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Open strategizing by public organizations: a qualitative comparative analysis of recent practices in Dutch infrastructure planning

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Abstract

Purpose – Wide participation in the strategic processes of public organizations can enhance inclusion and transparency, thereby contributing to improved performance of public organizations. However, engaging with external participants is easier said than done. This study aims to identify how public organizations can open up their strategic processes to external participants.

Design/methodology/approach – The analysis is based on qualitative data from 12 early-phase strategy projects in the 2023 Dutch Multi-Year Program for Infrastructure, Spatial Planning and Transport (MIRT). Interviews and document data were collected and analyzed using qualitative comparative analysis (QCA).

Findings – This study identifies that the government steering the process itself, by aiming for idea generation, opens up strategic processes. This is necessary for contributing to improved public service performance.

Practical implications – This study provides strategy actors (e.g. managers, planners and consultants) with actionable knowledge about what open strategizing with external participants requires to create openness.

Originality/value – This study addresses the ongoing and increased interest in the openness of strategy processes in general and in infrastructure planning in particular. It contributes to the discussion on whether and how participation leads to improved performance of public organizations. Additionally, this study illustrates the application of QCA to the study of open strategy processes.

Keywords Infrastructure planning, Open strategizing, Inclusion, Transparency, Participation, Qualitative comparative analysis (QCA)

Paper type Research paper

1. Introduction

In response to growing societal complexity, public organizations are increasingly engaging in open strategy development (Hansen *et al.*, 2024). An open strategy typically involves the

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participation of broad groups of external participants in strategy work (Tavakoli *et al.*, 2017; Whittington *et al.*, 2011). In this context, openness refers to extended transparency and inclusion in the process of strategy development (Whittington, 2019). Since the 1990s, public organizations have considered transparency and inclusion the most important factors in realizing successful policies (Pollitt and Bouckaert, 2011). This ever-more prevalent turn of actors in organizations and society toward an open strategy raises questions about how and why they do so (Seidl *et al.*, 2019; Stadler *et al.*, 2021; Whittington, 2019). The idea is that opening up strategy processes not only increases the amount and variety of information resources available to an organization, but that it also creates "collective creativity" within the strategy process (Chesbrough and Appleyard, 2007, p. 57). As such, inclusion of a wider set of stakeholders in strategic processes is expected to lead to innovative strategic ideas, as well as to increased transparency and legitimacy among stakeholders (Gegenhuber and Dobusch, 2017). In other words, open strategy development is considered to contribute to improve the performance of public organizations (Vandersmissen *et al.*, 2024).

Although increasingly common in practice, empirical research on strategy processes in public organizations focusing explicitly on how public organizations open up their strategy processes has remained relatively scarce (Hansen *et al.*, 2024; Klijn and Koppenjan, 2020; Nabatchi *et al.*, 2017). This is especially problematic because the public sector has many examples of participatory practices that fail to contribute to improved performance (Reed *et al.*, 2018). Open strategy was seen as merely window-dressing leading to a loss of faith in participation practices (Conrad *et al.*, 2011; Vaara *et al.*, 2019). It thus proves challenging to truly open up strategy development in the public sector (Vandersmissen *et al.*, 2024; Whittington, 2019).

Attempts to develop strategies to remedy underperformance can be found in the planning of major infrastructures such as canals, airports, harbors, dams, railways, highways, and bridges (Arts *et al.*, 2021; Esposito and Terlizzi, 2023). Major infrastructure projects significantly strain national budgets, entail years of development, involve multiple public and private stakeholders, and a have long-lasting impact on the economy, environment, and society (e.g. Arts *et al.*, 2021; Flyvbjerg *et al.*, 2003); thus, they are strategic in nature (Williams, 2005). At the same time, major infrastructure projects are notoriously underperforming. Flyvbjerg *et al.* (2009) even argued that "[t]here are some phenomena that have no cultural bounds such as maternal love and a healthy fear of large predators. We can add to this list the fact that, across the globe, large infrastructure projects almost invariably arrive late, overbudget, and fail to perform up to expectations" (2009, p. 170).

Stronger involvement of civil society and stakeholder groups in decision-making has been recommended repeatedly to improve the performance of these projects (Albrechts, 2013; Flyvbjerg *et al.*, 2003; Klakegg *et al.*, 2016). Still, despite scholarly advancements, little is known about the strategic "planning reality" (Malekpour *et al.*, 2015, p. 74). Governments are expected to play an active, open, and guiding role in addressing complex societal issues, particularly in the planning and execution of infrastructure (Esposito and Terlizzi, 2023). Therefore, the opening up of such infrastructure projects warrants further investigation. This article therefore aims to identify how public organizations can open up their strategic processes to external participants.

The Dutch planning processes for national infrastructure provide an exemplary setting for our research. The Netherlands is well known for its direct involvement of stakeholders in the early phases of infrastructure projects (Arts *et al.*, 2016; Klakegg *et al.*, 2016). This is institutionalized in the Dutch Multi-Year Program for Infrastructure, Spatial Planning, and Transport (MIRT) (Heeres *et al.*, 2012; Van Geet *et al.*, 2019). Because of the relatively high standards for transparency and participation set by the MIRT program, we expect these projects to show inclusion and transparency. Using Qualitative Comparative Analysis (QCA), we examined 12 projects that were in the early phase—the so-called "exploration" phase—of the 2023 Dutch MIRT-program (Ministerie, 2022).

The QCA method focuses on why and how certain outcomes are achieved. It is an effective approach for identifying the necessary and/or sufficient causes (explanations) for observed effects (Greckhamer *et al.*, 2018; Ragin, 2000). Moreover, QCA is well suited for analyzing and comparing a small or intermediate number of cases (Gerrits and Verweij, 2018; Ragin,

1987; Rihoux *et al.*, 2013). QCA has evolved into a robust research approach in business management and public administration research, with its unique strengths in addressing causally complex phenomena, especially in the field of organizational decision-making (Thomann, 2020; Greckhamer *et al.*, 2008; Meuer and Fiss, 2020). However, in their recent review of strategic planning research, Vandersmissen and George (2023) found that strategy studies in the public domain have made little use of complex modeling techniques such as QCA, and suggested that researchers take more advantage of their benefits. We use QCA to investigate which (combination of) factors can be effectively used in open strategy development of infrastructure projects to achieve inclusion and transparency.

In Section 2, we present the theoretical background of open strategizing and construct a theoretical framework consisting of conditions that explain inclusion and transparency. Section 3 outlines the research design and provides an overview of the studied cases. Section 4 presents the results of the QCA. Section 5 discusses the findings implications and limitations of the study. Finally, Section 6 presents the conclusions.

2. Theoretical background

2.1 Openness in the public domain

In recent years, openness has become a recognizable theme in strategy literature and public management, appearing under the umbrellas of collaborative governance, governance networks, citizen participation, and open government (e.g. Bryson *et al.*, 2013; Klijn and Koppenjan, 2016). In the public domain, openness refers to transparency, accountability, and citizen participation; and is considered crucial for realizing successful policies (Pollitt and Bouckaert, 2011). In principle, more inclusive and open processes are expected to improve the quality of decision making and public service provision (Nabatchi *et al.*, 2017). According to Head and Alford (2015), "the trend towards more [. . .] stakeholder engagement by public agencies also implies a greater willingness to open up the processes of goal setting and strategy development" (2015, p. 721). Furthermore, Klijn and Koppenjan (2016) argued that the complexity of societal problems requires "a shift from a more traditional top-down way of problem solving to a more horizontal cooperative approach" (2016, p. 4). Therefore, in modern public governance systems, open strategizing is considered crucial for improved performance (e.g. Drumaux and Joyce, 2018; Joyce, 2015; Veenma *et al.*, 2023).

However, the public sector has many participatory practices that have failed to improve performance (Reed *et al.*, 2018). According to Reed *et al.* (2018, p. 2), "for every example of a participatory process that has led to tangible environmental and social benefits, there is an example of a process that failed [. . .] or led to unintended negative outcomes." Participatory mechanisms in strategic planning are often legally required, but the achievement of formalized participation is strongly debated (e.g. Innes and Booher, 2004). Eckerd and Heidelberg (2020, p. 144) found that "if participation is not formalized, it may well not occur but when participation is formalized, it is shaped to fit within the administrative function." However, they also emphasized that the discretionary power of administrators over "how" the participation process is shaped, allows them to create space for more informal mechanisms that include the external stakeholders in the decision-making process. Various authors argued that these more informal mechanisms, for instance informal discussions with external stakeholders, are crucial in public strategy development (Eckerd and Heidelberg, 2020; Innes and Booher, 2004; Nooteboom, 2000).

2.2 Open and closed strategy in the public domain

Although open strategy has been studied in different forms and degrees (Hautz *et al.*, 2017), openness in open strategy literature is most often referred to as the opposite of closed (Dobusch and Dobusch, 2019, Tavakoli *et al.*, 2017). Openness is associated with increased transparency when strategically relevant information is shared (Gegenhuber and Dobusch, 2017), and with

increased inclusion when external stakeholders are (informally) involved in strategic conversations (see also Tavakoli *et al.*, 2017), or even in strategic decision making (Dobusch and Dobusch, 2019). In contrast, the more traditional way of strategizing, restricted to the "elite" or top management, is considered closed when external stakeholders are not involved (Vaara *et al.*, 2019; Whittington *et al.*, 2011).

In the public domain, external stakeholders can refer to involving politicians or other organizations that are external to the actual organization itself in strategy development (Joyce, 2015), but also to the actual users of a public service (e.g. Osborne and Strokosch, 2021), or to the networks or collaborations in which the public organization takes part (e.g. Klijn and Koppenjan, 2020). However, as Nabatchi *et al.* (2017) pointed out, "arrangements such as collaborative governance, network governance, public-private partnerships, and other forms of interactive governance [. . .], do not typically involve lay actors" (2017, p. 13). In their view, "lay actors are members of the public who are serving voluntarily as citizens, clients, and/or customers" (2017, p. 12). This resembles the participation of broad groups of external stakeholders, referring to people outside the upper echelons, who participated voluntary and who were not rewarded financially, as mentioned by Tavakoli *et al.* (2017).

2.3 Main dimensions of open strategy in the public domain

According to Hansen *et al.* (2024), research has conceptualized open strategy in terms of two main dimensions: inclusion and transparency. Tavakoli *et al.* (2017), in their review of multiple cases of open strategy in practice, proposed the use of an ideal type to study how open strategy can be understood. This ideal type of open strategy consists of norms that reflect a pure manifestation of open strategy, to be conceptualized in contrast to the ideal type of closed strategy. This resulted in a definition of an ideal-type of open strategy based on both inclusiveness *and* transparency (Tavakoli *et al.*, 2017).

Inclusion can be defined as "inviting stakeholders [. . .] directly in the strategy process" (Whittington, 2019, p. 215). Dobusch *et al.* (2019) further distinguished between open and closed practices. They considered most open those participation opportunities that encourage a wide range of contributions and knowledge sharing "without any limits for content creation, even if it seems to be opposed to the original strategy endeavor" with opportunities for the participants to decide on its further course (2019, p. 365). This resembles the ideal type of an open strategy process for which Tavakoli *et al.* (2017) identified the norm of "co-creation". In co-creation, the content is collaboratively and iteratively developed, revised, and jointly created (Tavakoli *et al.*, 2017). Opposing these open practices are informing and consulting, both representing closed practices. These are shaped by one-way communication, in which stakeholders are passive information receivers (Arnstein, 1969; Edelenbos and Klijn, 2006; Van Tatenhove *et al.*, 2010). In participation literature, the practices of informing and consulting are criticized; Arnstein (1969) referred to them as "nothing more than a symbolic act" (1967, p. 221). In line with this, Hautz *et al.* (2019) addressed the risk of frustration and demotivation among participants when participation was limited to idea generation without participants being included in the selection of content (2019, p. 100). Examples of informing include online report dissemination, public hearings or information meetings, and media press conferences, while focus groups and feedback surveys are consulting examples. Examples of co-creating practices include workshops or ateliers, joint fact-finding sessions, and (online) design-thinking sessions.

Transparency, as defined by Whittington *et al.* (2011), concerns the "visibility of information about an organization's strategy, potentially during the formulation process but particularly with regard to the strategy finally produced" (2011, p. 536). Tavakoli *et al.* (2017) refer for transparency as "a norm of making ideas, interactions and contributions visible" (2017, p. 178), which is in contrast to closed strategy that relates to secretive practices of shielding information from external stakeholders. According to Dobusch *et al.* (2019), openness involves not only the content and outcomes of strategy development processes but also information relating to the process of strategy making. This resembles Armstrong (2005),

who defined transparency in the public sector as "unfettered access by the public to timely and reliable information on decisions and performance in the public sector" (2005, p. 4).

2.4 Conceptualization and operationalization of opening up strategy processes

Given the lack of a systematic scholarly understanding of how planning processes are opened up, we build on the framework developed by Hansen *et al.* (2024), to further study public organizations' open strategy development. We conceptualize the opening up of strategy processes as a result of the interplay between object, subject, purpose, and practices. However, we followed Vaara *et al.* (2019), and considered the involved participants—referred to as "community" in the framework of Hansen *et al.* (2024)—as a key part of the outcome of this interplay: the realized openness is towards the participating external stakeholders (Section 2.2). The remainder of the present section details how we operationalized the concepts in line with the configurational rationale that comes with the QCA approach (Greckhamer *et al.*, 2018).

The *object* concerns the part of the strategy process that is opened up and the topics that are discussed (Hansen *et al.*, 2024). According to Dobusch *et al.* (2017), openness is promoted by the range of topics, "including opinions, ideas, and interpretations of a wide variety of social issues" (2017, p. 15). Because including a wide variety of social issues is characteristic of public management, we expected these topics to be present in all cases in our study. In the context of infrastructure projects, a distinction between sectoral and integrated project scopes can be made (Busscher and van Geet, 2023). An integral project scope involves multiple spatial elements—such as a combination of road construction, housing plans, water management issues, and industrial and commercial area development—and typically involves a broad range of stakeholders. Thus, integrated projects include a wide variety of topics and themes. In contrast, a sectoral project involves only one spatial element, such as road construction, and is primarily focused on embedding the project in its environment, which means it has a smaller variety of topics.

Regarding *subject*, Hansen *et al.* (2024) explained that open strategy is generally conceptualized as a top-down process, in which drivers like "upper echelon leaders and other leaders such as consultants" can be identified as the persons "who make decisions about how to structure the process and who to involve and also have the power to decide what to select and implement from the received input" (2024, p. 685). In more complex projects, the driver is often not a single person but a team of complementary professionals (Klijn and Koppenjan, 2016). These government project teams are often mandated by their political and/or authorizing environments (Bryson *et al.*, 2024). Whittington *et al.* (2011) foresaw that organizations would increasingly rely on consultants for their process skills, such as coaching, facilitation, and communication. In recent years, in many Western countries, external consultants indeed became increasingly important in public policy processes (Van den Berg *et al.*, 2019). However, critics argue that years of downsizing government services and privatization have made governments reliant on the private sector for the performance of their public service delivery. For instance, Morton and Amrollahi (2018) called for more attention to "the intricacies" of the role of intermediaries, such as consultants, in open strategy practice (2018, p. 2). Mazzucato and Collington (2023) went one step further and contend that governments should take their own actions and no longer rely on external consultants. They argue that governments should invest more in their own capacities to continue to provide critical public services, including infrastructure. Despite these critiques, involving consultants in infrastructure planning is currently a common practice (Arts *et al.*, 2021).

For *purpose*, Hansen *et al.* (2024) followed Whittington *et al.* (2011), and distinguished among three types of objectives: generating ideas, creating support for decisions, and meeting social pressure for greater openness. The existing literature shows that these different objectives also require particular designs of the process (Fung, 2006; Reed *et al.*, 2018). In the context of open strategizing, Tavakoli *et al.* (2017) found that in the early phases, participants often focused on generating ideas (cf. Hautz *et al.*, 2019).

Finally, in terms of open strategy *practices*, Hansen *et al.* (2024) found that recent studies on open strategy processes increasingly focus on the use of digital tools. According to Tavakoli *et al.* (2017, p. 40), social information technologies (such as social media, co-creation platforms) appear to "invite" open practices. However, the risk of the negative effect of these tools on participation should not be underestimated, when a digital tool suffers technological or "ease-of-use" problems (Hutter *et al.*, 2017). According to Le Blanc (2020), it is unclear whether the increase in e-participation organized by governments has translated into broader or deeper citizen participation. They found that combining online and offline practices led to more favorable outcomes.

2.5 Theoretical expectations

Our conceptual framework posits that opening up relates to the involvement of external stakeholders in strategy development, such as NGO's, industrial actors, public interest groups, and citizens (Tavakoli *et al.*, 2017; Nabatchi *et al.*, 2017), and that it depends on the interplay of four attributes: object, subject, purpose, and practices (Hansen *et al.*, 2024). We identify a strategy process as open when the process is both inclusive and transparent (Dobusch and Dobusch, 2019; Tavakoli *et al.*, 2017). On basis of the discussions above, we formulated four theoretical expectations, derived from our theoretical framework. The four said attributes are referred to as "conditions" in the QCA approach.

Expectation 1. For the condition "object" we focus on the project scope. We expect that an integral project scope contributes to open strategy development, due to its wider range of topics and stakeholders. In the analysis, we will refer to the presence of this condition as INTEGRAL.

Expectation 2. For the condition "subject" we focus on the role of consultants as drivers of open strategy processes, hired not only in designing the process but also in facilitating its implementation. We expect consultants to contribute to an open strategy development approach. In the analysis, we will refer to the presence of this condition as CONSULTANT.

Expectation 3. For the condition "purpose" we expect idea generation to contribute to open strategy development. In the analysis, we will refer to the presence of this condition as IDEA.

Expectation 4. For the condition "practices" we expect open strategy development when the meetings were held physical or as a mix of online and offline. In the analysis, we will refer to the presence of this condition as PHYSICAL.

3. Methodology

3.1 Case selection

To ensure comparability, we selected cases that followed the same process and operated in the same context. For the Dutch MIRT program, all projects must meet the strict requirements reflected in the MIRT guidelines (Ministerie, 2010; Ministerie, 2022a). In a systematic literature review, Williams *et al.* (2019) pointed to the strategic role of the front end of a project in its performance. Therefore, we selected all projects in the exploration phase. In 2023, the MIRT program included 16 projects in the exploration phase (Ministerie, 2022). Details are provided in Appendix 1. We studied whether their strategy development processes were indeed opened up and how these processes were opened up.

3.2 Data collection

Data collection involved desk research and interviews. Desk research primarily focused on information and documents available on websites of the Ministry of Infrastructure and Water

Management and project websites, which included project documents and participation reports. Appendix 2 lists the data sources used. From March 2023 to June 2023, a total of sixteen semi-structured interviews were conducted (i.e. one interview per case). The interviewees were drawn from government and consultant firms and selected based on their professional involvement in the MIRT process, for instance as a project leader or member of the project team. The interview guide was structured around the two main attributes of the open strategy—inclusiveness and transparency—and the four elements of our framework, as discussed in Section 2.4 (see also Table 1.). Each interview lasted between 45–90 min, was audio-recorded, and was subsequently transcribed. We examined all 16 projects included in the exploration phase of the 2023 Dutch MIRT program (Ministerie, 2022). However, during the interviews it became clear that four projects had not started yet and, therefore, could not provide consistent information on the entire process. Consequently, a total of 12 projects were analyzed with QCA.

3.3 Data analysis

We used QCA to analyze 12 of the 16 explorative projects within the MIRT 2023 program as a population of cases that were relevant to explaining the outcome in terms of achieving

Table 1. Calibration rules

Conditions	Description	Calibration
Integral	This relates to the object. It concerns the number of topics that are discussed	Cases with an integral scope, combining different spatial functions, are scored 1. Cases with a sectoral scope, focused on one spatial planning function such as a road, railway, or a waterway, are scored 0
Consultant	This relates to the subject. It concerns the one that steers the opening up of the process (the "driver")	Cases in which a consultant is hired to facilitate the process are scored 1. Cases in which the governmental project team facilitated the process itself are scored 0
Idea	This relates to the purpose of the process, to the specific aim for opening up	Cases with the aim of idea generation are scored 1. Cases where the aim is focused on gaining support or legitimacy are scored 0
Physical	This relates to the practices of the opening up, to their online or offline character	Cases with physical meetings, or with a mix of both physical and online meetings, are scored 1. Cases with only online meetings are scored 0
Outcome	**Description**	**Calibration**
Open	This outcome is related to the type of involvement of external stakeholders (inclusion) and to the visibility, for external stakeholders, of information about an organization's strategy and the strategy process (transparency)	Subdimension Inclusion: Cases in which the content was co-created—i.e. collaboratively and iteratively developed, revised, and jointly created with the external stakeholders—are scored 1. Cases in which this was not so are scored 0 Subdimension Transparency: Cases in which non-mandatory information concerning both content and process was made visible to external stakeholders are scored 1. Cases in which this was not so are scored 0 Outcome Openness: Cases that are both inclusive and transparent are scored with 1. Cases that do not meet both criteria are scored with 0

Source(s): Authors' work

openness (e.g. Greckhamer *et al.*, 2018). QCA is a set-theoretic method for identifying necessary and sufficient (combinations of) conditions that explain a certain outcome of interest (Gerrits and Verweij, 2018). The analytical process in QCA is systematic and transparent, which makes it replicable (Ragin, 1987). In QCA, studying a small or intermediate number of twelve cases is common (Rihoux *et al.*, 2013; Verweij and Trell, 2019). We coined the following conditions and outcome: INTEGRAL, CONSULTANT, IDEA and PHYSICAL are the conditions and OPEN is the outcome. In QCA, conditions and outcomes are understood as "sets" and cases have membership in sets. Assigning set-membership values to cases is called "calibration" (Gerrits and Verweij, 2018). Table 2. Details how we calibrated the qualitative case information into set membership scores.

Here, we illustrate the calibration for Case 11. Case 11 concerns the enlargement of a part of Highway A9, which includes one of the oldest highway junctions in the Netherlands and serves as a logistics corridor for Amsterdam. In the plan for this project (see Ministerie, 2018), the scope is defined in a sectoral way: no spatial function other than the road function is included. Hence, INTEGRAL was scored 0. In the interviews, it was indicated that "a consultant was specifically hired to facilitate the process so that I could be one of the participants." Therefore, CONSULTANT was scored 1. The project and participation plans were used to determine the primary objective to prevent excessive subjectivity among the interviewees. Based on the project plan for Case 11, the participation with external participants was aimed at generating ideas. This was confirmed by the interview data, in which the project manager explained that "receiving input and innovative ideas from external participants was our intent." This resulted in a score of 1 for IDEA. Project documentation showed, and the interviewee confirmed, that all stakeholder meetings were face-to-face. Hence, PHYSICAL was scored 1. The participation report described multiple workshops held with external participants, including citizens living near Highway A9. The pictures showed participants actively thinking and sketching different options created during the workshops. In total, more than 55 possible solutions were proposed for further study, of which 10 were found to be feasible. External participants were asked to vote for the most and least favorable options,

Table 2. Calibrated data matrix

Case ID	Case name	Integral	Consultant	Idea	Physical	Open	Inclusion	Transparency
C01	*Oeververbindingen Rotterdam*	1	1	0	0	0	0	1
C02	*CID Binckhorst*	1	1	0	1	0	0	1
C03	*A15 Papendrecht-Gorinchem*	0	1	1	1	1	1	1
C04	*A58 Tilburg-Breda*	0	0	1	0	1	1	1
C06	*A50 Ewijk-Bankhoef-Paalgraven*	0	0	1	0	1	1	1
C07	*N35 Wijthmen-Nijverdal*	0	1	1	1	0	0	1
C09	*Eemszijl en Groote Polder*	1	0	1	1	1	1	1
C10	*Koehoel-Lauwersmeer*	1	0	1	0	1	1	1
C11	*A9 Rottepolderplein*	0	1	1	1	1	1	1
C13	*OV en Wonen Regio Utrecht*	1	0	0	0	0	0	1
C15	*Oostvaardersoevers*	1	0	0	1	0	0	1
C16	*Wieringerhoek*	1	0	1	1	1	1	1

Source(s): Authors' work

meaning that they were included in the strategy and decision-making process. Therefore, INCLUSION was scored 1. The project website provides a comprehensive overview of the project plans (mandatory information on content), the setup of the participation (non-mandatory information on process), and the minutes of meetings (non-mandatory information on process and content). Therefore, TRANSPARENCY was scored 1 as well, leading to a calibration of 1 for the outcome OPEN for this case.

As the illustration makes clear, we adopted a crisp-set calibration, where each case is categorized as either "in" or "out" of a set—denoted by the values 1 or 0—representing present or absent, respectively. We used crisp-set calibration because our concept of interest can be considered binary, as an open or closed strategy (Dobusch and Dobusch, 2019; Tavakoli *et al.*, 2017). Also, we are interested in in-kind differences (Rohlfing, 2020). Although crisp sets may not capture the full complexity of some social phenomena as well as fuzzy sets may do, they provide a clear and straightforward method for identifying and analyzing patterns in qualitative data (Ragin, 2000; Rohlfing, 2020; Skaaning, 2011). According to Ragin (1987), a binary approach reduces the subjective element of deciding the degree of a case, and in that sense contributes to dealing with the ambiguity of openness (Whittington, 2019). Additionally, crisp sets are especially suitable for small- or medium-sized samples, and their binary nature makes it easier to compare findings across (future) studies (Ragin, 2000).

Table 1 Lists the calibration rules. Table 2 is the calibrated data matrix, which is the result of applying the calibration rules to the raw data.

4. Results

The analyses were conducted using fs/QCA (Ragin and Davey, 2022), and the QCA Add-In for MS Excel (Cronqvist, 2019). When the presence of a condition was part of the configuration, it is indicated by CAPITAL letters. When the absence of a condition was part of a configuration, it was indicated by lowercase letters. First, the necessity analysis was performed (Goertz and Starr, 2003). A condition is necessary when the outcome cannot be achieved without it (Gerrits and Verweij, 2018; Ragin, 2000), which is indicated by consistency values of 0.900 and higher (Ragin, 2000). The consistency value reflects the degree to which the empirical evidence supports the claim that a set-theoretic relationship exists. The results are presented in Table 3. It was found that the presence of IDEA is necessary for OPEN, with a consistency of 1.000 and coverage of 0.875. The coverage value expresses the empirical importance of this relationship (Ragin, 2000). The calibrated data matrix (see Table 2.) further confirms that OPEN occurs only in the presence of IDEAS. However, the purpose of idea generation is not a sufficient condition, as it does not produce an outcome by itself but only appears in combination with other conditions.

Next, we analyzed the sufficiency of the combinations of conditions via truth table analysis (Cronqvist, 2019). Truth table analysis involves a pairwise comparison of configurations that

Table 3. Analysis of necessity for the presence of openness (OPEN)

Outcome: OPEN	Consistency	Coverage
INTEGRAL	0.429	0.429
integral	0.571	0.800
CONSULTANT	0.286	0.400
consultant	0.714	0.714
IDEA	1.000	0.875
idea	0.000	0.000
PHYSICAL	0.571	0.571
physical	0.429	0.600

Note(s): Capital letters indicate the presence of conditions and lowercase letters the absence of conditions
Source(s): Authors' work

agree on the outcome and differ in only one of the conditions (Gerrits and Verweij, 2018). For the selection of configurations for the pairwise comparison, we applied a consistency threshold of 1.000, which means that any truth table rows covered by one or more cases without the outcome (i.e. contradicting cases) were not included in the truth table minimization. The truth table is included as Table 4. It lists all logically possible combinations of conditions that are empirically present (i.e. configurations without cases are not shown), and indicates the cases that are covered by these configurations. We present the intermediate solution, therefore including directional expectations that render the solution terms more robust and less sensitive to the peculiarities of the dataset (Ragin, 2000). The directional expectations are based on Section 2.5 of the theoretical framework: an integral project scope (INTEGRAL), the presence of consultants (CONSULTANT), a focus on idea generation (IDEA), and physical meetings (PHYSICAL) are expected to contribute to openness (OPEN). The intermediate solution for the presence of openness (OPEN) is: consultant*IDEA (see Table 5.). This result has a consistency of 1.000 and coverage of 0.714. As Table 5 Shows, the result points to the importance of focusing on idea generation (IDEA) to achieve openness in Dutch infrastructure planning processes. In particular, it indicates that it is not the consultant but the governmental project team itself that is driving the process of open strategy development when aiming for idea generation, that explains how openness is best achieved (consultant*IDEA).

We followed Greckhamer *et al.* (2018), and also analyzed the sufficiency of conditions for the absence of the outcome (open). This produced the intermediate solution of gaining support or legitimacy and not idea generation (idea) as being sufficient for the absence of openness (open). This is provided in Table 6. The directional expectations for this analysis were that a sectoral project scope (integral), the absence of consultants (consultant), a focus on the purposes of gaining support and legitimacy (idea), and online meetings (physical) contribute to a closed strategy process (open). The result also supports the results of the necessity analysis (see Table 3.), which indicated that the absence of idea generation (idea) is fully inconsistent with the presence of openness. The absence of idea generation—and thus a focus in the strategy process on the purposes of gaining support and legitimacy—promotes the absence of openness.

Table 4. Minimized truth table for the presence of openness (OPEN)

Integral	Consultant	Idea	Physical	*N*	Open	Consistency	Cases
0	0	1	0	2	1	1.000	C04, C06
1	0	1	1	2	1	1.000	C09, C16
1	0	1	0	1	1	1.000	C10
0	1	1	1	3	0	0.667	C03, C07, C11
1	0	0	0	1	0	0.000	C13
1	1	0	0	1	0	0.000	C01
1	0	0	1	1	0	0.000	C15
1	1	0	1	1	0	0.000	C02

Source(s): Authors' work

Table 5. Intermediate solution for the analysis of sufficiency for the presence of openness (OPEN)

Outcome: OPEN	Consistency	Coverage	Unique coverage	Cases
[1] consultant*IDEA	1.000	0.714	0.714	C04, C06; C09, C10; C16

Note(s): Capital letters indicate the presence of conditions and lowercase letters the absence of conditions
Source(s): Authors' work

Table 6. Intermediate solution for the analysis of sufficiency for the absence of openness (open)

Outcome: open	Consistency	Coverage	Unique coverage	Cases
[1] idea	1.000	0.800	0.800	C01; C02; C13; C15

Note(s): Capital letters indicate the presence of conditions and lowercase letters the absence of conditions
Source(s): Authors' work

5. Discussion and implications

The QCA study investigated how strategy development processes in public infrastructure projects were opened up. While the open strategy literature acknowledges varying forms and degrees of openness (Hautz *et al.*, 2017), this study considered openness as a qualitative concept (Dobusch and Dobusch, 2019). In all 12 cases, transparency expectations were met (see Table 2), with both mandatory and non-mandatory strategic information shared with a wide range of external stakeholders. However, co-creation with external stakeholders occurred in only seven cases, where participants were actively involved in the decision-making process. Thus, not all cases exhibited the anticipated norms of openness. Despite being seen as an ideal model of public participation (Abas *et al.*, 2023), active public involvement in infrastructure planning remains uncommon in the Netherlands (Arts *et al.*, 2016; Hamersma *et al.*, 2017). Similarly, Pappers *et al.* (2020) found that many European decision-makers favor lower levels of participation, such as information-sharing and consultation, to retain decision-making authority.

We identified the purpose of idea generation as a necessary condition for openness. This aligns with goal-setting theory (Locke and Latham, 2002), and is supported by Adler and Heckscher (2018), who emphasize the importance of purpose for motivating and guiding employees, thereby improving performance. Our study highlights not only the significance of purpose in designing effective public participation (Bryson *et al.*, 2013), but also confirms that idea generation in open strategizing is a key driver of openness (Hautz *et al.*, 2017).

In all cases, the government played a central role through project teams, which set preconditions for strategy content and processes and guided co-decision-making. This aligns with the characterization of open strategy as a top-down process (Hansen *et al.*, 2024), and reflects the discretionary power public managers hold over participation and influence (Eckerd and Heidelberg, 2020). In several cases, project teams outsourced the design and facilitation of the participation process to consultants, who then assumed significant control, becoming the primary drivers of the process (Hansen *et al.*, 2024). While consultants are often praised for their expertise in such processes (Dobusch *et al.*, 2019; Whittington *et al.*, 2011), our analysis instead indicated that openness occurred when the project team—not consultants—directed the process. This echoes Whittington's (2019) emphasis on the importance of visible senior management involvement for genuine participation. As noted by Hardy *et al.* (2006) and Vaara *et al.* (2019), superficial or ceremonial participation is counterproductive and undermines the authenticity of the process.

Although we did not specifically explore why some project teams delegated their role to consultants or strived for a certain purpose, our analysis revealed that the cases where openness was absent, were often driven by purposes other than idea generation, such as seeking support or legitimacy. In these instances, participation was limited to information sharing and consultation, consistent with Fung's (2006) assertion that different participatory designs are suited to specific objectives.

The importance of purpose for open strategizing is often overlooked (Bryson *et al.*, 2013; Rey and Ricart, 2019). Our study highlights that practitioners should explicate purpose at the "center of strategy" (Rey and Ricart, 2019, p. 49). Government teams should directly manage idea generation with external stakeholders rather than outsourcing this role to consultants. Furthermore, participatory designs must align with the intended purpose to avoid tensions around stakeholder inclusion (Hautz *et al.*, 2019). Our findings underscore the need for

governments to invest in personnel development to enhance their understanding of purpose and its relation to openness, particularly as public managers have been shown to significantly impact organizational performance (Satheesh *et al.*, 2023; Vandersmissen *et al.*, 2024).

While this study sheds light on how infrastructure planning organizations open their strategy processes, it has limitations that suggest directions for future research. First, the study relied on interviews with public managers, whose recollections may be biased, although this was mitigated by document analysis. Further interviews with additional stakeholders could strengthen the evaluation of conditions and outcomes, especially as managers may embody a technocratic rationality (Yang and Pandey, 2011). Second, the conclusions are rooted in observations of Dutch strategy-making processes. The study was based on 12 Dutch infrastructure projects in which participation is formalized and, therefore, has a better chance to occur (Eckerd and Heidelberg, 2020). We encourage researchers to further test our model in less-staged settings using broader international samples. Third, while QCA has gained traction in strategy and planning research (Meuer and Fiss, 2020; Verweij and Trell, 2019), and its use of crisp sets offer clarity and simplicity (Ragin, 2000; Rohlfing, 2020), it also has limitations in synthesizing rich qualitative data into scores (Greckhamer *et al.*, 2018). Future studies could benefit from combining QCA with other methods (Mello, 2021).

The implications of this study offer strategy practitioners—including managers, planners, and consultants—actionable insights into the requirements for achieving openness in open strategizing with external participants. To enhance transparency and inclusivity, organizations must engage external stakeholders throughout the entire strategy process, rather than limiting their involvement to the idea generation phase.

6. Conclusion

Through the application of Qualitative Comparative Analysis (QCA), this study examined whether and how the strategy development processes of public organizations—specifically for infrastructure projects—were opened up. The analysis focused on identifying the conditions under which transparency and inclusion of external stakeholders are facilitated in strategic planning processes. In a country such as the Netherlands, open strategizing in the early phase of infrastructure planning is said to have become common practice. However, this relates especially to transparency when, beyond formal requirements, more than just mandatory information is shared publicly. When it comes to inclusion, our study shows this is less common practice. The QCA results demonstrate that for openness to happen, the direct involvement of the governmental project team – steering the process of creating new ideas by collaboratively and iteratively engaging external participants in the decision-making process – is required. The QCA analysis also shows that when the focus shifts to primarily gaining public support rather than fostering idea generation, openness diminishes significantly. In conclusion, this evidence suggests that the government plays a pivotal role in opening up but mostly when aiming for idea generation. This underscores the importance of governmental leadership in opening up strategy processes.

References

Abas, A., Arifin, K., Mohamed Ali, M.A. and Khairil, M. (2023), "A systematic literature review on public participation in decision-making for local authority planning: a decade of progress and challenges", *Environmental Development*, Vol. 46, 100853, doi: 10.1016/j.envdev.2023.100853.

Adler, P.S. and Heckscher, C. (2018), "Collaboration as an organization design for shared purpose", *Toward Permeable Boundaries of Organizations? (Research in the Sociology of Organizations*, Vol. 57, pp. 81-111, Emerald Publishing Limited, Leeds, doi: 10.1108/S0733-558X20180000057004.

Albrechts, L. (2013), "Reframing strategic spatial planning by using a coproduction perspective", *Planning Theory*, Vol. 12 No. 1, pp. 46-63, doi: 10.1177/1473095212452722.

Armstrong, E. (2005), "Integrity, transparency and accountability in public administration: recent trends, regional and international developments and emerging issues", *United Nations, Economic and Social Affairs*, Vol. 4, pp. 1-10.

Arnstein, S.R. (1969), "A ladder of citizen participation", *Journal of the American Institute of Planners*, Vol. 35 No. 4, pp. 216-224, doi: 10.1080/01944366908977225.

Arts, J., Filarski, R., Jeekel, H. and Toussaint, B. (2016), *Builders and Planners: A History of Land-Use and Infrastructure Planning in the Netherlands*, Eburon Academic, Delft.

Arts, J., Leendertse, W. and Tillema, T. (2021), "Road infrastructure: planning, impact and management", in Vickerman, R. (Ed.), *International Encyclopedia of Transportation*, Elsevier, Amsterdam, Vol. 5, pp. 360-372, doi: 10.1016/B978-0-08-102671-7.10448-8.

Bryson, J.M., Quick, K.S., Slotterback, C.S. and Crosby, B.C. (2013), "Designing public participation processes", *Public Administration Review*, Vol. 73 No. 1, pp. 23-34, doi: 10.1111/j.1540-6210.2012.02678.x.

Bryson, J.M., George, B. and Seo, D. (2024), "Understanding goal formation in strategic public management: a proposed theoretical framework", *Public Management Review*, Vol. 26 No. 2, pp. 539-564, doi: 10.1080/14719037.2022.2103173.

Busscher, T. and van Geet, M. (2023), "Infrastructure and planning", in Beunen, R., Duineveld, M. and van Assche, K. (Eds), *Elgar Encyclopedia in Urban and Regional Planning and Design*, Edward Elgar Publishing, Cheltenham, pp. 194-197, eBooks, doi: 10.4337/9781800889002

Chesbrough, H.W. and Appleyard, M.M. (2007), "Open innovation and strategy", *California Management Review*, Vol. 50 No. 1, pp. 57-76, doi: 10.2307/41166416.

Conrad, E., Cassar, L.F., Christie, M. and Fazey, I. (2011), "Hearing but not listening? A participatory assessment of public participation in planning", *Environment and Planning C: Government and Policy*, Vol. 29 No. 5, pp. 761-782, doi: 10.1068/c10137.

Cronqvist, L. (2019), *QCA Add-In: Version 1.1 [computer Program]*, University of Trier, Trier.

Dobusch, L., Kremser, W., Seidl, D. and Werle, F. (2017), "A communication perspective on open strategy and open innovation", *Management*, Vol. 27 No. 1, pp. 5-25, doi: 10.1365/s41113-017-0015-6.

Dobusch, L. and Dobusch, L. (2019), "The relation between openness and closure in open strategy: programmatic and constitutive approaches to openness", in Seidl, D., von Krogh, G. and Whittington, R. (Eds), *Cambridge Handbook of Open Strategy*, Cambridge University Press, Cambridge, pp. 326-336, doi: 10.1017/9781108347921.020.

Dobusch, L., Dobusch, L. and Müller-Seitz, G. (2019), "Closing for the benefit of openness? The case of Wikimedia's open strategy process", *Organization Studies*, Vol. 40 No. 3, pp. 343-370, doi: 10.1177/0170840617736930.

Drumaux, A. and Joyce, P. (2018), *Strategic Management for Public Governance in Europe*, Palgrave MacMillan, London.

Eckerd, A. and Heidelberg, R.L. (2020), "Administering public participation", *The American Review of Public Administration*, Vol. 50 No. 2, pp. 133-147, doi: 10.1177/0275074019871368.

Edelenbos, J. and Klijn, E.H. (2006), "Managing stakeholder involvement in decision making: a comparative analysis of six interactive processes in The Netherlands", *Journal of Public Administration Research and Theory*, Vol. 16 No. 3, pp. 417-446, doi: 10.1093/jopart/mui049.

Esposito, G. and Terlizzi, A. (2023), "Governing wickedness in megaprojects: discursive and institutional perspectives", *Policy and Society*, Vol. 42 No. 2, pp. 13-147, doi: 10.1093/polsoc/puad002.

Flyvbjerg, B., Bruzelius, N. and Rothengatter, W. (2003), *Megaprojects and Risk: an Anatomy of Ambition*, Cambridge University Press, Cambridge.

Flyvbjerg, B., Garbuio, M. and Lovallo, D. (2009), "Delusion and deception in large infrastructure projects: two models for explaining and preventing executive disaster", *California Management Review*, Vol. 51 No. 2, pp. 170-194, doi: 10.2307/41166485.

Fung, A. (2006), "Varieties of participation in complex governance", *Public Administration Review*, Vol. 66 No. s1, pp. 66-75, doi: 10.1111/j.1540-6210.2006.00667.x.

Gegenhuber, T. and Dobusch, L. (2017), "Making an impression through openness: how open strategy-making practices change in the evolution of new ventures", *Long Range Planning*, Vol. 50 No. 3, pp. 337-354, doi: 10.1016/j.lrp.2016.09.001.

Gerrits, L.M. and Verweij, S. (2018), *The Evaluation of Complex Infrastructure Projects: A Guide to Qualitative Comparative Analysis*, Edward Elgar Publishing, Cheltenham, available at: https://ssrn.com/abstract=3416103

Greckhamer, T., Misangyi, V.F., Elms, H. and Lacey, R. (2008), "Using qualitative comparative analysis in strategic management research: an examination of combinations of industry, corporate, and business-unit effects", *Organizational Research Methods*, Vol. 11 No. 4, pp. 695-726, doi: 10.1177/1094428107302907.

Goertz, G. and Starr, H. (2003), *Necessary Conditions: Theory, Methodology, and Applications*, Rowman and Littlefield Publishing Group, Lanman, MD.

Greckhamer, T., Furnari, S., Fiss, P.C. and Aguilera, R.V. (2018), "Studying configurations with qualitative comparative analysis: best practices in strategy and organization research", *Strategic Organization*, Vol. 16 No. 4, pp. 482-495, doi: 10.1177/1476127018786487.

Hamersma, M., Heinen, E., Tillema, T. and Arts, J. (2017), "Understanding a resident's satisfaction with involvement in a highway planning process", *Journal of Environmental Planning and Management*, Vol. 61 No. 7, pp. 1224-1249, doi: 10.1080/09640568.2017.1339592.

Hansen, J.R., Pop, M., Skov, M.B. and George, B. (2024), "A review of open strategy: bridging strategy and public management research", *Public Management Review*, Vol. 26 No. 3, pp. 678-700, doi: 10.1080/14719037.2022.2116091.

Hardy, C., Lawrence, T.B. and Phillips, N. (2006), "Swimming with sharks: creating strategic change through multi-sector collaboration", *International Journal of Strategic Change Management*, Vol. 1 Nos 1/2, pp. 96-11, doi: 10.1504/IJSCM.2006.011105.

Hautz, J., Seidl, D. and Whittington, R. (2017), "Open strategy: dimensions, dilemmas, dynamics", *Long Range Planning*, Vol. 50 No. 3, pp. 298-309, doi: 10.1016/j.lrp.2016.12.001.

Hautz, J., Matzler, K., Sutter, J., Hutter, K. and Füller, J. (2019), "Practices of inclusion in open strategy", in *Cambridge Handbook of Open Strategy*, Cambridge University Press, Cambridge, pp. 87-105, doi: 10.1017/9781108347921.006.

Head, B.W. and Alford, J. (2015), "Wicked problems: implications for public policy and management", *Administration and Society*, Vol. 47 No. 6, pp. 711-739, doi: 10.1177/0095399713481601.

Heeres, N., Tillema, T. and Arts, J. (2012), "Integration in Dutch planning of motorways: from line towards 'area-oriented' approaches", *Transport Policy*, Vol. 24, pp. 148-158, doi: 10.1016/j.tranpol.2012.08.002.

Hutter, K., Nketia, B.A. and Füller, J. (2017), "Falling short with participation – different effects of ideation, commenting, and evaluating behavior on open strategizing", *Long Range Planning*, Vol. 50 No. 3, pp. 355-370, doi: 10.1016/j.lrp.2016.08.005.

Innes, J.E. and Booher, D.E. (2004), "Reframing public participation: strategies for the 21st century", *Planning Theory and Practice*, Vol. 5 No. 4, pp. 419-436, doi: 10.1080/1464935042000293170.

Joyce, P. (2015), *Strategic Management in the Public Sector*, Routledge, London.

Klakegg, O.J., Williams, T. and Shiferaw, A.T. (2016), "Taming the 'trolls': major public projects in the making", *International Journal of Project Management*, Vol. 34 No. 2, pp. 282-296, doi: 10.1016/j.ijproman.2015.03.008.

Klijn, E.H. and Koppenjan, J.F.M. (2016), *Governance Networks in the Public Sector*, Routledge, London, doi: 10.4324/9781315887098.

Klijn, E.H. and Koppenjan, J.F.M. (2020), "Debate: strategic planning after the governance revolution", *Public Money and Management*, Vol. 40 No. 4, pp. 260-261, doi: 10.1080/09540962.2020.1715097.

Le Blanc, D. (2020), *E-participation: A Quick Overview of Recent Qualitative Trends*, Department of Economic and Social Affairs, United Nations, New York.

Locke, E.A. and Latham, G.P. (2002), "Building a practically useful theory of goal setting and task motivation. A 35-year odyssey", *American Psychologist*, Vol. 57 No. 9, pp. 705-717, doi: 10.1037//0003-066x.57.9.705.

Malekpour, S., Brown, R.R. and de Haan, F.J. (2015), "Strategic planning of urban infrastructure for environmental sustainability: understanding the past to intervene for the future", *Cities*, Vol. 46, pp. 67-75, doi: 10.1016/j.cities.2015.05.003.

Mazzucato, M. and Collington, R. (2023), *The Big Con: How the Consulting Industry Weakens Our Businesses, Infantilizes Our Governments, and Warps Our Economies*, Random House, NewYork.

Mello, P. (2021), *Qualitative Comparative Analysis: Research Design and Application*, Georgetown University Press, Washington, DC.

Meuer, J. and Fiss, P.C. (2020), *Qualitative Comparative Analysis in Business and Management Online Research, Oxford Research Encyclopedia, Business and Management*, Oxford University Press, Oxford. doi: 10.1093/acrefore/9780190224851.013.229.

Ministerie, I.andM. (2010), *Handreiking MIRT-Verkenning*, Ministerie van Infrastructuur en Milieu, Delft.

Ministerie, I.andW. (2018), *Startbeslissing MIRT-Verkenning Rottepolderplein*, Ministerie van Infrastructuur en Waterstaat, Den Haag.

Ministerie, I.andW. (2022), *MIRT Overzicht 2023: Meerjarenprogramma Infrastructuur, Ruimte en Transport*, Ministerie van Infrastructuur en Waterstaat and Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, Den Haag.

Ministerie, I.andW. (2022a), *Spelregels van het Meerjarenprogramma Infrastructuur, Ruimte en Transport (MIRT)*, Ministerie van Infrastructuur en Waterstaat, Den Haag.

Morton, J. and Amrollahi, A. (2018), "Open strategy intermediaries? A framework for understanding the role of facilitators in open strategy-making, Research-in-Progress Papers. No. 69", available at: https://aisel.aisnet.org/ecis2018_rip/69.

Nabatchi, T., Sancino, A. and Sicilia, M. (2017), "Varieties of participation in public services: the who, when, and what of coproduction", *Public Administration Review*, Vol. 77 No. 5, pp. 766-776, doi: 10.1111/puar.12765.

Nooteboom, B. (2000), "Learning by interaction. Absorptive capacity, cognitive distance, and governance", *Journal of Management and Governance*, Vol. 4 Nos 1/2, pp. 69-92, doi: 10.1023/A:1009941416749.

Osborne, S.P. and Strokosch, K. (2021), "Developing a strategic user orientation: a key element for the delivery of effective public services", *Global Public Policy and Governance*, Vol. 1 No. 2, pp. 121-135, doi: 10.1007/s43508-021-00008-9.

Pappers, J., Kesru, I. and Macharis, C. (2020), *Co-creation or Public Participation 2.0? an Assessment Of Co-creation in Transport And Mobility Research*, Towards User-Centric Transport in Europe 2, Enablers of Inclusive, Seamless and Sustainable Mobility, Springer, Cham, pp. 3-15, doi: 10.1007/978-3-030-38028-1.

Pollitt, C. and Bouckaert, G. (2011), *Public Management Reform: A Comparative Analysis – into the Age of Austerity*, Oxford University Press, New York.

Ragin, C.C. (1987), *The Comparative Method: Moving beyond Qualitative and Quantitative Strategies*, University of California Press, Berkeley.

Ragin, C.C. (2000), *Fuzzy-Set Social Science*, University of Chicago Press, Chicago.

Ragin, C.C. and Davey, S. (2022), *Fuzzy-Set/Qualitative Comparative Analysis 4.0*, Department of Sociology, University of California, Irvine, CA.

Reed, M.S., Vella, S., Challies, E., De Vente, J., Frewer, L., Hohenwallner-Ries, D., Huber, T., Neumann, R.K., Oughton, E.A., Sidoli del Ceno, J. and Van Delden, H. (2018), "A theory of participation: what makes stakeholder and public engagement in environmental management work?", *Restoration Ecology*, Vol. 26 No. S1, pp. S7-S17, doi: 10.1111/rec.12541.

Rey, C. and Ricart, J.E. (2019), "Why purpose needs strategy (and vice versa)", in Rey, C., Bastons, M. and Sotok, P. (Eds), *Purpose-Driven Organizations*, Palgrave Macmillan, London, pp. 43-56, doi: 10.1007/978-3-030-17674-7_4.

Rihoux, B., Álamos-Concha, P., Bol, D., Marx, A. and Rezsöhazy, I. (2013), "From niche to mainstream method? A comprehensive mapping of QCA applications in journal articles from 1984 to 2011", *Political Research Quarterly*, Vol. 66 No. 1, pp. 175-184.

Rohlfing, I. (2020), "The choice between crisp and fuzzy sets in qualitative comparative analysis and the ambiguous consequences for finding consistent set relations", *Field Methods*, Vol. 32 No. 1, pp. 75-88, doi: 10.1177/1525822X19896258.

Satheesh, S.A., Verweij, S., Van Meerkerk, I.F., Busscher, T. and Arts, J. (2023), "The impact of boundary spanning by public managers on collaboration and infrastructure project performance", *Public Performance and Management Review*, Vol. 46 No. 2, pp. 418-444, doi: 10.1080/15309576.2022.2137212.

Seidl, D., Krogh, G. and Whittington, R. (2019), "Defining open strategy: dimensions, practices, impacts, and perspectives", *Cambridge Handbook on Open Strategy*, Cambridge University Press, Cambridge, pp. 7-84, doi: 10.1017/9781108347921.002.

Skaaning, S.-E. (2011), "Assessing the robustness of crisp-set and fuzzy-set QCA results", *Sociological Methods and Research*, Vol. 40 No. 2, pp. 391-408, doi: 10.1177/0049124111404818.

Stadler, C., Hautz, J., Matzler, K., von den Eichen, S.F. and Hamel, G. (2021), *Open Strategy: Mastering Disruption from outside the C-Suite*, MIT Press, Boston, MA.

Tavakoli, A., Schlagwein, D. and Schoder, D. (2017), "Open strategy: literature review, re-analysis of cases and conceptualisation as a practice", *The Journal of Strategic Information Systems*, Vol. 26 No. 3, pp. 163-184, doi: 10.1016/j.jsis.2017.01.003.

Thomann, E. (2020), "Qualitative comparative analysis for comparative policy analysis", in *Handbook of Research Methods and Applications in Comparative Policy Analysis*, pp. 254-276.

Vaara, E., Rantakari, A. and Holstein, J. (2019), "Participation research and open strategy", in Seidl, D., Von Krogh, G. and Wittington, R. (Eds), *Cambridge Handbook of Open Strategy*, Cambridge University Press, Cambridge, pp. 27-40, doi: 10.1017/9781108347921.003.

Van den Berg, C., Howlett, H., Migone, A., Pemer, F. and Gunter, H.M. (2019), *Policy Consultancy in Comparative Perspective: Patterns, Nuance and Implications of the Contractor State*, Cambridge University Press, Cambridge, doi: 10.1017/9781108634724.

Van Geet, M.T., Lenferink, S., Arts, J. and Leendertse, W. (2019), "Understanding the ongoing struggle for land use and transport integration: institutional incongruence in the Dutch national planning process", *Transport Policy*, Vol. 73, pp. 84-100, doi: 10.1016/j.tranpol.2018.11.001.

Van Tatenhove, J., Edelenbos, J. and Klok, P.J. (2010), "Power and interactive policy-making: a comparative study of power and influence in 8 interactive projects in The Netherlands", *Public Administration*, Vol. 88 No. 3, pp. 609-626, doi: 10.1111/j.1467-9299.2010.01829.x.

Vandersmissen, L. and George, B. (2023), "Strategic planning in public organizations: reviewing 35 years of research", *International Public Management Journal*, Vol. 27 No. 4, pp. 633-658, doi: 10.1080/10967494.2023.2271901.

Vandersmissen, L., George, B. and Voets, J. (2024), "Strategic planning and performance perceptions of managers and citizens: analysing multiple mediations", *Public Management Review*, Vol. 26 No. 2, pp. 514-538, doi: 10.1080/14719037.2022.2103172.

Veenma, K., Leendertse, W. and Arts, J. (2023), "Room for uncertainty in infrastructure planning: how continuous certainification by decision makers results in more uncertainty", *Transactions of the Association of European Schools of Planning*, Vol. 7 No. 1, pp. 36-44, doi: 10.24306/TrAESOP.2023.01.004.

Verweij, S. and Trell, E.M. (2019), "Qualitative comparative analysis (QCA) in spatial planning research and related disciplines: a systematic literature review of applications", *Journal of Planning Literature*, Vol. 34 No. 3, pp. 300-317, doi: 10.1177/0885412219841490.

Whittington, R. (2019), *Opening Strategy: Professional Strategists and Practice Change, 1960 to Today*, Oxford University Press, Oxford, doi: 10.1111/j.1467-8551.2011.00762.x.

Whittington, R., Cailluet, L. and Yakis-Douglas, B. (2011), "Opening strategy: evolution of a precarious profession", *British Journal of Management*, Vol. 22 No. 3, pp. 531-544, doi: 10.1111/j.1467-8551.2011.00762.x.

Williams, T. (2005), "Assessing and moving on from the dominant project management discourse in the light of project overruns", *IEEE Transactions on Engineering Management*, Vol. 52 No. 4, pp. 497-508, doi: 10.1109/TEM.2005.856572.

Williams, T., Vo, H., Samset, K. and Edkins, A. (2019), "The front-end of projects: a systematic literature review and structuring", *Production Planning and Control*, Vol. 30 No. 14, pp. 1137-1169, doi: 10.1080/09537287.2019.1594429.

Yang, K. and Pandey, S.K. (2011), "Further dissecting the black box of citizen participation: when does citizen involvement lead to good outcomes?", *Public Administration Review*, Vol. 71 No. 6, pp. 880-892, doi: 10.1111/j.1540-6210.2011.02417.x.

Appendix 1

Table A1. Selected cases from the MIRT 2023

Case ID	MIRT area	Case name (in Dutch)	Stage in MIRT 2023 explorative phase (June 2023)
C01	South-West	Oeververbindingen Rotterdam	Stage 4: Decision-making (finalized)
C02	South-West	CID Binckhorst	Stage 4: Decision-making
C03	South-West	A15 Papendrecht-Gorinchem	Stage 3: Assessment
C04	South	A58 Tilburg-Breda	Stage 4: Decision-making
C05	South	Hub 's-Hertogenbosch	Stage 1: Analysis [excluded from analysis]
C06	East	A50 Ewijk-Bankhoef-Paalgraven	Stage 3: Assessment
C07	East	*N*35 Wijthmen-Nijverdal	Stage 2: Analysis
C08	North	Ecologische Waterkwaliteit Friese IJsselmeerkust	Stage 1: Start [excluded from analysis]
C09	North	Eemszijl en Groote Polder	Stage 3: Assessment
C10	North	Koehool-Lauwersmeer	Stage 3: Assessment
C11	North-West	A9 Rottepolderplein	Stage 4: Decision-making
C12	North-West	A27 Zeewolde-Knooppunt Eemnes	Stage 1: Did not start [excluded from analysis]
C13	North-West	OV en Wonen in Regio Utrecht	Stage 2: Analysis
C14	North-West	Noord-Hollandse Markermeerkust	Stage 1: Start [excluded from analysis]
C15	North-West	Oostvaardersoevers	Stage 4: Decision-making (finalized)
C16	North-West	Wieringerhoek	Stage 4: Decision-making

Appendix 2

Table A2. Data sources

Case	Interview	Documents	Websites
C01	Consultant May 4, 2023	Decision to start MIRT (November, 2019) Participation plan (July, 2020) Visuals of decision process (2020–2021) Participation report (November, 2022) Advice Q-team and sounding board (October, 2022) Reaction to advices (November, 2022) Preferential decision (November, 2022)	http://www.oeververbindingen.nl/
C02	Consultant June 6, 2023	Decision to start MIRT (August, 2020) Summary of facts concerning process (May, 2021) Report of participation (June, 2022) Masterplan/preferential decision (April, 2023)	http://www.binckhorstbereikbaar.nl/
C03	Member Project Team IandW May 10, 2023	Decision to start MIRT (December, 2017) Participation plan phase 1 (December, 2020) Atelier report VI (June, 2022) Decision to pause (September, 2023)	http://www.mirta15papendrechtgorinchem.nl/ https://platformparticipatie.nl/a15papendrechtgorinchem/voornemen+1/default.aspx
C04	Member Project Team IandW April 24, 2023	Decision to start MIRT (June, 2018) Report e-participation (February, 2020) Revised participation plan (October 2020) Participation report (June, 2021) Decision to pause (June, 2023)	https://www.a58tilburgbreda.nl https://www.smartwayz.nl/nl/zoeken/?q=a58
C05	Member Project Team Municipality June 21, 2023	Decision to start MIRT (June, 2021)	www.denbosch.nl/nl/projecten/spoorzone/station

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Table A2. Continued

Case	Interview	Documents	Websites
C06	Member Project Team IandW April 14, 2023	Decision to start MIRT (October, 2020) Participation plan phase 1 (July, 2021) Participation plan phase 2 (February, 2023) Presentations sounding board (September, 2021; January, 2022; June, 2022; September, 2022, December, 2022; February, 2023) Online video report (online) information meeting (February, 2022) Preferential solution/vision report (March, 2023)	https://www.mirttrajecten.nl/organisatie/a50-ewijk-bankhoef-paalgraven
C07	Member Project Team IandW March 31, 2023	Decision to start MIRT (March, 2022) Participation plan (December, 2022) Reports sounding boards (June, 2023) Notation scope and detail (March, 2024)	https://www.mirttrajecten.nl/organisatie/mirt-n35-wijthmen-nijverdal/documenten
C08	Member Project Team RWS June 2, 2023	Decision to start MIRT (November, 2020)	https://www.rijkswaterstaat.nl/water/projectenoverzicht/friese-ijsselmeerkust-behoud-en-versterking-van-natuurwaarden
C09	Member Project Team Province Groningen March 21, 2023	Decision to start MIRT (March, 2019) Report introduction and discussion meeting (October, 2020) Participation plan phase 2 (June, 2022) Notation scope and detail (May, 2022)	https://eemsdollard2050.nl/project/groote-polder https://www.provinciegroningen.nl/projecten/kustontwikkeling-eemszijlen/
C10	Member Project Team Waterboard May 16, 2023	Decision to start MIRT, including participation plan (November, 2020) Reports of (digital) ateliers in newsletters 1–10 (2020–2023) How dike workers work, podcasts on participation (April–May, 2020) Preferential decision (November, 2021)	https://www.wetterskipfryslan.nl/projecten/koehool

(*continued*)

Table A2. Continued

Case	Interview	Documents	Websites
C11	Member Project Team IandW March 30, 2023	Decision to start MIRT (November, 2018) Participation report (November, 2020) Atelier impression report (Jun, 2020) Preferential decision (December, 2023)	https://www.samenbouwenaanbereikbaarheid.nl/projecten/mirt-verkenning-rottepolderplein
C12	Member Project Team IandW April 14, 2023	Did not start	https://www.samenbouwenaanbereikbaarheid.nl/nieuws/projecten-van-samen-bouwen-aan-bereikbaarheid
C13	Member Project Team IandW May 2, 2023	Decision to start MIRT (Jul, 2020) Participation plan (October, 2020) Participation report (October, 2022) Report and PowerPoints of online information meeting (June, 2023) Notation scope and detail (September, 2023)	https://www.programma-uned.nl/ov-en-wonen
C14	Member Project Team RWS May 31, 2023	Decision to start MIRT (November, 2020)	https://www.helpdeskwater.nl/onderwerpen/water-ruimte/ecologie/programmatische-aanpak-grote-wateren-pagw/startbeslissingen-pagw/
C15	Member Project Team RWS May 4, 2023	Decision to start MIRT (November, 2019) Participation plan (December 2019) Participation report (January, 2022) Preferential decision (July, 2022)	https://markermeerijmeer.nl/oostvaardersoevers
C16	Member Project Team RWS May 4, 2023	Decision to start MIRT (November, 2019) Participation plan (November, 2019) Explorative phase report (June, 2022) Preferential decision (June, 2023)	https://platformparticipatie.nl/wieringerhoek/wieringerhoek_/default.aspx

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