

## On the Right Track? Evaluation as a Tool to Guide Spatial Transitions

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### 1 ABSTRACT

Spatial developments are becoming more and more non-linear, dynamic and complex with a wide range of possible actors. The awareness of uncertainty in spatial planning is growing and therefore, projects need to integrate a high level of flexibility. But at the same time, a growing demand for taking more informed and well-argued decisions is noticeable. Predictions out of the ‘best estimated model’ are no longer credible and no longer accepted, because they are too fragile and uncertain. How can we keep these long-lasting, multi-actor projects in permanent transition on the right track?

This article presents an evaluation methodology that goes beyond the traditional, rational evaluation attitudes with a low level of flexibility being too linear to match the current spatial developments. There is a need for more interrelated, alert and flexible means of evaluation, co-evolving with the processes and current dynamics in spatial planning. Therefore, different evaluation approaches are introduced, depending on the specific interdependencies of the object of evaluation and its context. Subsequently, the theoretical framework is translated towards a more practical level. A case study conducted in Flanders illustrates the current spatial developments and a possible evaluation approach, incorporated from the beginning of the process, to guide this kind of projects.

### 2 INTRODUCTION

Spatial planning is long ago described as “the best feasible mutual adaptation of space and society, such for the sake of society” (Van Veen, 1973). Therefore planners must try to understand what society wants, how it proceeds and in which way this could be embedded in space in the best reciprocal way. However neither society, nor space are fixed things. They develop, sometimes and ever more in unsuspected and even inscrutable ways, beyond the control of planners. Moreover, due to the ongoing network developments, its globalization and its localization by nature (Castells, 2011), there is not one society but several, which develop each in their own directions, with their own interests at different paces. Although each of these ‘societies’ influences each other reciprocally again, present developments become very much complex and their futures are hardly predictable anymore. There is a complex mutual dependency of actors and the capacity to achieve a consensus is increasingly being challenged by a growing and difficult to manage institutional and spatial complexity (Albrechts, 2006). Some even claim that non-linearity has become more regular than linearity; and therefore the unknown of the future is more present than the known (de Roo & Van Wezemaal, 2012). This ‘uncertainty in spatial planning’ is described as “a perceived lack of knowledge, by an individual or group, that is relevant to the purpose or action being undertaken” (Abbott, 2005). Obvious examples of uncertainties are consequences of climate change, economic crisis, political changes, socio-cultural eruptions, warfare etc. But also less known examples occur, like the uncertainty about the predicted increase of land prices, food under or oversupply, housing market or oil prices (Rakers, van Blokland, & Topper, 2010). Although these uncertainties make spatial planning difficult, they have always been a subject (and a challenge) in spatial planning (Christensen, 1985). After all, if the gap between what is known and what needs to be known (Mack, 1971) would be reduced to zero, then there would be no need to make any major planning decisions, because the future would be clear (Abbott, 2005). Uncertainty is therefore an intrinsic part of spatial planning and a high level of flexibility is needed in spatial planning processes. The long-lasting planning trajectories need to stay flexible in order to keep up with the various spatial developments and multi-actor domain of stake- and shareholders in permanent transition.

Next to this awareness of uncertainty and the need for flexibility, planners are also experiencing a growing demand for taking transparent decisions for spatial transitions, well-argued ones, to create certainty for society (Dabinett & Richardson, 1999). These demands for a transparent and robust policy can be framed in a growing international call for results-based management (Van Ongevalle, Huyse, & Van Petegem, 2014).

The decisions taken by planners, should be robust across a range of futures (Walker, Rahman, & Cave, 2001). In this way, spatial planning is assumed to create greater predictability and certainty. For example, inhabitants still want to know for sure that their properties will not be flooded in the future, that they still can build on a housing plot in 15 years, ... This challenge represents a need to create more robustness.

As such the current spatial planning has to deal with dual and somewhat oppositional demands. On the one hand, planners become increasingly aware of the changing contextual circumstances beyond their control, the ongoing complexity of society and the uncertainties this entails. On the other hand, however and somehow, decisions need to be taken for a long run (Hillier, 2008). One of the challenges in this context is keeping the current spatial developments (long-lasting, multi-actor projects in permanent transition) on track. Even the best model cannot predict the future behavior of spatial systems, because of the uncertainties that influence the system. So how to keep abreast of the reactions of the system on previous decisions and consequently make the system more robust? This expresses an important demand for a more integrated evaluation in spatial planning. In the remainder of this article, we will first investigate if it is possible to respond to this challenge with the existing evaluation approaches. Next, some conclusions will be drawn and be used as building blocks for an alternative approach. This approach will then be applied in a case study, followed by some suggestions for further research.

### 3 CURRENT APPROACH OF EVALUATION IN SPATIAL PLANNING

Planning evaluation has been an established field of research for a considerable number of years (Khakee, Hull, Miller, & Woltjer, 2008). Scriven (1991) has defined 'evaluation' as a scientific analysis and a process of a certain policy (or part of a policy) aimed at determining the merit, worth and value of the objects of evaluation, on the basis of certain criteria (effectiveness, efficiency, sustainability, etc.). The definition stresses the research-based link of evaluation and highlights the fact that evaluation provides a systematic and transparent assessment of an object (Pattyn, 2014). Leeuw and Furubo (2008) have added the idea that evaluation produces relevant knowledge, which helps us to make more sustainable decisions.

#### 3.1 Regular approach of evaluation in spatial planning

In the regular, rational approach of spatial planning, practitioners attempt to manage uncertainty and eliminate or reduce 'unruly' conditions (Salet, Bertolini, & Giezen, 2012). They try to use more data, extended models, wider consultation or they even simply reject directions that threaten more unknowns (Abbott, 2005; Balducci, Boelens, Hillier, Nyseth, & Wilkinson, 2011). This classic approach of spatial planning matches with the regular approach of the policy cycle. In this policy cycle, evaluation is the fourth and last step of the cycle (figure 1). The cycle exists of problem definition and agenda setting in the first step (policy preparation), followed by policy formulation, policy implementation and finally policy evaluation in the last phase. At this point, evaluation mainly considers to what extent the original objectives were achieved. Moreover evaluation is used as a justification or allows, if necessary, adjusting the next policy cycle (Terry & Boelens, 2013).

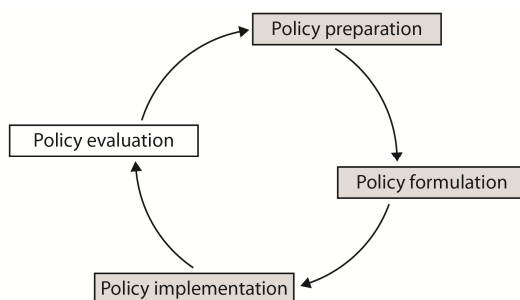


Fig.1: Regular approach of the policy cycle (based on: De Peuter et al., 2007)

This perspective on evaluation, with an important rational management focus on implementation, can also be detected in the traditional planning and evaluation literature. One of the first godfathers to write about a decision-centered view of planning was Andreas Faludi (1987). In addition and together with Ernest Alexander he elaborated this idea in a so-called 'Policy-plan/Programme-implementation process (PPIP)' (Alexander, 1985; Alexander & Faludi, 1989) in which they suggest a sequence of different polar evaluation questions connected to procedural planning. They characterized earlier approaches to implementation

assessment as ‘linear’ or ‘top-down’, faulty assuming that policies or plans are complete at a given point in time (Alexander & Faludi, 1989). But at the same time, these authors still hold on to the traditional approach in which the delivery of the program (the implementation) became the focus of attention. Referring to Popper (1959), they argue that “evaluation is unworthy of the name unless there are criteria for the evaluator to recognize the ‘good’ and distinguish it from the ‘bad’” (Alexander & Faludi, 1989, p. 131).

Although this evaluative approach constitutes a valuable part of the broader planning process, the alternative approach to planning evaluation of Talen (1996b, 1996a, 1997) has started as a reaction to amongst others Alexander & Faludi’s view on planning and decision-making; they would make no attempt to monitor the actual implementation of plans (Talen, 1996a). If plans are formulated with the intent of being implemented, she advocates integrating an evaluative mechanism in the planning document to measure success: “Planners should invest more effort in formulating the methodology required for measuring success in the implementation of their plans” (Talen, 1996a, p. 90). In this respect she distinguishes four typologies, connected to the circular approach of planning and evaluation: (1) evaluation prior to plan implementation, (2) evaluation of the planning practice, (3) policy implementation analysis and finally (4) the evaluation of the implementation of plans. A decade later, Oliveira and Pinho (2010a) take Talen’s framework as a point of departure to discuss the need to evaluate planning in a systematic way and to propose a cyclical methodology to evaluate planning and plan implementation. They presented the Plan-Process-Results (PPR) evaluation framework, which has the intention to be more comprehensive than the aforementioned ones, but it is still strongly influenced by the PPIP model.

In their turn and to systematically link plans to their outcomes, Laurian et al. (2004) suggest a conformance-based plan implementation evaluation (PIE) methodology. The methodology does not yet attempt to explain why policies are (not) implemented and is thus more a self-monitoring tool than an evaluation tool. This is the major difference with their later work in which the authors also examine performance as a conception of success in their Plan-Outcome Evaluation (POE) (Berke et al., 2006). POE was invented to provide an “innovative, robust, pragmatic and transferable evaluation approach” (Laurian et al., 2010, p. 754) to assess the effectiveness of plan policies, methods and regulations with a linear methodology in three consecutive steps to be conducted after implementation (ex post).

The danger of these approaches is an easy-going presumption of the causal connection between the policy and its outcomes. Various critiques were formulated on this subject (Sanderson, 2000; Stame, 2004; Virtanen & Uusikylä, 2004; Gerrits, 2011), which lead to more progressive approaches to conduct the evaluation in a more profound way.

### 3.2 Towards a more progressive approach, incorporating contextual factors

As a reaction to these evaluation approaches in more or less cyclic policy models, a slightly more progressive and integrative approach was introduced, which distinguishes the same four steps as in figure 1 but in a more integrative and relational way (figure 2) (De Peuter, De Smedt, & Bouckaert, 2007; Crabbé & Leroy, 2008).

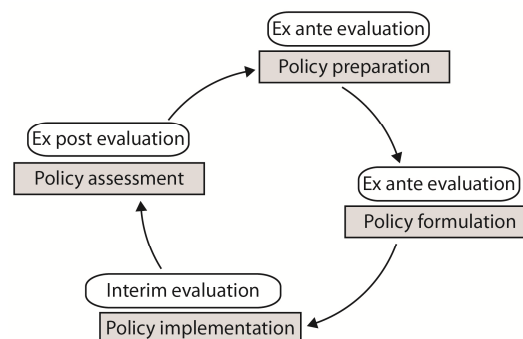


Fig. 2: Integration of evaluation in the different steps of the policy cycle (based on: De Peuter et al., 2007)

This approach integrates evaluation in each of the four phases of the cycle. For instance, during the policy preparation and policy formulation period, an ex ante evaluation can be conducted. A well-known example of this kind of evaluation in spatial planning is the environmental impact assessment, to evaluate positive or negative impacts that a proposed project may have on the environment. During the policy implementation, an

interim evaluation can be executed. In comparison with the traditional management approach, the fourth phase (policy evaluation) is now named policy assessment, but it has the same content.

Although each of the previous methodologies contributed very much to the understanding of the inherent relation between planning decisions and evaluation, it proved to be difficult to take the evaluation further than the implementation assessment. As a reaction, Carmona and Sieh (2008) tried to identify a measurement framework through empirical research. They admitted that multiple measurement approaches will be required which will be different in each context, but a clear ‘organizing framework’ should provide a tool for learning and comparison. As a result they proposed an extra assessment to the previous frameworks: not only the planning initiative is evaluated, but also its organizational aspects. Performance should not only be measured by the planning product quality, but also by the functioning of the planning service itself (e.g. efficiency of decision-making, sensitivity to market and social contexts), and by the organization in which the planning service is inserted. As such, the evaluation should not be limited to the results of planning, but also include changes in the learning process and the organization of this process.

Based on this idea of Carmona and Sieh, Carneiro (2013) has even tried to apply this framework in a practical guidance for evaluation in marine spatial planning. He included the various models described above to develop a step-wise evaluation/learning framework. The framework consists of five steps. Like Carmona and Sieh (2008), the evaluation of the organizational performance (1) was based on the planning service quality and the organizational quality. The second step consisted of the evaluation of different criteria related to the plan-making process (e.g. participation, robustness, comprehensiveness of impact assessment methods) and the planning team (sources of funding). The next module (3) consisted of an analysis of the contents of the plan document in terms of internal coherence, relevance, conformance with the planning system and quality of communication, in reference to the POE-methodology of Laurian et al. Step 4 concerned the plan implementation, and was based on the PPR model (Oliveira & Pinho, 2010b), while the last step would be the evaluation of plan outcomes and impacts, variable from case to case. Carneiro (2013) stresses that a good evaluation has to incorporate all the evaluation steps in this order. But since marine spatial planning initiatives are very heterogeneous, a test of this evaluation framework in a real planning context has, to date, not yet been performed.

### 3.3 Limitations and opportunities of the existing evaluation approaches in planning

Although the more progressive policy and evaluation approach is more sophisticated than the first one, it still holds severe misfits; especially in reference to the present dynamic, complex and volatile society. In table 1 we give an overview of the main evaluation theories in the last three decades. From here major transformations in the approaches of evaluation can be detected and three in-between conclusions can be drawn from that.

Evaluation Framework	Object of evaluation	Stakeholder involvement	Flexibility of the framework
Policy-plan/Programme-implementation process (PPIP) Alexander & Faludi, 1989	implementation	planner	fixed framework
Alternative approach to planning evaluation Talen, 1996-1997	implementation	planner	fixed framework
Plan Implementation evaluation (PIE) Laurian et al, 2004	implementation	planner	fixed framework
Plan-outcome evaluation (POE) Laurian et al, 2010	implementation	planner and local experts	fixed framework
Plan-Process-Results (PPR) Oliveira & Pinho, 2010	implementation process	and planner expert	and a dynamic methodology, adjustable to planning context
Performance Measurement in Planning Carmona & Sieh, 2008	implementation and process	planner and stakeholders	and framework with fixed and dynamic aspects
Evaluation framework for Marine Spatial Planning Carneiro, 2013	implementation process	and planner stakeholders	and fixed step-wise evaluation framework with dynamic content

Table 1: Overview of the major evaluation theories in planning in the last three decades

First, based on the object of evaluation, there is an evolution in the assessed frameworks from plan implementation to a more holistic view of evaluation in planning. A first group of authors (Alexander & Faludi, 1989; Talen, 1996b, 1996a, 1997; Laurian et al., 2004) focused on the implementation of planning, as a reaction to tried to the so-called ‘New Plan Syndrome’: “plans are continually redone or updated without

regard to the implementation status of the originally prepared plan” (Calkins, 1979). The second group of evaluation frameworks broadened the object of evaluation to not only the implementation of the planning initiative, but also the planning process itself (Carmona & Sieh, 2008; Laurian et al., 2010; Oliveira & Pinho, 2010a, 2010b; Carneiro, 2013). Since planning processes become increasingly complex, this is an evolution that has to be taken into account. However, the evaluation and the planning processes still remain separate dimensions and none of the aforementioned scholars tries to really combine them. Mostly they are even executed by separate experts and/or entities. As such, the translation from the one to the other remains difficult and the evaluator does not always hold the thorough knowledge of the subject of evaluation or of the useful recommendations.

A second conclusion dilates upon the growing amount of actors involved in spatial projects. This trend is also noticeable in the evaluation frameworks: the more recent the frameworks, the more external stakeholders are involved in the evaluation and the execution of the evaluation. This means not that the evaluation is therefore more executed by external professionals, but that they are more and more seen as an important (f)actor in the evaluation. Even sometimes major actors are asked to define the evaluation criteria, because they are generally more aware of the critical aspects in the evaluation. This multi-actor aspect does make the evaluation itself more complex, since the group of actors in a spatial planning process evolves and their opinions and intentions are dynamic too.

The third conclusion concerns the flexibility of the framework towards its context. Most of the frameworks discussed above, apply a linear, fixed framework to evaluate, sometimes with feedback loops or a dynamic context. The evaluation moments are still put in a specific order and often executed on fixed moments. But almost no spatial developments follow this logic of linearity. “Processes run in parallel, overlap, short-cut each other or are left out”(Volkery & Ribeiro, 2009). These processes influence each other continuously and therefore also have a major impact on (the evaluation of) the whole. Each of the scholars mentioned before is increasingly aware of the contextual factors that should be able to influence the methodology, but only the last frameworks (Carmona & Sieh, 2008; Oliveira & Pinho, 2010a; Carneiro, 2013) have the intention to be more dynamic, adjustable to planning topic and context. That puts not only a continuous evaluation of all these planning parts on the agenda, but also a reciprocal interaction of all these evaluations.

#### 4 A MATRIX OF MULTIPLE EVALUATION APPROACHES

All evaluation approaches described before result generally in holistic, generic frameworks with when not a linear, at least a circular logic, focused on several feedback-loops and assumed causal links in organization, planning-process and plan-performance. They discard the fact itself that evaluation is an inherent part of planning itself, that evaluation influences context, object and organization and therefore has to be analyzed actor-relational (Thrift, 1996; Murdoch, 2005; Boelens, 2009). Therefore here we will try to make that turn and will elaborate on how a planning evaluation would look like proceeding from a post-structural perspective.<sup>1</sup> One of the first ideas of such a post-structural perspective on planning evaluation is that – as mentioned before – spatial developments do not evolve linear, circular or causal. On the contrary, in our highly interdependent and volatile network society, spatial developments present themselves more and more in a non-linear, pragmatic and adaptive way (Belsey, 2002; Hillier, 2008; Teisman, van Buuren, & Gerrits, 2009; de Roo & Van Wezemaal, 2012; Boelens & de Roo, 2014). The typical spatial developments display a high degree of complexity and heterogeneity, with a dynamic playing field (people involved in the situation), a dynamic topic and multiple perceptions of the situation. But in contrast, most common evaluation strategies expect a stable hypothesis to be under test (Taket & White, 1997).

The following matrix with multiple evaluation approaches takes into account the limitations and opportunities of the previous frameworks to develop several kinds of evaluation approaches in our highly fuzzy world of today. Therefore we distinguish between the object of evaluation (the problem, challenge or intention in question) and the context of evaluation (the settings, playing-field or agencies involved) in order to become more specific with regard to that ambition. The object of evaluation could be simple, regular, well known and path dependent, or highly open, new, innovative and insecure, possibly still moving in all kind of directions. At the same time the context of evaluation could be fixed, more or less static and certain, with a

<sup>1</sup> Further details on this post-structural perspective can be found in: Terryn E., Boelens L. & Pisman A., Beyond the divide. Evaluation in co-evolutionary spatial planning. (in review)

survey able, manageable number of actors involved, or highly dynamic and volatile, involving several, changing agents or agencies. Combining these two variables, it would need at least four kinds of evaluation approaches depending on the specific interdependencies of object and context: circular, adaptive, participatory or co-evolutionary (figure 3).

<b>Object of evaluation</b>	<b>Highly open, new, innovative</b>	Adaptive	Co-evolutionary
	<b>Simple, regular, well known</b>	Circular	Participative
		<b>Fixed, static, certain</b>	<b>Highly dynamic and volatile</b>
		<b>Context of evaluation</b>	

Fig. 3: Matrix of multiple evaluation approaches

The circular evaluation approach is situated in the bottom-left corner of the matrix. In fact it is suitable for relative simple planning questions, whereby the playing field or context is somewhat fixed with a relative robust number of stake- and shareholders, including more or less similar ambitions. The planning process seems to be manageable in a kind of linear development from intention to implementation. However, this kind of situations is increasingly less present in our network society. Therefore at the top-left corner of the matrix, we would like to introduce a so-called adaptive evaluation approach. It would be suitable for cases whereby at a given moment in time, the playing field, and (number of) agents and agencies would remain relative stable, although the object of planning could evolve highly volatile. The other way around is the bottom-right corner of the matrix. Here a participatory or collaborative approach is needed within situations when a relative fixed objective is put on the planning horizon, but within an increasingly dynamic and volatile playing field. This kind of evaluation takes the form of negotiations rather than the pursuit for an ‘objective’ effectivity measure.

Last but not least, we would like to introduce a co-evolutionary evaluation approach. We are convinced that such a planning and (therefore) evaluation approach is needed in cases where the object of planning, as well as the playing field of planning, has become highly open and dynamic. This is the case in situations where only highly abstract planning intentions could be formulated, which would induce various planning discourses, explorations and solutions in different and volatile settings, with a wide range of possible and altering agents and agencies (Boussauw & Boelens, 2016). In order to facilitate and partly influence that kind of resilience of undefined becoming, also a continuous evaluation of each step is needed to induce a kind of learning by doing and co-evolution towards (from the start) highly abstract ambitions of resilience and sustainability. Here the evaluation process becomes also an integrated part of the planning process itself, whereby the means, objects and focus points alter – or if possible co-evolve – with the changing objects and agencies themselves. Evaluation itself becomes a form of interactive discourse where those entirely involved can put in their values, problems and concerns (Khakee, 2003).

Generally speaking, evaluation is of course only possible when something or some progress is evaluated against common standards; otherwise we would not know which arguments are used to define specific developments evolving in the supposed ‘right’ or ‘wrong’ direction. Here we agree with Ernest Alexander and Andreas Faludi (1989). But in fact, those standards could also evolve and each of the evaluation approaches described above would induce their own standards too. Where circular evaluations would be driven by reviewing the performance of the original intentions, within the intended budget and in due time, adaptive evaluations would be more interested if the final solutions would meet the changing and possibly various interests; caring less about the original intentions, budget or time. In turn participatory evaluations would be more interested in reviewing if the volatile, dynamic and expanding playing field and interest groups would in the end be able to cooperate or collaborate to a certain end; and co-evolutionary approaches if planning itself would become more resilient, adapting itself continuously to changing situations, with ever changing agents and agencies within an ocean of all kinds of possibilities (Hillier, 2008). Evaluation itself would then become more specific, interdepending of specific objects and actor-network settings.

Since the intentions for a spatial project (the object of evaluation) and the actors involved (the context of evaluation) are very dynamic during the developments in each spatial planning project, multiple evaluation approaches are possible for each case. A very complex and dynamic spatial planning proposal –demanding a co-evolutionary evaluation approach at that moment- can for example evolve towards a really concrete project with a fixed playing-field. At that moment, the co-evolutionary approach is less suitable and can evolve towards a circular evaluation.

## 5 CASE STUDY: THE STATION ENVIRONMENT OF TURNHOUT

We have analyzed if and how we could apply this post-structural evaluation framework to several recent cases in Flanders. In these cases the planning process and the changes in this process have been analyzed. This is performed by desk research of the different reports and policy documents and complemented with interviews with policy makers on the different policy levels. Strategic spatial projects were selected, since these projects are complex, but representative for our current spatial context (Terryn & Pisman, 2013). The station environment in Turnhout (a city in the northeast of Belgium with a little more than 40.000 inhabitants) discussed here, is part the strategic project ‘Turnhout 2012’, of which the project coordination is funded partly by the Flemish government. This funding is provided for complex spatial projects with challenges beyond sectorial and institutional boundaries, which can be realized on the short or mid-term, forming an example of qualitative spatial planning (Vlaamse overheid, 2013). Turnhout received this funding four times (2006, 2007, 2010 and 2012). With this financial support, a team has been put together to coordinate a total of 10 project-parts, around the city of Turnhout. One of these projects was the redevelopment of the railway station and its wasted industrial environment, towards a dynamic living and working city area with economical functions. The redevelopment of this area consists of four parts (figure 4 – left): the construction of a new bicycle bridge over the canal, the development of the innovation park near the railway station, a housing area with a new park: Begijnveldekens and a new ring road: Noordboulevard. In the next paragraphs, parts of the innovation park-project and the new housing area Begijnveldekens with the ring road will be discussed in relation to the four evaluation approaches described above.

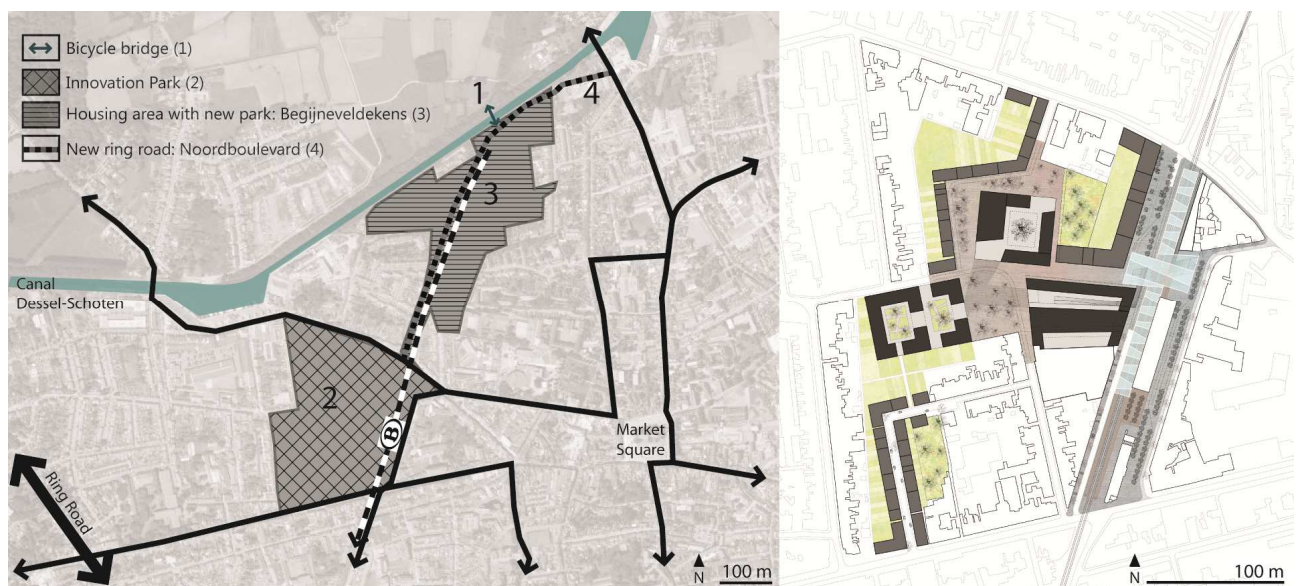


Fig. 4: Left: Projects in the station environment of Turnhout (Source: author), right: Masterplan for the Innovation Park (Source:TV B+B+B (2012))

### 5.1 Reconversion of the station environment

In a strategic plan for the city (2004), the main intention for this area was the reconversion of the (brownfield)sites towards ‘new economic activities for the new millennium’. What that should be exactly was very fuzzy. However, the intentions of the city government matched with the initiatives of the industrial companies to finish their activities over here. At the moment their initial economic activity stopped, one of the firms (Foresco) took the initiative for further clarification of the intentions with a first draft of possible future development by the architect’s firm M<sup>2</sup>-architecten. At that moment, Foresco planned to start the

cooperation with a real estate developer, together with the city. This resulted in a very clear planning intention: a rather classical development of 500 housing units and office buildings in a railway area.

At this moment, a circular evaluation approach would have been the most suitable one, since the planning initiative was rather simple, well known, and the actors that would play an (important) role in the process were more or less defined. It could follow the simple classic process of ex-ante evaluation (Would the housing development, designed as such, be ready in time, and implemented within the available budget? With this kind of project, can we meet up with everyone's interest?), in-between evaluation (How is it going on, are there circumstances that would alter the original expectations, is there a need to go back to those?) and ex-post evaluation (Is the housing project realized according to initial intentions, within the intended budget and time and according to the interests of the private and the public actors?).

## 5.2 Innovation Park – Living and Care Lab

However, as a kind of ex-ante evaluation (although not mentioned as an evaluation), the city of Turnhout has decided at that time that a purely private initiative would not match with their idea to convert the project towards the 'new economic activities for the new millennium'. They wanted to keep a bit more control and after consulting a long list of possible partners, the city government decided in 2008 to go for 'Innovation in the social service sector' as a concept. They countersigned the 'Innovation Pact' (2009) with Thomas More Kempen (University college) and Janssen Pharmaceuticals (Pharmaceutical Giant), a partnership agreement to build out the region towards a health-innovation-hub (Turnhout, Katholieke Hogeschool Kempen, & Janssen Pharmaceutica, 2009) and Idea consult (a consulting firm) made a study to refine the concept (IDEA consult, 2010). One of the intentions for example was to develop 15 of the planned houses as a part of a 'living and care lab' (LiCaLab), in which different companies could test new products in a real life situation. In 2013, a non-profit organization LiCaLab was established with the city of Turnhout, Thomas More Kempen, Cubigo (a spin-off company of Hasselt University that designed a software platform for the social service sector), Welzijnszorg Kempen (regional public welfare service) and SEL (network of social workers) as partners. Janssen Pharmaceuticals retreated as a leading partner, but still has the intention to be involved as an executing partner as they still have two campuses nearby and try to focus on its embeddedness and environmental brand in the region. In the beginning of 2014, VITO (Flemish institute for technological research) was also involved in the project, to build out a transition trajectory towards a sustainable assisted-living campus. Amongst others, three workshops were organized to identify such a campus (as a care-proof environment), without being (just) a home for the elderly. At the end of 2014, the project received extra funding in a call for urban renewal projects. One of the conditions to receive this funding is the optimal quality follow up, for which B-architects is selected. To date, none of these conceptual ideas are yet translated to concrete realization.

The object of planning, as well as the playing field were and are still gaining in complexity. At the moment, both are still highly open and dynamic, without any clear point on the horizon, let alone leading actors involved. Therefore we position this project in the top-left corner of the co-evolutionary framework (figure 3); still highly fuzzy with regard to actors and intentions. Therefore we conclude that to keep this kind of projects on track and at the same time adaptable to the changing situations, a continuous evaluation is needed. In fact that kind of continuous evaluation needs to become part of the planning process itself as a learning-by-doing approach. For that reason, it is important to keep abreast with the evolution of the project, the different ways in which it is adapted and if these adaptations make the whole project more sensible and in the end more robust or resilient.

## 5.3 Innovation Park - Masterplan

This living and care lab is the concept for just one part of the area. The rest of the development is mainly regular housing and related functions. At the same moment the 'Innovation Pact' was subscribed (2009), the city of Turnhout worked together with the Flemish Government Architect Team to set up a call for a project definition and a vision for the masterplan. In November 2010, five candidates were selected to present their proposals and in April 2011 the joint venture Bureau B+B (urban planning and landscape architecture) and B-architects was picked out to design the masterplan (figure 4-right). In cooperation with the city, workshops with inhabitants were organized to specify the points of particular interest. The masterplan consists of 60.000m<sup>2</sup> housing, 8.000m<sup>2</sup> commercial activities, 34.000m<sup>2</sup> office space and 5.000m<sup>2</sup> public functions (TV



B+B+B, 2012). To date, this plan is translated into a building permit for one part (Niefhout), which is approved at the end of 2014. For the other parts of the masterplan, there are no concrete development proposals yet. The former industrial buildings are already demolished and there was an idea to implement temporary installations to increase the community involvement, but at this moment there is no further realization.

This phase of the project can be approached by a participative evaluation. The object of this second part of the masterplan seems to be fixed: realizing the different buildings, embedded in the urban setting as part of an overall masterplan to redevelop the area of the railway station. But the adjoining playing field or context of evaluation in this project has become fuzzy. It started with some private actors trying to develop their grounds in the area. Budgets were discussed, planning made. But as a result of the uplift of the separate projects to an integrative one it has become unclear, who will actually develop the houses and apartments. Consequently, the standards and process of evaluation should not (only) focus on the realization of the houses, clearance of the brownfield, and public space (goal attainment), but also more and more on if and how the different interests of the public and private actors could be matched and are able to evolve to a common goal on the planning horizon. Therefore, it is necessary to verify the various (whether or not explicitly declared) visions of the actors involved and induce an evaluation *ex ante*, *in-between* and *ex-post* if and how they could be included in the process, organization and a common discourse.

#### 5.4 Begijneveldekens and Noordboulevard

The next case analysed is the project 'Begijneveldekens and Noordboulevard', which is also located in the station area of Turnhout. It concerns the realization of a housing project of 230 houses with an additional new green park (called Begijneveldekens) and a new ring road (Noordboulevard) next to it. This new ring road was planned to give access to the housing project and to form a bypass to relieve the inner-city centre from passing traffic. Due to political disagreements, the implementation of the plan for the whole area became under fierce discussion. Most of the actors did agree upon the housing project and the park, but the ring road became a moot point. Although the implementation plan was not approved formally, and although one formally stated that the implementation of the park was depending on the other parts of the plan, in the meantime the park is already in the final stage of realization.

Here we think that an adaptive evaluation strategy would be the most applicable (figure 3). Because if we would evaluate the project in a classic way, it would turn out negatively since the original intentions are not met: ring road as a *conditio sine qua non* for the housing project, which would also induce the implementation of the park. Nevertheless, the park is apparently already realized, without the need for a ring road and additional housing. Moreover the object of evaluation in this planning process is highly insecure, still movable in all kind of directions. Due to intense discussions between the political parties about the Noordboulevard, even a new political coalition had to be formed. To support the coalition, one party even demanded to drop the ring road out of the administrative agreement in favour of the realization of the park. Consequently, the realization of this part of the plan suddenly accelerated. The object of evaluation thus evolved from an integrated overall plan with housing, a ring road and a green zone to only the implementation of the park. The rest of the plan is still under discussion and therefore 'highly open'. The playing field (context of evaluation) on the other hand remains relatively stable. Although there are discussions between the different actors, discourses change and stakeholders take up different roles during the process, the group of involved actors remains more or less the same. Consequently, the evaluation approach would also need to adapt itself to the changing discourses and intentions of the parties involved: would the final solutions meet the changing interests, and how could these changing objects be included in the course of evaluation itself, ...next to the altered evaluation of the park itself.

## 6 CONCLUSION: MULTI-EVALUATION – A PLURALIST STRATEGY

In our fragmented, volatile, dynamic, and networked world, planning has become extremely complex. Heterogeneous actors and factors of importance influence each other reciprocally, making the future highly uncertain and a-linear. Past experiences are less and less any guarantee for the future. Moreover, instead of an objective or generic activity, planning is highly depending on context, while it dissipatedly influences that context too. Consequently, the act of the evaluation of planning has to adapt itself also to these changing, complex circumstances. This would not mean that we cannot say anything anymore about the evaluation act

itself, or that it has become superficial. On the contrary, to our opinion it would mean that the evaluation act itself has to become more prominent and precise in what it evaluates, in which actor-relational context and therefore against which criteria, to evaluate anything sensible for future decisions.

The previous approaches towards evaluation, deducted from literature and empirical (case)research can be embedded in an academic discourse with a plea to combine different evaluation approaches (Guba & Lincoln, 1990; Sanderson, 2000; Barnes, Matka, & Sullivan, 2003; Stame, 2004; Van Der Meer & Edelenbos, 2006; Rogers, 2008; Patton, 2010; Bressers & Gerrits, 2013). This leads towards a proposition to use evaluation not only as a way to provide accountability of the current policy (a traditional performance-approach), but at the same time as a manner to start up learning processes (Stake, 1983; Guba & Lincoln, 1990; Cousins & Earl, 1992; Abma, 1996; Patton, 1996; Teisman & van der Meer, 2002). This can be linked with the dual vision for evaluation in a spatial context of Teisman and van der Meer (2002): a rational-analytical and a social-constructivist approach. In the rational-analytical approach, the assessment of the executed policy is the central point and the degree to which the executed policy leads towards the predefined objectives. The social-constructivist approach conceives the policy process as a dynamic one, in which the interaction of the actors is one of the main points. The focus is not on making an inventory of successes and failures, but on the achievement of improvement for the project (Edelenbos & van Buuren, 2005).

In our opinion, this dual vision for evaluation is needed as a reaction to the dual and somewhat oppositional demands for flexibility versus the need to create certainty for society and integrate more robustness in spatial planning. The first, rational-analytical approach can be reached by the traditional evaluation approaches described earlier. The social-constructivist evaluation method can consist of the matrix of different evaluation approaches, suggested in this article (figure 3). We have developed a post-structural diagram of object versus context of evaluation in order to distinguish at least four distinctive settings for planning, evaluation and their respective criteria. Moreover and at the same time, each of these settings induces a specific amalgamation of planning and evaluation: circular, adaptive, collaborative and co-evolutionary.

If evaluation should be regarded in this multi-planar, bilateral way, it would also provoke two distinct positions and roles for the spatial planer, public servants and/or politicians. The first is an elusive, detached external one, more formally standoffish and neutral from the subject of evaluation. This position stresses a supervisory role, orchestrating constitutional ordering, institutional legitimacy and the maintenance of the general credibility of the course taken. But while society itself has taken a fragmentary, complex, a-linear and highly unpredictable course, this position would be a humble one, in the background, only referring to basic, general items, facilitating and where possible escorting developments within the mutually agreed frameworks; just until these are challenged too.

The second position however is an inclusive, very much involved one; in which the planning action itself is part of the progress and tries to intermediate between the various evolving actors, factors and changing circumstances at hand. This kind of adaptive planning can only be effective informally, in specific cases and ambitions, whereby monitoring and evaluation procedures are incorporated at the beginning of the process and not simply added post hoc after implementation. In these positions - and instead of the usual principle of accountability and legitimacy -evaluation should be considered a learning principle, to fulfill a more active role than in the current planning approaches. That kind of learning-by-doing or learning-by-planning principle (Abbott, 2005), can then be described as a continuous evaluation, supporting the adjusting and re-adjusting to new planning circumstances. In these positions, evaluation becomes more than a feedback loop (Lee & Shabecoff, 1993; Walker et al., 2001), but a continuous adaptive learning tool and planning and evaluation become increasingly interdependent.

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