regulatory	I. Behavioral II. Educational III. Governance IV. Regulatory	I. Behavioral II. Educational III. Governance IV. Regulatory

● interview quote

2) Afterward devised codes

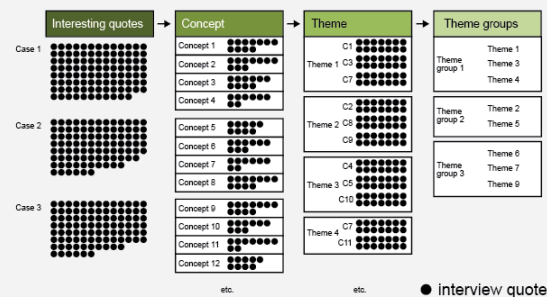


Figure 25. Explanation of data coding system: two types. (Author).

2. In-case analysis: extracting insights on learning vs transforming

The coded data are analyzed per category per case. Specifically, all quotes that had been typed into a certain block (I. II. III. or VI.) or group of blocks have been put next to each other to get a good understanding of what is going on within the case. The focus is on the separation between learning (line A. - red) and transforming (line B. - orange) and the actions that enable it.

Besides, the blocks of the second coding system are analyzed to subtract specific actions on how to practically work with learning and transforming through management in these types of cases. What are the lessons, and can they be generalized to become applicable in other contexts? The findings from both analyses form the case analyses in the next paragraphs. Per case analysis, the key takeaways are listed at the end as a starting point for the next steps.

3. Cross-case analysis: Identifying interchangeable lessons to build the strategic framework

The key takeaways are compared in a cross-case analysis to get an overall understanding of how learning and transforming comes forward in the various cases. The findings are put next to each other to distill the similarities and differences between them. Which findings are more common? And why? Are there interchangeable lessons and success factors? This forms the foundation of the strategy explained in Chapter 5.

4.2.3 Analysis Case 1: Haven-Stad

The experimental instrument, the Integraal Gebiedsplan (IGP), focuses on how to integrate the energy, heat, and water infrastructure in limited soil space. To create and work with this experimental instrument, the three initiating parties set up an integral network to create a new way of working in an integral collaborative way to get the answers to the relevant questions and give direction to their complex urban development.

Set up of the Integraal Gebiedsplan: what's new?

The Integraal Gebiedsplan and the new way of working around it are set up to be a driving innovation machine. Participant 2 stated that with this machine, they have developed tools, working methods, learning courses (in Dutch: *leergangen*), and all things necessary to develop a new way of working and produce results in the urban environment (#2 - Water Authority). The idea for co-creation and integral collaboration came from an unanimously embraced recognition of the high urgency of the issues in the subsurface (#1 - Municipality, #2 - Water Authority, #3 - Grid operator). New to this approach is the active integral collaboration. This stems from the idea that if all parties work individually, the area will be a mess (#1 - Municipality, #3 - Grid operator). Included in this are working with design workshops (in Dutch: *Ontwerpateliers*) according to the self-defined 'working together in a box' principle by participants 3 and 4 (#3 - Grid operator, #4 - Grid operator). The past has taught participants 2 and 4 that improvised solutions were always devised for problems, but they turned out to be inefficient and were not registered. This gave them additional motivation to improve the process and capture lessons (#2 - Water Authority, #4 - Grid operator). The common goal of all participants is "no band-aids but preventing wounds" (#1 - Municipality).

"If everyone, all parties, start doing it individually, it will be a mess" - #2 - Water Authority

Participant 1 explained that part of reaching that goal is pulling time forward in the process timeline. This ensures that there are fewer obstacles at the back end, and they can get through the process faster. Learning, evaluating, and improving are also central to their approach. They ask questions like, *what can be standardized? What is context-*

dependent? And then they use that to adjust the working methods (#1 - Municipality).

"You naturally pull that time forward. So basically, of course, you hope at the back you can then get through faster." - #1 - Municipality

Several participants indicated that they are pleased with the involvement of the learning network *Koppelkansen* and the associated IGP (#1 - Municipality, #2 - Water Authority, #4 - Grid operator). However, it is indicated that collaboration, in general, is not new. However, it is acknowledged that this method of working gets more out of experiments than before (#2 - Water Authority).

"For me [it's] not [new], but that's because so I've been working on that in some form since 2010. [...] But it is true, though, that there is a lot more being taken out of the experimental phase now." - #2 - Water Authority

Practical implementation: what exactly do they do?

Working with the IGP method shows the importance of working in small steps within a years-long area development process (#1 - Municipality). The focus is on first strengthening the collaboration between all parties, then start building the foundation of the plan and goal, and when that is all set, start the acceleration in the process. The mindset here is "just do it." (#1 - Municipality).

The integral collaboration is reflected in the collective design workshops (in Dutch: *Ontwerpateliers*). In an *Ontwerpatelier*-session, experts from various organizations and disciplines work together on a specific case. These sessions usually take up to three hours and require a physical presence together in one room: *working together in a box* (#1 - Municipality, #4 - Grid operator). The focus is on actively working together to resolve specific conflict points such as subsurface incorporation on a particular complicated street (#1 - Municipality, #2 - Water Authority). Before, these types of tasks were often tackled separately per organization where each worked out its part and shared the result digitally with the next party. The *Ontwerpatelier*-sessions have proven themselves to be effective in creating a common understanding of challenges and speeding up the process on behalf of short communication lines (#1 - Municipality, #3 - Grid operator).

Although Participants 2 and 4 state that they are pleased with the format of these sessions, there is also room for improvement. Time and efficiency are the most mentioned factors within this question (#1 - Municipality, #3 - Grid operator, #4 - Grid operator).

"I think in those design sessions, there should always be a good consideration. How much time do you really need everybody together? [...] A lot of preliminary work has been done by sharing certain files in advance." - #3 - Grid operator

Working with the IGP on a large urban area development creates more intense collaboration and additional work (#3 - Grid operator, #4 - Grid operator). Participant 4 says this is because of the large group you work with and the many interfaces with other parties. A positive aspect of this is that you have a say in choices that are actually outside your area of expertise but nevertheless prove to be important for your own work. On the negative side, it also takes more time.

"You do get much more involved in the whole plan, and you can think about it and steer it much more. Only it is many times more intensive than it normally is.

If you normally have a preparation of one year. I think you will go over two years this way. And if you would normally sit together once a month. I occasionally sit now once a week sometimes with one IGP" - #4 - Grid operator

Learning within the IGP: how does it work?

Within the IGP, everything is steered towards integral collaboration. It is also in this collaboration that participants believe the most lessons and gains are captured (#2 - Water authority, #4 - Grid operator). Collaboration within the IGP is designed on the basis that each participant is equal (#2 - Water Authority). Value is placed on the participation of all stand-alone organizations but also support from science to better evaluate and adjust the collaboration process (#1 - Municipality, #2 - Water Authority). Indeed, within the *Koppelkansen* network, research is conducted through observations and interviews with people involved to enable learning and adjustment.

The collaborative process cites an integrally motivated mindset as a key component to increase the likelihood of success and learning curve (#3 - Grid operator, #4 - Grid operator). In the case of Haven-Stad, the motivation and willingness of the municipality is praised (#3 - Grid operator). The municipality is seen as the driving force and appropriate party to guide the process (#2 - Water Authority, #3 - Grid operator, #4 - Grid operator). All participants feel that this role belongs there and that the municipality can now take on this directing role even more.

"I see a tremendous willingness at the municipality. Huge motivation to get started on something. So I see that as positive." - #3 - Grid operator

Within the learning from collaboration, communication is key. Participant 2 indicates that it is important to pay attention to organizational culture differences (#2 - Water Authority). In different organizations, people are used to working in different ways which causes friction. Awareness of this barrier by bringing everyone's tasks to the table together and becoming aware of each other's interests prevents future conflicts (#1 - Municipality). In doing so, participant 3 also indicates that it is important to have a clear point of contact within both one's own organization and the collaborative (#3 - Grid operator). This ensures a sense of responsibility.

"I would love nothing more than to work in this kind of groups. Only it is not a feasible reality yet." - #4 - Grid operator

Learning in the collaborative process comes mostly forward from the learning-by-doing principle. Several participants indicated that they gained most of their new knowledge and experiences by '*just trying things*'. Getting room to do so was their biggest drive. It varied for each participant whether they learned more in a steering or steered role, depending on the position they were assigned to in the team. It was found that participants who were employed longer were more likely to take a directing role. However, this was not true in all cases.

Success factors: communication is key

The overall opinion of the participants in this research about the IGP, the related networks and the transformation in way of working are positive. Participants mentioned that there is always room for improvement, but mentioning this draws the motivation of those involved. This emerges in several themes:

Communication The creation of common understanding about needs, topics, knowledge and shared/individual goals (#1 - Municipality); Keeping communication lines short (#1 - Municipality); Acknowledge the complexity of matter (#1 - Municipality).

Planning Timing of interventions is crucial, things should be done at the right time (#2 - Water Authority); Search for optimisation in time and space (#1 - Municipality).

Way of working Small steps (#1 - Municipality); Work together in a box (means: physically together) and retrieve relevant data besides just the hard data (#1 - Municipality, #3 - Grid operator); Collaborate in a more intensive way to avoid re-work on the back end (#4 - Grid operator); Learning thinking around (#4 - Grid operator).

Perseverance & solve scarcity Creating space for experimentation (#1 - Municipality, #2 - Water Authority, #3 - Grid operator); Making change possible by perseverance (#2 - Water Authority); Ensuring shared financial interest (#2 - Water Authority, #4 - Grid operator);

Governance capabilities Control at the municipality incorporating clear agreements about money (#3 - Grid operator).

Inner-organizational change Setting up an internal process group (#2 - Water Authority, #3 - Grid operator); Stimulation of internal change inspired on working integrally with other organizations (#3 - Grid operator).

Recommendations

In the way of working within Haven-Stad, various lessons can be captured that contribute to the further development of a working method transformation strategy.

First, the *Ontwerpateliers*, which are central to the integrated cooperation methodology in this case. When starting, make sure to set a clear process structure ready and prepare people well for the process to come. This did not always happen in Haven-Stad until now (#3 - Grid operator). Providing a clear process structure should not be confused with planning every step forward. There must remain room for uncertainty and spontaneity, but within clear frameworks that allow one to know what to expect.

Also, working with the IGP taught that there is a desire to carve out that long-term vision, but that uncertainty always remains in a project of great magnitude (#1 - Municipality). From this came the importance of always seeking optimization between time and space (#1 - Municipality). With that, it also became known that the new way of working of the IGP does not fit in the standard method of working (#3 - Grid operator, #4 - Grid operator). There is a need for change from a top-down perspective to provide money and capacity in the front end to ease the back end (#1 - Municipality, #4 - Grid operator).

"It needs capacity and money. That is really a requirement for these kinds of projects or ideas to succeed. Really." - #4 – Grid operator

Giving space to pioneering is also mentioned as a key to success (#2 - Water Authority, #3 - Grid operator). As an organization, give space to pioneers to experiment and provide support from management layers (#2 - Water Authority). Send on who wants to be a pioneer into the field and give them that space, not only in hours but also accept failures (#2 - Water Authority).

"It's more than giving someone the hours to do things. It's also about supporting someone without knowing exactly the impact of the things they are doing. And therefore accepting failures as well." - #2 – Water Authority

All in all, the central message from the participants remains that trying out new ways to work in area developments is crucial to keep up with all the complex questions that are now being asked. Progress comes in small steps (#1 - Municipality), just like transformations.

Case 1: Findings

- The new way of working of the IGP does not fit in the standard method of working in terms of money and capacity (#3 – Grid operator, #4 – Grid operator).
- Focus on 'inner-organizational' learning and transforming instead of 'cross-organizational' learning and transforming (#3 – Grid operator).
- Create space for pioneering to kick-start a transition (#2 – Water authority, #4 – Grid operator).
- The barrier of integral cooperation is scarcity (#2 – Water authority).
- Importance of working through scales in area development (#2 – Water authority, #3 – Grid operator).

Behavioral

- Short lines of communication provide an approachable way to communicate and speed up the process (#1 – Municipality).
- Perseverance is needed to make change possible (#2 – Water authority).
- Invest in network and find like-minded people in experimentation (#2 – Water authority).

Educational

- Evaluate the learning process and lessons learned; then adjust (#1 – Municipality).

Governance

- Step-by-step approach (#1 – Municipality).
- Just start, do not work out the whole process from the start. Things will change (#1 – Municipality).
- Top-down support for pioneering (#2 – Water Authority, #4 – Grid operator).
- Organizational capabilities are not yet set up for the new way of working (#4 – Grid operator).

Regulatory

- Finance is the showstopper in innovative projects. (#4 – Grid operator).

Case 1: Key take-aways

for the transformation strategy

Learning

- Learning by doing, trial and error, and adjustment from evaluation (#1 – Municipality, #2 – Water Authority).
- Stimulating pioneering is more than just giving hours; you need to accept failures (#2 – Water Authority).
- Added value of intensive collaboration and understanding each other's needs (#1 – Municipality, #3 Grid operator, #4 – Grid operator).
- Match answer with the question: reflect (#2 – Water authority).
- Set up internal process group (#2 – Water authority).
- Step out your process to help others in their process (#2 – Water authority).
- Thinking around (#4 – Grid operator).

Transforming

- Perseverance is needed to make change possible (#2 – Water authority).
- The largest change to make is organizational (#1 – Municipality, #2 – Water Authority, #4 – Grid operator).
- Create a common understanding (#1 – Municipality)
- Timing of interventions is crucial (#2 – Water authority).
- Ensure a shared financial interest or a common wallet: sharing burdens together with the decisiveness of a director (#2 – Water authority, #4 – Grid operator).
- Provision of long-term capacity (#4 – Grid operator).

4.2.4 Analysis Case 2: Merwe-Vierhavens

The area development Merwe-Vierhavens is focused on creating a Maker's district that fosters integrated work-life synergy. This is about the interaction between port and city in which the Port Authority and municipality work closely together on this experimental area. To collaborate integrally, the *Programmabureau* was set up with which they established the spatial framework, *Ruimtelijk Raamwerk*, as one of the first steps. This experimental instrument works alongside the zoning plan and guides the ambitions of two parties with divergent desires and interests. This creates a dynamic playing field in which they organize a new way of working together.

Setting up the Programmabureau: what's new?

The Programmabureau serves as an integral collaborative site for the municipality and the port authority. In this place, people from both organizations work together supported by people from the research field (#5 - Municipality, #7 - Port Authority). The cooperation between the two organizations has existed for a long time but in this case, it became apparent that the interests in the same area can cause friction (#7 - Port Authority). By actively working together physically in the same place, they try to identify this friction field and look for joint solutions (#7 - Port Authority). They believe in working in a context-rich learning environment to stimulate the experimental process (#7 - Port Authority).

"We also believe very much in that context-rich learning environment" - #7 - Port Authority

Practical implementation: working within M4H

Working with the *Ruimtelijk Raamwerk* and a *Programmabureau* shows the importance of a common understanding of different organizations (#5 - Municipality, #7 - Port Authority). Merwe-Vierhavens is an area that is very much supported by bottom-up initiatives (#6 - Developer). This is also reflected in the management of the area's development. A downside seems to be that disagreement in decision-making sometimes arises because of the set-up of management layers from the *Programmabureau* which is separate from the municipal and port management (#7 - Port Authority). In this, communication is key (#5 - Municipality).

"Conversely, you very often read that these kinds of developments are only successful if it is supported at the top. [...] Here, on the contrary, it is initiated from below perhaps much more." - #7 - Port Authority

There is also a focus on added societal interest within the area development. This is a logical turn from the municipality's point of view, but for the Port Authority, this has sometimes been difficult to sell from their core business perspective (#5 - Municipality). The innovative nature of the area that participants emphasize plays a major role in this.

"[They] have to talk pretty much the blisters on their tongues to justify the fact that you're actually developing a breeding ground for innovation here which can later help the port." - #5 - Municipality

The part of the *Programmabureau* that belongs to the Port Authority is therefore seen as the innovation body within the company. Participant 7 describes it as "the speedboat that once sails the wrong way or leaks or struggles in other ways

to explore all directions." He experiences that as good to have such an organisation out there. This stimulates the discovery of new paths that can also be fed back within the parent organization (#7 - Port Authority).

However, such a branch always remains difficult within a company. Because, according to Participant 7, innovation is something you have to propagate together. But having the whole company be innovators is not a solution either.

"If you create an innovation department, then everybody thinks, oh that's innovation, hup, throw it over there and success."

Everybody should actually embrace that and do that. But if you make the whole company be innovators, then people are also going to be unhappy. Because they're not."

And you also don't want to outsource it completely, because then there's no more engagement maybe."
- #7 - Port Authority

Learning in the area development: how does it work?

Area development is a thing of decades (#7 - Port Authority). And it is an illusion to think one can plan everything in advance (#7 - Port Authority). Working on M4H taught Participant 7 that if one wants to facilitate a creative, innovative cluster, one must have flexibility in doing so. Flexibility means also making choices. One can and should not want everything at once (#6 - Developer). Success, then, lies in the balance between flexibility and responsibility (#6 - Developer).

Working with cultural differences provides a learning environment for the participants (#5 - Municipality). The integral way of working and how to put that together became the key cross-organizational learning point.

"We are now agreeing again [...] on the next steps for the last areas. And then you must understand what is important for the port authority. And what is important for the municipality. And why would you want it that way? Or why is it difficult for you as an organization?"

And then you try to do it as well as possible to get the best out of it. But yeah... We really do have a different view of the world." - #5 - Municipality

Good communication stimulates the collaboration between the different organizations of the participants (#5 - Municipality). In doing so, the municipality likes to assume everyone's strengths. This is reflected in a change in the *Programmabureau* (#5 - Municipality).

"The Programmabureau is now changing, though. Because we are finding that after the joint visions were drawn up, they have latched on. We are also going back to 'everyone should also be able to do what they are good at.'" - #5 - Municipality

It seems to be difficult for people to look beyond their boundaries. Their own experiential world is already busy and complex enough (#7 - Port Authority). Therefore Participant 7 emphasizes the importance of physically sitting together

for mutual understanding over long written modules which are no guarantee for success.

"I think that is incredibly valuable and a good basis [that we have all those official plans]. But besides that, cooperation is still just doing it together.

You can write an A4 sheet or a Bible full. Both do not guarantee success, but they give some guidance." - #7 - Port Authority

Finally, there was also organizational learning. Within the program office, they ran into the problem of multiple managers with different ideas of success. Participant 7 stated that 'a good project for a project manager is something that is so on time within budget. But a good project for the Programmabureau is not particularly about cost and time. It is about making what they want substantively to happen. Namely meeting, collaborating, business, teaching, and so on.' Those are not always the same things (#7 - Port Authority).

From the developers' perspective, the need is indicated for a more regulated strategy from the municipality (#6 - Developer). Participant 6 states that to develop in the M4H area, more responsibility must be taken from the top down to enable true innovation and learning. The question here is where do we want the area to go? (#6 - Developer).

Success factors: Level goals and expectations

The overall opinion of the participants in this research about the way of working in M4H is not unanimously definable. Participants mentioned the positive components of the Programmabureau setup but also missed some mutual understanding there. The same applies to the concrete approach in the area. The successes from the used method emerge in the following themes:

Communication Use people's strengths (#5 - Municipality, #7 - Port Authority); Understand each other's needs (cultural differences) (#5 - Municipality); Give each other space (#7 - Port Authority).

Organizational change Focus on organizational strengths (#5 - Municipality); Match interests (#7 - Port Authority); Someone has to take responsibility from top-down (#6 - Developer).

Process/collaboration Communication is key (#5 - Municipality); Step-by-step (#5 - Municipality, #7 - Port Authority); Write down goals sharply and compare (#7 - Port Authority); Intervene or execute on the right time (#7 - Port Authority); Meet like-minded people who can help (#7 - Port Authority); Make choices, you can not want everything at once (#6 - Developer).

Mindset/Social cohesion Perseverance (#7 - Port Authority); Feeling of responsibility makes people happy (#6 - Developer); Build a sense of trust (#6 - Developer).

Pioneering Willing to tell the same story over and over again (#7 - Port Authority); Just start (#6 - Developer).

"Trust comes by feet and goes by horse." - #6 - Developer

Recommendations

In the operational practices of M4H, there are insightful lessons to be gleaned that can help to build the strategy for transforming business-as-usual.

First, it is clear from all participants that it is important to level the goals and expectations with the ideas of the people with whom one works (#5 - Municipality, #7 - Port Authority). Added to this is the need for responsibility deviation (#6 - Developer).

In the area of learning, the learning-by-doing principle is preferred (#5 - Municipality, #6 - Developer, #7 - Port Authority). Participants stress the importance of the ability to trial and error (#5 - Municipality, #7 - Port Authority). To carry this out, however, space must be given from the top down (#6 - Developer).

Doing is the best way of thinking. You can't think everything through. Of course, you have to think [something through before] you start but sometimes it's also just the ability for trial and error..." - #7 - Port Authority

To make meaningful changes, it is indicated that the process of transformation must be designed step-by-step (#5 - Municipality). Physical presence in both cooperation and in and around the area is important here (#6 - Developer).

In the area of regulation, there is a demand from bottom up for less complex regulations to enable temporariness. This refers to the Didam procedure that thwarted temporariness within the M4H area (#6 - Developer). The question is whether governments are allowed to be looser about this.

In summary, the experiences in Merwe-Vierhavens shed light on a key takeaway: Trying out new ways of working is crucial for driving innovation in the blend of port and city. By fostering collaboration through initiatives like the Programmabureau and Ruimtelijk Raamwerk, an adaptive approach to integrated work dynamics has taken shape. Challenges in decision-making structures highlight the importance of clear communication and there is yet much more to be learned. Through cultural exchanges and shared learning, a strong base is established for tackling collaborative hurdles. Finding the right balance between adaptability and responsibility is key to aligning goals, making informed choices, and promoting innovation.

Case 2: Findings

- Effective communication and collaboration are the key success factors in a transformative area development project (#5 - Municipality)
- Focus on 'cross-organizational' learning and 'inner-organizational' transforming (#7 - Port Authority).
- Collaboration success by write down goals sharply and compare (#7 - Port Authority).
- Balance flexibility and responsibility (#7 - Port Authority)

Behavioral

- Pioneering by telling the same story over and over again (#7 - Port Authority).
- Understand each other's needs (#5 - Municipality).
- Communication is key (#5 - Municipality).

Educational

- 'Doing is the best way of thinking' (#7 - Port Authority).
- Trail on error (#7 - Port Authority).
- Balancing the role of innovator/pioneer within a company (#7 - Port Authority)
- Finding the right equilibrium in enforcement (#7 - Port Authority)

Governance

- Need for flexibility, balance with responsibility (#7 - Port Authority).
- Illusion that everything can be planned in advance (#7 - Port Authority).
- Step-by-step approach (#5 - Municipality).
- Top-down support for innovators / pioneering (#7 - Port Authority).

Regulatory

- Avoid legal hassles with temporariness to get things off the ground (#6 - Developer).
- Need for umbrella permits to streamline processes (#6 - Developer).

Case 2: Key take-aways

for the transformation strategy

Learning

- The use of the speedboat-principle stimulates capturing new knowledge (#7 - Port Authority)
- 'Doing is the best way of thinking' (#7 - Port Authority).
- Adopting a step-by-step approach in projects facilitates learning and progress (#5 - Municipality)
- Embracing a learning-by-doing mentality and learning from mistakes (#5 - Municipality, #7 - Port Authority)

Transforming

- Perseverance: willing to tell the same story over and over again (#7 - Port Authority).
- Be in the middle of your attention area to make a change (#6 - Developer).

4.2.5 Analysis Case 3: Binckhorst

The Binckhorst is one of the area developments in the Netherlands where the pilot for the new national Omgevingswet has taken place. Lessons were learned from the findings here and applied to the implementation of the Omgevingsplan Netherlands-wide. The experimental instrument here focuses on creating a high-density work-live urban district adapting infrastructural and environmental renewal. Conducting the pilot provided new insights within the participating organizations in various areas within their complex urban development.

Working with the pilot Omgevingsplan: what's new?

The pilot Omgevingsplan comes as a replacement for the then-used zoning plan. The municipality made the decision

to participate in the pilot and designated the largest inner-city area transformation in the Netherlands for this purpose (#9 - Municipality). The Binckhorst's starting points came from an invitational planning approach and the ambition to develop organically (#9 - Municipality, #10 - Developer). There needed to be more room within the established frameworks and more clarity about the possibilities within the development area (#9 - Municipality).

"The largest inner-city area transformation in the Netherlands" - #9 - Municipality

New elements were that more space was given to the market regarding feasibility studies and building units had to be reserved using a reservation system (#8 - Municipality). Developing parties must provide evidence for their projects by themselves to be reviewed by an Omgevingstafel whereas previously some of this was done in advance (#9 - Municipality). The whole legal picture surrounding the Omgevingsplan was also new.

Practical implementation: what happened during the pilot?

The participants all noticed that they were engaged in a pilot. Each in their way ran into problems and or discomforts that seem to come with an experimental environment. The introduction of the first version of the Omgevingsplan allowed developers to reserve housing contingents in the reservation system provided for this purpose (#8 - Municipality). What followed was a run on the 5,000 available units which was likened to buying sought-after concert tickets (#8 - Municipality). At the bottom line, developers ended up with purchased land on which no housing was allowed to be built (#10 - Developer). The 5000 number was fixed for five years (#10 - Developer).

"So look, my big problem in the Binckhorst is that those housing contingents have been running out for five years now. And that all this time you can't do anything. Because you can't develop a plan until you have space for housing contingents." - #10 - Developer

It quickly emerged that the Omgevingsplan is very complex. Some think too complex (#10 - Developer). Others with legal knowledge say that this is the most complex environmental plan that exists (#9 - Municipality). The complexity resulted in delays in execution and even the possibility to start making plans (#10 - Developer). The very little research on feasibility studies on the front end put that responsibility on the developer's side which caused delays in the review process (#8 - Municipality). Participant 9 stated that no application for approval passed the review in one go.

"So that you have to do good research is logical. But within six months [as thought] that did not work. We have to come up with something else for the next phase. We haven't figured that out yet. But it did put pressure on the cooperation between the municipality and the developers." - #8 - Municipality

Within the pilot area development, much effort is put into the participation of current and new users (#8 - Municipality). Along with providing greater clarity with the Omgevingsplan, active organizational efforts are being made to bring stakeholders together (#8 - Municipality). This takes the form of *deeltafels* with stakeholders from specific sub-areas where the municipality takes the lead and an information center where people can get engaged with the area development, learn about their plans or give their ideas and opinions (#8 - Municipality).

"Such an information center is a fairly approachable way to involve people a little bit in area development anyway. So I expect it will be around for a long time.." - #8 - Developer

With this, the output of the pilot to the outside world seems to be shaping up to be increasingly better and more positive. Legally, there are still steps to be made.

Learning from a pilot: how does it go?

The goal of the pilot is specifically to capture lessons while executing the experimental instrument. Those lessons are learned internally by the learning-by-doing principle after doing research on how to execute. In communicating lessons learned internally to the outside, the learning-by-watching

principle is used. This comes across, for example, in the *deeltafels* or at the information center where various tours and workshops are given (#8 - Municipality). Participant 8 emphasizes the added value of joint knowledge sessions for transferring knowledge.

In leaving choices to market participants, it has been found that the easiest option is always chosen here. This causes a monotonous output, for example, in terms of sustainable implementations in the area (#9 - Municipality).

"The conclusion was that many developers do choose the same points, the easy points. So nice that it's there, it already offers a lot. But if that gives you a kind of homogeneous measure set that applies to all buildings, what is the quality of that?" - #9 - Municipality

When looking at the process, the complexity of the Omgevingsplan caused a run-out from the pre-planned path (#9 - Municipality). The complexity resulted in slow adaptation and less success in implementing changes at all (#9 - Municipality). The number of rules beforehand became a bureaucratic trap causing long delays in the overall process (#10 - Developer). From this, it was learned that it is wise to form an instrument along the way (#9 - Municipality).

"You had the opportunity to participate in a tender on a municipal land position. None of them have been realized up to now. This was a tender from 2017. How outrageous is that?" - #10 - Developer

To avoid this in the future, the municipality is having more conversations with stakeholders and keeping major choices under the magnifying glass first. This includes conducting crash tests to see on a small scale what the impact might be on a large scale (#9 - Municipality). Here one can speak of an experiment within an experiment: nested-experimenting. Nested-experimenting can be especially valuable in risk management in the form of extreme scenarios early in the process. This can save time in the process later on (#10 - Developer).

"Think of some extreme scenarios of how something could develop. And I think that could have been done just fine. And then [some elements] could have been foreseen." - #10 - Developer

Organizational change seemed to be hard in the Binckhorst development process. Participant 9 stated that internally there was not enough capacity to execute experimental elements however they wanted. 'Everything experimental is scary in government land' was said. The solution was given to search for experimentation space at higher levels in management. People higher in the job pyramid would or could take more space for that (#9 - Municipality). Space for pioneering or being able to take risks to explore new opportunities within the organization has not been found yet. However, the municipality is open to outside initiatives (#9 - Municipality). For example, a new way of working has been introduced to give temporary initiatives a simplified permit procedure (#8 - Municipality). Still, changing the internal organization remains a difficult issue.

"There are some people who can find that space [to pioneer] in other fields. But on a large-scale level, I don't get it yet where we're doing that." - #9 - Municipality

Success factors

The experimental instrument the Omgevingsplan has especially caused much delay in the overall process. However, valuable lessons were learned through the pilot to avoid these stumbling blocks in other places. The successes and lessons from this pilot stem from the following themes:

Communication Talk with “one mouth” (#9 - Municipality); Importance of good and clear communication internal and external (#8 - Municipality).

Process Form the instrument along the way (#9 - Municipality); Flexibility (#9 - Municipality); Change comes with a step-by-step approach (#9 - Municipality); Divide instruments and processes into smaller pieces instead of all in one time (#10 - Developer).

Social Create formal and informal meeting moments to get something done (#9 - Municipality); Give support and feel supported by people, colleagues, and policy documents (#9 - Municipality); Personal contact fosters collaboration (#8 - Municipality); Organization of *deeltafels* (“share tables”) with wide diverse people involved (#8 - Municipality); Added value of organizing networking meetings (#8 - Municipality).

Reflection Intermediate reflection by looking in the mirror (#10 - Developer); Informal communication causes trust (#8 - Municipality).

Recommendations

From the experimental instrument in the Binckhorst, valuable lessons are learned on how knowledge transfers from experiments that can help to build a strategy for transforming business-as-usual.

To begin with, in addition to the learning-by-doing principle, learning-by-watching is seen as a valuable addition to transferring knowledge. This is done in the form of knowledge sessions but also through field trips in the area (#9 - Municipality).

In the process, it is important to develop and implement a tool or procedure step by step (#9 - Municipality). This increases the chances of success. Communication is very important with all involved parties in both formal and informal ways (#8 - Municipality). Think about efficiency in handling *deeltafel* sessions and create an integral way of collaboration as early in the process as possible (#10 - Developer).

Organizationally, space must be made for pioneering and intensified cooperation. Scarcity in manpower (#10 - Developer) results in process delay and thereby also works against change and transformation.

“Working together is important but the capacity must also be there too. The municipality has no people. Right now, you are put on the waiting list with a plan because there are no official capacities to assess.” - #10 - Developer

A concrete solution to take an adaptive approach in an area development is to use area passports to set clear boundaries about the possibilities within the market (#8 - Municipality, #10 - Developer). The area passports are seen as a tool for collaboration (#8 - Municipality). This indicates that clear frameworks from the steering actor are almost always desirable.

Steering is one of the large themes emphasized in the Binckhorst case. Market parties encourage more municipal steering on where to build (#10 - Developer) while they encourage the market to come with creative experimental solutions to new problems (#9 - Municipality). The initiative is thus rewarded from all actors. Their change in way of working also has something of a balance between adding flexibility but also having a clear policy with boundaries in which work may and must be done (#8 - Municipality, #10 - Developer). Transformation takes place only when the right space is created between these two elements.

Case 3: Findings

- Experimentation is scary for government organizations (#9 - Municipality).
- The process of transformation is slow (#9 - Municipality).
- Need for more steering (#8 - Municipality).
- Balance between flexibility and setting clear boundaries for policies (#8 - Municipality).

Behavioral

- Flexibility (#9 - Municipality).
- People chose the easy option (#9 - Municipality).
- Importance of collegial trust (#9 - Municipality).
- Personal contact fosters collaboration (#8 - Municipality).
- Good communication is key: keep lines short (#8 - Municipality).

Educational

- Learn-by-watching: knowledge session / excursion (#9 - Municipality).
- There is always a variety of possibilities (#9 - Municipality)

Governance

- Complexity makes process long (#9 - Municipality)
- Form an instrument along the way (#9 - Municipality)
- Encourage to take the lead (#9 - Municipality)
- Flexibility in policy: design with public and private together (#10 - Developer).
- Provide frameworks and clear guidelines (#10 - Developer).
- Key to change internal organization: get the right people on the same page (#8 - Municipality)

Regulatory

- The more restrictions the less chance to succeed transformation (#9 - Municipality).
- Bureaucracy pitfall: rules make the process too slow (#8 - Municipality, #10 - Developer)
- Importance of regulation in the form of area passports (#8 - Municipality)

Case 3: Key take-aways for the transformation strategy

Learning

- Importance of flexibility (#9 - Municipality).
- Execute crash tests (#9 - Municipality).
- Be aware of the variety of possibilities (#9 - Municipality).
- Good collaboration is key: keep lines short (#8 - Municipality).

Transforming

- The more restrictions the less chance to succeed transformation (#9 - Municipality).
- Importance of transforming governance inner organizational (#9 - Municipality).
- Flexibility in policy: design with public and private together (#10 - Developer).
- Intermediate reflection (#10 - Developer).
- Solve scarcity of manpower (#10 - Developer).
- Key to change internal organization: get the right people on the same page (#8 - Municipality)

4.2.6 Cross-case analysis

The key takeaways of all three cases give an insight into how learning and transforming are reflected within the various area developments by the participants. Using the theoretical research from Chapter 2, the actions mentioned by the participants were translated into overarching themes to compare them with the other cases, see Figure 26.

Learning			
<i>Learning-by-doing</i>			
Step out of own process	case 1 HAV	case 2	case 3
Internal process group	HAV		
Trial and error	HAV	M4H	
Step-by-step approach	HAV	M4H	
Intensive cross-organizational collaboration	HAV	M4H	BINCK
Flexibility	HAV	M4H	BINCK
Crash tests			BINCK
Speedboat-principle		M4H	
<i>Learning-by-thinking</i>			
Understand other's needs	case 1 HAV	case 2 M4H	case 3
Thinking around	HAV		
Awareness of possibilities			BINCK
<i>Learning-by-researching</i>			
Adjust from evaluation	case 1 HAV	case 2 M4H	case 3 BINCK
<i>Learning-by-watching</i>			
Knowledge sessions	case 1	case 2	case 3 BINCK

Transforming			
<i>Individual</i>			
Timing of interventions	case 1 HAV	case 2	case 3
Perseverance	HAV	M4H	
Physical presence		M4H	
Intermediate reflection			BINCK
<i>Organizational</i>			
Shared financial interest	case 1 HAV	case 2	case 3
Common understanding	HAV	M4H	BINCK
Long-term capacity of manpower	HAV		BINCK
Transformative governance capabilities	HAV		BINCK
Flexibility in policies		M4H	BINCK

Haven-Stad
Merwe-Vierhavens
Binckhorst

mentioned by 3 / 3 cases
2 / 3 cases

Figure 26. Key take-aways comparison of Haven-Stad, Merwe-Vierhavens and Binckhorst (Author).

Learning: *by doing* is not the only way

The comparison of the data analyses shows that the concretization of learning is easier to define than transforming by participants. Here it can also be seen that the most obvious concept of learning "learning-by-doing" also comes up most often. This concept is also literally mentioned by several participants while the other concepts of learning are not.

As follows from the analysis in Figure 26, participants of all cases agree on the learning possibilities within *cross-organizational collaboration*, *flexibility*, and *adjusting from evaluation*. Here *adjusting from evaluation*

falls under the category of learning by researching to evaluate is referred to as researching the process and applying the findings to adjust.

Furthermore, there is more overlap in the approach to learning between Haven-Stad and Merwe-Vierhavens. *Trial and error* and the *use of a step-by-step approach* were mentioned multiple times within those areas. The importance of *understanding other's needs* was underestimated in the process. Learning-by-thinking can be a powerful tool to change a certain path to new creative solutions. This includes the concepts of *thinking around* (in Dutch: *omdenken*) and active *awareness of possibilities* that are not obvious.

Some single-mentioned outstanding concepts for learning were *step out of own process*, set up an *internal process group*, doing *crash tests*, use the *speedboat-principle* and attending *knowledge sessions*. *Stepping out of the own process* is related to *understanding other's needs*. However, the emphasis here is on actively stepping out of one's own way of doing things and joining the way someone else does. That is why this concept is categorized under learning-by-doing.

The use and set up of an internal process group emphasized the importance of distribution of knowledge inner-organizational. This way an organization works on the possibility to transform business-as-usual. The *speedboat-principle* contributes to this. This concept refers to sending a number of people out on the water from an organization or project group to discover new places easily and quickly agile. Because of the speed and freedom of the speedboat, there is the possibility to quickly change gears and get back to the mother ship. The failure of a speedboat mission is also accepted in this regard, because setting up a new speedboat takes few resources. The concept should be a synonym for an experimental way of gathering new knowledge.

Executing *crash tests* (in Dutch: *botsproeven*) are defined separately from *trial and error* under the learning-by-doing category because of their different nuance. Participants mentioned crash tests as a specific way of learning in an experiment by testing an idea with a predefined start and end. Trial and error gives the feeling of freely testing and seeing where it takes you without that predefined end. That is why the concepts are shown separately.

The way of learning which can be defined as the most 'classic' way people learn in educational situations, *learning-by-watching*, is not mentioned much in relation to the area developments. Attending *knowledge sessions* to see how others work is given as an option to do so. Here potentially lies an opportunity for enriching the learning process.

Transforming: need for capacity and inner-organizational changes

Transforming the usual way of working and creating a definite change seems to be something that participants are generally quite negative about. There is certainly a desire to learn, but how something really needs to change significantly remains difficult to interpret. To indicate where the core is, transforming is divided into individual transforming and organizational transforming. The concepts follow from the experiences of the participants on how far the area developments succeeded in transforming and adapting the ways of working they were used to.

About transforming individually, the concepts are most divergent. The one component the participants agreed on is that one must have *perseverance* to initiate a transition at all. This is about perseverance in approach, communication, and willingness to go against the existing regime, even if this is made difficult for one. And in doing so, mere perseverance is not a key to success.

Other concepts mentioned are *timing of interventions*, *physical presence*, and *intermediate reflection*. Timing of interventions refers to the influence on when to execute a certain action. Timing, although categorizing under 'individual' suggests otherwise, is not always within one's control. Some things, and thus transformation, happen under the perfect circumstances. One can encourage these, but not always be created by oneself. Yet it seems to be crucial for transformation.

Physical presence is a concept one has an influence on. Being physically present at all possible meeting and network moments shows to have a positive influence on the ability to transform a way of working by social interaction and being up to date about the latest developments.

The importance of evaluation is also mentioned with learning to understand how the process goes. Intermediate reflection is an add on to this from the individual perspective to initiate transformation. Adjusting during the process ensures that the new way of working is seen and achieved sooner according to the participants. Proof that this has actually led to these results has not yet been given.

For the organizational perspective, there are multiple common concepts that would foster transformation according to the participants. Here the focus is on transforming inner-organizational, within one's own organization.

Participants from all the cases agree that transformation occurs only when there is a *common understanding* about the purpose and direction of the transformation. In addition, suggestions are made about the governance of an organization. Transformation requires *governance capabilities* to be *transformative*. By this is meant that governance practices can be adapted and act more flexibly than has been done so far. Without top-down support, the possibility of transformation of systems within an organization is hardly possible. *Flexibility in policies* aligns with this.

Something that actively thwarts transformation within organizations is scarcity. Participants indicate that this applies to scarcity of time, and therefore manpower, and money. The solution could be the provision of *long-term capacity of manpower* to be able to execute what is needed to learn and transform. At the organizational level, this is inextricably linked to finance. Within the case Haven-Stad is mentioned that *shared financial interest* is needed to enable transformation. This shared interest must be rolled out cross-organizational.

4.2.7 Learning intent vs capacity to change

The two inseparable themes that emerge from the cross-case analysis are the *learning intent* and the *capacity to change*. These themes are inextricably linked in four ways, see Figure 27. These concepts in the diagram guide where one is placed based on the different factors and the potential for learning and transformation.

Learning intent is divided into *problem-oriented* and *solution-oriented* learning, referring to the extent to which an individual or an organization intends to learn. Solution-oriented means one is focused on coming to the solution of an assignment, challenge, or task. Problem-oriented means that one is focused on solving the core problem of an assignment, challenge, or task. It is not about the solution but how to solve the core of the problem.

The capacity to change is divided into a *low* or *high* capacity. With low capacity, there is little room for change while high capacity refers to much room for change.

The boxes within the diagram show what type of learning is possible with the combination of the different factors. Findings from the interviews can be linked to the four learning boxes.

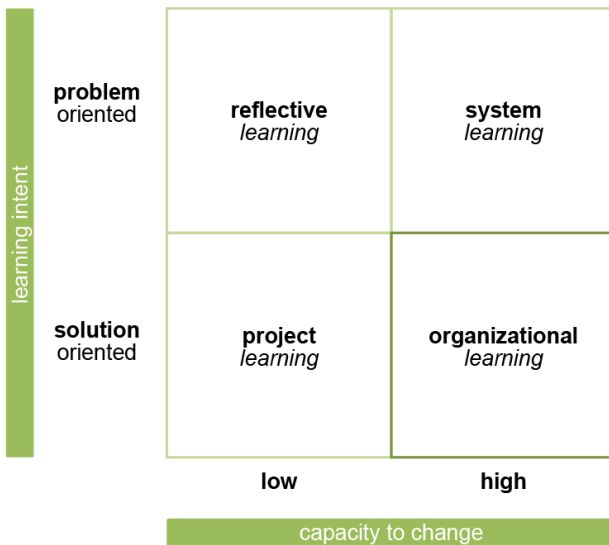


Figure 27. Learning intent vs. Capacity to change; focused on transforming business-as-usual (BAU). (Author).

Project learning refers to the engagement in an extended project to explore and apply knowledge and skills to foster a deeper understanding and practical application.

This way of learning is frequently reflected in the retrieved data. Participants highlighted how they learned of a specific occasion and emphasized certain moments in time when they gained knowledge about a framed piece of the overall task. (#1- Municipality, #5 – Municipality, #7 – Port Authority, #9 – Municipality).

“And my working method here is just.... Yeah, we're just going to do it. And we'll see... We'll see where we end up. We're going to make mistakes. We're really not going to do it perfectly at the beginning. But we just start, and we do our best. And we'll go. And small steps.” - #1 – Municipality

Reflective learning refers to the practice of self-evaluation to gain insights and improve future actions. Central is learning about why things happen in a certain way by evaluating situations.

Participants mentioned examples of reflective learning. Some more clearly and consciously than others. This often involves reflection on the actions of others or the organization, rather than one's own ability. Reflection is often about processes of collaboration, manner of leadership and interpretation (#2 – Water Authority, #4 – Grid operator, #7 – Port Authority, #10 – Developer). The learning takes place when participants become aware of their own reflective capacity.

“I don't believe there are people deliberately trying to antagonize. It's just that for a lot of people, it's [hard to look behind their boundaries]. [...] This is my world. Then it gets busy enough and it's already very complex. Then this and that and that and that and that. [...]” - #7 – Port Authority

Organizational learning refers to the process by which organizations acquire, create, and transfer knowledge to adapt, innovate, and improve performance through shared experiences, collaboration, and a culture of continuous learning and development.

This learning type is questioned the most in this research and therefore substantiated by most of the data from the interviews with participants. Participants provided tools for learning in organizations based on own experiences. The focus is on how things should be to change a way of working inner-organizationally. Examples verify

from changing internal processes to practical problems to implement working methods with a focus on change from top-down (#2 – Water Authority, #3 – Grid operator, #4 – Grid operator, #5 – Municipality, #6 – Developer, #7 – Port Authority, #8 – Municipality).

“No, that doesn't fit into the standard operating procedure they have at [Grid operator]. And I also believe that [Water Authority] and [xxx] are actually running into the same issue. That if you were to apply this regularly, then there just has to be a change from the top down. Then it really has to be considered. So that then means more hands on.” - #4 – Grid operator

System learning is about understanding the interconnectedness and dynamics of complex systems, emphasizing the relationships and interactions between components to identify patterns and leverage feedback for continuous improvement.

Since this learning box is about the interconnectedness of systems, it has been hard to discuss the related factors with individuals who were focused on projects and organizations. Some participants were able to touch this field by zooming out to the higher level above organizations (#2 – Water Authority). Here only the problem was cited but not the solution direction given (#9 – Municipality). System learning thus requires a deeper dive to make practical implementation recommendations. Nevertheless, its existence and importance have been demonstrated.

“But I think the biggest challenge is not in that replacement task, but in the over-organizational aspect. That's really the system transition we have to go through” - #2 – Water Authority

Appendix 5 gives an overview of the related findings to each learning box.

The diagram shows that changing business-as-usual only occurs with a high capacity to change. This follows from the participant statements but also resonates with the literature.

In the process of distilling actions from experiences participants had, the theory confirmed that learning, and with that the learning intent, is the step before transforming. With the knowledge and lessons learned during the learning process, applying transformative actions with a high capacity to change can make the step toward a new way of working and cause transformation.

To facilitate the transfer of knowledge from an experimental environment to business-as-usual, the concepts of learning and transforming as described in this sub-chapter should be applied considering the playing field of the relevant urban and organizational context. The proposed transformation strategy is elaborated in the next chapter.

5 Synthesis

This chapter brings all findings from the theoretical and empirical research parts together. Firstly, the strategy is designed which visualize a step-by-step approach to how to learn and transform inner-organizational business-as-usual. Then, the designed strategy is validated by an expert panel. The results from the expert panel will be used to create the final strategy on how management practice can learn from experimental projects to transform business-as-usual to stimulate sustainable urban transitions.

5.1 Strategy design: How to transform business-as-usual?

The findings from the theoretical and empirical research show that to come to transformation, one must go through a process of various phases of learning. The impact and implementation of those phases depend on the goal of the transformation to go through. But the goal, the dot on the horizon, is often not clear from the starting point. How to start and come to a transformation? And how to transform business-as-usual?

The findings revealed that transformation within one's own organization is best interpreted as driven transformation. Concepts for learning emerged from the various case studies, like actions to get to transformation. These elements will be captured in the various phases of the strategy.

The starting point for this transformation strategy is one's own organization, the parent organization as defined per researched case. To effect a change, different variables can be turned to produce different outcomes. These variables are captured in three phases to activate from the inner-organizational perspective, begin to learn, and ultimately transform. At the beginning of these phases are the experimental elements from which to learn. The goal after going through these phases is to arrive at a new neutral state defined as the new business-as-usual. The interaction between these phases and the progression from state to state is explained in the final strategy in §5.3.

5.2 Validation: Testing the strategy

The first outline of the transformation strategy is validated by the expert panel to test the ideas with experience from practice. Every expert is asked to reflect on the conclusions presented and elaborate on what, why, and how certain concepts will or will not work in the field. The findings from the expert discussion will help to eventually deepen the presented findings and develop an effective strategy to steer learning of management practices to transform business-as-usual.

5.2.1 Expert panel

For the expert panel, professionals are selected according to the criteria in §3.5. The organizations and functions of the experts are shown in Figure 28.

#	Organization	Function	Field
1	Consultancy	Partner	Real estate and energy transition
2	Consultancy	Market director	
3	Consultancy	Consultant	

Figure 28. Overview of experts (Author).

The expert panel session consisted of a 1.5-hour physical meeting where first the scope of the study was explained. Then the findings of the case studies were presented in the form of five statements after which reactions of the expert were collected. Finally, the *learning intent vs. capacity to change* diagram and proposed strategy were discussed collectively to gather feedback for sharpening that strategy.

5.2.2 Expert findings: focus on the expertise of people

The expert panel is held according to the expert panel protocol as stated in Appendix 4.

Statement 1 – Adding manpower

Something always gets better when more people work on it.

The unanimous response was no. “It is about expertise, drive, and shared purpose” (#1). The experts indicated that it is difficult when talking about innovation and change management in organizations, but the more people, the less responsibility. The advice is to make smaller cells to create clout (#1). And if something works, one can start copying that to a larger section (#2).

The example of municipalities and (semi-)public organizations asking for capacity in people came up. The response: they need other people with other expertise, not more (#1). Capacity is knowledge and skill, not people (#2).

There was also a reference to a beehive. Why can bees do it perfectly working together within a system? Perhaps the bee structure is too far removed from humans with a desire to innovate (#2, #3).

They also discussed the metaphor for an orchestra. “If you love music, you put not one musician but 10 musicians on stage. And even better, a whole orchestra! But does the music get better when there are more musicians on stage?” This depends on the knowledge and skill of the musicians (#2).

Statement 2 – More capacity

To change the current way of working, you need additional capacity.

Again, the same resisting response. The experts state that just adding capacity is not going to solve a problem (#1, #3). The question is ‘Is it about solving a problem or creating change?’ The nuanced difference between statements 1 and 2 kept the experts busy. The concept of scarcity was mentioned. Scarcity creates creative solutions and therefore perhaps innovation or change (#2). “In project management, it's a reflex. If a project is not going well, hup, add people. [...] The more people added, the more complex the organizing becomes. That reduces efficiency.” Adding more capacity is not going to solve the problem (#2).

The opposite is also proposed. “When things are not going well, wouldn't it be much more effective to get rid of half the people?” (#3). The response: “That would drive everyone crazy” (#2).

Statement 3 – System adaptation within an organization

Adapting a system within an organization only succeeds if knowledge is used from another organization.

On this statement was no direct answer. It can be but does not have to be true. Again, it has to do with expertise. However, it is said, “Strange eyes compel” (#1). As the conversation progresses, the experts agree more and more. Outside knowledge and expertise help change an organization. It is

also stated that it is also possible to bring external expertise in. For example, by bringing someone with a new perspective physically into the organization. They give examples from their own experiences.

A metaphor is drawn with lubricating oil. “Actually, you need a kind of lubricant for the machine that is stuck. Then you cram in the lubricant, external knowledge, and it starts running again. But the essence is not that something necessarily comes from outside. The essence is that the system starts moving again, and that power can also come from within.” (#2).

An example is given about a large organization where, for an experiment, all barriers of authority were removed. The result was complete chaos, but as many as ten new ideas emerged that were later implemented in a structured way with organizational expertise and leadership. The chaos caused renewal.

Statement 4 - Adding financial capacity

As long as there is enough money to invest within an organization, the way of working will always change positively.

The unanimous answer is no. Money is seen as an instrument. If one does not know what to do with the instrument, one is hopeless (#1). “Money is just one of the instruments in our capitalistic system one has to bring in their suitcase with tools to initiate change.” (#1). It is said that without money, initiating change is difficult (#3). Trying something new always costs money (#2).

To change a way of working, one should always look closely to the instruments one needs and make precise trade-offs in doing so. The parallel is drawn with a plant. “A plant needs light to grow. Also water. But if you give a plant too much water, it will die.” (#2). Again, the concept of scarcity is invoked. Through scarcity, more innovative ideas are conceived (#2).

Statement 5 - Pioneering

Innovation flourishes best at the edge of an organization.

The experts state at first that innovation can flourish both on the edge and in the core of the organization, but the odds of success are greatest at the edges (#3). It is about getting space (#2, #3) and clear guidance from the top layer (#1). Here a direct parallel can be drawn with the outcome of the case study participants. When it comes to innovation and pioneering, this is key to maximizing the chances of success.

Furthermore, the question is raised among themselves as to where the initial sparkle of innovation comes from (#2). The answer: “It all starts with people.” (#2). This brings them back to their earlier finding. “There are people who think of things as they go along. Then it is then up to the organization to do something with that. I think the latter always happens at the edge of the organization and never in the core process because it just doesn't happen.” (#1). That way, change comes together with people and supports the theory about experiments and pioneering to seek change. Small cells on the edge of the organization will kick-start ideas and when acquired, acknowledged, and supported by top management, transformation can happen.

Learning intent vs capacity to change – diagram, see Figure 27

Experts agree that the diagram captures the issue at its core. The way of seeing is emphasized (#1). The question is raised whether this stems from an existing theory. The answer is no. This indicates the potential and power of the confluence of these blocks.

Together the panel filled in the different blocks with real-life examples. For each block of the four, an example is easily found by one of the experts. The examples range from small (neighborhood scale), to larger (province organizational scale), to largest (national governance cases) (#1, #2, #3). This is also the thrust intended by the diagram and validates the legitimacy of the content.

Strategy approach

The strategy was also jointly reviewed. The general opinion is positive. The picture was clear but could be more simplistic (#1). The name terminology of the different phases evoked new ideas and themes that have not been discussed yet (#1, #2). If there had been extra time, we would have gone into those.

The experts emphatically discussed the importance of the nonlinear process. Innovation and change are not executed in a linear way (#2). This is something to think about as we move forward. It also raises the question of whether everyone in an organization should always be included for change (#2, #3). Must everyone jump to the last island? Probably the answer is no. That is where the definition of business-as-usual and new business-as-usual comes in. The panel concludes with the statement “if 80% gets to the last island, you have also achieved change.” (#3).

5.3 Transformation strategy: The final design

Within the built environment, change is needed to keep up with the complex questions and demands we face in our constantly developing cities. The beginning of this transformation lies with the organizations and people working on this renewal in the urban context. If we can adapt our way of working to express new ways of working, we can work better and more efficiently toward a sustainable output. This transformation strategy focuses on the inner-organizational learning and transformation process to adapt to the never-ending demand for innovation.

5.3.1 Business-as-usual state: Organization as an island

The starting point of the strategy is the parent organization. An organization is defined as a parent when it is an established place to report and come back to. Also theoretically, there is room to move away from. This parent organization is seen as an island, see the first state in Figure 29. Being on this island is defined as business-as-usual: people work how they used to work, also referred to as the normal way of working. There is an established organizational culture on this island that is difficult to deviate from. The organization is stuck in its own routine and building continues like it has been done before.

Running in parallel is the demand for renewal. Awareness of other islands around its established place should come forward from the business-as-usual focused inner-organizational self. If this seed is planted, the process of transformation starts.

5.3.2 Three phases: from experimentation to transformation

To be able to transform business-as-usual, one goes through a process of experimentation and learning. This process is divided into three phases: detaching from the island and exploring; gathering new information and sharing it; and acknowledging and evaluating what has been done and brought, see Figure 29.

Phase 1: Activate & Explore

The first phase starts with activation. The seek for change and renewal is there and the incentive to explore and experiment in the urban context is established. But how do you bring an idea to fruition?

The desire for renewal must be carried by both the organization and the individual. But in this, the individual is the actor who must step off the island with persistence. This individual becomes the focal actor. In practice, this individual can be multiple persons who form together the focal actor. The focal actor steps into the process of experimentation.

Breaking loose from the stabilized island can be done through the speedboat principle. The focal actor serves as a pioneer and takes the space to gain new learning possibilities in an urban project: urban experimentation. This should be done in the day-to-day projects the focal actor works on. From the organizational perspective, it is important to give room for making mistakes and support pioneers in capacity. This creates a more creative workspace within which the likelihood of innovative solutions can be higher.

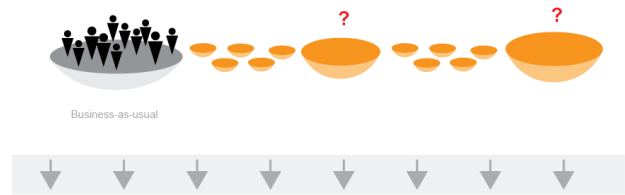
Phase 2: Acquire & Exchange

The second phase occurs when the focal actor can acquire knowledge from lessons learned in the urban experimentation. It is important to interact with other organizations (islands) and gain knowledge from both technical and social perspectives. Within the urban experiments, the four mentioned concepts of learning with corresponding actions should be incorporated: learning by doing; thinking; researching; and watching.

Then it is about sharing this new information within the organization. Fellow employees should be encouraged to step onto the next island. Because the focal actors have already taken that specific path, confidence about the added value of this step is established. Active support from management is crucial to the success of this phase. For experiments to be successful, management must provide sufficient funding to make implementation possible. The exchange of findings from the experimental projects can be done through internal knowledge sessions, evaluation sessions in project teams, and the capturing of lessons learned after the completion of an experimental subproject.

The organization must collectively ensure that the lessons are implemented in the business-as-usual way of working. Only when they get off their island and are open to innovation, change will take place in the project output and with that in the built environment.

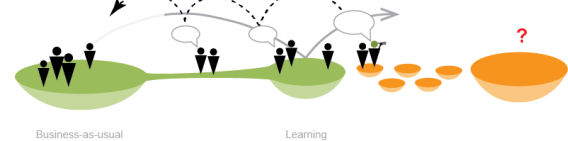
State: Business-as-usual



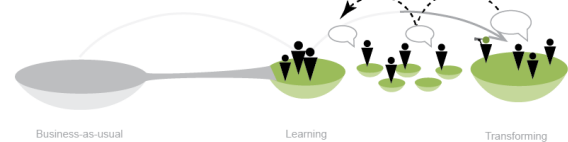
Phase 1: Activate & Explore



Phase 2: Acquire & Exchange



Phase 3: Acknowledge & Evaluate



State: New business-as-usual

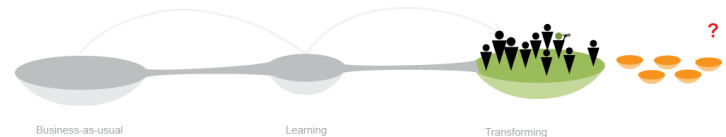


Figure 29. Transformation strategy: three phases (Author).

Phase 3: Acknowledge & Evaluate

The phase of learning has succeeded when lessons learned are seen back in practice. The pioneer is not a pioneer anymore because others joined the newly traveled path. Employees have collectively become the focal actors of their renewed way of working. To take the next step and state as an organization of a transformation, it is important to communicate from the top leadership department. Various findings have shown that this can be the last push toward the acknowledgment of the steps that are made and motivate stragglers.

5.3.3 New business-as-usual state: not a linear process

Opposite of what this transformation strategy may imply, the transformation process is not linear nor a key to success. When the process of inner-organizational learning and transformation of business-as-usual has occurred, a new state of business-as-usual has arrived. This gives space to work on the challenges of today, but maybe not of tomorrow. The keynote is to keep activating, exploring, acquiring, exchanging, acknowledging, and evaluating to continue underlying innovation. The lessons learned from

experimental projects remain key to transformative ways of working. Create space for the repeated process, only then the new business-as-usual will remain new.

5.4 Transformation strategy for business-as-usual: conclusion

The three phases can be connected to the learning intent vs. capacity to change diagram. All of this together forms the summary transformation strategy for business-as-usual. The connections are shown in Figure 30.

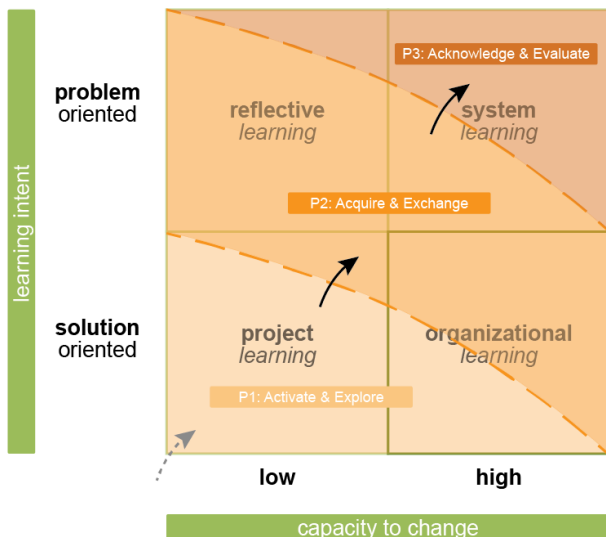


Figure 30. Transformation strategy for business-as-usual. (Author).

In every phase, the focus is on particular learning boxes. Multiple types of learning should be used and passed before coming to transformation. Additionally, the three elaborated phases are associated with three metaphorical ways of moving, see Figure 31. These ways of movement illustrate how focal actors can move in these phases.

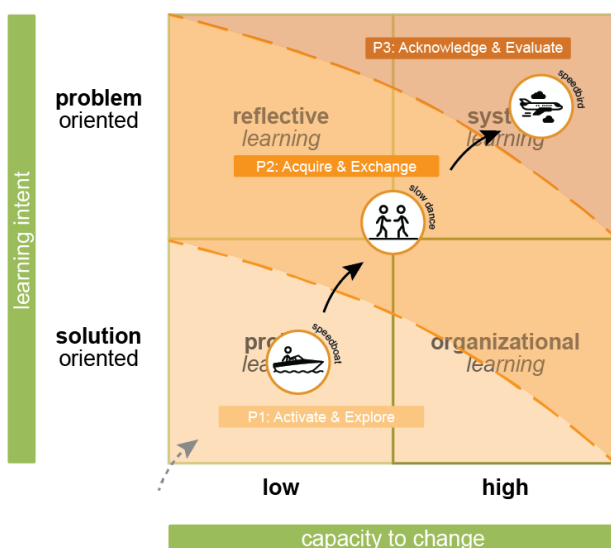


Figure 31. From speedboat, to slow dance and speedbird. (Author).

Phase 1: Activate & Explore is linked to the largest part of project learning and a small piece of organizational learning. This is because these blocks focus on the focal actor who wants to find a solution to an identified problem. To come to this solution, multiple things (projects) will be tried out to test which solution or direction works best. The capacity to change is low due to the limited resources and opportunities of the individual. It can become high when top-down management gets involved. This phase aims to break away from established ways of working and explore new things to learn from.

The associated metaphorical way of moving is a speedboat. This concept refers to sending several people out on the water from an organization or project group to discover new places easily and quickly agile. Because of the speed and freedom of the speedboat, there is the possibility to quickly change gears and get back to the mother ship. The failure of a speedboat mission is also accepted in this regard because setting up a new speedboat takes few resources.

The second phase *Acquire & Exchange* is linked to all four learning boxes. In this phase, the center of attention has shifted toward the combination of all factors since this phase is the hardest to come through. The knowledge that became known in the previous phase is now acquired and shared among fellow actors within the organization. The focus is on reflective and organizational learning. The kick-start for transformation can be made to turn low into high capacity to change and step into the system learning box. For this, the lessons learned should be seen back in practice.

The associated metaphorical way of moving is a slow dance. This concept refers to the interaction between people moving back and forth. In this slow dance, the focal actor acquires knowledge of 'how to' and gets more experienced on the way. The slow dance takes place at the intersection of all four learning boxes, moving back and forth to see how lessons can be learned and exchanged.

If the lessons are seen back, the phase and with that the focus can be shifted towards the problem-oriented boxes. *Phase 3: Acknowledge & Evaluate* are linked to primary system learning with a bit of reflective learning. Here lies the foundation for changing the business-as-usual in an organization. The focus is on learning through all levels of the organization, communicating the new way of working, and continuing to evaluate the steps that have been made and that will be made. Acknowledgment is key to being able to learn as an organization and get into the transformation phase.

The associated metaphorical way of moving is the speedbird, referring to the call sign for British Airways. In this phase, there is a focus on accelerating. The speedbird breaks away from the established order, business-as-usual, and literally rises to a new level. Up high in the sky, a transformation has been made.

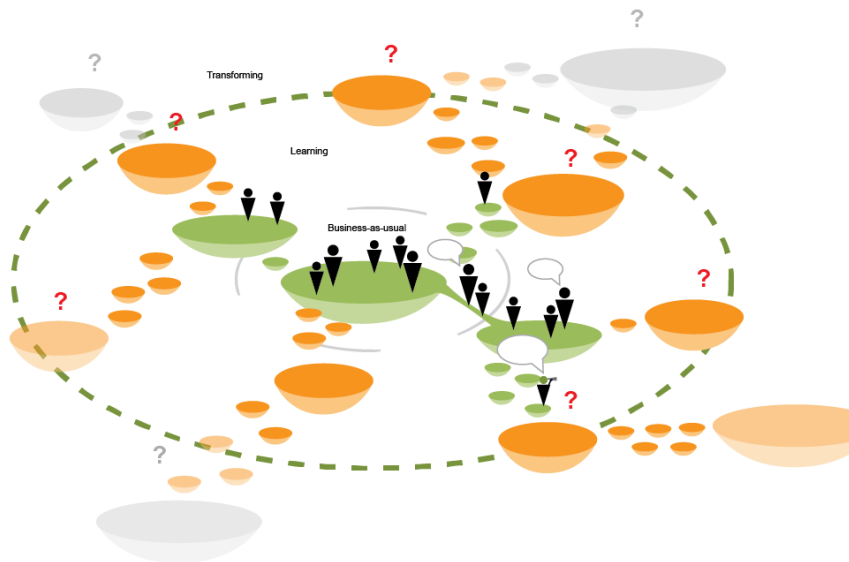
As elaborated in §5.3.3, the process explained in the transformation strategy is not linear. In the process of learning and transforming are loops possible that cause one to remain stuck in a certain phase or return to their business-as-usual state, see the conceptual framework in Figure 7.

The next page shows the actions related to the different phases in their non-linear context.

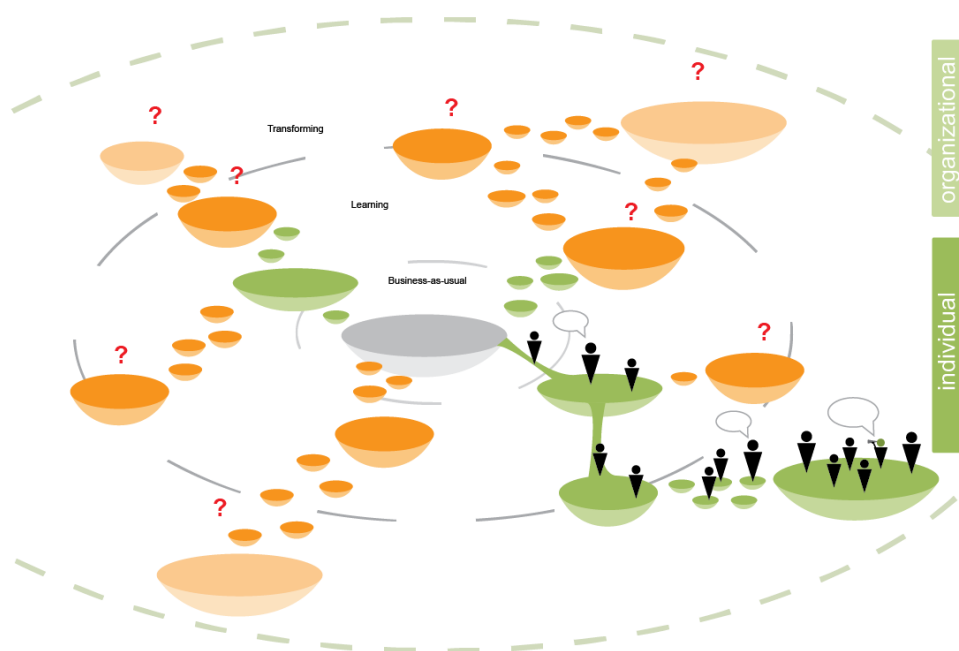
Phase 1: Activate & Explore



Phase 2: Acquire & Exchange



Phase 3: Acknowledge & Evaluate



Phase 1: Activate & Explore

	action	elaboration
organizational	Provide space to experiment	Give individuals space in workhours, financial support and brain space to test new ideas. This kick-starts the learning process. Make sure to give room for making mistakes.
	Set-up a collective speedboat approach	Actively drive out individuals in the learning field. Create cells at the edge of the organization in which new ways of working can be tested. Organize a general meeting or seminar where people are inspired and encouraged to step out of their comfort zone. If necessary, remove (governance) barriers that impede this.
individual	Step off the island	Distance yourself from the established way of working within the organization. Dare to do something different from how you are used to doing it. Discover new ways of working by getting inspiration from others.
	Be persistent	With experiments come failures. Be persistent in trying new things. Take the space you need to be creative. Without this persistence, no transformation will get off the ground.

Phase 2: Acquire & Exchange

	action	elaboration
organizational	Encourage knowledge sharing	Provide a stage for sharing knowledge, expertise, and findings. Support the organization of knowledge and evaluation sessions.
	Set up an internal process group	Set up an internal process group to keep track of things that are explored, tested, and learned. By monitoring this at a central location, available capacities can be handled efficiently. Feedback to the process team can be collected by scheduling repeated short update meetings and/or organizing an online environment in which process is tracked.
individual	Learn	Learn by doing, thinking, researching, and watching. Get into the field, learn from others, and try on error. Be aware of the possibilities behind your own perspective. If a serious interesting idea for change comes up, perform crash tests.
	Capture lessons learned	Gather knowledge gained from experimentation. What seems to work and what doesn't? Gather both technical and social insights.
	Share by spreading the word	Share lessons learned with other individuals and feed back to top management. In doing so, convey enthusiasm for the findings. The more people know about new findings, the sooner change is set in motion. Sharing knowledge can be done through internal knowledge sessions and evaluation sessions in project teams, but also informal at the coffee or lunch table.

Phase 3: Acknowledge & Evaluate

	action	elaboration
organizational	Acknowledge change that has occurred	By acknowledging changes that have made, individuals feel valued and seem to perform better as a result. Recognize what steps have been taken and link this back to the various layers of the organization. Togetherness creates motivation that contributes to transformation.
	Implement the new way of working from the top down	Support from top management makes things more likely to be adopted by individuals. Help pioneers in implementing change. Adopt the thought well and develop the new way of working. Transformation is underway.
individual	Evaluate the acquiring and exchanging process	By evaluation the process, you zoom out to the overall picture and be able to focus on the things that are relevant to the question asked. Evaluating allows you to come up from tunnel vision and re-evaluate what is the goal you are working toward or what you want to achieve. Acknowledge the change that has been made and communicate it to both individuals and management.
	Continue learning	The process of learning and transforming is ongoing. Continue exploring possibilities to innovate oneself and the way of working on relevant tasks. This will ensure the change to transform and keep up with the requests of tomorrow.

6 Discussion & conclusion

This chapter discusses an in-depth exploration of the theoretical and empirical findings of the total research surrounding the transformation strategy. In addition, the chapter delves into the main conclusions drawn from the research findings, highlighting the significance of organizational capacity for change. Furthermore, practical recommendations based on the transformation strategy and avenues for future research will be elaborated, offering insights into fostering innovation and adaptability within organizational contexts.

6.1 Discussion

Learning from experimental projects and transforming business-as-usual are extensively discussed from a broad to a narrower perspective in different parts of this research. But a different light can also be shed on these concepts and their context.

6.1.1 Research discussion

Definitions

To start with, the main concepts learning from experimental projects and transforming business-as-usual ask for clear definitions to be able to communicate about the same topics. Interpretation of these concepts is key and can cause a lot of confusion or ambiguity about what exactly it is about. For this research, specific definitions are chosen to set clear boundaries for what is meant. But literature gives way more definitions than one. It can be doubted if the chosen definitions are clear enough and set the boundaries needed to communicate clearly. The social nature of this research gave opportunities but also limitations.

The breadth of the concepts allowed room to explore the scope from different angles. It did, however, create ambiguity as to exactly what question was being asked. Examples of this are the many different learning types mentioned in this research. The lack of a clear delineation of what type of learning is and is not important and relevant in the context can create confusion. In a follow-up, this should be more clearly established.

Method

The focus of the research has been on people's experiences in the context of experimental urban area developments. These experiences are gathered by interacting with those people and asking them how they experience learning and how they think transformation can happen. Within the available time frame, this direct method of research was a good starting point. However, it would be strong to validate the results found with observational research. This could include observing whether the things learned can be seen in human behavior. Executing this proposed method takes time. One might ask how much can actually be traced back one-to-one from an output to a lesson learned.

Within the research framework, we chose to examine three different area developments, each with an experimental element. The variation between the spoken participants and different area characteristics proved very valuable for the overall research. Drawing parallels between the different organizations gives a nice picture in the initial interest differences. However, this does remain only the tip of the iceberg. Speaking with 10 to 15 other participants would have been expected to yield both some of the same

findings and potentially totally different findings. The moment in time when the interviews were conducted also plays a role. Social research has proven not to be hard science.

The analysis method used can also be interpreted in different ways. Using different themes, the research data was categorized and processed. By using the traveler approach, this categorization became looser which made researcher interpretation more important. This interpretation can be debated.

Pioneering

The results of the empirical research findings clearly show the importance of pioneering to catalyze change. Pioneering is even described as the starting point of the first phase of the proposed strategy. However, the concept is narrowly reflected in the theory covered. It can be argued that the phenomenon of pioneering is under-researched in existing literature and the connection with learning, transforming, and pioneering has not yet been frequently made. Yet this study argues that there is indeed an important connection here and that pioneering is inextricably linked to the path to transformation.

Capacity to change

The transformation strategy suggests that whenever an organization walks through the various phases of the strategy, the organization reaches a new business-as-usual state and is transformed. In practice, this is not a linear process. A large influence on this is the capacity of this organization to change. The research outcome made it increasingly clear that change is only significantly possible when there is a high capacity to change. It does raise the question of how specifically to increase that capacity to change. On an individual level, this is easier to interpret than on a group level. Added to this is the variation factor that each individual and each group is nearly unique. Defining that change factor from low to high capacity to change remains tricky. The proposed strategy serves as a suggestion.

Sense of uncertainty

The process of learning and transformation also involves a lot of uncertainty. This uncertainty is not highlighted as such in the theory, but it does come forward in the empirical research. The relationship between going through various stages in a transformation process and the all but certainty that emerges with that going through is important here. Emphasis should be placed on the fact that a devised transformation process almost always turns out differently than previously thought. Evaluating a successfully completed process after the fact offers no guarantees for the future. Therefore, the sense of uncertainty must be considered in every unique situation.

Transformative governance capabilities

To be able to transform an organization from the inside, both theory and empirical findings showed the importance of transformative governance capabilities. Inner-organizational change is stated to only happen with top-down support and with a top layer of an organization that is willing to adapt its way of working. But is it necessarily true that transformative governance capabilities are needed for change? The empirical findings of this research result in the answer 'yes', but a broader perspective can be looked at to see if this works differently in other contexts or cases. There is much more to learn about the transformative capabilities for which different research participants are needed than

questioned in this research. This provides opportunities for future research and points to a limitation of this research scope.

Scaling

The origin of this research lies within the scalability options for experiments in the urban context. Learning from experiments and transforming business-as-usual, suggests that scaling is always wanted. This has not always turned out to be true. Some experiments have shown not to be suited for scalability at all. Discovering what experiments are suitable for scaling and which are not, can be done by using a step-by-step approach when slowly exploring the scaling results and impacts. This minimizes disadvantages and unnecessary work. It should be mentioned that some experiments are important to have done but should be kept an experiment. It should not be seen as a failed experiment, but as a learning component that can lead to another possible scalable experiment or even transformation start. Experimentation can be of all types and does not need to have the ambition to scale up.

6.1.2 Contribution of the research

Learning and transforming are from all times, but knowing how to implement lessons learned to start a transformation in a certain context continues to add value. This research contributes to expanding knowledge on learning and transformation in the built environment by proposing a strategy that focuses on different forms of learning that can bring about transformation after implementation.

This research contributes to filling the knowledge gap on how lessons learned from experimental projects can be implemented in practice to stimulate sustainable urban transitions. By showing the relationship between the learning intent and the capacity to change, the first steps can be made to transform organizations from the inside that work towards a new business-as-usual in the urban context.

The path towards transformation of business-as-usual starts with awareness and acknowledgment. This study shows both the conceptual overview of how learning and transforming can work but also provides the practical implementation of what actions to take in which phase of transformation.

6.1.3 Limitations

This research focused on the two main concepts *learning from experimental projects* and *transforming business-as-usual*. During the execution of the research, it became clear that people's perceptions of the meaning of these concepts differ. That made it hard to ask direct questions about how one experienced these concepts in practice. The importance of setting clear boundaries of what these concepts mean in the context of this research became emphatically visible. Yet misunderstanding about the meaning of these main concepts may have arisen in the empirical part. In addition, this study's scope also limits the findings. The group of participants does not reflect the average area development in which experimentation takes place. As best as possible, a variety of area developments were sought to look at, but it does not form an overall picture.

There are also limitations to the proposed strategy. This strategy is based on recommendations from the ten participants and was theoretically tested by an expert panel of three experts. However, this does not give a complete reflection of all organizations that have the potential to transform their business-as-usual way of working. The strategy has also not been widely field-tested. This suggests

that this proposed version of the transformation strategy still needs to be further developed.

6.2 Conclusion: the importance of capacity to change

This research examined the main research question:

How can management practices learn from experimental projects to transform business-as-usual to stimulate sustainable urban transitions?

This question was studied through theoretical and empirical research on three experimental urban area developments in the Netherlands with all different experimental instruments. This gave an insight into the different forms of learning and transforming practices in the way of working of the involved parent organizations.

It can be concluded that management practices learn inner-organizationally when it comes to working on area development. Within the organization, learning is stimulated by exploring experimental environments. Learning is the process that comes before transforming. From learning, transformation of current ways of working, business-as-usual, can occur but is not always true.

Whether learning from experiments results in transforming current ways of working depends on the *learning intent* and the *capacity to change*, see Figure 32. With a high capacity to change, the opportunity to learn and transform as an organization significantly increases. But to come to a transformed state, multiple phases, and with that learning boxes from the figure, must be passed.

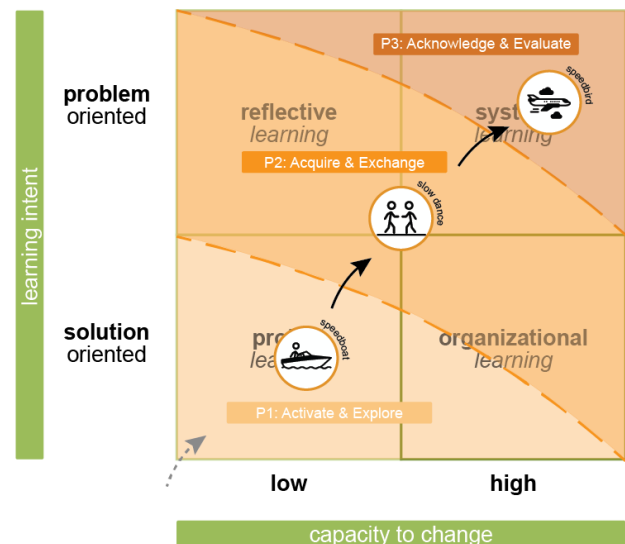


Figure 32. Learning intent vs. Capacity to change; focused on transforming business-as-usual (BAU). (Author).

Learning and transforming are non-linear processes that can be stimulated by undertaking certain actions in and outside one's organization and area development processes. Here, too, the capacity to change plays a major role. The actions organizations and individuals can take are compiled into the transformation strategy as explained in §5.3.

All in all can be stated that when the process of inner-organizational learning and transformation of business-as-usual has occurred, a new state of business-as-usual has arrived. This gives space to work on the challenges of today, but maybe not even for tomorrow. The keynote is to keep activating, exploring, acquiring, exchanging, acknowledging, and evaluating to continue underlying innovation. The lessons learned from experimental projects remain key to transformative ways of working. Create space for the repeated process, only then the new business-as-usual will remain new.

6.3 Recommendation

Learning and transforming remain concepts that are hard to grasp. To implement the research findings in practice and continue working on these topics, the transformation strategy and recommendations for further research are set forth.

6.3.1 For practice

The transformation strategy focuses on the inner-organizational learning and transformation process to adapt to the never-ending demand for innovation. This transformation strategy helps organizations to activate their learning process and transform their way of working towards a new business-as-usual. The full strategy with actions is explained in §5.3.

The strategy starts at the base state *business-as-usual*. From this state, the strategy presents three phases to come towards transformation, the state *new business-as-usual*. The first phase 'Activate & Explore' focuses on breaking loose from the stabilized organization through urban experimentation. This is done by a focal actor leading the way, supported by management for capacity. The second phase 'Acquire & Exchange' involves acquiring knowledge from the experiments, sharing it within the organization, and implementing lessons learned in the business-as-usual way of working, where management support is crucial for success. Finally, the third phase 'Acknowledge & Evaluate' focuses on employees collectively becoming focal actors of the transformed way of working, emphasizing continuous learning, evaluation, and communication from top leadership toward organizational acknowledgment and sustained transformation. Together this can result in the state transformation towards a new business-as-usual.

It is important to acknowledge that learning and transforming are not linear processes. This can be taken advantage of within an organization by exploring and learning in different directions.

6.3.2 For further research

To continue researching this topic, the following directions can be explored:

Implementation in different contexts

This research focused on organizations related to the built environment. The results suggest that the lessons on learning intent and the capacity to change are applicable in any organization regardless of context. This has not been proven with this research. Research within organizations in different contexts is needed to substantiate this.

Effectiveness on the long-term

It can be interesting to explore the long-term sustainability and effectiveness of the urban experimentation approach in driving organizational transformation. This study is based on findings from one moment in time with outcomes from some area developments that are not in practical development yet. Looking at the long-term effectiveness of the implementation of the strategy and the differences between the findings from these developments compared to others can be valuable.

Influence of external stakeholders

Exploring the influence of external stakeholders in the transformation process can be an interesting addition to the findings on business-as-usual transformation. Since this research focuses on inner-organizational learning, the scope can be broadened to a wider playing field with more diverse stakeholders. In this way, the connection is also sought with to the larger system.

System learning

This research focused on inner-organizational change. Here the emphasis was on organizational learning. To broaden this field and look at the bigger picture, research needs to be done on system learning. System learning zooms out beyond organizational learning and looks at how human systems are set up and how they can be changed. This is very relevant to the larger issues of innovation.

6.4 Reflection

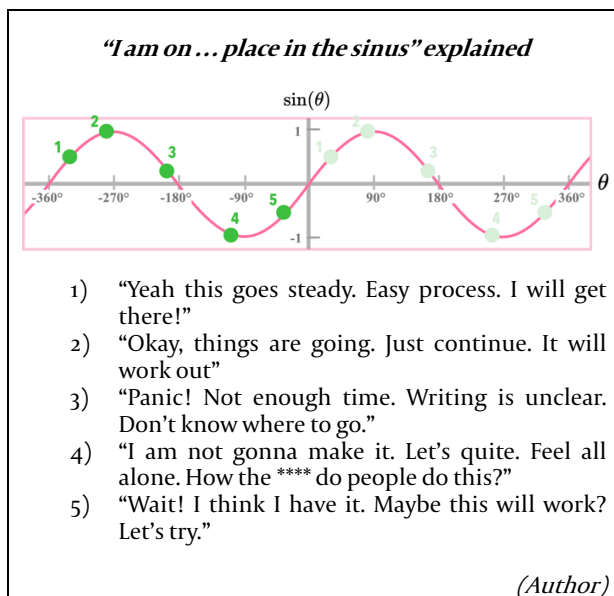
Learning is a concept from all times. And learning is something we humans can do during our whole lifetime. Sometimes we learn on purpose: by going to school, mastering a new hobby, or gaining knowledge by taking on a challenge within a teaching institute. And what if that learning starts a transformation that brings you to a new higher level of yourself? Are you a different person then? Or are you an enriched human being? The fascination that not only individuals learn, but many individuals learn together to move something larger forward to transform, an organization or even a whole area, interests me. Therefore, I applied this fascination to processes within the built environment to start my graduation program with. And so began a search for the answer to the question of how to move from learning to transformation within area developments.

My graduation topic relates one-on-one to the chosen studio topic *Sustainable Transitions*. It looks at how we can stimulate sustainable transition processes by learning from experimental projects and implementing these lessons to transform business-as-usual. This makes the relation with the master track MBE, Management in the Built Environment, and challenging management practices. How do we steer a process, how do we make it work and how do we support the transition from A to B; all questions that are central in our master's track. Together, this is part of the total master's program. Working on how we use, build, and steer our urban environment is what we do on a daily basis. That is why this research contributes to the existing urban research field.

To research this question, I chose to use a method that was focused on retrieving knowledge from existing literature and adding knowledge from practice by human interaction. I

have always seen learning from others as very valuable and have been aware of the value of other people's stories. Choosing an interview approach to collect data about social aspects from humans seemed the logical and most effective choice. In addition, there was also a personal motivation here because I really enjoyed having these conversations. Eventually, I spoke to twenty professionals who gave me insights that I could not have imagined beforehand.

Of course, it wasn't such a smooth route as it may seem. Choosing a social direction made me enthusiastic, but has also given me headaches. As a true beta, dreaming of numbers, juggling words has certainly been a challenge. Grasping social concepts that cannot be captured in true or false, 0 or 1, or black or white, required a lot of my thinking and empathy. And to still make the process definable, I have created with my friends the term "I am on ... place in the sinus", see box below. Where you find yourself can vary from week to week, day to day, or even hour to hour as the end of the graduate program approached. So yes, even for me, someone who is always in control of the process and has never worried about not getting something done, this process still sometimes produced some stressful situations in my head. (I think most people will say that those were only in my head.)



All in all, I can say that the research approach worked. I got interesting data in which the focus drove me in a direction I could not have imagined I would go there. The findings focused on learning and the capacity to change gave me a realization of how learning and transforming can depend on each other. That awareness brought me something to take with me in life.

When I look at the scientific relevance of this research, the findings jump into the research gap on the interdependence of the two main concepts learn from experimental projects and transform business-as-usual. Previous studies showed what we learn, but not how we implement the lessons we learned. The built environment desires to implement new smart solutions to prepare our cities for all that is to come, think of fending off climate change, grid congestion, housing shortage, etc. With this research, we can learn to use our experiments more efficiently for change and know what

to change to stimulate sustainable transitions. This is also immediately relevant to society.

The graduation process is something people speak about as an 'on your own' thing. Of course, I have sat many hours alone behind my laptop typing, or endless drawing concepts and frameworks to figure out what relation does or does not seem to be true. But in the end, it did not feel like an 'on my own' thing. I am very grateful to have had the support of both Aksel and Paul as my mentors, both in their own way. It really felt like a co-creation.

I had a lot of support from Aksel, both socially and mentally, and in the overall process of graduation. Aksel helped me zoom out to the bigger picture, helped me put things into perspective, and showed me what really matters. On a personal level, too, he knew what to say to take steps forward. I enjoyed our coffee moments where content and personal stories alternate in a balanced way. Thank you for doing things the way you do.

With Paul, I went even more into the content, we discussed concrete concepts, and at every meeting, there was a new framework that appeared on the flip-over sheets. We could have discussions ("which you didn't have to win"), and you gave feedback that went a step further each time and got deeper and deeper to the core. Sometimes I found it difficult to grasp everything you meant. Then I wondered if my intellect was on the same level of thinking. I tried to incorporate your tips by adjusting frameworks or reading more about the topics you proposed and when I made it my own, I knew I had stepped up my game. Thank you for challenging me over and over again.

When I look back at the past nine months, it has been a rollercoaster of emotions but a steady train journey of a process. The flying start from P1 to P2 slowed down a bit to P3, but with all the puzzle pieces falling into place, I am determined to successfully cross the finish line. But an end is never the end. I am looking forward to what is coming and exploring the possibility of working toward a paper proposal for a CoF related to *Urban Transitions And Learning*. Who knows what the future will hold?

And remember,

Be the game changer.

Feike Jansen

Delft, June 2024

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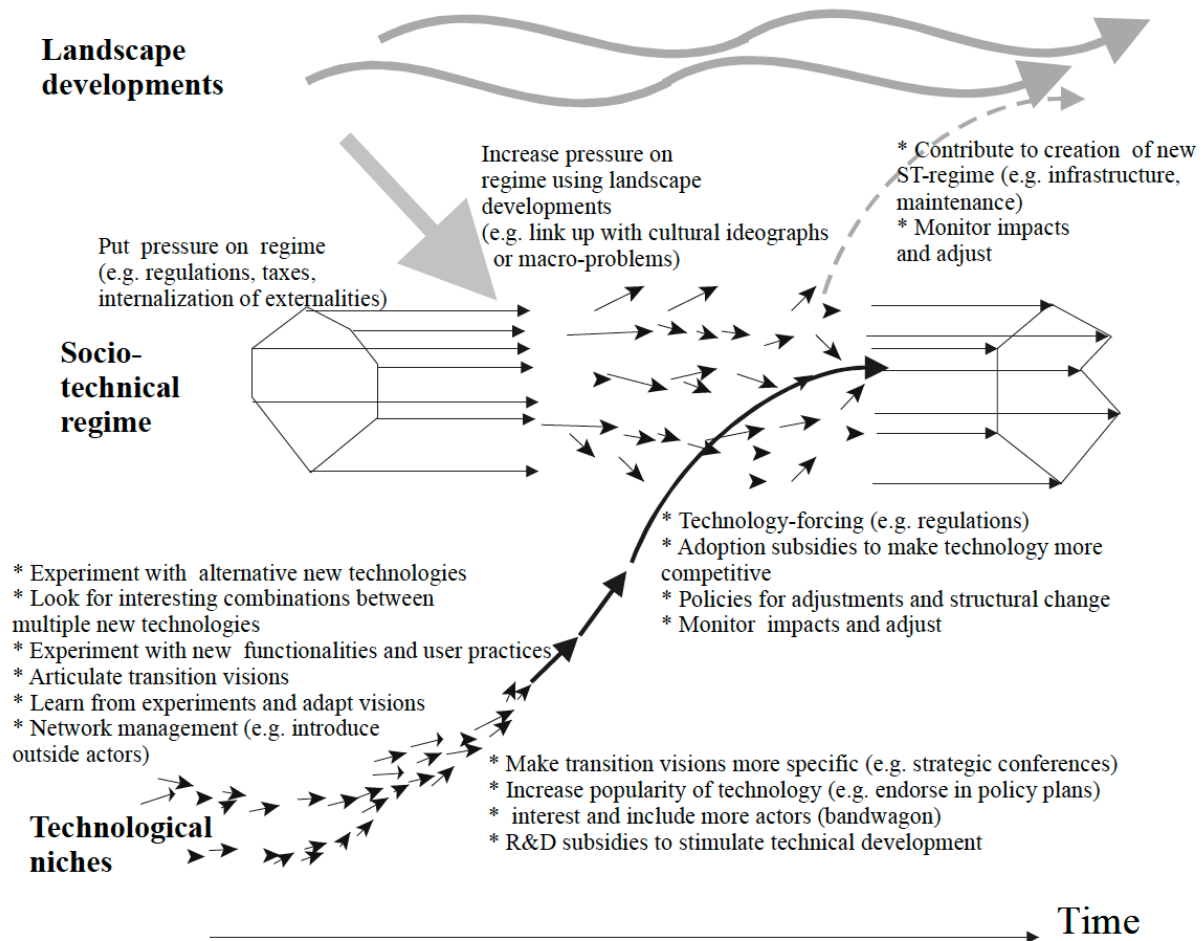
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Appendix

A1. Different transition policies in the different phases of the MLP

Adapted from Geels (2006)



A2. Informed consent form

Betreft Bevestiging medewerking onderzoek | TU Delft
Datum ___/___/2024

Geachte heer/mevrouw,

In onze steden komen veel complexe vraagstukken samen. Dat vraagt veel van professionals die werken aan 'de stad van morgen'. Via deze weg vraag ik of u mee wilt werken aan een interview in relatie tot het onderzoeksproject getiteld:

From urban experimentation to management transformation: Applying Urban Living Lab findings to challenge business-as-usual management practices.

Dit onderzoek wordt geleid door Feike Jansen en wordt uitgevoerd vanuit de Mastertrack Management in the Built Environment aan de Technische Universiteit Delft in nauw contact met het Stepping Out project.

Het *Stepping Out* project is een samenwerking tussen de TU Delft, de Universiteit van Amsterdam en Hogeschool Rotterdam, dat wordt gefinancierd door de Nederlandse Organisatie voor Wetenschappelijk Onderzoek (NWO) onder dossiernummer 403.19.226.

Doel van dit onderzoek: Het doel is om kennis te verwerven over hoe 'anders werken' in de praktijk vorm krijgt, hoe we leren van experimenten en hoe deze lessen de huidige manier van werken kunnen transformeren. Hierbij staat de duurzaamheidstransitie binnen de gebouwde omgeving centraal.

Gang van zaken: U wordt gevraagd om deel te nemen aan een semigestructureerd interview waarin aan u vragen zullen worden gesteld over wat uw rol is binnen [projectnaam], wat zijn de uitdagingen in uw werk en de lessen die u en uw organisatie daarvan hebben geleerd. Het interview zal ongeveer 60 minuten in beslag nemen. Van het interview zal een audio-opname worden gemaakt zodat het gesprek in transcript geanalyseerd kan worden.

U kunt zich voorbereiden op het interview door na te denken over de volgende onderwerpen:

- Wat is uw rol binnen uw organisatie en in het gebied?
- Wat zijn de belangrijkste uitdagingen van uw werk in/aan het gebied?
- Waarom is deze opgaven/dit gebied vooruitstrevend en/of vernieuwend?
- Met welke veranderingen heeft u te maken in de opgaven en/of het gebied waar u aan werkt?
- Wat leert u in uw werk in/aan het gebied?

Vertrouwelijkheid van gegevens: Ik beloof dat ik zorgvuldig met uw gegevens om zal gaan en deze vertrouwelijk worden behandeld. De data vanuit uw interview zal worden geanonimiseerd en alleen voor de wetenschappelijke doeleinden worden gebruikt. Het uiteindelijke onderzoeksrapport wordt gepubliceerd op de TU Delft Repository en zal publiek toegankelijk zijn. Interview-transcripten zijn alleen inzichtelijk voor de begeleiders van het onderzoek en zijn niet inzichtelijk buiten de TU Delft of het Stepping Out project. In het onderzoeksrapport zal de naam van de gebiedsontwikkeling wordt genoemd, evenals uw functie en een korte omschrijving van het project (uw naam en de naam van uw organisatie worden dus niet genoemd).

Toestemmingsverklaring: Uw deelname aan dit onderzoek is volledig vrijwillig, en u bent vrij om vragen niet te beantwoorden. U kunt altijd uw medewerking aan het onderzoek zonder opgaaf van reden intrekken en vragen om uw gegevens te vernietigen.

Om deel te kunnen nemen aan het onderzoek, vraag ik u **de bijgaande verklaring** in te vullen en te ondertekenen.

Bij vragen en/of opmerkingen kunt u contact met mij opnemen.

Met vriendelijke groet,

Feike Jansen

Onderzoeksleider

Afdeling MSc Management in the Built Environment
 Delft University of Technology
 Julianalaan 134, 2628 BL Delft

Verklaring toestemming onderzoek

	Ja	Nee
(1) Ik heb de informatie over het onderzoek ontvangen en gelezen, heb de mogelijk gehad om vragen te stellen en deze zijn naar mijn tevredenheid beantwoord.	☐	☐
(2) Ik verleen vrijwillig mijn medewerking aan het onderzoek en weet dat ik kan weigeren om vragen te beantwoorden en mijn medewerking op elk moment kan stoppen zonder opgaaf van reden.	☐	☐
(3) Ik weet dat medewerking aan het onderzoek een semigestructureerd interview omvat waarbij data wordt verzameld door middel van schriftelijke notities, audio-opnames en interview-transcripties.	☐	☐
(4) Ik weet dat de informatie die ik aanlever niet zal worden gedeeld buiten het onderzoeksteam van de TU Delft en het Stepping Out project.	☐	☐
(5) Ik ga ermee akkoord dat de informatie die ik aanlever wordt geanonimiseerd en wordt gebruikt voor wetenschappelijke en praktijkgerichte publicaties, presentaties, etc.	☐	☐
(6) Ik ga ermee akkoord dat de informatie die ik aanlever geanonimiseerd geciteerd kan worden in wetenschappelijke en praktijkgerichte publicaties, presentaties, etc. en ik weet dat de onderzoekers altijd apart toestemming zullen vragen indien zij een niet-geanonimiseerde quote willen gebruiken.	☐	☐

Ik heb dit formulier gelezen of het formulier is mij voorgelezen en ik stem in met deelname aan het onderzoek.

Plaats:

Datum:

(Naam geïnterviewde)

(Handtekening geïnterviewde)

‘Wij hebben toelichting gegeven op het onderzoek. Wij verklaren ons bereid nog opkomende vragen over het onderzoek naar vermogen te beantwoorden.’

Plaats:

Datum:

Feike Jansen

(Naam onderzoeker)

(Handtekening onderzoeker)

A3. Interview protocol

Interview protocol | Research Feike Jansen*

Title: From urban experimentation to management transformation: Applying urban living lab findings to challenge business-as-usual management practices.

RQ: Hoe kunnen we leren van experimentele projecten om de huidige manier van werken te veranderen en duurzame stedelijke transitie te stimuleren?

Geïnterviewde: _____

Functie: _____

Organisatie: _____

Datum: _____

* Protocol opgesteld in samenwerking met onderzoekers van het Stepping Out project

Checklist | Start

Voor interview

- ☐ Uitnodiging interview verzonden
- ☐ Formulier geïnformeerde toestemming getekend
- ☐ Uitnodiging verzonden (tijd, locatie, indien van toepassing digitale link Teams)
- ☐ Teams en opname apparatuur klaarzetten

Start interview

- ☐ Introductie (Voorstellen, uitleg onderzoek)
- ☐ Dank participatie uiten
- ☐ Controle geïnformeerde toestemming
- ☐ Wijzen op opnemen interview en opnieuw toestemming vragen ter controle
- ☐ Aanzetten opnameapparaat + back-up device
- ☐ Korte introductie onderzoeker & onderzoek

Deel 0 - Introductie interview

- Feike Jansen, Afronden Master MBE, TU Delft
- Onderzoek naar hoe anders werken in de praktijk vorm krijgt
- Relatie tussen leren en transformeren
- Focus op: hoe leren van experimenten -> hoe lessen de huidige manier van werken kunnen transformeren.
- Bijdragen aan de duurzaamheidstransitie binnen de gebouwde omgeving
- Onderzoek in drie gebiedsontwikkelingen: Haven-Stad in Amsterdam, Merwe-Vierhavens in Rotterdam en de Binckhorst in Den Haag.
- Veel verschillende professionals van privaat tot publiek, management tot eind-gebruikers

Interview inhoud

- 60 minuten
- Vragen over het gebied + jouw ervaring vanuit je werk
- Ik zal tijd in de gaten houden
- Nog vragen?
- Start vragen

Deel 1 - Functie en organisatie / Function and organization

1. **Wat is je positie en je rol binnen je organisatie en in het gebied?**
 - a. Hoe lang werk je in deze functie?
 - b. Hoe ben je betrokken geraakt bij de ontwikkeling van het gebied?
 - c. Wat zijn de belangrijkste taken en opgaven waar je aan werkt?
 - d. Wat is in jouw ogen het belangrijkste vraagstuk in het gebied?
 - e. Wanneer is voor jou de ontwikkeling van het gebied succesvol? Wat zijn de voorwaarden daarvoor?
 - f. Waar ben je zelf het meest trots op?

Deel 2 - Samenwerken / Collaboration

2. **Met wie werk je samen in/aan het gebied? Denk aan actoren binnen en buiten je organisatie. (Checkvraag: hoe vertegenwoordigen deze actoren hun organisaties?)**
 - a. Waarom werk je met deze actoren samen?
 - b. Hoe verloopt de samenwerking met andere actoren?
 - c. Zijn bestaande samenwerkingen de laatste jaren veranderd, of zijn er nieuwe samenwerkingen ontstaan?
 - d. Mis je bepaalde actoren? (Zijn er actoren die volgens jou relevant zijn die nu niet betrokken zijn?)

Deel 3 - Uitdagingen / Challenges

3. **Wat zijn voor jou de belangrijkste uitdagingen van je werk in/aan het gebied?**
 - a. Heb je te maken met bepaalde barrières in je werk? Welke zijn de belangrijkste?
 - b. Hoe ga je om met die barrières? Wat zijn volgens jou oplossingsrichtingen en kansen?
 - c. Zijn er weleens spanningen en/of conflicten tussen actoren en zo ja, hoe ga je daar mee om?

Deel 4 - Veranderingen / Transformations

4. **Met welke veranderingen heb je te maken in de opgaven en/of het gebied waar je aan werkt?**
 - a. Kun je aangeven hoe die veranderingen van invloed zijn op je werk?
 - b. Zijn er bepaalde sleutelmomenten aan te wijzen waarin er veel veranderd is?
 - c. In hoeverre is jouw eigen rol en/of de rol van je organisatie veranderd?
 - d. In hoeverre is het denken over de gebiedsontwikkeling en/of de planvorming veranderd?
 - e. Zijn er opmerkelijke dingen die veranderd zouden moeten worden maar niet veranderd zijn?

Deel 5 - Lessons learned

5. **Wat is het belangrijkste dat je hebt geleerd in je werk in/aan het gebied?**

Leren kan bijvoorbeeld zijn: het opdoen van nieuwe kennis/inzichten, het ontwikkelen van nieuwe producten, diensten of werkwijzen, het delen van kennis/inzichten met anderen, het aangaan van nieuwe relaties, en/of het ontwikkelen van nieuwe vaardigheden.

- **5.1 Hoe definieer je leren?**
- **5.2 Wanneer en waar heb je dat geleerd? (Wat waren belangrijke momenten waarop je zelf iets hebt geleerd?)**
 - a. Wat waren de belangrijkste lessen/inzichten?
 - b. Heb je lessen in de praktijk toegepast? Zo ja, kun je daar voorbeelden van geven?
 - c. Deel je lessen die je zelf heeft opgedaan met collega's binnen organisatie? Zo ja, met wie en op welke manier doe je dit?
- **5.3 In hoeverre zijn geleerde lessen breder in de organisatie geland?**
 - a. In hoeverre wordt leren en veranderen door het management ondersteund? En hoe?

- b. Heeft leren ook tot veranderingen in de organisatie geleid?

Deel 6 - Afronding

6. Dat waren alle vragen die ik aan je wilde stellen. Is er nog iets dat niet aan de orde is gekomen en wat je graag nog wil delen?

Checklist | Einde

Afsluiting

- ☐ Afsluiten met eventuele op/aanmerkingen of vragen vanuit geïnterviewde
- ☐ Procedure validatie toelichten
- ☐ Vraag of geïnterviewde de publicatie van rapport graag ontvangt
- ☐ Bedank mail sturen met het transcript

Wil publicatie ontvangen: JA / NEE

Bedankmail + transcript: VERSTUURD

A4. Expert panel protocol

Expert panel protocol | Research Feike Jansen

Checklist | Start

Voor interview

- ☐ Uitnodiging interview verzonden
- ☐ Formulier geïnformeerde toestemming getekend
- ☐ Uitnodiging verzonden (tijd, locatie, indien van toepassing digitale link Teams)
- ☐ Teams en opname apparatuur klaarzetten

Start interview

- ☐ Introductie (Voorstellen, uitleg onderzoek)
- ☐ Dank participatie uiten
- ☐ Controle geïnformeerde toestemming
- ☐ Wijzen op opnemen interview en opnieuw toestemming vragen ter controle
- ☐ Aanzetten opnameapparaat + back-up device
- ☐ Korte introductie onderzoeker & onderzoek

Deel 0 - Introductie interview

- Feike Jansen, Afronden Master MBE, TU Delft
- Onderzoek naar hoe nieuwe manier van werken in de praktijk vorm krijgt
- Relatie tussen leren en transformeren
- Focus op: hoe leren van experimenten -> hoe lessen de huidige manier van werken kunnen transformeren.
- Bijdragen aan de duurzaamheidstransitie binnen de gebouwde omgeving
- Onderzoek in drie gebiedsontwikkelingen: Haven-Stad in Amsterdam, Merwe-Vierhavens in Rotterdam en de Binckhorst in Den Haag.
- Veel verschillende professionals van privaat tot publiek, management tot eind-gebruikers

Interview inhoud

- 60-90 minuten
- Jouw visie op leren en transformeren
- **5 statements; framework en strategie over capaciteit om te veranderen en proces van leren naar transformeren**
- Ik zal tijd in de gaten houden
- Nog vragen?
- Start vragen

Deel 1 - Statements

Statement 1 - Toevoegen van mankracht

Iets wordt altijd beter, als er meer mensen aan werken.

Statement 2 - Meer capaciteit

Om de huidige manier van werken te veranderen heb je extra capaciteit nodig.

Statement 3 - Systeem aanpassing binnen organisatie

Een systeem aanpassen binnen een organisatie lukt alleen als er kennis wordt gebruik vanuit een andere organisatie.

Statement 4 - Toevoegen van financieel vermogen

Als er maar genoeg geld is om te investeren binnen een organisatie, zal de manier van werken altijd positief veranderen.

Statement 5 - Pionierschap

Innovatie komt het best tot bloei aan de rand van een organisatie.

Deel 2 - Capaciteit om veranderen | Framework + strategie

Toelichten framework 'capaciteit om te veranderen'

- Learning intent vs capacity to change
- Reflective learning:
- Project learning:

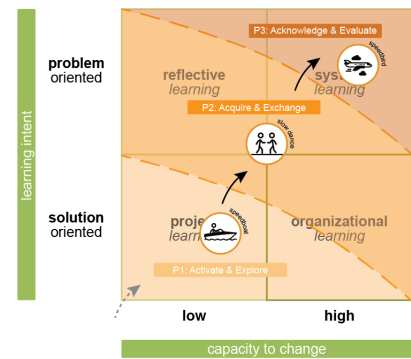
- System learning:
- Organizational learning:
- Relatie met drie fases

Vragen:

- Wat is de eerste gedachte die bij je opkomt als je dit ziet? Klinkt dit logisch?
- Is dit toepasbaar / relevant in organisaties waar jullie mee samenwerken?
- Wat zou er anders kunnen? / wat ontbreekt?
- Wat zijn cruciale elementen, volgens jullie, om een transformatie binnen een organisatie in gang te zetten?

A5. Learning intent vs capacity to change – Interview data

This graph shows the quotes from the interview data related to the four learning boxes.



Reflective learning Problem-oriented and low capacity to change #1 - Municipality :77 - Evaluate learning process “And then you can look at it like: okay, so what can we standardize from this? And what is context-dependent? That is what you learn from that. [...] But the idea is that we keep developing and steering that a little bit.” #2 - Water Authority :19 - Match answer with the question: reflect “We are now thinking more about, is what we traditionally construct still the answer to the question that was actually asked?” #4 - Grid operator :34 - Lesson learned: thinking around “I did learn that from the IGP, just the thinking around. So don't first give your list of demands and figure it out. But just looking for good common ground and seeing why something is the way it is. And what can we do to make it workable for both parties? That is something I really like about the IGP.” #10 - Developer :17 - Intermediate reflection “So occasionally hold up a mirror, of paying attention for a moment and reflect.” #6 - Developer :1 - Making choices: you cannot want everything at once “I think the ultimate problem is that the spatial planning model that we have agreed upon together in this country. And all of us have come up with that. Says that we would like all of us to live and work and port and pollution and housing and children on the street and trucks at the same time. We just can't. We can't at the same time play here on the street and have trucks go by. And music. And living. And sleeping. So that's a very complex puzzle to coordinate those in such a way.” #7 - Port Authority :11 - Difficult to empathize: people look within their own boundaries and not beyond them “I don't believe there are people deliberately trying to antagonize. It's just that... Yeah, for a lot of people, it's like... This is my world. Then it gets busy enough and it's already very complex. Then this and that and that and that and that. [...]” #9 - Municipality :44 - Transformation of governance inner organizational “It's a very difficult contradiction. And you have to wonder because, there's nothing as easy as internally also, to say this is in accordance with policy as we agreed. Agree or disagree? Because everybody has to agree. And if somebody shouts conform to policy, okay, fine. I don't have to think about it, it's been thought about. That's all I have to do. If somebody says: you have to look at it, you are co-responsible from now on, but it's not written down anywhere. We haven't figured out how to do it, but we're going to figure it out along the way. Then it's a mega risk item for everybody. And risk is not something we seem to like to take anyway.”	System learning Problem-oriented and high capacity to change #9 - Municipality :46 - Transformation of governance inner organizational “And there are some people who are very good at that. There are some people who can find that space in other fields. But on a large-scale level, I don't get it yet where we're doing that. Where we do try to be creative with a lot of experts is: where can it be done? And we do that with all kinds of clever tricks.” #9 - Municipality :31 - The more restrictions the less change to succeed “The more rules and restrictions you start imposing, the less easy it is to find a match. It's easy to talk in hindsight.” #2 - Water Authority :13 - Need for system transformation: the largest challenge is organizational “But I think the biggest challenge is not in that replacement task, but in the over-organizational aspect. That's really the system transition we have to go through”
Project learning Solution oriented and low capacity to change #1 - Municipality :65 - Just do it and trial and error “And my working method here is just.... Yeah, we're just going to do it. And we'll see... We'll see where we end up. We're going to make mistakes. We're really not going to do it perfectly at the beginning. But we just start, and we do our best. And we'll go. And small steps.” #1 - Municipality :74 - Search how to do “So it's also a little search of, how do we do this?”	Organizational learning Solution oriented and high capacity to change #4 - Grid operator :7 - Creating uniform method: Identify relevance of context “And when you come up with these types of plans, they say yes, but what are you talking about? That's another MUVA, as we call it, with the exception of Amsterdam {Met Uitzondering Van Amsterdam}. Because there you have that problem. It's just a local urban problem which they don't have in the east, and [...] in the north. So, the working method, if you really want to introduce it to make it a national uniform

#5 – Municipality :38 – Step-by-step “But you really have to take it one step at a time. Because otherwise you'll choke yourself and then you'll stress yourself out tremendously.” #7 – Port Authority :7+8 – Collaboration success: Write down goals sharply and compare “Look, if you want to be successful in anything.... Then you have to be very sharp in being able to write down for yourself...These are my interests and goals. But pretty sharp. Not that generic nonsense. And so should the other party. And some of those goals and interests, they will never overlap.” “That should be pretty critically. Just think something you do yourself on a team. Or working together or playing sports or whatever. If that doesn't quite line up, it's going to fall apart anyway. And especially if there's pressure then. Or it costs money or whatever. Then, of course, you can quickly get into a discussion about it.” #9 – Municipality :32 + 34 – Form an instrument along the way “Things were thought of which we thought: How are we going to do this? We can't. Let's make a spatial framework to match subsoil and topsoil in public space and so the cable per se to determine. From that question, in response to a particular project, that spatial framework was created. That is an answer to questions that gradually came up that we would have preferred to have had earlier.” “[interviewer:] the spatial framework has actually been developed during development. Might it have been desirable to do that before? [Municipality:] Sure. Because it provides... The reason it was made is because we had questions, we didn't have answers to.” #9 – Municipality :18 – Learn by watching: go on an excursion at an example area “So you find that all the cities that want to do large, complicated environmental plans like to do field trips in the Binckhorst to actually gain that knowledge.” #9 – Municipality :57 – Learn by watching: Knowledge sessions to share knowledge “Give a performance how we work and what to consider” #4 – Grid operator :22 – Organizational: Create space for experiments “At the municipality, they have special teams that are separate from that. A project team. At all the grid managers, [we don't have that]. We all have to do it on top of regular work. It's not like they say I'll give you half the week off. And you notice that a lot. That did clash.” #1 – Municipality :32-33 – Create common understanding “And also, I also know that [Water Authority] came to me in the beginning and said, yes but [streetname], why are we choosing this road? And then they were at the table. And then [the Grid operator] came with 16 cables wide. Then she said, okay yeah, now we get it. And that was kind of what you wanted to trigger with that.” “That you say, okay, but so if we bring everything together, it's a big task. Whereas if you just look from your own eyes. Then you think, it's not that hard, is it? So actually that realization, I really wanted to”	working method. Yes, that's going to be a very difficult story. I think it's almost impossible to do that” #2 – Water Authority :20 – Set-up internal process group “For the Haven-Stad case, we now have a kind of process group there internally with people from policy, with the plan advisors, with asset management and with operational asset management. And also a number of researchers are still in there. And in that we have coordinated this way of working. [...] The question is whether the people in the operational side have lived through it to the extent that they can play their part in it.” #2 – Water Authority :21 – Step out your process to help others in their process “So sometimes you have to step outside your process for a moment to help people in another process step to make that their own.” #4 – Grid operator :24 – New way of working: does not fit in standard method of working; need for change from top-down “No, that doesn't fit into the standard operating procedure they have at [Grid operator]. And I also believe that [Water Authority] and [xxx] are actually running into the same issue. That if you were to apply this regularly, then there just has to be a change from the top down. Then it really has to be considered. So that then means more hands on.” #3 – Grid operator :20 – Implement in an organization: securing knowledge by advance person “If you want to run that well, I believe that you also have to secure that well within the organizations. So that I am able to implement that well within our organizational structure as well.” #7 – Port Authority :21 – Bottom-up vs top-down “Conversely, you very often read of this kind of development becomes success only if it is supported at the top. [...] the top is really starting to embrace it. But [also], a lot of it comes from bottom-up actually.” #6 – Developer :2 + 8 – Direction: Doing your best is not good enough, someone has to take responsibility; top-down “I find that the municipality at the official level [...] really want to do a lot. [They are] really trying their hardest. I see that. You notice that and you feel that. But what is difficult, is that there is [uncertainty in] ownership [and leadership] about where we want to go to with this area. It is very difficult to appoint one person or have one person who dares to stand [up].” “So it actually requires more of a regulated strategy.” #5 – Municipality :31 – Changing Programmabureau: focus on organizational strength “The Programmabureau is now changing, though. Because we are finding that after the joint visions were drawn up that have latched on. Yes we are also a little bit more back to [where we came from so that] everyone can also do what they are good at.” #8 – Municipality :25 – Key to change internally: Get the right people's noses in the same direction “But it's just a matter of getting the right people all facing the right way to work through in such a process with all the permits and so on. And then good cooperation needed. But anyway. it's going well now.” #1 – Municipality :23 – Korte lijntjes “the short lines [are key].” #4 – Grid operator :23 – Organizational: create capacity and hours “Yes, from [the Grid operator] I have seen, if this would become the new standard way of working in Amsterdam, then we have to take this to our director, higher management. Because we really need to give up on this. Time and capacity must be made available.”
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*Way of referring: [#0 - organization] refers to the particular interviewee, [:00] refers to the numbered quote of the interviewee.

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