The limits of participatory governance in megaprojects: the Lyon-Turin high-speed railway between structure, agency, and democratic participation

Giovanni Esposito (University of Liège and University of Antwerp, Belgium)

Andrea Felicetti (Scuola Normale Superiore, Florence, Italy)

Andrea Terlizzi (Sant'Anna School of Advanced Studies, Pisa, Italy)

5th International Conference on Public Policy (ICPP5)

5 – 9 July 2021

Barcelona, Spain

1. Introduction

Infrastructure megaprojects are large-scale ventures involving a multiplicity of public and private actors and have a long-lasting impact on the economy, environment, and society (Brookes and Locatelli 2015; Flyvbjerg 2014). Whereas there is growing interest in the governance of these projects, which are increasingly common across countries and attract substantial political attention, (Flyvbjerg 2017), their management and implementation remain little understood. Traditional approaches to (the study of) megaprojects tend to focus on day-to-day managerial actions and see the development of the megaproject life cycle as shaped by a techno-economic logic. According to this logic, project managers organize and manage resources to get the project completed within an already defined program management framework (Hu, Chan, and Le 2015; Hu et al. 2016). So conceived, megaprojects are marked by straightforward, linear, and rational decision-making processes. However, recent studies have highlighted the need to move from an understanding of megaprojects as linear and rational processes towards a more nuanced approach that accounts for non-linear and conflictual aspects (Esposito, Terlizzi, and Crutzen 2020). In this regard, participatory governance is often proposed as a valuable resource to address complexity, uncertainty, and conflictuality in megaproject development.

In the past decades, participatory governance has significantly grown in public policy and administration scholarship as well as practice. In particular, participatory governance initiatives have been advocated as a tool to confront 'wicked' issues characterized by complexity, profound value and technical conflicts, and little agreement on problem definition and solution (Rittel and Webber 1973; Fischer 1993; Fung 2006; 2015). Citizen participation in policy-making has spread in several policy fields including, for example, environmental (Fischer 2017; 1993; Newig and Koontz 2014), budgetary (Wampler 2012), and welfare policy (Mariani and Cavenago 2013). Scholarship in project management has also pointed to the need to build trust between stakeholders through sense-making and organizational learning (Alderman et al. 2005; Atkinson, Crawford, and Ward 2006). A few studies have also approached infrastructure megaprojects governance through the analytical lenses grounded in the participatory governance literature (Leifsen, Sánchez-Vázquez, and Reyes 2017; Shin and Lee 2017; Sneddon and Fox 2007; Groves, Munday, and Yakovleva 2013; Jaffe and Koster 2019). This paper not only fosters this connection but also frames it within the broader context of cutting edge debates on democratic theory and democratic-governance innovations (Smith 2009; Elstub and Escobar 2019; Hendriks 2021).

In this article, we investigate two participatory venues operating in the context of the implementation of the Lyon-Turin high-speed railway megaproject: the Italian Observatory for the Turin-Lyon Railway and the French Public Inquiry. In particular, we explore structural and agentic features of participatory governance in the two cases and aim at shedding light on conditions that can either foster or hinder participatory decision-making. Empirical evidence shows that the Italian case featured substantial structural barriers to effective democratic participation. The French case, although better designed and implanted in its context, featured important agentic limitations that undermined its democratic potential. We argue that both processes failed to promote democratic participation. We thus propose a deliberative approach to (the study of) the management and implementation of megaprojects. Whereas deliberative democratic ideas command growing interest across disciplines, these have found only limited application in the study of megaprojects. We contend that a deliberative democratic approach holds promise to improve the democratic and epistemic qualities of decision-making on megaprojects.

The article is organized as follows: The next section reviews the literature on megaprojects governance and provides the theoretical framework to analyze participatory governance in the two cases under studies. Section 3 presents the research design and methods. Section 4 illustrates the empirical evidence, highlighting the weaknesses of participatory governance in both the Italian and French cases. Finally, section 5 and 6 provide discussion and conclusions respectively.

2. From rationalistic to participatory governance in megaprojects

The rationalist understanding of decision-making processes in megaprojects is in line with several theoretical works in the social sciences which have emphasized the vision of human behavior as a matter of rational choice (Buchanan and Tullock 1962; Downs 1957). Rational decision-making is driven by a logic of consequentiality that is fundamentally associated with anticipatory action. This view of agency sees the decision-maker as holding a consistent preference ordering that allows to survey all possible alternatives and to choose the course of action that maximize utility. These assumptions of rational decision-making have been challenged by major organization and decision-making theorists (Cohen, March, and Olsen 1972; Lindblom 1959; Simon 1955). It is unreasonable and unrealistic to consider that individuals are capable of making judgments about all possible alternatives and choosing those that have the best consequences in terms of utility maximization. Given that rationality is bounded, decision-making is an iterative learning process influenced by the contours of organizational life marked by complexity, subjective ambiguity and uncertainty, and conflictuality (Weick 1995; March and Olsen 1989). As Rittel and Webber (1973: 160) put it, "theory is inadequate for decent forecasting; our intelligence is insufficient to our tasks; plurality of objectives held by pluralities of politics makes it impossible to pursue unitary aims […]. The difficulties attached to rationality are tenacious."

Research on megaprojects has stressed the need to move the focus away from the purely technical and operational tasks that need to be fulfilled to deliver outcomes. Instead, attention goes to encompassing the process of multiple interactions between stakeholders at different levels (geographical, cultural, institutional, and political) both inside and outside the megaproject management team (Sanderson 2012; Scott, Levitt, and Orr 2011; Van Marrewijk et al. 2008). Conditions of uncertainty make it difficult to determine what is the exact optimal decision to make, and force the decision-maker (and the policy analyst) to depart from a strict orientation toward technical outcomes (Majone 1989). In this respect, scholars have underlined the importance of adopting a socio-economic perspective – as opposed to a pure tecno-economic one – to the study of the dynamics of megaprojects formulation and implementation.

In reviewing explanatory research on performance problems and failures in megaprojects, (Sanderson 2012) distinguishes three different types of explanations according to (a) the main problems that can arise in megaprojects development and (b) the proposed solutions. The three types of explanations are based on diverse ontological assumptions about decision-makers' cognition and their view of the future (Table 1). Explanation type A sees actors as being able to assign objective probabilities to future events and make decisions that fully optimize their interests. Explanation type B conceives

decision-makers as having cognitive limits and lack the necessary data to assign objective probabilities to the future. According to Explanation type C, given the fact that the future is unknown and socially constructed, decision-makers make choices that satisfy their aspirational levels. The core argument of Explanation type A is that problems in megaprojects arise from actors' opportunistic behavior and strategic rent-seeking practices carried out to pursue their interests. Consequently, solutions lie in the creation of a set of institutional and procedural tools to improve accountability. Instead, according to Explanation type B and C, problems stem from the absence of appropriate institutional arrangements (type B) and of a shared, single culture and rationality (type C). Therefore, solutions must be sought in the development of appropriate institutional arrangements (type B) and promotion of collaborative behavior (type C).

Table 1. A comparison of alternative explanations of megaproject performance

	Explanation type A: strategic rent-seeking behaviour	**Explanation type B: misaligned and underdeveloped governance**	**Explanation type C: diverse project cultures and rationalities**
Assumptions	Decision-maker cognition: optimizing Decision-maker view of the future: statistical probability	Decision-maker cognition: optimizing within limits Decision-maker view of the future: subjective probability	Decision-maker cognition: satisficing Decision-maker view of the future: socialized
Problems	Project promoters and contractors regularly engage in intentional rent-seeking behaviour (under-estimating costs, over-estimating benefits) to get non-viable projects approved	Problems result from misaligned or underdeveloped governance arrangements incapable of handling the emergent turbulence inevitably associated with megaprojects	Projects subject to processes of social construction and characterized by diverse and often competing cultures and rationalities. Problems result from normal day-to-day management practice
Solutions	Legal requirement for thorough ex ante risk analysis and management plan; limit role of politicians to formulating and auditing public interest objectives; various ex ante measures to improve accountability of project decision-making	Conscious design and creation at the front-end of the project of mechanisms that enhance ex post governability; mechanisms must be appropriate to the particular context of the project	Conscious design and creation at the front-end of the project of a shared culture supported by governance mechanisms to encourage collaborative and coordinated behaviour

Source: Adapted from (Sanderson 2012).

In this article, we build upon the literature in the tradition of Explanations type B and C. In particular, in analyzing the factors that shape megaproject development, this scholarship has addressed the role

of dialectics (Renault 2016; Witt 2004), discourse and competing policy narratives (Esposito, Terlizzi, and Crutzen 2020; van Wijk and Fischhendler 2017), perceived institutional frameworks and embedded agency (Biesenthal et al. 2018; Esposito et al., n.d.; Michaud and Lessard 2000; Miller and Floricel 2000; Miller and Lessard 2000), as well as the involvement of and resistance by local community groups (Altshuler and Luberoff 2003; Awakul and Ogunlana 2002; Lehrer and Laidley 2008; Di Maddaloni and Davis 2017; Park et al. 2017; Sarkheyli and Rafieian 2018; Strauch, Takano, and Hordijk 2015; Teo and Loosemore 2014; 2011). However, we do not draw clear-cut boundaries with the problems and solutions advanced in Explanation type A. Actually, as we shall see, megaprojects development is characterized by problems and solutions that can be found in all three types of explanations. For example, in real-world settings, we might have type C solutions to type A problems. In other words, how different problems and solutions unfold in diverse contexts is a matter of empirical investigation.

In the context of highly uncertain and conflictual decision-making processes, participatory governance is often proposed as a valuable resource. Practices of participatory governance – which fall into the category of type C solutions – consist of "intermediary spaces that readjust the boundaries between the state and its citizens, establishing new places in which the participants from both can engage each other in new ways" (Fischer 2006: 21). More precisely, according to Newig et al. (2018: 273), the concept encompasses "all processes and structures of public decision making that engage actors from the private sector, civil society, and/or the public at large, with varying degrees of communication, collaboration, and delegation of decision power to participants." Through participatory governance, therefore, government-civil society interactions as well as forms of collaboration are institutionalized. However, unlike collaborative governance, which is more concerned with inter- and intra-organizational arrangements than with citizens' participation (Batory and Svensson 2019; Newig et al. 2018; Bianchi, Nasi, and Rivenbark 2021), participatory governance involves organized and non-organized actors "who are not normally charged with decision-making" (Newig et al. 2018: 272). Further, approaches to participatory processes in policy-making can be either top-down or bottom-up in nature. Whereas a top-down approach is driven by an elite-led functionalist and technocratic logic that sees citizen participation as a means to improve policy-making and strengthen the legitimization of (representative) democratic institutions, bottom-up participatory governance emerges from popular mobilization and has a more radical ambition to transform traditional institutions and achieve social justice (Bua and Bussu 2020a; DeLeon and DeLeon 2002).

Infrastructure megaprojects are extremely complex, uncertain, and conflictual large-scale ventures populated by multiple public and private stakeholders and marked by the coexistence of different and competing sociotechnical imaginaries (Cousins 2020; Hsu 2018; Esposito, Terlizzi, and Crutzen 2020). There is no unique way to construct such sociotechnical imaginaries, which, indeed, can be supported by diverse and contested information, knowledge, and evidence about how the megaproject will contribute to the economy, the environment, and society. Whereas the logic upon which many megaprojects are based relies on benefits associated with the provision of services to citizens, numerous criticisms have been raised against them. These range from their top-down planning processes to the negative effects on local communities. Megaprojects thus offer extremely interesting cases to investigate participatory governance practices at the intersection between public management, public policy and administration, and democratic theory.

As defined above, participatory governance is made of structures and processes involving a multiplicity of actors. However, participatory settings do not come whit a universal instruction sheet. In fact, there is a great variety of institutional settings for citizens' participation (Fung 2006). Moreover, there is a wide range of actions that agents can undertake within a certain participatory structure. In investigating the design of two participatory governance venues operating in the context of the implementation of the Lyon-Turin high-speed railway megaproject, this paper explores structural and agentic features of participatory governance practices. In particular, it aims at shedding light on conditions that can either foster or hinder participatory decision-making.

Structure refers to the institutional design of the participatory venue and it is operationalized according to four dimensions: 1) *setting up of the participatory venue*, which refers to the formal procedure to initially establish participatory governance venues; 2) *representation and involvement*, which refers to who participates (e.g. experts, representatives of movements/interests groups; randomly selected citizens); 3) *information flows*, which refers to how interactions take place (e.g. express opinions, develop preferences); and 4) *influence over decisions*, which refers to what participants do within the participatory venue (e.g. consultation, deliberation) (Bobbio 2019; Fung 2006; 2015; Newig et al. 2018; Newig and Koontz 2014; Smith 2009; Ercan, Hendriks, and Boswell 2017; Arnstein 1969). Agency is operationalized in terms of how agents collect and convey technical knowledge and evidence about the megaproject. Management research has underlined the importance of evidence quantification in project shaping (Nenonen et al. 2020). In particular, we look at the purposeful actions of agents aimed at quantifying the megaproject. Therefore, the article explores: 1) how *information* is collected (e.g. data gathering, methods for data analysis); and 2) how *evidence* is disseminated (e.g. arguments, claims, justifications in favor or against the megaproject). In doing so,

therefore, the article also elaborates on the agents' discursive practices that characterize participatory governance (Boswell 2013; Ercan, Hendriks, and Boswell 2017; Esposito, Terlizzi, and Crutzen 2020).

3. Research design and methods

Presenting the case

In 1992, with the approval of the Maastricht Treaty, the EU established TEN-T, an infrastructure policy directed towards the implementation and development of a Europe-wide transport network. This network aimed to close gaps, remove bottlenecks, and eliminate barriers that hamper the free movement of people and freight across EU member states. Among the planned infrastructures, there was envisioned a 270 km high-speed railway line connecting Lyon and Turin, financed jointly through the public budgets of the EU (40%), Italy (35%) and France (25%).

The actual work of building the infrastructure was set and remains the responsibility of the two firms: *SNCF Réseau* in France and *Rete Ferroviaria Italiana* (RFI) in Italy. These companies are subsidiaries of the two state-owned holding companies: *Société Nationale des Chemins de Fer Français* (SNCF/France) and *Ferrovie dello Stato* (FS/Italy). The rail line is ambitious, requiring the construction of a 57 km tunnel piercing the Alps between Susa Valley in Italy and Maurienne in France. This line would replace the existing conventional line thereby allowing heavy freight and passenger trains to travel at a higher speed.

Almost 30 years after the announcement of the project, the train line is still incomplete, the original forecast cost of 12€ billion has increased to 26€ billion (French Court of Audit 2012), and the projected completion date has changed three times – with the most recent forecast predicting completion in 2030. To a large extent, operational costs and delays of the megaproject are the result of construction stoppage brought about by the opposition of civil society groups in the Susa Valley and the failure of megaproject owners to manage that opposition productively.

The project has been implemented in Italy and France on the basis of two different participatory governance systems. In France, the governance has been framed within an ordinary administrative procedure called Public Inquiry. This procedure demands that the national branch of the railway firm engage in public consultations with concerned local citizens and civil society organizations during the project decision-making. In Italy, the original plan consisted in a fast-lane procedure allowing the national government to approve the projects and related works without any obligation to consult local citizens. This approval was met with concern and opposition by several citizen groups in the Susa Valley (near Turin) including environmental activists, local railway experts, medical doctors and university professors. They set up a protest campaign called NOTAV (*No Treno ad Alta Velocità*, tr.

No High-Speed Train) that was centred on three key aspects: 1) uselessness of the new high-speed line because the traffic between Italy and France is decreasing; 2) public health concerns about the presence of uranium and asbestos in the mountains to be bored; and 3) environmental concerns due to destruction of local ecosystems during the tunnelling work. As a response to this opposition in 2006 the Italian government set up the Observatory for the Turin-Lyon Railway (hereafter 'Observatory'). The objective of the Observatory is to run public consultations with local opposition groups in order to move on with the project planned operations.

Methods and data

The Lyon-Turin high-speed railway (hereafter, LT) is a transnational megaproject embedded in different, but interconnected, jurisdictional environments (France, Italy and EU) and organizational units (supra-national authorities, national government administrations, firms and local civil society). Therefore, data collection was designed on the basis of an embedded case study design (Yin 2014). Such a design allowed us to interrelate and integrate information from different jurisdictional environments and organizational units (Figure 1).

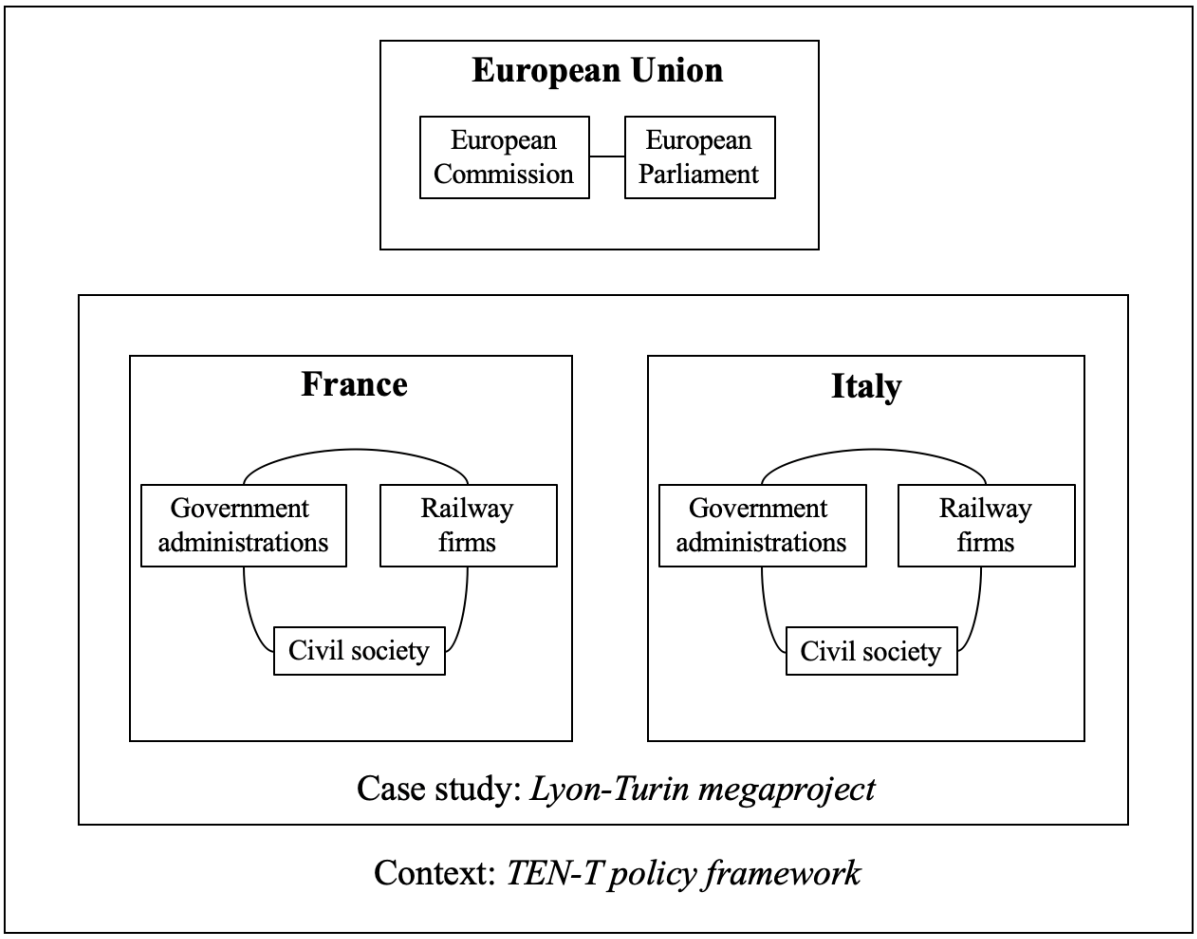

Figure 1. Case study design

79 semi-structured interviews averaging 90 minutes each were conducted between 2014 and 2016 with the megaproject participants (Table 2). Interviewees included four groups of actors from different organizational entities: 1) Supra-governmental (N=21); 2) Governmental (N=24); 3) Business (N=5), and 4) Civil society (N=29). A snowball sampling method was used to identify the interviewees.

Table 2. Overview of interviewees

ACTOR GROUPS	ORGANIZATIONS	N° INTERVIEWS		
Supra-governmental actors	European railway lobbies			**7**
	European Parliament			**8**
	European Commission			**4**
	Executive agency			**2**
Governmental actors	National administrations	*France* *4*	*Italy* *4*	**8**
	Sub-national administrations	*5*	*11*	**16**
Business actors	Railway firms	*3*	*2*	**5**
Civil society actors	Organized groups of citizens in the surroundings of Lyon and Turin	*10*	*19*	**29**

Each interviewee was asked to provide information about their individual role in the LT project, the role of their organization, and their interactions with the overall TEN-T policy framework. Moreover, they were asked to give an account of the major phases of the LT development since the early moments of the megaproject. These aspects were approached through open-ended questions, allowing for a discussion with the interviewees aimed at capturing who did what, when, and how. To increase the reliability of the findings, we triangulated data through an archival analysis of documents including national and supra-national legal texts, press releases from the railway firms and concerned governmental administrations, international treaties between Italy and France, financial agreements

between the EU and the national governments, TEN-T policy papers, as well as third-party studies and reports. Altogether, about 2000 pages of archival text were analysed.

Interviews and archival documents were analysed following established procedures for grounded approaches to theory building by discerning between first order and higher-ordered categories (Gibbs 2007). Higher order categories were based on the theoretical framework presented above. These cover both structural (i.e. setting up of the participatory venue, representation and involvement, information flows, and influence over decisions) and agentic elements (i.e. dissemination of evidence and collection of information).

4. Empirical evidence: The weaknesses of participatory governance

Setting up of the participatory venue

France: Ordinary administrative procedure

In France, the participatory venue was set up as a result of a binding ordinary administrative procedure provided for by the French legal system. As explained by a local public officer, "there is a whole legal process that must be complied with when carrying out a project like this. The railway company is in charge of the administrative setting up [which] involves a public inquiry procedure"[1]. The procedure demanded that the railway company engages in public consultations with concerned citizens and civil society organizations. In parallel, an administrative authority composed of independent experts was established to consult citizens and civil society, collect their opinions about the project, and write a report to inform the government that eventually decides whether or not to authorize the project. As elucidated by a public officer of the central state administration, at the end of the public inquiry there is the declaration of public utility[2], namely, an administrative act which allows the railway company to acquire the lands for the construction of the infrastructure[3].

Italy: State-led extraordinary venue to deal with local opposition movement

Following the strong conflictual situation of the Susa Valley between 2005 and 2006, the Observatory was set up by the central government as an extra-ordinary participatory venue to deal with the local protest movement against the LT[4]. The symbolic episodes that manifested the explosion of this conflict were the so-called facts of Venaus in 2005, when NOTAV campaigners occupied the LT construction site to prevent the start of the tunneling works and, as a response, the police violently evacuated them. The images of this police operation circulated in the media and, within a few days,

[1] Interview with a public officer of the Savoie Department, 18/03/2015.
[2] Interview with a public officer of the central state administration in charge of infrastructure policies, 25/03/2015.
[3] Interview witha a regional manager of the French railway infrastructure firm, 17/04/2015.
[4] Interview with a technical expert representing the local administrations of the Susa Valley in the Observatory, 05/11/2014.

30,000 people occupied the site again. The turmoil of these events and the determination of local opponents led the government to cede to NOTAV requests. At the end of 2005, construction works were stopped and, in 2006, the Observatory was established to have consultations with both concerned public administrations and the railway company implementing the project. An advisor of the Observatory's Chairman puts it thus: "the Observatory was born as a government response to an emergency situation that in December 2005 had arisen in Val di Susa after the Venaus protests"[5].

Representation and involvement

France: Beyond 'independent' experts

The Public Inquiry procedure was the occasion for inhabitants of the municipalities affected by the LT construction to inform the railway company and the public authorities about their opinions and concerns. As explained by a public officer of the central state administration, "the procedure lasts about 2 months everyone can give their opinion"[6]. Anyone could write her opinion about the project in a dedicated register made available in the municipality: "These opinions will be examined by the members of the public inquiry committee who will decide which one is legitimate or not"[7]. The members of the Public Inquiry committee were retired civil engineers appointed by an administrative tribunal from a roster for inquiring commissioners. For these reasons, the committee was conceived of as a "neutral committee" [8]. During the two-month period of the procedure, concerned ministerial administrations and the railway company had meetings with local citizens and associations to explain the technical aspects of the project. As referred by a local public officer, "when the public inquiry procedure is launched, there is a technical follow-up work to be done: for example, it is necessary to organize presentations of the project to the citizens"[9]. As reported by a public officer of the central government, in the LT case, "there were a number of contacts with associations [which] invited us to present the project and to answer their questions about them […] It was either a project manager from the Railway Company or my-self […] who participated in these meetings"[10].

Italy: 'Trusted' experts

The structure and composition of the Observatory reflected the top-down set up by the central government. Through a decree of the Prime Minister, it was established that the Observatory had to be chaired by a government commissioner and, among its members, it included experts with technical skills appointed by concerned public administrations – both at the central (Ministry of the

[5] Interview with an advisor of the Chairman of the Observatory, 03/12/2014.
[6] Interview with a public officer of the central state administration in charge of infrastructure policies, 25/03/2015.
[7] Interview with the mayor of a municipality concerned by Lyon-Turin construction, 22/03/2016.
[8] Interview with a public officer of the central state administration in charge of infrastructure policies, 25/03/2015.
[9] Interview with a public officer of the Savoie Department, 18/03/2015.
[10] Interview with a public officer of the central state administration in charge of infrastructure policies, 25/03/2015

Environment, Ministry of Infrastructure, Ministry of the Interior, Ministry of Transport and Ministry of Health) and local level (Piedmont Region, Province of Turin, Municipality of Turin and Valley of Susa federation). The Observatory also included experts appointed by the manager of the Italian railway company and the international joint venture. These were not independent experts as they role was to defend and promote the interest of the parties that they represent. As explained by a technical expert, the choice of the expert profile depends on the position of the municipality: "While those municipalities that support the project may have a greater interest in being represented by an expert in economic and financial matters to highlight the economic benefits that project construction will generate, those municipalities that are against it would opt for profiles who emphasize the environmental risks of the project"[11].

Information flows

France: Opinions

Within the framework of the Public Inquiry procedure, information was exchanged between local citizens and civil society, on the one hand, and the railway company and national administrations, on the other. Through public meetings the latter inform the former about the technical aspects of the megaproject. On the basis of the knowledge gathered during these meetings, local citizens and civil society form their opinions about the megaproject and write them down in a dedicated register made available in the municipality for a two-month period. These opinions are examined by the group of independent experts that seat within the Public Inquiry committee. On the basis of these opinions "the public enquiry committee develops its own opinion and says 'yes the project can be declared of public utility' or 'no, it is not justified' and issues observations or reservations"[12]. If the project is deemed unjustifiable, the central government decides whether or not to approve the project through the adoption of the public utility declaration. In the LT case there were two public inquiries: the first one for the French access to the base tunnel (completed in 2012 with the public utility declaration released in 2013) and the second one for the cross-border part of the base tunnel (completed in 2006 with the public utility declaration released in 2007)[13].

Italy: Preferences

Within the Observatory, experts were essentially called to express their greater liking for one alternative railway route over another. As explained by a technical expert, "starting from March 2006 the old project is abandoned and we started from a blank sheet. In all the meetings that are held, the

[11] Interview with a technical expert representing the local administrations of the Susa Valley in the Observatory, 05/11/2014.
[12] Interview with a public officer of the central state administration in charge of infrastructure policies, 25/03/2015.
[13] Interview witha a regional manager of the French railway infrastructure firm, 17/04/2015.

different route alternatives were discussed"[14]. The Observatory was the place where the administrations "had to go to talk about the new high-speed line by putting all possible alternatives on the table: do we do it? If yes, how do we do it? Do we do it in this way or we do it in alternative way?"[15]. Because of the decline of traffic between Italy and France, it was also important to consider the so-called 'zero option', namely, "the option of not doing it" [16]. The zero option was discussed during the initial meetings of the Observatory but it was subsequently excluded on the basis of a cost-benefit analysis[17]. This shifted the debate from the issue of *whether* building the new rail line to the issue of *how* to build it: "The main question to be debated became to decide whether the new line should have passed on right side of the Dora river or, conversely, on the left side" [18].

Influence over decisions

France: Consultations with problematic access to public information

The Public Inquiry procedure is a consultation process with no binding effect on the final governmental decision. Over a two-month period the consultation in the LT case covered different aspects. Consultations were about the characteristics of the future line and, more precisely, "whether the line should be for the transportation of freight or passengers"[19]. Moreover, issues such as employment, noise, and water pollution were debated: "All these points have been addressed and the managers of the railway company told us that they knew how to manage them"[20]. As a part of the public utility declaration process, the Public Inquiry did not touch upon the issue of the project budget. Instead, "it was simply about the public interest of the project, the gain for society and the economy"[21]. However, citizens had limited access to the information they needed to properly express their opinions and, eventually, influence decisions. For example, the mayor of a municipality stated that "in 2012 the public inquiry was rushed and […] we were in a hurry all the time. We did not have all the information we needed […]. The files were in the town hall […]. There were numbers, updates of maps, but it was very hard to understand them. They call it consultation, but it looks like a very manipulative process based on pre-established decisional pathways"[22].

[14] Interview with a technical expert representing the local administrations of the Susa Valley in the Observatory, 05/11/2014.
[15] Interview with the mayor of a Susa Valley's municipality concerned by Lyon-Turin construction, 19/10/2015.
[16] Interview with the mayor of a Susa Valley's municipality concerned by Lyon-Turin construction, 19/10/2015.
[17] Interview with a public officer of the Piedmont Region, 28/10/2014.
[18] Interview with a technical expert representing the local administrations of the Susa Valley in the Observatory, 14/10/2015.
[19] Interview with a coordinator of local opposition groups in France, 15/04/2016.
[20] Interview with a local politician interested in the Lyon-Turin project, 1507/2016.
[21] Interview with a public officer of the central state administration in charge of infrastructure policies, 25/03/2015.
[22] Interview with the mayor a French municipality concerned by Lyon-Turin construction, 22/03/2016.

Italy: Consultations under the political control of national authorities and the financial pressure of supra-national authorities

Experts consulted within the Observatory provided preferences about the railway project that had no biding effect on the final governmental decision. The Observatory took its place next to the 'political' table. The former received its guidelines on the development of the infrastructure from the latter. As explained by an advisor of the Chairman of the Observatory, "the political table is composed of representatives of the national and subnational governments plus the railway companies managing the project. It is the liaison body between the project promoters and the technical experts of the Observatory"[23]. The Observatory's technical work was subject to constant reporting to the political table that checked the compatibility with the political macro-orientations. In effect, the Observatory had no "effect on the decision-making cycle of the project: it has never done so and, in truth, it is not part of its nature"[24]. The ineffectiveness of the Observatory over the project decision-making became patent in the late-2000s, when local consultations proceeded slowly and various reports by the European Commission pointed to implementation delays. The European Commission even envisaged the possibility "to redistribute [financial] support from [TEN-T] projects that were delayed to those which were performing well" (European Commission, Final evaluation of the TEN-T Multi Annual Indicative Program 2007, p. 36). Under the financial pressure of the EU, in 2008 the Chairman of the Observatory issued a document that asked the technical experts to stop debating about the project feasibility and to start working on the project implementation. Most of the local experts opposed this orientation as they believed that the LT project was technically useless. In fact, they argued that no increase in traffic between Italy and France justifying the construction of a new railway line emerged from the data. As opposition did not stop, in 2010 the central government publicly threatened local experts to expel them from the Observatory if they did not endorse the implementation of the project: "The government believes that the municipalities […] represented in the Observatory have to be redefined […]. [The municipalities should] explicitly declare their will to be involved in the realization of the infrastructure, in the framework of the best protection and development of the local territories and in compliance with the European agenda" (Italian government, press release, 8th January 2010).

[23] Interview with an advisor of the Chairman of the Observatory, 03/12/2014.
[24] Interview with an advisor of the Chairman of the Observatory, 03/12/2014.

Dissemination of evidence

French megaproject promoters: Quantified evidence disseminated through technical reports and public meetings with local actors

Early in the 1990s, local elected officials called for the construction of the LT to reduce the number of trucks circulating across the roadways of their region[25]. Through technical reports, quantified evidence is disseminated to the general public and allows justifying the project construction on the basis of freight traffic increase. Local citizens and civil society were also informed through public meetings which were the occasion to present the results of studies about "different routes options, the economic profitability of the project and the environmental impact" [26]. In 1993, public meetings took place with all associations and stakeholders in order to discuss the importance and socio-economic interest of the project: "Everyone was free to join and this allowed to create a direct link with citizens"[27].

Italian megaproject promoters: Quantified evidence disseminated through promotional activities and no involvement of local actors

In the 1990s, the project was introduced in Italy by a group of industrialists from the Piedmont region called Tecnocity, which engaged in a promotion campaign about the LT that succeeds to convince the central government to construct the new line[28]. Thanks to the high-speed railway connections, Turin would become the hub of the European West-East line[29]. The promotion campaign was supported through figures about transportation speed and time as well as the length of the new railway connections. Specifically, these connections were deemed to improve passengers' experience by reducing the time needed to travel across Italian cities as well as between these cities and the rest of Europe[30]. These improvements would considerably improve railway services by facilitating the mobility of people and goods in Europe. In fact, the objective of the new infrastructure was to promote the free movement of people and goods and transfer traffic from road to railways: "Most of the studies conducted in these years indicate that the current road and railway infrastructures will be saturated between 2015 to 2020"[31]. In 2001, the Parliament passed the so called Target Law (*Legge Obiettivo*) enabling the government to approve the project by majority and to authorize the preparatory works

[25] Savoie: Un projet de 60 milliards d'investissements - Le TGV Lyon-Turin deviendra-t-il une veritable 'autoroute ferroviaire'?", Les Echos article (March 17, 1994)
[26] Interview with a public officer of the central state administration in charge of infrastructure policies, 25/03/2015.
[27] Interview with a public officer of the central state administration in charge of infrastructure policies, 25/03/2015.
[28] Interview with a public affairs manager, La Transpadana (previously called Tecnocity) – phone (October 27, 2014).
[29] "Treno-lampo da Torino a Milano. Entro il 1999 i due capoluoghi uniti dall'alta velocita' in soli 45 minuti", La Stampa article (December 30, 1992).
[30] "Supertreno, un passo Avanti da Milano a Torino in 45 minuti e l'alta velocita' va sotto esame", La Stampa article (March 10, 1994).
[31] LT general manager, declaration to the press (2006)

for the construction of the base tunnel without any obligation to involve local actors in the project decision-making.

French megaproject opponents: Intra-institutional contestation of quantified evidence

During the 1993 public meetings, there began to be some opposition to the LT. During these meetings participants had a speaking time. The committee in charge of the meeting did not comment on the substance and guaranteed that there would be complete transparency: "The project promoter has to answer the questions that are asked and everyone is informed of the problems of the proposed project"[32]. Through time, two independent authorities released two reports that casted doubts on the suitability of the LT and provided new arguments in support of local opponents. As explained by Daniel Ibanez— an experienced business consultant and spokesperson of local opponents—"in 2002 there is an audit report of the French civil engineering authority reporting that nothing justifies this project, [being] all traffic forecasts wrong"[33]. Later on, in 2012, the French Court of Audit declared in a report that the project could not be considered of public utility. Ibanez also participated in the 2012 Public Inquiry and formally expressed a negative opinion about the LT: "What you have to understand is that the French opposition is completely different from the Italian opposition—which has strong popular opposition […]. In France [instead] you have strong opposition within the institutions" [34]. Building his arguments on the reports released by the French Court of Audit and by the French civil engineering authority, Ibanez filed a formal claim to the French council of state in order to block the LT decision-making process and start a new Public Inquiry. According to this claim "a new public inquiry would have been necessary […] because the conditions have changed: the freight traffic between Italy and France passing across the Alps has not increased as much as what had been forecasted during the Public Inquiry procedure accomplished in 2007". Despite acknowledging the inaccuracy of the traffic forecast, in 2017 the State Council decided to reject the claims anyway in that such inaccuracy did not "constitute a change of circumstances likely to make the operation [...] lose its public utility".

Italian megaproject opponents: Extra-institutional contestation of quantified evidence

According to members of local communities in the Susa Valley, the promotion campaign about the LT was not adequately supported by the data: "Project promoters' assertion that the existing line will quickly become saturated is completely groundless [in that] both rail and road traffic through the entire western Alpine arc is in drop or stagnant"[35]. As seen, contrary to France, in Italy there was no

[32] Interview with a public officer of the central state administration in charge of infrastructure policies, 25/03/2015.
[33] Interview with Daniel Ibanez, spokeperson of local opposition groups in France, 05/05/2016.
[34] Interview with Daniel Ibanez, spokeperson of local opposition groups in France, 05/05/2016.
[35] University professor and transport expert of the NOTAV movement, public declaration to the press (2012).

legal obligation to consult local civil society in the decision-making of large infrastructures. As declared by an Italian civil servant, "the Target Law introduces a fast-lane authorization procedure [and] all key phases in the decision-making process […] are centralized in the hands of central government administrations"[36]. As a consequence, the joint venture firm could ignore local criticisms and was entitled to send expropriation letters to local dwellers in order to acquire the local lands and to set the construction site to start the construction work. To prevent this, the locals mounted a social movement and launch the NOTAV campaign. The campaign publicly depicted the LT as a useless project imposed from the top and that had to be stopped in the name of the collective interest. Activists thus occupied the construction site to prevent the start of the works with the police evacuating them right away. As mentioned before, the images of this police and management operation circulated in the media and, within a few days, 30,000 people assembled near the construction site and occupied it again stating the same opposition goals as well as calling for a public meeting with the government and the project team. The message to the government was clear: the joint venture firm was regarded as illegitimately seizing the local lands.

Collection of information

French megaproject promoters: Strategic misrepresentation of transport flows through data aggregation

During the 2012 public inquiry, Daniel Ibanez realized that the traffic data presented by the project managers of the railway company were misrepresented in order to persuade the local dwellers of the worthiness of the project. He referred that "during the public inquiry the project promoters showed us some graphs with increasing transport flows from France, Switzerland and Austria to Italy [that] justified the construction of a new tunnel […]. When we decided to take the same data and disaggregate them […] we noticed that while Swiss and Austrian flows increased, French flows dramatically decreased since 1988"[37]. He believed that misrepresenting data was the way through which experts of public administrations behaved to technically justify the project construction. The (mis)use of technical knowledge was a successful strategy to secure the initial support of local dwellers. Indeed, says the coordinator of local opposition group, "with the project construction we would have lost all the life quality we have in our villages. People understood this straight away since the beginning, but as the project promoters told the local people that they would have protected them – and they used several in-depth studies to support their claims – we trusted the promoters"[38].

[36] Interview with Civil Servant, Piedmont Region, phone (October 28, 2014).
[37] Interview with Daniel Ibanez, spokeperson of local opposition groups in France, 05/05/2016.
[38] Interview with a coordinator of local opposition groups in France, 07/04/2016.

Italian megaproject promoters: Strategic misrepresentation of transport flows through forecasting assumptions

During the meetings of the Observatory, the debate between experts was centered on the problem of forecast traffic models. Local experts disagreed with the forecast of the experts appointed by the government and the railway company because these were based on a prospective approach rather than a retrospective approach. Instead of using past data about future traffic trends, "the experts of the government and of the railway company formulated conceptual assumptions about future traffic evolutions"[39]. These assumptions took into consideration the fact that the new high-speed infrastructure would be able to attract more traffic than the old one. Overall, according to the local experts, promoters' assumptions were misleading and overestimate the increase of traffic flows (see Mercalli and Giunti 2015).

French opponents: representing traffic flows through alternative descriptions of existing data

The arrival of Ibanez in the 2012 Public Inquiry brought new expertise to local opponents who could now rely on his knowledge to deal with the strategic misrepresentation of proponents' data. As he has commented, "my analyses and reflections were made available by Alpinfo, a widely-acknowledged reference for data on transport in the Alpine arc which provides in detail all the data on transit transport for Switzerland, Austria and France, to or from Italy, by road or rail"[40]. By analyzing individual traffic curves from these countries and Italy, Ibanez proved for the structural drop in the tonnage of freight between France and Italy for the Northern Alps. Therefore, he has been able "to make observations that are extremely useful for understanding the changes in tonnages over the past 15 to 20 years" [41].

Italian opponents: representing traffic flows through past data and juxtaposing them with economic and environmental data

For local experts it was not possible to decide on the construction of such an expensive infrastructure using traffic forecast models based on unclear assumptions. Instead, the actual transport situation must be considered using the historical data already available. As stated in a pamphlet issues by the NOTAV movement, "Lyon-Turin is an exemplary case of useless megaproject (...) because traffic data show since 2000 a dramatic decrease of road and rail traffic between Italy and France" (NOTAV movement, pamphlet with 150 reasons against the Lyon-Turin high-speed line – 2012). Indeed, historical data presented in the pamphlet show that rail freight traffic between Italy and France had

[39] Interview with a technical expert representing the local administrations of the Susa Valley in the Observatory, 14/10/2015.
[40] Interview with Daniel Ibanez, spokeperson of local opposition groups in France, 05/05/2016.
[41] Interview with Daniel Ibanez, spokeperson of local opposition groups in France, 05/05/2016.

fallen from 10.1 million tons of freight in 1998 to the current 3.7 million tons in 2012. As for the environmental impact, supporters of the LT argued that the project would reduce polluting emissions as a result of the shift of a fraction of freight and passenger traffic from the highway to rail lines powered by electricity. However, proponents seemed not to consider the energy and environmental impact of construction operations: "The 42.5 million cubic meters of material extracted for the total construction of the 270km line […] will be dug by gigantic milling machines driven by electric motors. Similar machines will be used to shatter millions of cubic meters of rocks to be kneaded with 15 million cubic meters of cement (NOTAV movement, pamphlet with 150 reasons against the Lyon-Turin high-speed line – 2012).

The table below summarizes our findings.

Table 3. National configurations of participatory governance

			France	**Italy**
Structure	**Setting up of the participatory venue**		Ordinary routinized administrative procedure	State-led extraordinary procedure to deal with the local opposition movement
	Representation and involvement		(1) 'Independent' experts appointed by an administrative tribunal, (2) individual citizens, (3) civil society organizations, (4) national administrations, and (5) railway company	'Trusted' experts appointed by: (1) national and local government administrations, and (2) railway company
	Information flows		Opinions	Preferences
	Influence over decisions		Consultations with difficult access to public information	Consultations under the political control of national authorities and the financial pressure of supra-national authorities
Agency	**Dissemination of evidence**	*Proponents*	Quantified evidence disseminated through technical reports and public meetings with local actors	Quantified evidence disseminated through promotional activities and no involvement of local actors
		Opponents	Intra-institutional contestation of quantified evidence	Extra-institutional contestation of quantified evidence
	Collection of information	*Proponents*	Strategic misrepresentation of transport flows through data aggregation	Strategic misrepresentation of transport flows through forecasting assumptions
		Opponents	Representing traffic flows through alternative descriptions of existing data	Representing traffic flows through historical data and juxtaposing them with economic and environmental data

5. Discussion: Towards a deliberative approach to megaprojects

Having showed some important limitations in the two cases of participatory governance under examination, in this section we make a case for a deliberative democratic approach to governance of and research on infrastructure megaproject. Deliberative democracy is arguably the main area of development in contemporary democratic theory and insight from this field reaches widely across disciplines (Bächtiger et al. 2018). Empirical and theoretical engagement with deliberative democratic ideas thrives in disciplines such as urban planning (Baltz 2021), to social movement studies (Della Porta and Doerr 2018), business ethics (Felicetti 2016) and public policy analysis (Fischer and Boossabong 2018), to name but a few. Also, deliberative democracy is increasingly popular in researching and addressing governance problems, especially at transnational and global levels, on issues as diverse as climate change (Stevenson and Dryzek 2014), intellectual property rights (Kuyper 2015) and genome editing (Jasanoff, Hurlbut, and Saha 2019). In light of these developments, the lack of engagement with deliberative democratic ideas in megaprojects management is striking and this study intends to break new ground in this direction. At its core, a deliberative democratic take on megaprojects governance suggests that participatory efforts to include as many relevant actors as possible, while laudable, is of limited democratic value if strategic action is left unchecked. As seen above, in contexts marked by divergent values, interests and power the democratic potential of participatory governance can be easily jeopardized. Instead, a deliberative democratic approach demands that governance is based on inclusive discursive practices that engage in an authentically deliberative and consequential way.

Some distinctive elements from the above characterization deserve special attention as they express three core aspects of democratic concern for complex governance, as indicated, for instance by Fung (2006), who participates, how communication occurs and to what effect. First, the emphasis on discursive practices means that a deliberative approach shifts the focus of attention from the aggregation of preference to the way preferences are communicatively formed in the first place (Cohen 2002). Also, to be democratic, deliberation needs to be inclusive of all affected interests and perspectives of those affected by a certain decision (Young 2001). This is particularly important to reject forms of deliberation limited to experts or powerful actors only, which is all too common in megaprojects governance. Another essential point is about what makes inclusive communication deliberative. Although the deliberative ideal is certainly open to debate, some widely acknowledged features of deliberative communication include three aspects. Authentic deliberation should not be coercive, it should be based on reasons-giving and it should be reflexive. Finally, deliberation should be consequential. The decisions made in deliberative spaces should bear effects, for instance, directly, in policy decisions and/or indirectly, in the relevant public debates (Dryzek 2009).

Importantly, current scholarship recognizes that while the above description might seem normatively desirable, implementing these ideals is demanding and warns against naïve attempts at overlooking the fundamental role of power in political decisions (Curato, Hammond, and Min 2019). One should not expect deliberation to occur at all times. As Mansbridge and colleagues (2010) argue, self-interest, bargaining, and conflict are characteristic elements of democratic life and should be not shun away. As Fung (2015) noticed, participatory governance is a deeply political a problem. Even when we adopt a deliberative approach issues such as leadership, consensus on the role of participation in broader governance and limited powers remain. The challenge of deliberative governance is to have deliberation occurring at crucial points of the decision making process (Parkinson and Mansbridge 2012).

Of course, this paper cannot envisage a fully-fledged account of deliberative governance of megaprojects. Here, however, we intend to show some useful ways in which the above ideas can be used to assess strengths and weaknesses of extant participatory arrangements and to suggest improvements. For instance, while both cases, featured spaces for citizen participation, neither one was built so as to enable substantial deliberation. The underpinning logics was to land a hear to potential complaints from the interested parts of the public, in the French case, or, in the Italian one, to explain to them the decisions that had been made. An inclusive and high quality discussion to reflect on and propose ideas about the LT was never envisaged. In terms of representation and involvement, in both procedures, the underpinning logic was that of the marketplace, were ideas have to be "sold", rather than the forum, where ideas are exchanged to construct a decision. In the French case both sides, the supporters of the project and the communities on the receiving end, had a place at the table. In Italy, the 'trusted experts' were essentially representatives of the former. Also with regard to information flows, deliberation is conspicuous by its absence. However, the French process' stress on opinion seemed more amenable to reflection than the Italian, where there seemed to be little ground for anything other than clashes of preferences. Influence over decisions also tells a story of consultations having limited impact on decisions in both cases. The non-deliberative nature of these processes emerges also in the fact that in both cases the nature of evidence and information and the ways in which these were used was a perpetual source of disagreement. Overall, neither process seem to have contributed to democratize the governance of the LT megaproject. The French Public Inquiry seems to have been ultimately unable to add democratic value, wasting insight that might have been generated from the process. The Italian Observatory, with its ostensibly exclusion of critical voices, arguably reinforced the opposition between the pro-LT camp and the No Tav movement. It effectively reduced ground for democratic engagement, leading the former toward authoritarian ways to pass the project and the latter toward relentless protest.

Before concluding, we offer a necessarily succinct way in which a deliberative approach could help improving the democratic quality of megaprojects governance. Building on the latest developments in deliberative democracy, we content that in order to promote democratic governance of megaproject there should be a shift in focus from isolated forums or participatory processes to systemic thinking. It should not be expected that individual sites of engagement might perform the democratic work for the entire system. Especially when isolated from other bodies and without meaningful and clear mandates, these venues can do little or nothing to redress the tendency for power to concentrate in the hands of experts and powerful interests.

The governance of megaprojects can be thought of as a deliberative system made of "a set of distinguishable, differentiated, but to some degree interdependent parts" (Mansbridge et al. 2012: 4-5). Following Dryzek (2009), we claim it important to, first of all, recognize that different types of actors populate different spaces. In particular, on the one hand, there are empowered actors that are "recognisably part of institutions producing collective decisions" (ibid. 1385). On the other, there are actors in public spaces that are characterized by "few restrictions on who can participate and with few legal restrictions on what participants can say, thereby featuring a diversity of viewpoints". Examples of these spaces can be found in "the media, social movements, activist associations, physical locations where people can gather and talk (caffès, classrooms, bars, public squares), the Internet, public hearings, and designed citizen-based forums of various sort. (Ibid.: 1385)". Having drawn this distinction, the fundamental challenge to promote a deliberative system is to understand how to foster accountability from empowered to public spaces and transmission of preferences from public to empowered spaces. Decision making process should be sequenced so that public deliberation could be used to affect these two fundamental dynamics of accountability from the top-down and transmission from the bottom-up. Alternatively, or in addition to this, one could promote a minimum of deliberative democratic forms of interaction within empowered and public spaces respectively (Owen and Smith 2015). Deliberation's role is not to curtail dissent but to democratize decision making. It should help recognizing and engaging the role and perceptions of involved actors, especially the less powerful ones, when the more powerful ones unequally influence the norms and definitions appropriate to a given situation. Deliberation should aims at fostering consensus wherever possible or, in alternative, to clarifying and structuring disagreement to encourage resolution through forms of cooperative antagonism (Mansbridge et al. 2010: 68). In this regard, it is important to acknowledge that deliberation should be built in addition to existing form of engagement, not against them (Felicetti and Della Porta 2019). The counter-democracy elements that are mobilized for instance by social movements activism, might hardly contribute to deliberation (c.f. Sunstein 2005),

yet they are key to constrain non-democratic tendencies to center power in the hands of powerful actors (Rosanvallon 2008).

6. Conclusions

Our case for deliberative governance of megaprojects should be understood as a first step towards a deeper investigation of how a deliberative democratic approach could deal with the problems specific to the governance of a variety of megaprojects. According to our analysis, these problems may be of two types. On the one hand, issues can be of structural nature as megaproject governance may be framed within institutional settings which are not designed to foster bottom-up participation, to ensure representation and involvement of stakeholders outside the megaproject team, to facilitate information exchange between external stakeholders and the megaproject team, as well as to allow the former to influence the decisions taken by the latter. On the other hand, our findings point to agency problems and, particularly, to the ethical conduct of public officers and managers within the megaproject team that strategically misrepresent and disseminate megaproject information in order to avoid or navigate through the resistance of external stakeholder groups rather than engaging in appropriate and careful discussions. These latter findings add to the literature on optimism bias and strategic misrepresentation in megaproject management (see e.g. Commission of Inquiry Respecting the Muskrat Falls Project 2020; Flyvbjerg 2008).

Our article pave the way to an underexplored area of research which is at the intersection of global megaprojects and deliberative governance. A good way to build knowledge we currently lack could consist in engaging with literature which does not refer to megaproject specifically bus still offer valid insight. For instance, Boswell et al's discussion on the problem of transmission between empowered and public spaces (Boswell, Hendriks, and Ercan 2016), Boswell (2015) work on the overlooked importance of how deliberatively made decisions are implemented, Warren's and Bua and Bossu's (2020) work on the relationship between governance and democratization processes in the context of contemporary democracies and public administrations. Finally, at the normative level, Hendriks' (2021) recent work discusses developments in democratic innovation and democratic governance. He singles out the key values for democratic-governance pointing at their complementarities and tensions. This offers valuable guidance to those intending to explore the potential for deliberative governance to foster the democratic credentials of megaprojects governance.

References

Alderman, Neil, Chris Ivory, Ian McLoughlin, and Roger Vaughan. 2005. "Sense-Making as a Process within Complex Service-Led Projects." *International Journal of Project Management* 23 (5 SPEC. ISS.): 380–85. https://doi.org/10.1016/j.ijproman.2005.01.004.

Altshuler, Alan, and David Luberoff. 2003. *Mega-Projects: The Changing Politics of Urban Public Investment*. Washington, D. C.: Brookings Institution.

Arnstein, Sherry R. 1969. "A Ladder Of Citizen Participation." *Journal of the American Institute of Planners* 35 (4): 216–24.

Atkinson, Roger, Lynn Crawford, and Stephen Ward. 2006. "Fundamental Uncertainties in Projects and the Scope of Project Management." *International Journal of Project Management* 24 (8): 687–98. https://doi.org/10.1016/j.ijproman.2006.09.011.

Awakul, Prapatpaow, and Stephen O. Ogunlana. 2002. "The Effect of Attitudinal Differences on Interface Conflicts in Large Scale Construction Projects: A Case Study." *Construction Management and Economics* 20 (4): 365–77. https://doi.org/10.1080/01446190210133456.

Bächtiger, André, John S. Dryzek, Jane Mansbridge, and Mark E. Warren. 2018. *The Oxford Handbook of Deliberative Democracy*. Oxford University Press.

Baltz, André. 2021. "Disseminating and Collecting Information: Municipalities' Communicative Practices and Deliberative Capacities." *Local Government Studies*, 1–20.

Batory, Agnes, and Sara Svensson. 2019. "The Use and Abuse of Participatory Governance by Populist Governments." *Policy & Politics* 47 (2): 227–44. https://doi.org/10.1332/030557319X15487805848586.

Bianchi, Carmine, Greta Nasi, and William C. Rivenbark. 2021. "Implementing Collaborative Governance: Models, Experiences, and Challenges." *Public Management Review* 00 (00): 1–9. https://doi.org/10.1080/14719037.2021.1878777.

Biesenthal, Christopher, Stewart Clegg, Ashwin Mahalingam, and Shankar Sankaran. 2018. "Applying Institutional Theories to Managing Megaprojects." *International Journal of Project Management* 36 (1): 43–54. https://doi.org/10.1016/j.ijproman.2017.06.006.

Bobbio, Luigi. 2019. "Designing Effective Public Participation." *Policy and Society* 38 (1): 41–57. https://doi.org/10.1080/14494035.2018.1511193.

Boswell, John. 2013. "Why and How Narrative Matters in Deliberative Systems." *Political Studies* 61 (3): 620–36. https://doi.org/10.1111/j.1467-9248.2012.00987.x.

———. 2015. "Deliberating Downstream: Countering Democratic Distortions in the Policy Process." *Perspectives on Politics*, 1–40.

Boswell, John, Carolyn M. Hendriks, and Selen A. Ercan. 2016. "Message Received? Examining Transmission in Deliberative Systems." *Critical Policy Studies* 10 (3): 263–83.

Brookes, N. J. and Locatelli, G. (2015) 'Power plants as megaprojects: Using empirics to shape policy, planning, and construction management', *Utilities Policy*, 36, pp. 57–66.

Bua, Adrian, and Sonia Bussu. 2020a. "Between Governance-Driven Democratisation and Democracy-Driven Governance: Explaining Changes in Participatory Governance in the Case of Barcelona." *European Journal of Political Research*, 1–22. https://doi.org/10.1111/1475-6765.12421.

———. 2020b. "Between Governance-driven Democratisation and Democracy-driven Governance: Explaining Changes in Participatory Governance in the Case of Barcelona." *European Journal of Political Research*.

Buchanan, James M., and Gordon Tullock. 1962. *The Calculus of Consent: Logical Foundations of Constitutional Democracy*. Ann Arbor: University of Michigan Press.

Cohen, Joshua. 2002. "Deliberation and Democratic Legitimacy." In *Debates in Contemporary Political Philosophy. An Anthology*, edited by Derek Matraver and Jonathan Pike. Routledge.

Cohen, Michael D., James G. March, and Johan P. Olsen. 1972. "A Garbage Can Model of Organizational Choice." *Administrative Science Quartely* 17 (1): 1–25.

Commission of Inquiry Respecting the Muskrat Falls Project. 2020. Muskrat Falls: A Misguided Project. https://www.gov.nl.ca/iet/files/Volume-1-Executive-Summary-Key-Findings-and-Recommendations.pdf.

Cousins, Joshua J. 2020. "Malleable Infrastructures: Crisis and the Engineering of Political Ecologies in Southern California." *Environment and Planning E: Nature and Space* 3 (3): 927–48. https://doi.org/10.1177/2514848619893208.

Curato, Nicole, Marit Hammond, and John B. Min. 2019. "Power in Deliberative Democracy." *Cham: Palgrave Macmillan*.

DeLeon, Peter, and Linda DeLeon. 2002. "What Ever Happened to Policy Implementation? An Alternative Approach." *Journal of Public Administration Research and Theory* 12 (4): 467–92. https://doi.org/10.1093/oxfordjournals.jpart.a003544.

Della Porta, Donatella, and Nicole Doerr. 2018. "Deliberation in Protests and Social Movements." *The Oxford Handbook of Deliberative Democracy*, 392.

Downs, Anthony. 1957. *An Economic Theory of Democracy*. New York: Harper and Row.

Dryzek, J.S. 2009. "Democratization as Deliberative Capacity Building." *Comparative Political Studies* 42 (11): 1379–1402.

Elstub, Stephen, and Oliver Escobar, eds. 2019. *Handbook of Democratic Innovation and Governance*. Cheltenham and Northampton: Edward Elgar.

Ercan, Selen A., Carolyn M. Hendriks, and John Boswell. 2017. “Studying Public Deliberation after the Systemic Turn: The Crucial Role for Interpretive Research.” *Policy & Politics* 45 (2): 195–212. https://doi.org/10.1332/030557315X14502713105886.

Esposito, Giovanni, Teresa Nelson, Ewan Ferlie, and Nathalie Crutzen. n.d. “The Institutional Shaping of Global Megaprojects: The Lyon-Turin High Speed Rail Case.” *International Journal of Project Management*.

Esposito, Giovanni, Andrea Terlizzi, and Nathalie Crutzen. 2020. “Policy Narratives and Megaprojects: The Case of the Lyon-Turin High-Speed Railway.” *Public Management Review*, 1–25. https://doi.org/10.1080/14719037.2020.1795230.

Felicetti, Andrea. 2016. “A Deliberative Case for Democracy in Firms.” *Journal of Business Ethics*, 1–12. https://doi.org/10.1007/s10551-016-3212-9.

Felicetti, Andrea, and Donatella Della Porta. 2019. “Joining Forces: The Sortition Chamber from a Social Movement Perspective.” *Legislature by Lot: Transformative Designs for Deliberative Governance*, 145.

Fischer, Frank. 1993. “Citizen Participation and the Democratization of Policy Expertise: From Theoretical Inquiry to Practical Cases.” *Policy Sciences* 26 (3): 165–87. https://doi.org/10.1007/BF00999715.

———. 2006. “Participatory Governance as Deliberative Empowerment: The Cultural Politics of Discursive Space.” *American Review of Public Administration* 36 (1): 19–40. https://doi.org/10.1177/0275074005282582.

———. 2017. *Climate Crisis and the Democratic Prospect: Participatory Governance in Sustainable Communities*. Oxford: Oxford University Press.

Fischer, Frank, and Piyapong Boossabong. 2018. “Deliberative Policy Analysis.” In *The Oxford Handbook of Deliberative Democracy*.

Flyvbjerg, Bent. 2008. “Curbing Optimism Bias and Strategic Misrepresentation in Planning: Reference Class Forecasting in Practice.” *European Planning Studies* 16(1): 3–21.

Flyvbjerg, B. (2014) ‘What you should know about megaprojects and why: an overview’, *Project Management Journal*, 45(2), pp. 6–19.

Flyvbjerg, B. (ed.) (2017) *The Oxford Handbook of Megaproject Management*. Oxford: Oxford University Press.

French Court of Audit. 2021. *Référé Sur Le Projet de Liaison Ferroviaire Lyon-Turin*. Cour des Comptes; Référé 64174. https://www.ccomptes.fr/sites/default/files/EzPublish/RF_64174_Projet_liaison_ferroviaire_Lyon-Turin.pdf.

Fung, Archon. 2006. “Varieties of Participation in Complex Governance.” *Public Administration Review* 66 (SUPPL. 1): 66–75. https://doi.org/10.1111/j.1540-6210.2006.00667.x.

———. 2015. “Putting the Public Back into Governance: The Challenges of Citizen Participation and Its Future.” *Public Administration Review* 75 (4): 513–22. https://doi.org/10.1111/puar.12361.

Groves, Christopher, Max Munday, and Natalia Yakovleva. 2013. “Fighting the Pipe: Neoliberal Governance and Barriers to Effective Community Participation in Energy Infrastructure Planning.” *Environment and Planning C: Government and Policy* 31 (2): 340–56. https://doi.org/10.1068/c11331r.

Hendriks, Frank. 2021. “Key Values for Democratic Governance Innovation: Two Traditions and a Synthesis.” *Public Administration*, 1–18. https://doi.org/10.1111/padm.12738.

Hsu, Jinn-Yuh. 2018. “Hsinchu Technopolis: A Sociotechnical Imaginary of Modernity in Taiwan?” *Critical Sociology* 44 (3): 487–501. https://doi.org/10.1177/0896920517705440.

Hu, Yi, Albert P. C. Chan, and Yun Le. 2015. “Understanding the Determinants of Program Organization for Construction Megaproject Success: Case Study of the Shanghai Expo Construction.” *Journal of Management in Engineering* 31 (5): 05014019. https://doi.org/10.1061/(asce)me.1943-5479.0000310.

Hu, Yi, Albert P. C. Chan, Yun Le, Yelin Xu, and Ming Shan. 2016. “Developing a Program Organization Performance Index for Delivering Construction Megaprojects in China: Fuzzy Synthetic Evaluation Analysis.” *Journal of Management in Engineering* 32 (4): 05016007. https://doi.org/10.1061/(asce)me.1943-5479.0000432.

Jaffe, Rivke, and Martijn Koster. 2019. “The Myth of Formality in the Global North: Informality-as-Innovation in Dutch Governance.” *International Journal of Urban and Regional Research* 43 (3): 563–68. https://doi.org/10.1111/1468-2427.12706.

Jasanoff, Sheila, J. Benjamin Hurlbut, and Krishanu Saha. 2019. “Democratic Governance of Human Germline Genome Editing.” *The CRISPR Journal* 2 (5): 266–71.

Kuyper, Jonathan. 2015. “Deliberative Capacity in the Intellectual Property Rights Regime Complex.” *Critical Policy Studies* 9 (3): 317–38.

Lehrer, Ute, and Jennifer Laidley. 2008. “Old Mega-Projects Newly Packaged? Waterfront Redevelopment in Toronto.” *International Journal of Urban and Regional Research* 32 (4): 786–803. https://doi.org/10.1111/j.1468-2427.2008.00830.x.

Leifsen, Esben, Luis Sánchez-Vázquez, and Maleny Gabriela Reyes. 2017. “Claiming Prior Consultation, Monitoring Environmental Impact: Counterwork by the Use of Formal

Instruments of Participatory Governance in Ecuador's Emerging Mining Sector." *Third World Quarterly* 38 (5): 1092–1109. https://doi.org/10.1080/01436597.2017.1294980.

Lindblom, Charles E. 1959. "The Science of 'Muddling Through.'" *Public Administration Review* 19 (2): 79–88.

Maddaloni, Francesco Di, and Kate Davis. 2017. "The Influence of Local Community Stakeholders in Megaprojects: Rethinking Their Inclusiveness to Improve Project Performance." *International Journal of Project Management* 35: 1537–56. https://doi.org/10.1016/j.ijproman.2017.08.011.

Majone, Giandomenico. 1989. *Evidence, Argument, and Persuasion in the Policy Process*. New Haven: Yale University Press.

Mansbridge, Jane, James Bohman, Simone Chambers, David Estlund, Andreas Føllesdal, Archon Fung, Cristina Lafont, Bernard Manin, and José Luis Martí. 2010. "The Place of Self-interest and the Role of Power in Deliberative Democracy." *Journal of Political Philosophy* 18 (1): 64–100.

Mansbridge, Jane J, James Bohman, Simone Chambers, Thomas Christiano, Archon Fung, John R Parkinson, Dennis F Thompson, and Mark E Warren. 2012. "A Systemic Approach to Deliberative Democracy." In *Deliberative Systems. Deliberative Democracy at the Large Scale*, edited by John Parkinson and Jane Mansbridge, 1–26. Cambridge: Cambridge University Press.

March, James G., and Johan P. Olsen. 1989. *Rediscovering Institutions: The Organizational Basis of Politics*. New York: Free Press.

Mariani, Laura, and Dario Cavenago. 2013. "Redesigning Welfare Services for Policies Effectiveness: The Non-Profit Organizations (NPOs) Perspective." *Public Management Review* 15 (7): 1011–39. https://doi.org/10.1080/14719037.2012.758307.

Marrewijk, Alfons Van, Stewart R. Clegg, Tyrone S. Pitsis, and Marcel Veenswijk. 2008. "Managing Public-Private Megaprojects: Paradoxes, Complexity, and Project Design." *International Journal of Project Management* 26 (6): 591–600. https://doi.org/10.1016/j.ijproman.2007.09.007.

Mercalli, Luca, and Luca Giunti. 2015. TAV NO TAV. Le Ragioni Di Una Scelta. Trieste: Scienza Express

Michaud, Pascale, and Donald R. Lessard. 2000. "Transforming Institutions." In *The Strategic Management of Large Engineering Projects: Shaping Institutions, Risks and Governance*, edited by Roger Miller and Donald R. Lessard. Cambridge, MA: MIT Press.

Miller, Roger, and Serghei Floricel. 2000. “Transformations in Arrangements for Shaping and Delivering Engineering Projects.” In *The Strategic Management of Large Engineering Projects: Shaping Institutions, Risks and Governance*, edited by Roger Miller and Donald R. Lessard. Cambridge, MA: MIT Press.

Miller, Roger, and Donald R. Lessard, eds. 2000. *The Strategic Management of Large Engineering Projects: Shaping Institutions, Risks and Governance*. Cambridge, MA: MIT Press.

Nenonen, Suvi, Kaj Storbacka, Alexey Sklyar, Pennie Frow, and Adrian Payne. 2020. “Value Propositions as Market-Shaping Devices : A Qualitative Comparative Analysis.” *Industrial Marketing Management* 87 (November 2019): 276–90. https://doi.org/10.1016/j.indmarman.2019.10.006.

Newig, Jens, Edwar D. Challies, Nicolas W. Jager, Elisa Kochskaemper, and Ana Adzersen. 2018. “The Environmental Performance of Participatory and Collaborative Governance: A Framework of Causal Mechanisms.” *Policy Studies Journal* 46 (2): 269–97. https://doi.org/10.1111/psj.12209.

Newig, Jens, and Tomas M. Koontz. 2014. “Multi-Level Governance, Policy Implementation and Participation: The EU’s Mandated Participatory Planning Approach to Implementing Environmental Policy.” *Journal of European Public Policy* 21 (2): 248–67. https://doi.org/10.1080/13501763.2013.834070.

Owen, David, and Graham Smith. 2015. “Survey Article: Deliberation, Democracy, and the Systemic Turn.” *Journal of Political Philosophy* 23 (2): 213–34.

Park, Chan, Seung Han, Kang-Wook Lee, and Yong Lee. 2017. “Analyzing Drivers of Conflict in Energy Infrastructure Projects: Empirical Case Study of Natural Gas Pipeline Sectors.” *Sustainability* 9: 1–16. https://doi.org/10.3390/su9112031.

Parkinson, John, and Jane Mansbridge, eds. 2012. *Deliberative Systems*. New York: Cambridge University Press.

Renault, Michel. 2016. “Collective Construction of Social Indicators of Wellbeing: Analytical Insights from an Experiment.” In *Socioeconomic Evaluation of Megaprojects: Dealing with Uncertainties*, edited by Markku Lehtonen, Pierre-Benoît Joly, and Luis Aparicio. London: Routledge.

Rittel, Horst W. J., and Melvin M. Webber. 1973. “Dilemmas in a General Theory of Planning.” *Policy Sciences* 4: 155–1. https://doi.org/10.1080/01636609209550084.

Rosanvallon, Pierre. 2008. *Counter-Democracy: Politics in an Age of Distrust*. Vol. 7. Cambridge University Press.

Sanderson, Joe. 2012. “Risk, Uncertainty and Governance in Megaprojects: A Critical Discussion of Alternative Explanations.” *International Journal of Project Management* 30 (4): 432–43. https://doi.org/10.1016/j.ijproman.2011.11.002.

Sarkheyli, Elnaz, and Mojtaba Rafieian. 2018. “Megaprojects and Community Participation: South Waterfront Project in Portland, Oregon.” *Housing and Society* 45 (2): 104–17. https://doi.org/10.1080/08882746.2018.1496697.

Scott, W. Richard, Raymond E. Levitt, and Ryan J. Orr, eds. 2011. *Global Projects: Institutional and Political Challenges*. Cambridge: Cambridge University Press.

Shin, Hae Ran, and Kyungeun Lee. 2017. “Participatory Governance and Trans-Sectoral Mobilities: The New Dynamics of Adaptive Preferences in the Case of Transport Planning in Seoul, South Korea.” *Cities* 65: 87–93. https://doi.org/10.1016/j.cities.2017.01.012.

Simon, Herbert A. 1955. “A Behavioral Model of Rational Choice.” *The Quartely Journal of Economics* 69 (1): 99–118.

Smith, Graham. 2009. *Democratic Innnovations: Designing Institutions for Citizen Participation*. Cambridge: Cambridge University Press.

Sneddon, Chris, and Coleen Fox. 2007. “Power, Development, and Institutional Change: Participatory Governance in the Lower Mekong Basin.” *World Development* 35 (12): 2161–81. https://doi.org/10.1016/j.worlddev.2007.02.002.

Stevenson, Hayley, and John S Dryzek. 2014. *Democratizing Global Climate Governance*. Cambridge University Press.

Strauch, Lisa, Guillermo Takano, and Michaela Hordijk. 2015. “Mixed-Use Spaces and Mixed Social Responses: Popular Resistance to a Megaproject in Central Lima, Peru.” *Habitat International* 45 (P3): 177–84. https://doi.org/10.1016/j.habitatint.2014.02.005.

Sunstein, Cass R. 2005. *Why Societies Need Dissent*. Cambridge: Harvard University Press.

Teo, M. M. M., and M. Loosemore. 2014. “The Role of Core Protest Group Members in Sustaining Protest against Controversial Construction and Engineering Projects.” *Habitat International* 44: 41–49. https://doi.org/10.1016/j.habitatint.2014.04.005.

Teo, M. M. M., and Martin Loosemore. 2011. “Community-Based Protest against Construction Projects: A Case Study of Movement Continuity.” *Construction Management and Economics* 29 (2): 131–44. https://doi.org/10.1080/01446193.2010.535545.

Wampler, Brian. 2012. “Entering the State: Civil Society Activism and Participatory Governance in Brazil.” *Political Studies* 60 (2): 341–62. https://doi.org/10.1111/j.1467-9248.2011.00912.x.

Weick, Karl E. 1995. *Sensemaking in Organizations*. Thousand Oaks: SAGE Publications.

Wijk, Josef van, and Itay Fischhendler. 2017. “The Construction of Urgency Discourse around Mega-Projects: The Israeli Case.” *Policy Sciences* 50 (3): 469–94. https://doi.org/10.1007/s11077-016-9262-0.

Witt, Matthew. 2004. “Dialectics of Control: The Origins and Evolution of Conflict in Portland’s Neighborhood Association Program.” In *The Portland Edge: Challenges And Successes In Growing Communities*, edited by Connie Ozawa, 84–101. Washington, D. C.: Island Press.

Yin, Robert K. 2014. Case Study Research Design and Methods. Thousands Oaks, CA: SAGE.

Young, I.M. 2001. “Activist Challenges to Deliberative Democracy.” *Debating Deliberative Democracy*, 102–20.