Monitoring Assessing and Learning from Transformation Journeys in Urban Transformation Sites

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Abstract This chapter presents the challenges, opportunities, and insights derived from monitoring, assessing, and learning within urban transformation processes in the Desire project, aligned with the values of the New European Bauhaus (NEB). Focusing on local site experimentations, the chapter explores complex socio-ecological systems, highlighting three assessment dimensions: embracing challenges, empowering choices, and enabling change. The Desire monitoring, assessment, and learning framework combines the logic model with outcome mapping, fostering adaptive, reflexive learning through three distinct modes—learning-by-doing, learning-by-interacting, and learning-through-reflection. The results reveal the importance of inclusive, multi-stakeholder processes to address sustainability, inclusivity, and aesthetics, with special attention to diverse local conditions, participatory decision-making, community engagement, and organizational change. Despite challenges with tracking progress and aligning stakeholder expectations, the Desire site experimentations contribute valuable knowledge on collaboratively developing sustainable urban environments. This chapter underscores the critical need for assessment frameworks that can guide inclusive, adaptable, and responsive processes to complex social and ecological needs, providing a foundation for future urban transformation efforts.

Keywords Monitoring and assessment methods and tools · Reflexive learning · Learning-by-doing · Learning-through-reflection · Peer-to-peer learning · NEB values

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1 Challenges in Monitoring Assessing and Learning from On-The-Ground Experimentations

Monitoring and assessing on-the-ground experimentations as the ones presented in the previous eight chapters of this book poses significant challenges. When these experimentations happen within fields that touch upon grand-societal challenges such as climate change, climate neutrality, biodiversity loss, etc. By prioritizing measurable impacts [1], the transition from Horizon 2020 to Horizon Europe recognizes the challenges in capturing the broader effects of smaller-scale initiatives, such as local site experimentation projects. This is especially difficult when evaluating their long-term influence on behaviors, organizational structures, and societal patterns [2]. The introduction of the concept of "impact pathways" [3] marked a committment to tackles these challenges, requiring projects to outline their expected impacts at the proposal stage, while allowing for ongoing adjustments as new evidence and conditions arise throughout the projects' duration. Such an approach considers the complex nature of socio-ecological systems [4], which are characterized by dynamic co-evolving processes. Micro-scale experimentations, happening on the ground, are viewed as contributors to long-term system transformation and are assessed within their contextual conditions [5]. As highlighted at the beginning of this book contextual conditions, may vary significantly from site to site, underscoring the importance of considering the strong ties to local practices, socio-political conditions, values, and cultures.

Still, the difficulty or impossibility of validating a model that scales up a single initiative to promote a growth model is evident. Moore et al. [6] presented three scaling strategies considered all fundamental to impact larger systems:

– Scaling out refers to the wider dissemination and replication of the solution to impact a larger number of addressant and different contexts.
– Scaling up relates directly to the influence on different governance levels, policies and laws.
– Scaling deep considers the cultural shifts needed to change values and beliefs.

Taking all three scaling strategies into account as necessary [7] for impacting complex systems, challenges the traditional ways of monitoring and assessing on-the ground small scale experimentation. The need to move beyond linear assessment models when dealing with complex systems is even more apparent. The Desire project recognizes the non-linear changes that occur within open environments, fostering learning and creating opportunities to apply the knowledge and skills gained throughout the process. The following sections explain how Desire tackled these challenges. First, the assessment dimensions in Desire are explored. The chapter then moves on to highlight the various learning modes essential for achieving the project's objectives, followed by an explanation of the methodological operationalization of this framework. The results from the experimentation are examined through the lens of the assessment levels. Finally, these results are discussed in relation to the theoretical background of Desire.

2   The Assessment Dimensions in Desire

The Desire's framework is outlined by three levels (micro-meso and macro) that are represented by three verbs: DO, ASSESS and EMBED, following the in-depth description of Chap. 1 of this book (see also Fig. 1).

While the micro-level, DO, concerns the activities and on-the-ground experimentations described in Chaps. 2–9, the meso-level, ASSESS, extracts lessons from the experimentations and aims to monitor and assess the outcomes emerging from the different European contexts explored in the project. Specifically, the ASSESS level seeks to identify emerging patterns related to the different impact pathways pursued by each site, examining their experiences. This level focuses on assessing how Desire's activities support the transformation of experiment towards NEB values of Sustainability, inclusion and aesthetics, as the transition to a society that embodies such values requires a specific set of competences and skills capable of driving systemic impact. Three assessment dimensions central to the monitoring and assessment process, all of which are essential for achieving impact at a systemic level.

First, "embrace challenges", represented by the slogan "set up the network", is the capability of the Desire partner organizations to:

– Identify stakeholders and understand their roles within the local and broader network characterizing the context (i.e. map stakeholders in relation to impact pathways and the activities planned, understand if any of these are crucial to impacting specific parts of the system, draw a set of priorities in relation to engaging specific actors or organizations, etc.).
– Find the suitable ways to collaborate with the stakeholders mapped, considering that some strategies, approaches and tools might be more effective under certain conditions than others (i.e. workshops, activities, learning trips, specific projects, hackathons, etc.).
– Convene interests of the stakeholders involved. To foster long-term engagement, it is crucial to align both intrinsic and extrinsic motivations (i.e. by offering tangible incentives, financial support alongside promoting a culture of mutual responsibility).
– Develop shared visions. Establishing a common sense of purpose is essential for maintaining long-term engagement (i.e. by consensus building techniques, using visualization tools, etc.).

Second, "empower choices", specifically through "empowering actors and communities", emphasizes the ability of Desire's organizations (the core team and their extended networks) to create enabling conditions that can drive a shift in power within decision-making processes. Four points are crucial to explore these processes:

– Strengthen actors and communities, by enhancing their ability to contribute meaningfully to decision-making and actions that affect their (i.e. providing resources, building confidence and self-reliance, etc.).

– Leverage existing capacities, by identifying the diversity and richness of broader networks and utilizing skills, knowledge, and resources already present to accelerate progress towards specific outcomes.
– Develop new capacities, equipping individuals or communities with additional skills, knowledge, or tools to address emerging challenges.
– Recognize and harness local leaders, identifying those figures able to create a movement and inspire others.

Third, "enable change", interpreted as "build evidence and legacy", reflects Desire's ability to create a meaningful legacy that contributes to the targeted outcomes. This legacy should align with the three NEB values. The four main capabilities of Desire's organizations are described as the capacity to:

– Track changes and achievements involves systematically monitoring progress towards set goals, ensuring that both small and large milestones, game changers and adaptation are recognized. Tracking allows organizations to adapt strategies in real-time.
– Use evidence to support transformation means gathering data and outputs to guide processes. Solid evidence, from research or on-the-ground experiences, helps validate approaches and secure stakeholders' engagement and commitments.
– Leverage on lessons learned to build legacy translates into understanding successful and unsuccessful strategies so that organizations can refine their practices and scale successful models.
– Draw and communicate lessons learned entails reflecting on the experiences gathered throughout the process and effectively sharing them with the relevant stakeholders and allowing for reaching to a broader audience.

At this level, each dimension is mapped across the experiences and trajectories of the experiments at the eight sites. The process identifies patterns, commonalities, challenges, barriers, and opportunities arising from these diverse experiences, which can then inform the broader NEB initiative EMBED level (see Fig. 1).

3   The Operationalization of the Framework

3.1   A Combination of Methodologies

The innovative assessment framework of Desire combines the logic model [8] with outcome mapping [9]. This combination recognizes that change does not necessarily happen in a straightforward cause-and-effect manner but thanks to the complex combination of various factors.

The logic model is one of the most famous and utilized to monitor and assess projects' impact. Its success is largely due to provide a valuable tool to understand change at high level and to monitor processes through the sequence of inputs, activities, outputs and outcomes. Outputs are the concrete results coming from

specific activities (i.e. a report, number of participants, etc.), while outcomes refer the expected effects over the medium term, representing preconditions to achieve impact. However, despite its success this model comes with several limitations when dealing with complex socio-ecological systems that deal with co-evolving conditions. Indeed, while the logic model tracks outputs and outcomes as something that has been achieved, yet it captures little about the interdependencies that characterize systems change.

Therefore, Desire combines the valuable aspects of the logic model with outcome mapping with the objective to complement strength and weaknesses of both. Outcome mapping rather than understanding impact as a performance measurement, understand impact as a long-term vision that sets the direction of change and help envisioning possible impact pathways of experiments. Within Desire this methodology is used to sustain the sites in defining their challenges, mapping and engaging stakeholders, identifying progress markers as elements that sustain the progression towards the desired outcomes.

The combination of the logic model and outcome mapping is further sustained by a set of learning modes with the explicit objective to leverage monitoring and assessment processes as crucial to strengthen and boost individual and organizational capacities to engage with and learn through system change.

3.2   Three Learning Modes Sustaining Knowledge Creation

The combination of methodologies described above is initiated to support the development of reflexive learning processes where stakeholders can reflect and adapt their initial plans to co-evolving conditions [10]. Reflexivity is then interpreted as "the ability to interact with and affect the institutional setting in which it operates" [11, p. 417].

Local circumstances, existing knowledge, new insights introduced by the project, and contributions from new actors and stakeholders create a unique knowledge-creation environment at each site. As a result, stakeholders must engage in various learning processes that could boost their ability to consider non-linear changes and apply the capabilities acquired during the process. To sustain this approach Desire extracts insights through reflexivity and captures the systemic complexity of the challenges and transformations being addressed with a combination of three distinct learning modes.

Learning-by-doing, associated with the development of the specific demonstrations carried out at the local sites and the experimentation of different processes and tools. This learning mode dates back to Dewey [12], and has been applied in different fields, including design and innovation [13]. Within Desire, the activities carried out by the sites could be framed following Kolb's learning cycle [14], a model already proved to be effective [15] and used in the field of design.

Learning-by-interacting, focused on the interaction of the local sites through peer-to-peer exchanges both formal and informal. Within Desire peer-to-peer exchange is

considered fundamental to create opportunities for learning and reflecting, creating dialogues of actors bringing different perspectives, points and capabilities into the interaction.

Learning-through-reflection, mainly linked to the monitoring and assessment activities and tools. Participants in the projects are stimulated to reflect upon the observation of their on-site activities but also at the level of the project outcomes.

3.3   *The Tools to Operationalize the Framework*

To support the operationalization of the monitoring, assessment and learning processes Desire assessment framework provides a set of tools at the use of the involved organizations.

First, a logbook, records the inputs, activities and outputs of the on-site experimentations. Based on the logic model structure such logbook further invites the sites' representatives to reflect upon the outcomes of their activities. Moreover, the logbook showcases the results of three outcome mapping workshops (initial, mid-term, end-of the project) aimed at supporting the sites' organization to set their (outcome) challenges and to monitor and assess the evolution of their processes.

Finally, a peer-to-peer program was designed and organized around the three assessment dimensions (embrace challenges, empower choices and enable change) allowing the sites' organizations to reflect and share their experiences and lessons learned on the basis of pre-defined themes.

4   Results of the Experimentations

The findings from the Desire project highlight several key themes related to urban transformation across diverse sites. The three assessment dimensions in Desire's framework served as lenses for analyzing these findings. To extract lessons learned, data gathered from tools the provided tools-including logbooks, outcome mapping workshops, and the peer-to-peer program-were essential.

4.1   *Embrace Challenges*

The Desire experimentation in **Wildeman** effectively identified stakeholders, fostered collaboration, and facilitated long-term engagement. The experiment emphasized stakeholder mapping and by prioritizing engagement, which became evident in how groups of citizens were organized and connected. **MIND**, **BTC Ljubljana** and **Cascina Falchera** all represent a clear effort to map and engage stakeholders early in the process, emphasizing the importance of identifying and

understanding their roles within both the local and broader networks. The **Kalund-borg** site by adopting the "power of place" approach mapped the eco-systems at different geographical scales and identified existing connections. The use of work-shops, reflection sessions, and transparency meetings created conditions conducive to convening interests. These activities helped bridge differences while focusing on convergences. In **Herlev**, in **Cascina Falchera**, and across other Desire sites, the experiment focused on mapping stakeholders in a multi-species perspective.

In **Riga**, the innovative procurement format reflects the key principles of identi-fying key stakeholders. The co-development of the new procurement process engaged unusual participants. These activities were crucial to prioritize engagement activi-ties and processes. Despite the early successes of this innovative initiative, the slow processes highlight the importance of finding the correct strategies to collaborate. The delays in implementation and ongoing discussions with municipal stakeholders suggest that alternative approaches may be required in future phases.

Similarly, in **Gadehavegård**, the procurement process boosted the identifica-tion of stakeholders that transcend the usual suspects. Here, the involvement of transdisciplinary teams served as a successful strategy to collaborate.

Moreover, Desire supported the experimentation by fostering the development of shared visions, which are crucial for long-term engagement. The in-person work-shops organized by the different sites with a diverse range of groups are good exam-ples of how different motivation for involvement were aligned toward the creation of shared visions. The enthusiasm of the participants created a sense of ownership of the process encouraging commitment. However, such enthusiasm posed challenges with for involvement particularly in relation to tangible outputs and outcomes.

4.2   Empower Choices

All of the different experiments focused on strengthening actors and communities. In **Wildeman**, for instance, the introduction of the ODGs was a crucial step towards community empowerment; similarly in **Kalundborg** the Phoenix group was enabled to take part in decision-making activities, although they faced challenges in keeping their role once contextual conditions changed (i.e. with the arrival of the students and the Academy). The process characterizing the experimentation in **Gadehavegård**, **Riga** and **BTC** gave voice to those that are usually excluded from decision-making (i.e. kids, youngsters, people with significant mental disabilities). However, the experiments showed that meeting the expectations raised posed challenges to power holders, particularly regarding their capacities to negotiate future outcomes and main-tain the trust of those who put effort into the processes. In **Herlev**, the Garden Care-taker project highlighted the importance of transdisciplinary collaboration in commu-nity engagement. By bringing together artists, scientists, and community members in co-creation workshops, the project empowered citizens to take the lead in trans-forming public spaces. Artistic interventions played a significant role in fostering leadership by allowing participants to contribute creatively to the process, ensuring

that the outcomes reflected the needs and desires of the local community. Similarly, in **Cascina Falchera**, community engagement initiatives played a crucial role in shaping the identity of the space. The involvement of local leaders in defining of the future vision of Cascina led to a shared sense of purpose and alignment with broader goals. This approach strengthened ties between the community and the experiment, creating a foundation for sustainable urban development driven by local needs and aspirations. In **Kalundborg** the Desire principle of circularity played a crucial role in aligning stakeholders' visions and in creating a sense of belonging. In **MIND**, by approaching beauty and inclusivity collaboratively, the project demonstrated the importance of aesthetic values in shaping public spaces that reflect the community's shared.

A key aspect of this dimension is the **redistribution of power** to give marginalized stakeholders a voice in decision-making. In **Wildeman**, democratization was achieved by redistributing funds to empower local citizens to manage resources. This approach fostered grassroots leadership by giving community members the authority to make decisions about how resources were allocated, ensuring that the project reflected the needs and priorities of the people it aimed to serve. In **Gadehavegaard**, the inclusion of young people in the design and tendering processes provided a significant example of democratization. By positioning youngsters as leaders in social housing transformation, the project challenged traditional power dynamics and allowed youth to play an active role in shaping their environment. This shift in power dynamics demonstrated the potential of democratization to foster more inclusive and innovative urban regeneration processes. At **BTC Ljubljana**, the inclusion of stakeholders from diverse fields, such as biotechnical, architectural, and biodiversity experts, helped democratize leadership within the project. By involving a wide range of voices in decision-making, the project ensured that various perspectives were considered in the development of greening and sustainability initiatives. This approach not only broadened the scope of leadership but also enriched the outcomes of the project by integrating expertise from multiple disciplines.

All Desire sites' organizations took on the challenge of utilizing existing capacities and developing new ones. Many of these capacities were either identified or harnessed through transdisciplinary processes or acquired through the three learning modes described above. The emphasis on reflecting upon processes greatly enhanced these aspects. However, the limited time and resources dedicated to these activities posed a significant challenge to the overall success of the experimentations at the project level.

4.3   Enable Change

The Desire project faced several challenges in tracking changes and achievements throughout its implementation, particularly due to time constraints, resource limitations, and the complexity of engaging multiple stakeholders. One major difficulty encountered by the local sites was the limited timeframe and resources available

for reporting and reflection activities. The need to prioritize on-the-ground connections with local stakeholders posed issues with maintaining motivation to keep the reporting up to date, except during specific assessment periods and moments triggered by Desire as a whole (i.e. assessment activities).

In bringing evidence from the experimentation, several challenges emerged. In **Riga**, while citizen engagement workshops were successful in fostering community relationships, many practical interventions or experiments in physical spaces exceeded the municipality's capacity. In **Wildeman**, the need to prioritize trust-building, transparency, and collaborative decision-making often delayed the tracking of tangible outputs and outcomes, making it harder to monitor the progress in real-time. Similarly, in **Herlev** the complexity of managing interdisciplinary and transdisciplinary collaborations posed challenges in identifying and tracking smaller achievements, especially when goals and methods differed between parties. In **Cascina Falchera** the evolving nature of internal shifts, coupled with the complexity of managing multiple activities, made it challenging to monitor smaller achievements or quickly measure the impact of new approaches. Similarly, in **Kalundborg** the shift in conditions played by the arrival of students posed a questions of adaptability of the initial goals, resulting in challenges with tracking achievements.

Despite the difficulties with tracking evidence and achievement, several approaches were put in place at the different Desire sites alongside the project activities. These included writing reports, reflection sessions, workshops to reflect upon the process, pictures, etc. In **Gadehavegård**, the development of a white paper from young participants boosted the reporting. In **MIND** the development of the "MIND for all" framework represented a great effort put in place towards reaching this goal.

Finally, the implementation of multi-level engagement enabled the different sites to learn how to communicate lessons learned to different audiences. Throughout the experimentations, they were encouraged to both reflect and share their findings with peers, as well as to their local, regional and national networks using different platforms (e.g. social media, art exhibitions, projects announcements, reporting back to engaged stakeholders, etc.).

5 Desire Experiments and NEB Values

The Desire project results provide valuable insights into urban transformation processes, reflecting the core values and principles of the New European Bauhaus. While analyzing these experimentations through the lens of the three NEB values the project demonstrates how these values could be attained as guiding stars for the transformation. The key results from the transformation highlight both successes and challenges of translating the NEB values and principles into practice.

The Desire project interpretation of the value "beautiful" extends beyond physical appearance to include community-driven processes and collective experiences. This approach aligns with the definition of beauty outlined in the Compass [16], where the focus is on social interaction, collective experiences and the creation of a

long-lasting movement. This approach is clearly demonstrated in experiments where the transformation was defined through collective visioning creating a deep sense of belonging. Similarly, the principle of circularity contributed to the development of a holistic concept of beauty, including ecological balance and sustainability. For example, young people's involvement in the co-design process infused the project with fresh perspectives, allowing beauty to emerge organically. However, the experience across sites revealed that managing the emergence of beauty can be challenging when expectations of different stakeholders are not aligned with reachable outcomes. Within Desire, the concept of "beauty" aligns with the one of "spontaneous beauty" [17] outlined in Chap. 1, posing the issue of operationalizing the development of enabling conditions for such collective spontaneity to emerge.

Second, the value "sustainable" was central to all the activities conducted in Desire both at the level of on-the-ground experimentations and at the project level. Desire's interpretation of this value transcended the environmental dimensions of resource use and circularity, encompassing holistic approaches of natural resource management, behavior change, learning processes, and biodiversity promotion. However, implementing sustainability came with its own challenges, highlighting the need for flexible and adaptive strategies to ensure sustainability goals can be tracked and met, particularly in complex, multi-stakeholder environments. These challenges underscore the importance of creating processes that can accommodate diverse actors while maintaining the focus on long-term sustainability.

Finally, Desire embraced the value "together" by prioritizing stakeholders identification and engagement and inclusivity across different sites. The operationalization of this value touched upon different principles such as the creation of a participatory process that could include knowledge and capacities from different sectors through transdisciplinary approaches and more-than-human perspectives. Moreover, the necessity to keep up with different governance levels became evident both at the level of the sites' experimentations and at the project level. The opening up of processes reflects a call to break down silos between sectors and communities. These approaches were clearly shown by all the Desire sites with a richness of different approaches, methods and tools to address the complexity of their challenges. From redistributing funds and restructuring decision-making processes, redesigning procurements, involving experts, restructuring the purpose and role of the experiments, etc.

These concepts can be operationalized to foster more inclusive, collaborative, and regenerative urban environments. The key themes emerging from the experimentations across diverse sites illustrate both the successes and challenges of translating NEB values into practice, particularly through the three assessment dimensions of embracing challenges, empowering choices, and enabling change.

6 Directions for Future Work

The framework and results presented in this chapter raise important considerations related to urban transformation within the NEB initiative.

First, there is a need to clarify the role and value of monitoring and assessment tools, such as those briefly presented in this chapter. Reflexive processes play a crucial role in enabling the adaptability and flexibility of these frameworks. However, the involvement of stakeholders in the experimentation is often limited by a scarcity of time and resources.

Second, the connections identified between the results of the *Desire* projects and the NEB values highlight the challenge of further understanding how to design enabling and constraining conditions that allow sustainable, inclusive, and beautiful solutions to emerge.

Finally, the outcomes of the *Desire* experimentations emphasize the necessity of providing more evidence on how to collectively make the transition toward sustainability not only acceptable but also desirable.

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