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# 'What is going on and what should we do?' Divergent frames in multifunctional projects

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Multifunctional projects offer advantages because they enable synergetic effects among functions. However, realizing these plans is more challenging than mono-functional projects because of the difficult adjustment of several functions in an area and the involvement of a larger diversity of actors with often conflicting interpretations about decision contexts. The present paper is an in-depth study about how predominant interpretations mobilize actors and influence their choices in the decision-making process of a multifunctional land use project. To this end, we reconstruct the decision process of an urban brownfield multifunctional project located in the western part of the Netherlands. To indicate what actors interpret as problems and solutions in decision contexts, we use the concept of 'frames' as a lens. We reconstructed the decision-making process of the project by interviewing 17 actors and reviewing more than 70 documents. Following a grounded theory approach, we evaluated decisions that actors indicated as having an influence on the design and the conditions of the project. The analytical results show that frames act as filters of how actors perceive a problem, shaping their interests and the required actions to solve the perceived problems. In particular, our results show that frame divergences are often resolved by the emergence of a predominant frame to make an actor gain influence in different decision arenas and contexts. When actors use their power to establish their own frame as predominant, other actors might mobilize because the prevalent frame helps them to achieve their own interests, or because they are forced to follow a particular course of action. Mobilizing around a predominant frame involves decision trade-offs. Although trade-offs are unavoidable in decision contexts, it is important to bring frames to the surface to create awareness about the consequences of actors' choices. In light of our results, we consider that understanding how predominant frames emerge and how other actors mobilize around them helps to anticipate strategies to support the predominance of frames that will support the achievement of mutual gains or joint benefits instead of individual interests.

*Keywords:* Frames, multifunctional projects, predominant frames.

## Introduction

The existence of multiple interpretations in multi-actor contexts and its influence on collective and individual actions have been extensively researched by organization science scholars (Goffman, 1974; Weick, 1995). Literature in multiple fields has paid attention to the analysis of multiple interpretations in various contexts such as technological change (Orlikowski and Gash, 1994), strategy making (Kaplan, 2008), climate change (De Boer *et al.*, 2010), environmental conflicts (Lewicki and Gray, 2003) or natural resource management (Brugnach *et al.*, 2011). The premise is that the meaning that actors assign to certain situations has an influence on their choices. Not surprisingly, in multi-actor contexts, there are different and often conflicting meanings to situations and issues. Making a choice requires the emergence of a predominant interpretation that guides action and mobilizes actors in a particular direction. Previous research (Kaplan, 2008) has

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analysed how some interpretations prevail over others and what are the reasons for this predominance.

In this paper, we draw on Kaplan's (2008) research to explore how predominant interpretations mobilize actors and influence their choices in the decision-making process of a multifunctional land use project. In multifunctional projects, actors attempt to achieve the synergy from integrating various land purposes and resources in the project. This integration requires the identification and selection of purposes that satisfy multiple demands in the project. Consequently, the decision-making process requires the intensive coordination of interdependent actors that belong to various disciplines, administrative levels and backgrounds. Coordinating multiple actors is challenging because of the existence of conflicting meanings and interpretations in the project.

To analyse how actors interpret the social and physical context of a multifunctional project, we use the theoretical concept of *frames* as a lens. Frames are the *schemata of interpretation* that allow actors to 'locate, perceive, identify and label' events around them and support the guidance and filtering of actors' interpretations about a situation, and what is the best course to act within the situation (Goffman, 1974). In particular, frames guide actors to define if a problem exists and what the problem is, and to define preferred solutions to tackle the problem (Gray, 2003). Although frames are essential to influence how actors act, they are usually taken for granted and actors rarely bring them to the surface (Dewulf *et al.*, 2009). Awareness about frames is particularly important in multi-actor processes where there are often different and equally valid interpretations of problem situations (Brugnach *et al.*, 2011). If unresolved, frame divergences might lead to delayed decisions because of the lack of clarity about the desirable course of action.

Similar to Kaplan (2008), our research results show that a prevailing frame resonates and mobilizes other actors to act collectively. The emergence of a predominant frame is related to the functional and organizational interdependencies in the project, and the power or authority that an actor has when dealing with a specific issue. When an actor gains influence in the process by making his or her own frame predominant, other actors might mobilize around it because it helps them to achieve their own interests or because they are forced to do so to avoid a decision impasse. In light of our results, we consider that making frames more explicit helps to add interpretations to decision-making processes, helping to open up the option space so new and overlooked options might emerge (De Boer *et al.*, 2010). Furthermore, understanding how predominant frames rise and how other actors mobilize around them helps to anticipate strategies to support the prevalence of frames that will support the achievement of mutual gains or joint benefits.

This paper is organized as follows. Firstly, we elaborate on the concept of frames to analyse actors' interpretations in a decision-making process. Secondly, we present our research method, describing how we selected the case, performed in-depth interviews and followed a grounded theory approach. Thirdly, we present our research results, describing the framing dynamics during the decision-making process of a multifunctional project in the Netherlands. Fourthly, the discussion section reflects on our research results in the context of literature about frames, reflecting on the implications for multifunctional land use and suggesting further research.

## Decision-making processes, frames and multifunctional land use

Decision-making is a social process which involves at least one participant attempting to choose the most desirable outcome for a project (Kamruzzaman and Baker, 2013). In a decision-making process, actors need to (1) constantly interpret the context that determines events around them and (2) interact with other actors using different political, financial, economic, legal and technical rationalities and resources (De Bruijn *et al.*, 2010; Lyhne, 2011). When deciding on issues such as the allocation of resources, or the most convenient distribution of land use purposes in an area, actors are constantly asking *what is going on* and *what should we do*. Previous literature has acknowledged that decision-making is context dependent and conditioned by past decisions that influence how decision-makers see, interpret and respond to events (Vickers, 1965). Weick's sense-making theory (Weick, 1995) suggests that actors first make sense of what is going on to develop an interpretation of the existing circumstances to take action. More recently, some scholars (Stirling, 2006) have emphasized how interpretive elements in decision-making and analysis are crucial in determining the outcomes of the process. To interpret the context around them and provide a meaning to a certain situation, actors use *frames*. As previously introduced, frames are the *schemata of interpretation* that allow people to 'locate, perceive, identify and label' events around them (Goffman, 1974).

Frames have been subject to analysis and discussion in both planning and decision-making literature. Scholars define frames as 'how actors select issues, define problems, challenges and opportunities, practices; interact with the dynamics and tensions of a place and a situation, and shape actions in a project as a result'

(Albrechts, 2013, p. 52). Frames have an active role in planning and decision-making processes because they influence the decisions of actors, and the process of reaching a collective action (Salet, 2008). Contemporary literature about frame analysis has focused on how actors use their frames to interpret what a problem is about, why it occurs, the motivations of people involved and how the problem could be solved (Gray, 2003). The combination of interests and cultural and professional backgrounds shapes frames. While interacting with others, actors attempt to produce meaning for themselves and for other actors, shaping and balancing their interests and actions (Kaplan, 2008). In this process, frames shape not only how people perceive the circumstances forming a certain context, but they also influence people's preferences about how to change that situation (Vaughan and Seifert, 1992).

Consequently, in multidisciplinary teams frames are often contested (Kaplan, 2008) and guide actors towards diverse interpretations about an event (Chong and Druckman, 2007). Although the involvement of various actors with different backgrounds can lead to a better accepted project solution (Van den Hoek *et al.*, 2014), each actor might frame the project differently. A divergence of frames often leads to situations where it is no longer clear what the issues of concern and the potential courses of action are (Brugnach *et al.*, 2011). This situation might delay reaching an agreement about the design or conditions of a project. To deal with the existence of divergent frames, we consider it important to understand the dynamics of frames in multi-actor contexts and how this influences organizational practices.

Previous studies about organizational strategies (Kaplan, 2008), or the resolution of environmental disputes (Gray, 2003) have operationalized the concept of frames. Kaplan (2008) describes how actors have different diagnostic and prognostic frames about decision contexts, and constantly negotiate about the assessment of problems and potential solutions. When frames are not aligned, actors attempt to make their own frame resonate at the collective level to mobilize others in favour of their desired outcome. According to Kaplan (2008), frames that resonate are called 'predominant frames'. Predominant frames emerge from interactions among actors and shape how the problem and the solutions are defined, and which decision should be made. The emergence of a predominant frame depends on actors' interests. Actors' interpretations shape their interests, and their interests reinforce their interpretations. Frequently, actors do not have similar interests, and therefore they attempt to establish the legitimacy of their own frames, questioning the legitimacy of other actors' differing frames or realigning their frames to others. In the event that there is a predominant frame, actors engage in collective action. Otherwise, the frames remain divergent, and decisions may be delayed.

In this paper, we analyse the influence of frames on the decision-making process of a multifunctional land use project. Multifunctional land use is a planning concept aimed at the 'sustainable use of land, focused on the creation of synergy between land use functions' (Vreeker *et al.*, 2004, p. 292) that aims at mobilizing actors and resources to deliver innovative spatial projects that satisfy multiple societal demands (Lagendijk, 2003). Multifunctionality is the simultaneous and interrelated provision of various functions in the same area (Mander *et al.*, 2007; Carvalho-Ribeiro *et al.*, 2010). The concept of multifunctionality has attracted attention with a range of topics exploring the multifunctionality of landscapes (Dewi *et al.*, 2013), multifunctional forest management (Carvalho-Ribeiro *et al.*, 2010), multifunctional agriculture (Zasada, 2011) and multifunctionality in urban areas (de Groot, 2006; Rodenburg, 2006; Bomans *et al.*, 2010).

Multifunctional projects involve numerous actors that belong to different disciplines and administrative levels. The complicated organizational context of multifunctional projects makes their realization more challenging than for mono-functional projects. When deciding upon function combinations that will satisfy multiple functional claims, actors manage a great deal of legal, economic and technical requirements and objectives (De Bruijn *et al.*, 2010; Lyhne, 2011). Defining and selecting function combinations require the coordination of numerous actors that often have diverging interpretations about the context of the project, and the desirable courses of action. Consequently, integrating various spatial functions requires understanding framing practices (Salet, 2008). Drawing on previous research about frames, this paper evaluates diagnostic and prognostic frames to analyse how actors frame certain situations in a project, how the differences among frames manifest and which frame becomes predominant to mobilize other actors in the context of a multifunctional project. In the following section, we elaborate on our selected case and the method for our analysis.

## Method

To evaluate how various actors frame a specific decision context in a multifunctional project and the influence of frames on the outcomes of the decision-making process, we conducted a retrospective case study about a multifunctional urban brownfield project located in the Netherlands. Understanding what led to multiple changes in the project design and conditions throughout the

decision-making process was the main trigger for case selection.

Given the goal of our research of evaluating the influence of frames in the decision-making process, it was important to understand the history of the project. For this reason, we chose a retrospective case study because it allowed us to reconstruct events whose outcomes were already known, making it possible to evaluate the influence of the variables under study on these outcomes (Street and Ward, 2010). A case study approach allowed us to provide an extensive and in-depth description within its real-life context (Yin, 2011).

The origin of the chosen project dates back to the late 1990s, when the municipality and the port authority launched the plan to renovate an area located in the harbour of an important port city in the Netherlands. In earlier days, the area hosted the biggest fruit port of Europe, and food companies had access to a rail network consisting of 12 rail tracks. However, the port authority moved the companies to a different location, and the use of the rail tracks decreased. Moreover, the residents in the neighbourhood contended with long-standing complaints about a lack of green areas in the neighbourhood, asking the district authority and the municipality to provide parks.

Given the pressure of the port authority and the neighbours, two major interests became the driving forces to improve the area: developing new businesses in combination with more green space for the neighbours. Consequently, the municipality proposed the innovative design of developing office space with a park on its roof. As a result of this design, the national government awarded the municipality with a subsidy, granted under two conditions: the design had to be multifunctional and the residents had to be involved in the design process.

Based on these conditions, the municipality involved the residents in the design of the park and appointed a private developer to acquire the financial resources, and technical support to develop the multifunctional project. The private developer was responsible for the real estate aspects of the project, while the municipality was responsible for the park. Although the design started as an integrated plan to provide office space with a park on the roof, the design soon after changed and actors delivered a shopping mall with a park on its roof. This was not the only change in the design and the project conditions during the planning of the project that took more than 15 years. The long design effort of the project, the variety of actors' backgrounds in the decision-making process and the intertwinement of physical, financial, legal and technical aspects of the project made this an excellent case to analyse the influence of frames in the decision-making process of a multifunctional project.

To understand how actors framed decision contexts on the project, we performed open-ended interviews which allowed our interviewees to be the storytellers of the issues that they considered important. To identify our interviewees, we used a snowballing strategy. The first interviewee was involved in a recent evaluation of the project, written in the year we started our research (2011). Being involved in the project evaluation, the first interviewee could provide the key actors involved in the project. He suggested the first two informants in his organization who then pointed us to others. In the end, we interviewed 17 actors involved in this project. Our interviewees belonged to different organizations and had different roles in the project. This way, we obtained a heterogeneous picture of the decisions around the project from the narratives of various organizations and disciplines, and how different actors perceived them.

We triangulated the data collected through interviews by confronting it with over 70 project documents, namely master plans, land use plans, meeting minutes and official internal communications. Once the data collection stopped providing additional insights, we did not collect more interviews.

After data collection, we used the project documents to create a timeline of events, identifying milestones in the project such as the approval of land use plan, or master plan. In Figure 1, we provide a timeline with the project events discussed in this study.

This helped us to understand the impacts of certain events on the decision and project conditions. Furthermore, we transcribed the recordings from the interviews and coded the transcripts using a software for qualitative data analysis. By coding, we identified the decisions mentioned by a larger number of respondents. This way, it was possible to compare the frames among various actors involved. These decisions are (1) the adaptation of the design to flood protection requirements, (2) the selection of the function under the park and (3) the removal of the existing rail tracks in the project area. For each of these decisions, we analysed (1) the backgrounds of actors involved in the decision, (2) the context of the decisions, (3) the process of how the decision evolved, (4) the encountered challenges to find a resolution in the decision and (5) the resolution of the decision. We triangulated the data we collected from the interviews with the project documents (Yin, 2011). Using multiple data sources, we validated the events mentioned by our interviewees.

Subsequently, we confronted our findings with the literature. This was an iterative process, constantly going from data analysis to literature review, following

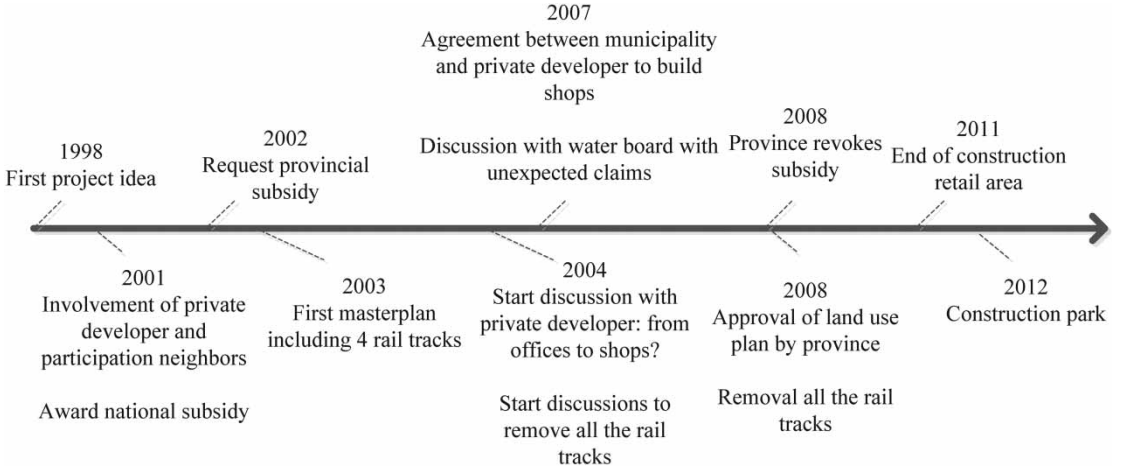


**Figure 1** Timeline of project events described in this paper

the principles of grounded theory (Strauss and Corbin, 1990).

After a number of iterations, we acknowledged the influence on the decision-making process of the divergent (1) problem interpretations, and (2) preferences to change the situation. Identifying the actors' interpretations allowed us to infer their frames. Consequently, we coded the data using the categories of 'diagnostic frame', 'prognostic frame', 'emergence of a predominant frame', 'mobilization of other actors' and 'resolution towards a collective action' to depict how frames influenced the course of the decision-making process in our case. This allowed us to arrive at the final findings that we put forward in the next section.

## Results

As mentioned in the previous section, we identified the decisions mentioned by a larger number of interviewees. These decisions are related to (1) adapting the design of the project to flood protection requirements, (2) selecting the function under the park and (3) removal of the existing rail tracks in the area. At the end of this section, Table 1 provides an overview of the decision events here described, the actors involved, their frames, the emergence of a predominant frame, the mobilization of other actors and the collective action.

### Adapting the design to flood protection requirements

The first decision we identified during the data analysis is the adaptation of the design to flood protection requirements because of the existence of a dike in the project area. Due to the existence of the dike, it was required to involve the water board in the decision-making process. Since the water board is legally and financially responsible for water safety, they provide permits to guarantee that a project complies with the current legislation for flood protection. The water board had to decide about the type of solution that would comply with the flood protection requirements.

At the outset, the municipality and the private developer had similar diagnostic frames. Their priority was the development of a financially feasible project. Consequently, the municipality and the private developer framed the existence of the dike and the involvement of the water board as problematic. In their interpretation, the water board's requirements would make the project more expensive and the decision-making process longer. Based on this assessment of the problem, their preferred course of action was to integrate the multifunctional structure and the dike so the water board could be fully involved in the design, encouraging communication and sharing technical solutions. This is what we call 'design integration' prognostic frame.

For its part, the water board had different diagnostic and prognostic frames. Being legally and financially responsible for flood protection in the area, the water board's assessment of the problem was such of providing flood protection. This frame guided the water board's interpretations about the project. For the water board, the main problem was the existence of flood risk in the project area. With this diagnostic frame, the water board interpreted that the project should not interfere with the current dike because this flood protection structure should protect citizens from potential flood events. The water board's prognostic frame was to minimize the interference between the multifunctional project and the dike. In their view, the dike should not be moved or integrated in the project.

The municipality and the private developer drafted a solution that integrated the dike and the multifunctional

**Table 1** Decision-making process and actors' frames for each decision situation

| Decision situation | Main involved actors | Diagnostic frame | Prognostic frame | Emergence of a predominant frame: | Mobilization of actors | Decision |
|---|---|---|---|---|---|---|
| Decision event 1. Flood protection requirements | | | | | | |
| Existence of a dike in the project area | Municipality | Financial | Design integration | Water board using authority | Water board uses their authority to satisfy their interests | Multifunctional design respecting the boundaries of the dike. |
| | Private developer | Financial | Design integration | | | |
| | Water board | Flood risk | No interference | | | |
| Decision event 2. Flood protection requirements/requests of water board | | | | | | |
| Responsibilities associated to a future dike reinforcement | Municipality | Financial | Feasibility | Water board using authority | Water board uses their authority to satisfy their interests | Municipality takes the risk of demolishing the building in case the dike has to be reinforced |
| | Private developer | Financial | Business focus | | | |
| | Water board | Flood protection | Legal | | | |
| Decision event 3. Selection of the function under the park | | | | | | |
| Selection of the function under the park | Municipality | Financial | Feasibility | Private developer | Actors mobilize around the need of the private developer's capacities | Development of a commercial area under the park despite the revocation of provincial subsidy |
| | Private developer | Financial | Retail | | | |
| | Province | Regional interest | Business | | | |
| | District authority | Social | Pro-green | | | |
| Decision event 4. Removal of rail tracks | | | | | | |
| Existence of rail tracks in the project area | Municipality | Obsolescence | Removal | Private developer | Need for in-between solution including four rail tracks | Users expropriated by the municipality |
| | Port authority | Obsolescence | Removal | | | |
| | Rail company | Political | – | | | |
| | | Transport service | | | | |
| | | Obsolescence | – | | | |
| | Private developer | Financial | Removal | | Incorporation of the private developer supporting the removal of the rail tracks | Removal of the rail tracks by the rail company |

project. However, the water board was reluctant to allow for an integrative solution because, in their view, the best course of action was to interfere as little as possible with the dike. Consequently, the water board required a structural design that did not integrate the dike and the multifunctional project. This solution made the project more expensive and more time-consuming. This situation is illustrated by the following quote of a municipal engineer:

> The finest solution should have been the integration of the flood defense and the building … But the water board wanted a defensive structure that was too expensive to realize, it was a building with steel foundations, going down for meters, all along the building, it cost millions.

Since the suggested design was too expensive in the view of the private developer and municipality, and the water board would not approve a different solution, the final design respected the original boundaries of the dike. However, this solution did not satisfy the water board. In one of the last meetings to get the water board's permits, the water board used its legal authority. As the water board had a diagnostic frame focusing on flood protection, they interpreted that the contract should consider a potential dike reinforcement in the future. A dike reinforcement would entail the partial or total demolishment of the proposed multifunctional design. The water board brought up the matter for discussion: who should take the responsibility of demolishing the multifunctional project in case the dike has to be reinforced? Under these new circumstances, a new framing process started.

The diagnostic frame of the private developer led them to interpret the conditions of the water board as a risk in the future. To create a financially profitable project, the private developer had to find a tenant to sell the project, and make profit out of it. Given the water board's requests, the private developer considered that finding a tenant could be difficult. Based on this diagnostic frame, the private developer had a prognostic frame focusing on business. To them, the assessment of the solution was to only accept conditions that facilitated finding a tenant after the construction phase. Not surprisingly, the private developer did not accept the conditions of the water board and communicated this to the municipality. On its part, the municipality also had a financial diagnostic frame. However, their interpretation was different than the private developer's. To them, the building under the park was key to deliver a financially feasible project. In their view, losing the financial support of the private developer was undesirable. Based on this diagnostic frame, the municipality had a prognostic frame of feasibility. For the municipality, the best course of action was to support the private developer to keep their financial resources on board. Consequently, the municipality accepted the requests of the water board, and fully accepted the conditions of the water board, so the private developer would contribute financially to the development of the project. This situation is illustrated by the following quote of the project secretary:

> It took long time before (the water board) gave consent … (The water board) said: 'when we want to (reinforce) the dike, then you have to take apart the building'. That was impossible, we could not (ask) that to the developer … We asked the alderman to speak with the water board, and we thought that they would agree. But they didn't. So our alderman said: 'we take the risk'. I don't think it will happen. If they have to (reinforce) all the dikes all over the city. … Moreover, the dike is better because of the building. We think this is not going to happen.

None of the three actors had similar or comparable frames. Despite their different frames, the municipality accepted the risk of demolishing the building for a dike reinforcement to keep the support of the private developer. The water board had the authority to stop the decision-making process by denying the permit for flood protection. The water board used its authority to mobilize the other actors. Although the municipality and the private developer did not have similar diagnostic frames to the water board's frames, their only choice was to accept the conditions of the water board. Otherwise, the water board would not file the permit to build the project. This situation created tensions among the three actors.

In essence, we observed a divergence of frames among the municipality, the private developer and the water board, leading to different interpretations of the project context. These differences caused changes in both the design and the contract. Our data show that the water board used their authority to make their own frame predominant and mobilized other actors to fulfil their interests of keeping flood protection. The final decision was to keep the multifunctional project independent from the dike and adapt the contract to the water board's conditions.

### Office space or commercial area under the park

The second decision we identified is the selection of the function under the park. Initially the design of the multifunctional project included office space with a park on its roof. This solution allowed for the exploitation of the function under the park, and avoided competition with existing shops in the area. Furthermore, the province provided a subsidy for the project because it did not compete with existing businesses in the neighbourhood.

However, the private developer had a financial frame, and interpreted that the project would not be profitable enough with office space. Based on this diagnostic frame, the private developer considered that the best course of action was to develop retail instead of offices. The following quote by a project manager of the private developer shows this situation:

> Our practice is to start building when we have found about 70% of tenants for the building … At the beginning, we had to make some low profile company area, and also offices … And the market for offices was not good. So we thought that we could change it to a shopping center. This would mean that the rent would be higher so we could develop this project.

The municipality agreed with this change because they had a feasibility frame. Consequently, the municipality interpreted that the best course of action was to support the proposal of the private developer to build retail instead of office space, as shown by the following quote from a project manager in the municipality:

> Real estate is not about building beautiful things. Real estate is a 'cash flow machine' … The real project is the building, the cash flow machine we had to agree with the private developer. That part was being born or killed … Because if we didn't agree with the private developer on the building, and they didn't control themselves in the cost of the building, nor succeeded in getting rental functions which cut the cost of the building, we had a problem.

Given the shift from offices to retail, the province revoked the business restructuring subsidy that they offered for the construction of office space. The province had a regional diagnostic frame which led them to interpret that there were existing businesses in the region that should not be influenced negatively by the new project. As a result, their prognostic frame was business oriented. The province interpreted that the best course of action was to stop projects that would compete with existing shops and businesses. Consequently, the province attempted to stop the development of the shopping mall in the multifunctional structure and, as stated previously, they decided to revoke the provincial subsidy.

The district authority, representing the interests of the residents in the neighbourhood, was also involved in this process. The district authority had a social diagnostic frame. Based on this frame, the district authority interpreted that the main problem was to safeguard the interests of the neighbours. The district authority perceived two main problems: on the one hand, the project should not interfere with existing shops. On the other hand, the most urgent problem for the district authority was the lack of green areas in the neighbourhood. As a result, they had a pro-green prognostic frame. When the private developer proposed to develop a commercial area instead of office space, the district authority interpreted that the best course of action was to support the project since it was a means to provide parks for the neighbours, as shown by the following quote by a member of the district authority:

> There was kind of a discussion here in this room about: 'well, should we be against it or with it?' At that point we didn't know if it was a good option, but we needed the park. … Well, we were not going to do very much against the municipality at this time to stop that, or to put a ban on the supermarket or other shops. Because we might end up with nothing, because at the time the municipality wanted to have businesses and we wanted to have the park. It was not sure if there were not going to be any businesses we would get a park. Getting just a park is very expensive. Now the park is partly paid by the businesses so I think it was kind of like, as a colleague said: 'we did sell our soul to the devil for the park'.

This statement 'we did sell our soul to the devil' is related to the potential consequences of building retail for local shop owners in the neighbourhood. The consequences of building retail for small shop owners were not certain, but both the municipality and the district authority accepted the trade-off, as shown by the following quote by a member of the district authority:

> We are not completely sure about the impact in the long term. It is kind of scary seeing other countries, for example France. When I am in France I love big supermarkets. But you also see villages and cities where there aren't a lot of small shops anymore, partly because everything is sold in those big supermarkets. You can see the benefits of bigger shops, but you also wonder what will happen to the city in the long term. It is very complicated.

As described earlier, none of the actors had similar diagnostic and prognostic frames. However, the interests of the private developer, the municipality and the district authority overlapped: developing a commercial area was convenient since it would provide a profitable project; hence a park would be possible. The municipality and the district authority supported the private developer because they required the private developer's financial capability to pursue their own interests. As a result, actors reached the final decision of developing a commercial space under the park, contrary to the originally planned office space. In this process, the province

used their authority by lengthening the process of providing the permits and revoking the subsidy for the project, because there was no overlap in their frames or interests. However, the financial resources of the private developer allowed them to make their financial frame predominant; hence the final design included retail instead of offices.

### Whether or not to remove the rail tracks

The third decision we identified in our data analysis was whether or not to remove the existing rail tracks in the project area. The actors involved in this decision were the municipality, the port authority, the rail company and the private developer.

There were 12 rail tracks in the fruit port area which influenced the design of the project. The fruit port used to be one of the largest ports in Europe. However, companies had gradually moved to different areas. This situation led to increasingly unused rail tracks, only used by few companies.

Planning to integrate the harbour and the city, the municipality and the port authority interpreted having obsolete rail tracks and a vacant area as a problem. Particularly, the existence of unused rail tracks in the fruit port represented a physical and functional obstacle for the integration of the harbour and the city. Based on this diagnostic frame, the municipality and the port authority had a prognostic frame of removal. According to their interpretation, the best course of action was to expropriate the company using the rail tracks and remove these.

The rail company framed the situation from a different perspective. In fact, they had three different diagnostic frames: a political diagnostic frame, a transport service diagnostic frame and an obsolescent one. Firstly, the rail company heavily depends on the subsidies of the Ministry of Infrastructure and the Environment. The Ministry put an increasing political pressure on the rail company to keep the rail tracks available as long as possible. Based on the political diagnostic frame, the rail company interpreted that the problem was the need to promote rail transport. Secondly, there still was a company using the rail tracks, having the right to use the service provided by the rail company. Based on the transport service diagnostic frame, the rail company interpreted that they should provide service to the user. Thirdly, the municipality put increasing pressure on the rail company to remove the rail tracks. Like the municipality, the rail company interpreted that the rail tracks were obsolete and their maintenance was costly. Consequently, the rail company considered that the pressure from the municipality to remove the rail tracks and start the project was justified. This situation is illustrated by the following quote by a project manager of the rail company:

> The municipality wanted to have the rail tracks out. Well, that was difficult for us … They were in a hurry, and we had this user … Besides, sometimes, when the functions in the harbor change, then the rail tracks become obsolete and then that is the big political issue in the country. We build big rail lines, but at the same time, we are removing rail tracks elsewhere. That is always a big political thing … One of the problems is, of course, that the interest of the minister and of the rail company is to keep as long as possible the rail tracks there.

Consequently, the rail company did not have a clear single prognostic frame. In fact, the rail company interpreted that there were two potential conflicting courses of action: removing the rail tracks or keeping them in the project area. To define the project design, the rail company, the municipality and the port authority had to reach an agreement about the removal of the rail tracks, but the rail company did not have a preferred course of action.

To speed up the process, the municipality proposed a design which included a tunnel with four rail tracks running through the building. This solution could satisfy various interests simultaneously: the municipality could develop the project, the rail company could keep some cargo transport in the area while facilitating the project for the municipality and the rail users could use the rail tracks for transport.

However, the incorporation of the private developer entailed changes in the design. As mentioned earlier, the private developer had a financial diagnostic frame. With the change of function from office space to commercial area described in the previous decision context, the private developer considered that keeping rail tracks in the design was not desirable because of the potential annoyances caused by rail traffic to the customers of the shops, as shown by the following quote

> When we started there were only four rail tracks left … And you don't want to mix a shopping street with rail tracks … Removing all the rail tracks makes it much easier logistically speaking, but also from the whole surrounding, because the rail tracks were going over the street and that is a very difficult traffic square, and because there is a tram, a train, quite few cars … It makes the total area easier, and also it helped the project … So that helped everyone.

As a result, the private developer assessed that the best course of action was to support the removal of the rail tracks. In this case, other decision contexts such as the selection of the building under the park had an influence on the removal of the rail tracks, making the frame of the private developer predominant. To support the private

developer, the municipality resorted to legal procedures to expropriate the users, and to reach an agreement with the rail company so the rail tracks could be removed. It took five years to make a decision about the removal of the rail tracks.

Given these findings, we observed that there were divergent frames not only among different organizations, but also within the same organization. The rail company was caught between three frames. This indecisiveness slowed down the process until they made a decision about what to do with the rail tracks. In this case, actors required a temporary solution and the influence of a new participant (the private developer) so the municipality could get financial support from another spatial function to develop the park. In Table 1, we provide a summary of our research results.

## Discussion

In our analysis of the three main decisions in an urban brownfield multifunctional project, we observed how frames influenced the interpretations of actors about a decision context and the decisions actors made. In particular, we observed the influence of frames on how these decisions evolved and how actors reached a resolution. We evaluated frames as schemata that actors use to simplify the world and search for solutions in situations that require several actors to make a decision. Similar to Kaplan (2008), we have focused on the link between what actors perceive and construct together in the decision-making process. Our data show that actors do not follow a linear path in which they identify a problem and match a solution (Kaplan, 2008). On the contrary, actors perceive different problems; therefore, solutions are not always evident. Although a 'polysemy of frame repertoires' (Kaplan, 2008, p. 746) can help to make the logics evolve towards an agreed project outcome, this situation might result in longer decision-making processes than desired by the actors.

According to Kaplan (2008), successful framing practices produce a predominant diagnostic and prognostic frame, which shapes the definitions of problems, solutions and decisions. Consequently, predominant frames are decisive to reach collective action. Otherwise, 'frames remain divergent, activities unresolved, and decisions referred' (Kaplan, 2008, p. 736). Our data indicate the role of having a predominant frame to motivate collective action, and more specifically the influence of power on making a frame predominant to mobilize other actors. Our findings show that actors can use their power and authority to reinforce their positions.

Kaplan (2008) says that there is a reciprocal link between power and the emergence of predominant frames. On the one hand, power is not something that actors have, but something that happens during the engagement of framing practices. By making their own frame predominant, actors can have an effect on the course of the decision-making process to gain influence. On the other hand, powerful actors can make their frame resonate and force their preferred course of action in the decision-making process. Gray (2003) acknowledges the existence of 'power frames': actors can advance their own position by using resources, unique knowledge or authority that others do not have. According to Kaufman *et al.* (2003), power frames help to define not only which forms of power are legitimate but also the forms that are likely to advance one's own position. For instance, financial resources or legal authority might be key in influencing people's views. More recently, Brugnach *et al.* (2011) have also identified the use of power to impose a particular frame as strategy to deal with diversity of frames and avoid an impasse in a decision-making process.

In our study, the episodes of the integration of the dike in the project and the selection of the function under the park showed how actors used their power or authority to make their own frame predominant. We did not find instances of actors purposefully making their own frame predominant and, as a result, gaining influence in the process. Nevertheless, we do not reject this situation in multi-actor contexts.

Interestingly, our results showed how actors are likely to mobilize around a predominant frame that satisfies their interests, although that mobilization might entail a trade-off. In the case of the selection of shops instead of office space, we acknowledged that the predominant frame of the private developer allowed to mobilize actors around a strategy that could satisfy the interests of the district authority and the municipality. Although the province had the authority to approve the land use plan and provide a subsidy, the municipality and the district authority considered that this frame did not guarantee the achievement of their interest of developing a park. Consequently, the private developer's frame became predominant instead of the province's frame. However, the province used their authority and delayed the approval of the land use plan and refused to give the provincial subsidy for business restructuring. It could also be argued that actors had a preference for the short-term locally oriented decision to develop retail instead of office space, above the longer term regionally oriented decision to develop office space and fulfil the provincial conditions. The future consequences of mobilizing around the private developer's frame instead of the province's one are still disputed, as we showed in the previous section.

Moreover, the case of the integration of the dike and the multifunctional project showed how the water board used their legal authority to make their own frame

predominant. Although this predominant frame did not contribute to satisfy the interests of the private developer and the municipality, actors mobilized around it and accepted the conditions that the water board proposed. This way there was a trade-off: without the permit of the water board it was not possible to develop the project; hence, actors decided to mobilize around this frame and look for strategies that avoided an impasse in the decision-making process.

Our research results showed that the emergence of a predominant frame proved to be important not only for collective actions but also for individual ones. Indeed, in our case we observed how actors held multiple, and sometimes contradicting, frames, not only among different organizations, but also within the same organization. The most prevailing example of multiple simultaneous frames is the decision of whether or not to remove the rail tracks influenced by the rail company's multiple frames. The rail company struggled between two potential strategies: (1) to satisfy political interests or (2) to facilitate the process of implementing the new project by removing the rail tracks. The high maintenance costs and the decreasing activities in the harbour were two of the influences on the rail company to have a preference for removing the rail tracks. However, the emergence of the predominant frame of the private developer to develop shops instead of office space was a determining factor to remove the rail tracks. The pressure and mobilization of the municipality encouraged the rail company to resolve the ambiguity they were struggling with. This case illustrated the influence of a predominant frame across different decision arenas, helping to resolve the indecisiveness resulting from the existence of multiple divergent frames within the same organization.

In summary, our results showed that frame divergences are often resolved by the emergence of a predominant frame to make an actor gain influence in different decision arenas and contexts. When actors use their power to establish their own frame as predominant, other actors might mobilize because the prevalent frame helps them to achieve their own interests, or because they are forced to follow a particular course of action. Mobilizing around a predominant frame involves decision trade-offs. Although trade-offs are unavoidable in decision contexts, we consider it important to bring frames to the surface to create awareness about the consequences of stakeholders' choices. Taking our results into consideration, we consider that understanding how predominant frames emerge and how other actors mobilize around them helps to anticipate strategies to support the predominance of frames that will support the achievement of mutual gains instead of individual interests. Making frames more explicit helps to add interpretations to decision-making processes, helping to open up the option space so new and overlooked options might emerge (De Boer *et al.*, 2010).

### Implications for multifunctional projects

In multifunctional projects, integrating purposes in the same area and sharing costs and benefits increase the level of interdependencies of these projects compared to mono-functional ones. Our research results show how the interdependencies among functions have an influence on the frames that become predominant as we observed in the episode of the selection of the function under the park. Predominant frames influenced the design and conditions for the project, leading to changes throughout the process.

Furthermore, the interdependencies among resources and organizations in multifunctional projects require the consideration of the project as a whole, as a common pool of resources that actors combine to achieve synergy. Actors might use their power or authority to make their frame resonate or vice versa to achieve their own self-interest without taking the consequences for the project as a whole into consideration. Under these circumstances, there could be a problem similar to the one presented in the tragedy of the commons (Hardin, 1968) where actors attempt to maximize their own self-interest without considering the public good and leading to a situation undesirable for all involved actors. It is therefore important to stimulate strategies that help to identify combinations of functions that minimize the occurrence of this problem.

We have seen that actors use power and authority to make their own frame predominant to mobilize others in the direction of achieving their own interests. In light of our results, we consider it highly relevant to search for strategies to stimulate the emergence of predominant frames that help to achieve mutual benefits. Finding these strategies seems highly relevant for multifunctional projects, where different interdependent actors have unique expertise, or resources necessary to implement the project. Organizing open processes that allow for the inclusion of a range of divergent frames might help to create awareness and deal with frame differences (Dewulf *et al.*, 2007). Differences in how actors frame the scope of the context, the selection and definition of options are crucial elements that could be considered as explicit inputs in decision-making processes. Stirling (2006) acknowledges that treating key framing assumptions as explicit inputs offers a means to bring to the surface stakeholders' interpretations and how different courses of action would be preferable under different frames, and show how these dependencies relate to stakeholder interests. Furthermore, we encourage the use of deliberative practices to explore the potential of showing existing frame divergences in decision-making

processes, helping to make actors aware of the options and potential actions under different interpretations (Renn, 2006) and facilitating the emergence of potential predominant frames that allow for the achievement of synergy and mutual benefits.

### Implications for further research

This research has provided insights into the dynamics of the emergence of a predominant frame to mobilize other actors in the context of a multifunctional project. As the decision-making in this project took more than 15 years, the frames and interpretations of actors might have changed over time due to external conditions (e.g. real estate market, local economic and/or legislative changes) which alter the diagnostic or prognostic frames. This aspect has not been taken into consideration in the paper. We encourage rich longitudinal studies addressing this point. Furthermore, we consider it important to make explicit three other points of discussion deriving from using frames as a lens.

Firstly, frames are inherent to individuals, and actors construct different frames in different contexts. Certain backgrounds or experiences could be shared within an organization, but different people could enact them differently. A different participant, in the same situation and belonging to the same organization, could have formed different frames. Despite the fact that we attempted to provide a heterogeneous sample of actors within the same organization, we consider it important to increase our understanding of the influence of differences in frames within the same organization in a decision-making process.

Secondly, we are aware that decision-making processes are not only influenced by actors' frames. Decisions that are taken in different arenas, changes in the external environment or the incorporation of new actors can also have a major impact. We encourage further research providing a comparative study that offers an analysis of a decision-making process using frames as a lens and other approaches focusing on the connection between streams of actors, problems and solution matching. Especially since the analysis of decision-making processes in multifunctional projects is complex and relatively unexplored in the literature, we consider that this could provide valuable insights for both theory and practice.

Thirdly, the scope of this study is to analyse frames as guides to interpretation that allow actors to make sense of the world. We have not evaluated the influence of these interpretations on communication and information sharing among actors, following a research tradition of communication theory. Since how actors characterize an issue has an influence on how it is understood by others (Scheufele and Tewksbury, 2007), we consider it important to provide studies that evaluate the influence of a predominant frame on how an issue is shaped and understood in a decision-making process.

## Conclusions

This research evaluates the influence of framing practices in the decision-making process of a multifunctional project. We performed in-depth interviews with actors involved in a multipurpose project in the Netherlands. By involving stakeholders in a qualitative approach, we were able to analyse the influence of frames on this decision-making process. Notwithstanding the specificity of the project, our results contribute to the body of knowledge about framing practices in a multi-actor context. Our findings show how the interdependencies among functions and resources influence the emergence of a predominant frame, and the influence of power frames in this process. Furthermore, we provide insights into how frame differences have an effect on the definition and selection of functions in multifunctional projects. We believe that understanding the diversity of frames and its influence is a first step towards an approach to incorporate the diversity of interpretations and interests involved in the decision-making process of a multifunctional project. This way, it should be possible to achieve the desired complementarity of multifunctionality.

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