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The role of governance models in the development of transport infrastructure megaprojects in Greater Montreal: The case of the *Réseau express métropolitain*

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This article focuses on mobility issues in Montreal, whose metropolitan transportation policies are presented as one of the major ambitions of large North American metropolitan areas. Empirically, we are interested in a recent transportation megaproject: the *Réseau express métropolitain* (REM) in Montreal, an electric light-rail transit network spanning 67 kilometers in the Greater Metropolitan Area. These types of megaprojects involve significant governance challenges and certain criticisms due to the involvement of several actors from different backgrounds and defending different interests, which places. This is why we believe that it is important to address this issue from the point of view of metropolitan governance through the agenda-setting of urban megaprojects. The originality of this article is that it demonstrates how presenting the REM project as a public-public partnership, between the *Caisse de dépôt et placement du Québec* (CDPQ) and the Government of Québec, opened the door to favoritism for the Caisse which influenced the choice of a political solution in Greater Montreal. By mobilizing Kingdon's model, we conclude that windows of opportunity cannot open without choosing a governance model during the agenda-setting phase.

Introduction

The challenges in developing and constructing transport infrastructure megaprojects are numerous. The solutions proposed by governments to meet these challenges are varied, and the governance challenges prove to be equally complex. In this article, we focus on the agenda-setting stage of the policy process. Our research question places governance at the center of our article: to what extent does the choice of a governance model influence the agenda-setting of metropolitan public transport megaprojects?

Surrounding governmental actors, many parapublic and non-governmental actors, pressure groups, the private sector, the media and, of course, the citizens, are at the heart of these issues. This is why the choice of governance models for urban infrastructure megaprojects is so important. Given the high costs of investments involved and the economic arrangements with the private sector, which may lack appropriate transparency or may fail to meet the needs of citizens, it becomes increasingly important for researchers to study the contexts and decision-making processes that guide the choice of governance model in the

development of urban infrastructure megaprojects. We follow to some extent in the tradition of Flyvbjerg's (2001, 2003) seminal work both in terms of the analysis of megaprojects and the use of the case study.

By choosing this research question, we wish to understand two aspects of governance: the first attempts to explain the emergence and formulation of public transport policies in Montreal. The second aspect seeks to understand whether the choice of a governance model is part of the solution to the problem by studying the new business model of the *Caisse de dépôt et placement du Québec* (CDPQ); an institutional investor that manages several public and parapublic pension and insurance programs on behalf of the Province of Quebec. To answer this research question, we develop our analytical framework based on Kingdon's model and the concept of public-private partnerships and this specific case, a public-public partnership.

The *Réseau express métropolitain* (REM) is one of the largest automated transportation system projects in North America at the moment, with an estimated construction cost of CAD 6.3 billion $, 67 km of track and 26 stations. The megaproject foresees economic and ecological benefits both for the Montreal region and Canada. This megaproject is interesting to study in its governance aspect since it is an initiative led by the CDPQ as the principal investor and developer.

The business model for this megaproject is said to be innovative, since the REM is presented by its promoters as the first "public-public" partnership project in Quebec in its planning, financing, integration and operation aspects. The integration and implementation of this megaproject requires the participation of thirteen municipal actors spread over the greater Montreal region; this includes the major city and suburbs in the metropolitan area, as well as nine mobility partners accompanied with different levels of government involved in the integration of the project, such as Infrastructure Canada; the *Ministère des Transports, de la Mobilité durable et de l'Électrification des transports du Québec* (MTMDET); *Société de transport de Montréal* (STM); etc. The private sector is present during the construction period and after deployment through two consortia that will be responsible for infrastructure work, offering mobility equipment and ensuring maintenance. Two service contracts have already been established and include major players in the fields of engineering and transport such as SNC-Lavalin and Alstom.

This new "public-public" partnership governance model refers to the partnership between the government of the province of Quebec and the CDPQ, which is considered a parapublic institution mandated by the state. In this article, we show that it is rather a public-private partnership "disguised" as a public-public partnership to facilitate the adoption of a megaproject that has received its share of criticism.

Through this article, we want to demonstrate that the windows of opportunity do not just depend on the coupling of the traditional three streams and the dynamics of the policy entrepreneurs proposed in Kingdon's model, but also on the choice of the governance model that concretes these policies. We argue that without the choice of a governance model in the pre-decision process, it would have been much more difficult to put urban public transport policies of this size on the agenda. Our observations lead

us to believe that the choice of governance models for megaprojects is also a determining variable in setting the agenda. In other words, the windows of opportunity for this type of megaproject cannot be launched without a consensus on a governance model, not only between the policy entrepreneurs, but also between several actors involved in this policy. Kingdon normally proposes three streams for the opening of a window of opportunity. The originality of our research adds a fourth stream, which is the stream of choice of the governance model. Through this research, we wish to contribute to a better understanding of the influence of the choice of governance models on urban public transport policy-making.

After this introduction, our article will be divided into four sections. The first section discusses the main theoretical concepts that form the theoretical framework of our work, notably Kingdon's windows of opportunity model and the PPP governance model. Then, in the second section, we present our research strategy based on the case study and the documentary analysis. The third section will be devoted to the presentation of the results of our research on the role of the choice of the governance model during the agenda-setting phase of the megaproject of the REM. Finally, the last section will be a discussion of the conclusions drawn from our research.

Review of literature

This section presents the central themes of this article. We first present the theoretical basis of this article, particularly Kingdon's model known for its use in the study of the agenda-setting of public policies. We want to test this model in an urban context to try to come up with new conclusions. The concept of public-private partnerships (PPP) as a preferred governance model in major urban public transport projects. It is from the literature on Kingdon's theory on agenda-setting and the concept of PPPs that the analytical framework is constructed. We draw inspiration from these two models to develop our analytical framework concerning the determinants of the governance of major urban public transport electrification projects influencing the agenda-setting of REM projects in Montreal.

The Kingdon Model in the context of urban public transport

This article takes as its theoretical foundation an analytical model that comes from the discipline of public policy. We will present Kingdon's model as a theoretical framework to understand the determinants of governance models for urban public transport megaprojects in Greater Montreal. Kingdon used the *garbage can* model (Cohen et al., 1972) to conceptualize a system based on temporal sorting; this identifies how issues that reach the final stage of the agenda largely depend on what is happening in the system, which actors are pushing the issue, and finally, the timing. For Kingdon, public policy agenda-setting occurs in governmental systems characterized by ambiguity (Zahariadis, 2016). These systems are made up of two distinct dynamics. The first dynamic refers to three streams: the problem stream, the policy stream and the politics stream. Each stream has elements and ideas that

are supposed to be independent of each other. Thus, each stream obeys its own structural rules and determines which problems and solutions will stand out and which will not. The second system dynamic underlying the process of operational streams is how and when the streams interact. Kingdon then added two further key elements to the understanding of his theory, namely window of opportunity and policy entrepreneurs.

In contrast to Cobb and Cobb and Elder (1971, 1972) and Cobb et al. (1976) who explain policy agenda-setting only by exogenous factors, Kingdon (2011) argues that there is a relationship between movement within the governmental system and its external environment. Public officials usually wait for the opening of a window of opportunity to bring an issue into the public policy agenda. Therefore, context is essential to understanding this process, as some issues may carry more weight than others at certain times. This argument allowed Kingdon (2011) to theorize the importance of timing in policymaking. A window of opportunity for the solution to be proposed on the agenda will open when the flow of issues and the political context are favorable to the proposal.

Another major contribution of Kingdon in agenda-setting theories is the concept of the political entrepreneur, which is often considered Kingdon's most important contribution (Zahariadis, 2016). A policy issue will feature prominently on the government agenda when key actors manage to join several streams in each time, and the likelihood of an issue moving up the policy agenda increases when all three streams are combined. For Kingdon, this combination does not necessarily follow the logical order of problem, solution, and policy, but rather ready-made solutions that will be "glued" and adapted to problems putting the desired policy on the agenda. This is what he calls a "garbage can".

In this article, we want to enrich a rather limited literature, applying public policy analysis in the sub-field of transport policy literature. Marsden and Reardon (2017) analyzed 100 articles sampled between 2011 and 2015 in the two major English-language journals containing transport policy literature: "Transport Policy" and "Transportation Research Part A: Policy and Practice". The authors find that only 13% of the articles consider specific aspects of the public policy cycle (Marsden and Reardon, 2017, p. 238). No articles were found on transport policy agenda setting. Furthermore, the authors argue that there are important governance issues, such as the decision-making context, the power of actors, resources, and the legitimacy of decisions, which are largely ignored in the current literature (Marsden and Reardon, 2017, p. 238).

To help fill this gap, we would like to explore a line of research which focuses more specifically on the factors that can influence the choice of governance models when setting the agenda. To understand the dynamics of actors and their roles in the agenda-setting of urban public transport megaprojects, we believe that Kingdon's "window of opportunity" model is relevant. Indeed, the literature review inspired by Kingdon in a local context leads to the conclusion that it is a flexible and evolving model. It is flexible because it can be applied in several contexts at the national or local level, and even outside the United States. It is also scalable because it can be "revisited" to add agenda-setting variables other than those proposed by Kingdon. By choosing this theoretical model as a framework, we aim to understand the governance mechanisms of urban public transport megaprojects during the agenda-setting processes. Firstly, the windows of opportunity models are characterized by its simplicity (Greer, 2015) allowing for other theories and concepts, such as the concept of governance in our case. Secondly, the strength of Kingdon's model is its capacity for synthetic analysis (Ravinet, 2019) which brings together both the issues preceding a decision and the role of the entrepreneurs of a given public policy.

PPPs as the preferred governance model for urban public transport megaprojects in Canada

The public-private partnership (PPP) model of governance is a critical concept for our article. The literature discussing this governance model defines PPPs as a complex, long-term, contractual arrangement between the public and the private sector to deliver projects that provide a public service or infrastructure (Phang, 2007; Hudon, 2013; Zaato and Hudon, 2015).

PPPs are not a new instrument in infrastructure development in Canada. Several infrastructure projects carried out as PPPs, such as hospitals, toll roads, bridges, public transit projects, energy systems and clean power, broadband access in rural areas, etc. (Cohn, 2017; Canada Infrastructure Bank, 2023) have been implemented in the country over the years. Governance models for public transport megaprojects are changing in Canada. Indeed, the 1980s saw the inauguration of several public transport projects that were completely under public ownership. However, the Vancouver light rail project has set a new trend in the choice of governance models for rail projects. The Vancouver Skytrain Canada Line was built as a PPP to host the 2010 Vancouver Winter Olympics (Siemiatycki, 2006). Since the construction of this project, the popularity of PPPs has characterized the governance of new rail projects in Canada.

Many proponents of the PPP model, including international institutions such as the World Bank or the United Nations, consider PPPs to be more efficient than the traditional public design-bid-build model. According to the World Bank, the traditional procurement model is highly disaggregated and sequential in the way inter-organizational interdependencies are managed (Athias, 2009, p. 1013). The budgetary burden and the high financial risk involved in building mega infrastructure projects are recurrent in the literature as one of the main reasons for shifting from a traditional governance model to PPPs to deliver urban public transport infrastructure projects. Additionally, the pressure is high on provincial and municipal governments to find solutions to public transport issues in Canada's major cities. As a result, the PPP governance model has become more prevalent in the delivery of urban public transport megaprojects in Canada.

In theory, governments justify the use of both PPP mechanisms in transport megaprojects based on several benefits. Siemiatycki points out that policymakers in favor of PPPs hope to make decision-making more accountable, contribute to greater technological innovation and reduce the potential for escalating construction costs that have consistently plagued transport projects

(Siemiatycki, 2006, p. 137). However, empirical studies show that there are several failures in the governance of transport projects through PPPs. The lack of accountability, the questioning of cost control, and the reality of the risk transfer are recurrent in the literature to qualify the rationale for PPPs in infrastructure megaprojects (Champagne, 2016).

In this article, we argue that the inclination toward PPP governance models by policy entrepreneurs at the outset of transport megaprojects influences the choices of a policy solution. We also introduce the public-public partnership model, which is a variation of PPPs.

Research strategy

To answer our research question, we develop an analytical framework based on Kingdon's model and the concept of public-private partnerships (PPPs). We use Kingdon's model to understand the determinants of the convergence of the three streams leading to the opening of a window of opportunity for a policy solution. Then, based on our literature review, we will check the impact of the choice of governance models for urban public transport megaprojects from the perspective of the agenda setting. According to the Kingdon-inspired framework, the analysis is therefore structured according to the policy entrepreneurs' behavior, as well as the problem, solution and policy context streams, to which we add the governance stream. These streams help us to understand the creation of windows of opportunity when setting the public policy agenda.

The methodology is based on the case study (Yin, 1994; Hamel, 1997; Gagnon, 2012) of the implementation of the *Réseau express métropolitain* (REM) project. The study focuses on the choice of governance models in the context of the REM, currently under construction in the Greater Montreal region. This megaproject is very interesting to study from the point of view of governance since it is an urban project, but it is also being implemented through a partnership between the Government of Quebec and the *Caisse de dépôt et du placement du Québec* (CDPQ), in which the City of Montreal is practically absent. CDPQ Infra, a subsidiary of the CDPQ created in 2015 to ensure the realization of major projects in Quebec, is the main player in the development and construction of the REM. Moreover, the REM is the first "public-public" partnership project in Quebec in its planning, financing, integration and operation aspects.

To conduct a qualitative-interpretative analysis, we rely on documentary analysis as the main source of information to answer our research question. These documents are either internal documents published by public or private organizations or press reviews. Secondary sources of information are documents that are complementary to the understanding of the primary sources. These are peer-reviewed articles, research papers, and analyses that interpret data from primary sources. This article also benefits from the research fieldwork carried out as part of the doctoral research of the first author under the supervision of the second author of this article (Taki and Champagne, 2022).

The literature search covers the period from 2008 to 2018. The choice of this period is justified by the growing discussions during this time on the pressure on public authorities to solve the problems of road congestion and the increase in demand for public transport in Montreal's metropolitan area. This period makes it possible to analyse the issues surrounding the project when it was first put on the agenda, including when the REM was chosen as a solution.

The media review covers the period between 2014 and 2018. It was during this time that the REM solution was proposed, confirmed and implemented. This period is also marked by the mandate of Quebec Premier Philippe Couillard (one of the key policy entrepreneurs in our analysis) as the head of the Quebec provincial government. We are particularly interested in this period in our media review to ensure that we cover all the articles that analyze the period when the agenda was set.

Case analysis—Results

As previously mentioned, we use Kingdon's streams model to analyse the decision-making process that led to the construction of REM. We start by presenting the behavior of policy entrepreneurs, then we outline the determinants associated with the problem stream, the policy stream and finally the political stream.

REM's policy entrepreneurs

According to Kingdon (2011), it is necessary that people interested in a policy agenda facilitate the convergence of the three streams. In the case of the REM, it is clear that the CDPQ Infra and the premier of the government of Quebec (provincial government level), Philippe Couillard at the time, were instrumental in putting the REM on the agenda. While this policy concerns Montrealer, it is surprising to observe that the City of Montreal is greatly limited in the governance arrangement of the REM. Next, we will analyse the critical and instrumental role of the CDPQ and the Premier of Quebec in the REM's agenda-setting.

The CDPQ

The primary public entrepreneur we identified in the agenda-setting of the REM is undoubtedly the CDPQ. A year before the announcement of the REM, the CDPQ created the CDPQ Infra in 2015, a subsidiary dedicated to the development and operation of infrastructure in Quebec and around the world.

While the CDPQ is the largest owner of real-estate buildings in Quebec, through its subsidiary Ivanhoe Cambridge,[1] a review of the CDPQ's (2015) annual report shows that its infrastructure investments had only represented 7.3% of its total assets. To make up for this gap, CDPQ announced the creation of a new sub-entity: the "CDPQ Infra". This entity was specifically created to generate increased value through the investment and implementation of infrastructure projects, as well as through their operations (2015, p. 23). As a semi-public organization, the business model proposed by CDPQ Infra is quite innovative when compared to traditional PPPs because the entity is involved in every phase of a public infrastructure project. CDPQ Infra wishes to combine financial capacity with technical expertise to become a major contracting

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1 https://www.ivanhoecambridge.com/a-propos/

authority for public infrastructure megaprojects in Canada and abroad. When taking a public sector project, it will be responsible for the entire project cycle: planning, financing, implementation and operation.

This model, presented in Figure 1, consists of seven stages: first, the government identifies an infrastructure need, at which point the project is scheduled. CDPQ Infra then proposes a solution that must be approved by the government. Once this approval is received, CDPQ Infra becomes responsible for all planning, financing, execution and operation of the project. By and large, it's different from a classic PPP where the private sector won't take part in the initial phases of the project. CDPQ Infra has some unique privileges as a Para public organization, of which a conventional market-based relationship doesn't normally allow, especially in the design phases of the project and in the rather monopolistic relationship with the provincial government (Government of Quebec).

A crucial step presented in the model is profitability. The objectives of the CDPQ Infra cannot be different from that of its main shareholder, the CDPQ, i.e., the fructification of savers' money through profitable projects. This situation brings us back to a more complex reality, that of a Para public institution that seeks to operate infrastructure offering a public service or public good with the philosophy of a private company. However, to create that model, CDPQ needed outstanding support from the government. This was achieved with the election of the Quebec Liberal Party in 2014, led by Premier Philippe Couillard.

Premier Philippe Couillard

The second significant public entrepreneur we identified in the agenda-setting of the REM is Philippe Couillard, who served as the Premier of Quebec and leader of the provincial Liberal Party from 2014 to 2018. Before taking up this position, he was an influential cabinet member of the ruling Liberal Party between 2003 and 2008 where he served as Minister of Health.

Recalling Kingdon's (2011) comments on the qualities associated with entrepreneurs such as perseverance, level of connectivity with other actors, ability to convince, etc., some of these characteristics can be attributed to Philippe Couillard. The model can explain his neoliberal vision for solving Montreal's transport problems and his ability to create interest around this proposal.

Premier Philippe Couillard chose, during his inaugural message to the Quebec National Assembly on May 21, 2014, to announce concrete measures to address public transport issues in Montreal. Premier Couillard even went straight to the point by announcing that the real problem of public transport in Montreal is indeed that of governance. In doing so, the Premier of Quebec wished to draw attention to a problem that other governments previously neglected before him. He picked his inaugural address, an event widely covered by the media and awaited by the population, to open a new "problem window", which is the governance of public transport in the Greater Montreal area.

To direct the problem stream toward interaction with other streams, the dynamics of the actors tend to prepare the ground for the solution proposal. In the case of the REM, the Couillard government was the main mobilizer during this period. This mobilization took the form of various strategies and action plans as well as coordination with the Montreal metropolitan community (CMM). Since the election of the Liberal Party in 2014, the Quebec government has been looking into the governance of public transport in the Greater Montreal region, which is considered a problematic situation. This governance is characterized by a high number of stakeholders and difficulties in planning a coherent metropolitan service. Premier Philippe Couillard intended to short-circuit the existing system and replace it with a new governance model using a public-public partnership with the CPDQ.

Factors associated with the policy framing of public transport policies in the Greater Montreal region

Transportation modernization projects are among the major action plans of the City of Montreal and the Government of Quebec. In this section, we study the transformations of mobility policies and governance models currently underway in the Montreal region. We examine the implementation of the ambitious metropolitan electricity network (REM) project proposed by the *Caisse de dépôt et placement du Québec* (CDPQ). To better understand this REM project and its governance model proposed by CDPQ Infra, we analyze the pre-decisional process that allowed this policy to be put on the agenda. We mobilize Kingdon's analysis framework presented in the previous sections using the problem, the policy and the political streams.

Factors associated with the problem stream

The first stream is the problem phase, which allows us to define the policy problems and constraints of urban mobility that justified the proposal of REM as a solution. To do this, we limit our analysis of the problem stream to the period before the REM was put on the agenda, from 2008 to 2016. This period is characterized by the intensity of the problem that drew maximum attention to mobility problems in the Montreal region.

The central reoccurring problem in the annual management reports of the Quebec Ministry of Transport, prior to the REM proposal, is that of the continuous growth in traffic on the roads and in the lack of public transportation services linking the central city and the suburbs. This causes great congestion in transport networks (BAPE, 2016). Several reasons for this congestion are put forward (ARTM, 2013). These include population growth in the outskirts of the city of Montreal and the concentration of many offices in downtown Montreal, which has led to an increase in traffic from outside Montreal during rush hours.

To justify the problem of growing public transport ridership and road congestion, the government has published several reports containing statistics and expert opinions. A report published by the Government of Quebec in 2014—only a year before the creation of CDPQ Infra—offers an assessment of the socio-economic costs due to road congestion in the Montreal region. The survey has been carried out every 5 years since 1993, and the 2014 report takes 2008 as its reference year. The report reveals that congestion
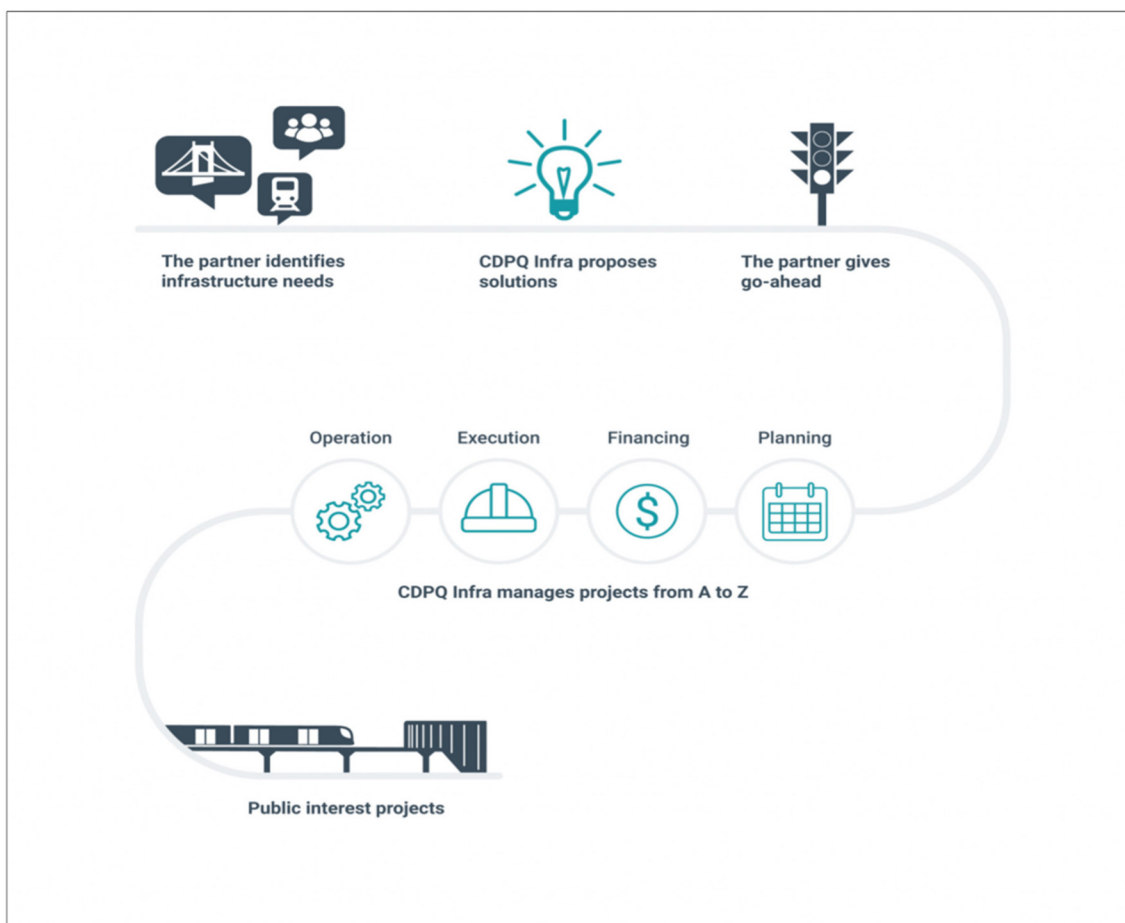
FIGURE 1
CDPQ Infra's business model. Source: CDPQ Infra (2022a).

	TRADITIONAL MODEL	PPP MODEL	CDPQ INFRA MODEL
PLANNING AND FINANCING			
Responsibility for planning	Government	Government	**CDPQ Infra** + government
Sources of financing	New public debt	Private consortium	**CDPQ Infra** + partners
		Federal and provincial subsidies covering a portion of the costs (variable)	Participation of public entities
EXECUTION			
Responsibility of construction	Government	Private consortium	**CDPQ Infra** + partners
OPERATION			
Operation of projects	Government	Private consortium	**CDPQ Infra** + partners
Controlling shareholder	Government	Private consortium	**CDPQ Infra**
Assets on government balance sheet	Yes	Yes	No
Ownership of assets	Governement	Private consortium (35 years) and then the government	**CDPQ Infra** + partners

FIGURE 2
Comparison between the CDPQ Infra model and other models. Source: CDPQ Infra (2022b).
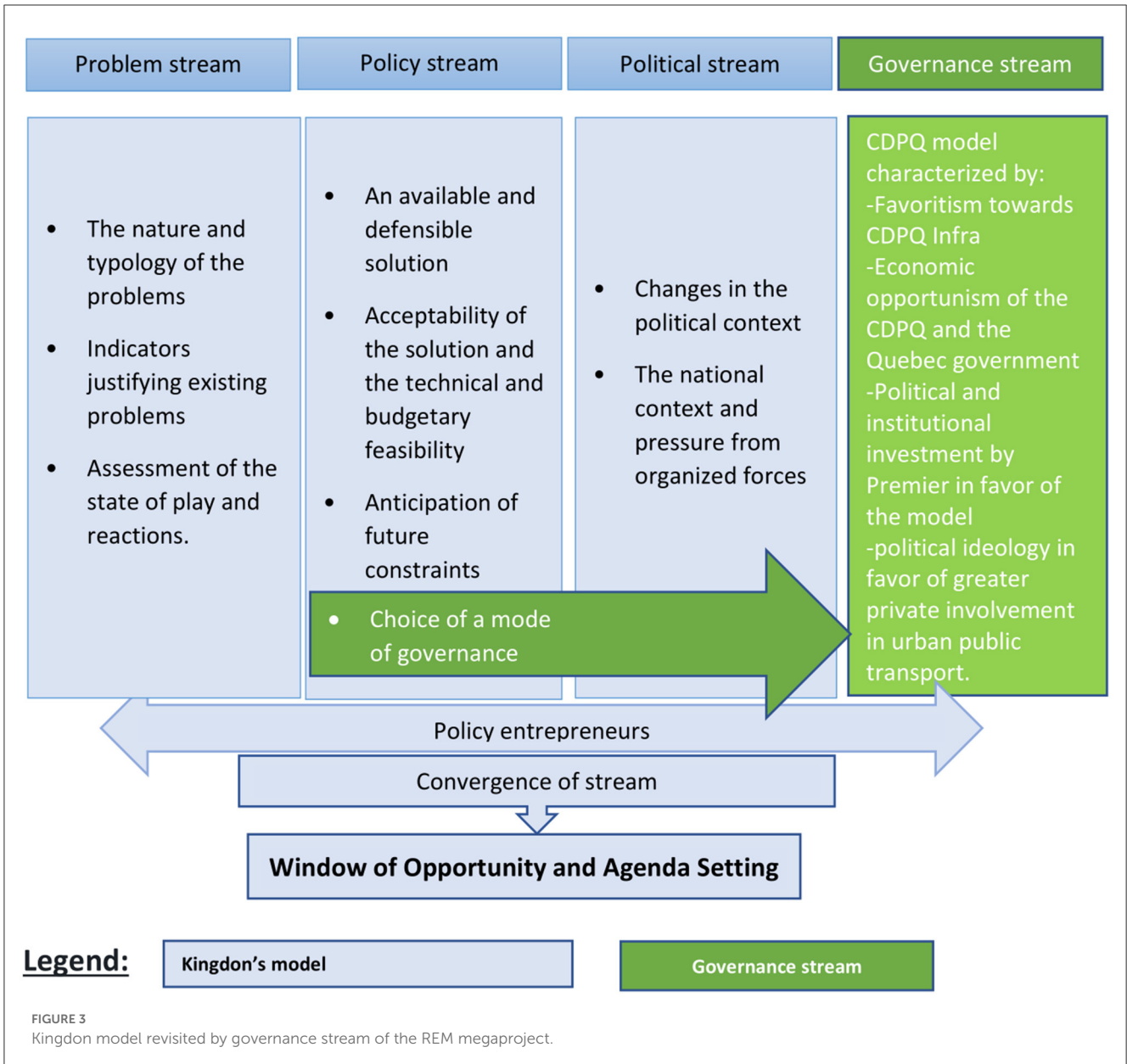
FIGURE 3
Kingdon model revisited by governance stream of the REM megaproject.

caused[2] by the overcapacity of the road network costs $1.85 billion Canadian annually (Ministère des Transports du Québec, 2014, p. 1).[3] According to the same study, 88% of this cost is caused by people being delayed in traffic jams, resulting in lost productive time, education, or business opportunities. Other costs associated with road traffic are considered in this loss, such as the additional costs of vehicle use, fuel use and the emission of air contaminants and greenhouse gases (Ministère des Transports du Québec, 2014, p. 2). In Kingdon's model, statistics and graphs represent interesting symbols for policy entrepreneurs to demonstrate the intensity of the

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2 This does not consider occasional situations such as accidents or construction work. The cost also does not include impacts on business productivity or health impacts.

3 The report is produced by economic experts from the firm "Les Conseillers ADEC" on behalf of the Ministry.

problem. Indeed, the elements discussed in this section have shown that the Ministry of Transport has mobilized several experts to demonstrate that there is a tangible mobility problem in Montreal through extensive statistics and analyses.

In proposing a new policy, Kingdon emphasizes the important role of stakeholder and citizen feedback. Policymakers, therefore, use statistics to demonstrate future negative effects if the problem persists. This facilitates the work of entrepreneurs to position the desired policy solution as the best solution to the problem. In the case of the state of transportation in Montreal, several studies and reports from different public and private organizations, including civil society, have indicated the deterioration of the situation. These reactions concern either the saturation of public transport and roads or the impact of this situation on users. In terms of the assessment of public transport, the City of Montreal, which is directly concerned, requested in a report help from higher

governments to face the saturation of most public transport to the downtown area. The City of Montreal stated in this report that several metro and bus lines reach maximum capacity during rush hours (City of Montreal, 2016, p. 7).

In short, Kingdon mentions that not all problems receive the same priority. It rather depends on the interpretative and perceptual elements that a problem can mobilize. A problem is a priority when it has certain characteristics such as "a new problem or a reorientation of an unsatisfactory policy; having strong negative consequences on society; affecting a large number of people or highly politically mobilized strata and requiring rapid or urgent intervention" (Knoepfel et al., 2015). The more issue is interpreted and presented by policymakers as one that combines these characteristics, the more it attracts the attention of citizens and decision-makers. Consequently, this issue has a good chance of being proposed as a priority problem in an agenda. A public policy, the one desired by entrepreneurs, is then presented and touted as the best solution to the priority problem. This is what we demonstrate in the next sections.

Factors associated with the policy stream

According to Kingdon's model, to adopt a public policy, the policy entrepreneurs have to justify and defend their solutions and demonstrate a positive impact for citizens. In April 2016, CDPQ Infra proposed the REM as an integral solution. The contractor assured that it would respect the law and find ways of integrating the REM into the existing metropolitan transport network, by initiating discussions with key transport actors in the region. Another technique used by the CDPQ Infra was to convince the government and public opinion of the advantages of the solution by comparing it with the current situation. For example, the CPDQ highlights the extension of public transit to several urban areas of the Greater Montreal area excluded from the metro network and the connection between downtown Montreal and the Montreal-Trudeau International Airport, which is not served by the metro network.

However, the process of putting the REM on the agenda has given rise to much criticism, particularly from the *Bureau d'audiences publiques sur l'environnement* (BAPE, Public Hearings Office on environment).[4] In its report submitted to the Provincial Ministry of Environment at the end of 2016, the BAPE also added that CDPQ Infra had not demonstrated that it had carried out a comparative evaluation between the proposed project and the various other options that had been considered for serving the West Island of Montreal, both in terms of determining the sectors to be served and the mode of transport to be recommended (BAPE, 2016).

According to Kingdon's model, the solution must be adequate to the values of the decision makers and acceptable to society. In particular, the solution must be technically and financially feasible,

while also meeting future constraints. CDPQ Infra defends its choice of the light rail solution instead of a tramway following several analyses and technical comparisons, although these were not made public. According to the project promoter, these analyses show that a tramway would not easily adapt to an increase in ridership, that it would increase road congestion by using existing roadways, and that it would be more expensive to operate than an automated light rail.

In terms of budgetary feasibility, the total financing of the $6.3 billion planned for the project has been allocated as follows[5] CDPQ Infra will finance $3.18 billion of the project; the Government of Quebec and the Government of Canada will each finance $1.3 billion; the regional metropolitan transport authority will finance $512 million; and Hydro-Québec (a provincial public utility company) will finance $295 million. In the Quebec Infrastructure Plan 2016–2026, the government specifies that it preferred the CDPQ as a partner for the following three reasons (Gouvernement du Québec, 2015, p. 13–15):

- Enable citizens to benefit from the CDPQ's expertise in infrastructure megaprojects and for the CDPQ to make its depositors' savings grow in Québec (p. 13)
- CDPQ is a public institution already involved elsewhere in the world in large-scale infrastructure projects.
- Given the budgetary limitations faced by the provincial government, new business and financing models have been examined to renew or develop essential infrastructure, thus allowing the government to preserve budgetary leeway for the completion of other projects in the province of Quebec.

We note from the reasons given by the government for choosing CDPQ Infra as its preferred partner that budgetary and public funding constraints are central to the argument. Furthermore, the government has sent CDPQ Infra all the project studies carried out by the government. The government has entrusted these studies to the CDPQ to establish priorities for the choice of the mode of public transportation to be implemented, as well as the specific areas to be serviced by the new transit system (BAPE, 2016, p. 70). Something that would not normally happen with a potential private partner.

These indications suggest that the CDPQ has had no difficulty in convincing the government to adhere to and accept the REM project. In fact, in addition to the comfortable financial cushion available to the CDPQ that we presented earlier, the government gave the CDPQ the possibility of applying its new infrastructure business model which also meant taking charge of the project from A to Z. In fact, the government did not carry out studies for alternative solutions. In September 2015, the Quebec government asked CDPQ Infra to begin planning a public transport project in two phases. According to the BAPE, the document containing the major orientations of this request has not been made public (BAPE, 2016, p. 67).

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4   The BAPE is a Quebec government agency that informs and consults citizens, investigates, and then advises the Minister responsible for the Environment on the files he entrusts to it, in order to inform government decision-making. The BAPE does not have the power to authorize or refuse a project.

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5   https://www.cdpqinfra.com/fr/projets/rem/planification.

Determinants of the political stream

In addition to the factors in the problem stream and the policy stream, the political context is an equally influential factor. As Kingdon demonstrates in his analysis, the political context includes the following determinants: changes in public opinion and government positions and pressure from different organized political forces.

According to Kingdon's theory, changes in government positions are studied to explain the impacts on decisions when a policy is put on the agenda. In the case of the REM, although we did not observe a change in positions or opinions within the municipal and provincial governments, the major change was the arrival of the Liberal government in 2014. This change was, according to our findings, the beginning of a window of political opportunity that accelerated the agenda-setting of the REM. As soon as the Quebec Liberal Party was elected and Phillipe Couillard took office, several decisive plans and announcements were made. For example, as mentioned earlier, in his inaugural speech to the National Assembly, Premier Phillipe Couillard insisted on the importance of continuing to invest in policies that promote the electrification of transport. This message was well-received, even by the opposition, particularly the leader of the Parti Québécois (the primary opposition at the time) who welcomed the Prime Minister's commitment (Bellerose, 2014). This was a rallying point between the opposition and the party in power, as well as the continuation of the previous government's mobility policy. At the time, the mayor of the City of Montreal also publicly supported and facilitated the REM project, although the city was not directly involved in the project. It is also worth mentioning that the Montreal Chamber of Commerce, which represents the business community, was also advocating for the megaproject.

Another important point in Kingdon's model that had a significant impact on the convergence of the political stream toward a solution is the pressure from organized political forces. In the case of the REM, the example of the CDPQ's choice to build light-rail stations on agricultural land in the South Shore's suburbs demonstrates the different weights of the operating forces between pressure groups. In order to build the new station in Brossard, 36.3 hectares of farmland are threatened to be developed for the project (Corriveau, 2016). The Commission for the Protection of Agricultural Land[6] attempted to pressure the government to find alternatives to the construction of the REM in areas other than those chosen by the CDPQ Infra. However, its request was declined and CDPQ Infra insisted that the chosen land was the only location with the required surface area to build the terminal station equipment. Once again, it appears that CDPQ Infra received privileges from the government that the private sector might not have obtained so easily. In short, despite the controversies, pressure from the provincial government the City of Montreal and the Montreal Chamber of Commerce made it possible to maintain the megaproject as conceived in its broad outlines by the CDPQ Infra.

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6 The Commission for the Protection of Agricultural Land (Commission de protection des territoires agricoles in French) is a governmental regulation agency with a mandate to provide authorizations to use agricultural land for purposes other than farming.

Factors associated with the choice of a governance model

After the presentation of the three streams proposed by Kingdon, which allowed the setting of a public policy agenda, we propose to add a fourth stream to Kingdon's model, which is the choice of the governance model in the agenda-setting phase. We argue that the governance model (public-public partnership) was instrumental in opening a window of opportunity for this megaproject.

To make the REM project a reality, the CDPQ Infra proposes an innovative governance model considered by Michael Sabia, the former CEO of the CDPQ, as the first public-public partnership. He is referring here to the partnership between the Government of Quebec and the CDPQ, which is considered a parapublic institution mandated by the government. Several elements of our research show that we are facing a new governance model for designing, implementing, and operating megaprojects.

First, this governance model presented in Figure 2 differs from the traditional model where the government is solely responsible for all aspects of the projects. It also differs from conventional PPPs, especially in terms of distance from the government. However, what draws attention in this model is the high level of power that the CDPQ Infra will have over the infrastructure projects during the operating period. A high degree of influence because at least in the classic PPP model, the assets revert to the government, even though this formula is often advantageous for the private sector. This is not the case for the CDPQ Infra model, where the infrastructure will not be the property of the government directly, but rather an asset of the CDPQ once the REM is built. Thus, these assets will be recorded on the CDPQ's balance sheet and not on the government's balance sheet. This means that the CDPQ can manage, operate and potentially even resell these assets with few constraints.

During the 2008 financial crisis, the CDPQ lost 25% of its assets at the time. This was the largest loss in the history of the CDPQ and was due to its investments in risky financial and stock market products and short-term liquidity returns. To remedy this situation, the CDPQ decided to change its investment strategies and invest in long-term, less risky assets such as infrastructure. To implement this new direction, in April 2015, the CDPQ created its subsidiary CDPQ Infra to invest in and manage the CDPQ infrastructure projects. A simple search in the Quebec Register of Enterprises informs us that the legal form of CDPQ Infra is a "*Société par actions ou compagnie*" with a business number like any private company, which is not the case for public corporations like CDPQ. CDPQ Infra can therefore act as a private company with the profitability of its investments as its main objective. This model of governance of infrastructure megaprojects is unique in that it is a situation where the CDPQ Infra will not only benefit from some kind of favoritism on the part of the Quebec government, but it may also dictate the rules of the partnership based on ensuring the profitability of the project.

In our analysis, we have found a dozen observations that demonstrate that the governance model chosen to implement the REM has resulted in several aspects of favoritism granted by the Government of Quebec to the CDPQ so far through the public-public partnership:

- The project was awarded to CDPQ without a call for tenders.
- Involvement of several private companies and large engineering firms in which the CDPQ is a major shareholder, such as SNC, which is the main shareholder of Groupe NouvLR, which is responsible for the construction of the REM; and Groupe PMM (SNC and Alstom), which is responsible for the supply and maintenance of the REM.
- The assets are recorded on the balance sheet of the CDPQ, not the government. During the 99 years of the operating contract, the CDPQ can borrow, guarantee, and encumber the REM assets as if they are not the property of the State.
- The location of stations will be determined by the developer, and the real estate development that will take place around the REM stations will also benefit the CDPQ. CDPQ is the most significant real-estate developer in the province of Quebec through its subsidiary: Ivanoe-Cambridge. CDPQ Infra estimates a return on investment of five billion dollars generated by the real estate development planned along the REM route.
- The other public transport operators will have to adapt/connect their services to the REM stations. Not the other way around.
- The REM will benefit from the government subsidy for transport tickets. We are talking about a subsidy from the Quebec government for tickets of up to 75% of the price determined by CDPQ Infra.
- The revenues coming from user fees to access the REM will be collected and managed directly by the CDPQ, not the Regional Metropolitan Transport Authority (*Autorité régionale de transport métropolitain*—ARTM). This means that the ARTM will assume several responsibilities related to regional public transport without financial compensation.
- The REM will benefit from the tax break the municipal tax law has granted to public sector organizations including the CDPQ. The CDPQ real estates in the REM are exempt from property and municipal taxes.
- CDPQ Infra will operate on an existing network formally managed by the *Agence métropolitaine de transport* (Metropolitan Transport Agency—AMT) representing almost half of the projected REM route, which allowed CDPQ Infra to save substantially on investment. The AMT was abolished after its mode of governance was criticized by several players (Cormier, 2014), most notably by the Premier of Quebec, Philippe Couillard, in his inaugural speech in 2014. It was replaced in 2017 by the *Autorité régionale de transport métropolitain* (Regional Metropolitan Transport Authority - ARTM) to organize regional transports but with fewer responsibilities.
- Although CDPQ Infra will provide regional public transport service *via* the REM, it will be treated differently by the law from other regional transit organizations. In other words, by applying the principle of subsidiarity, the CDPQ Infra will not be under the authority of the ARTM.
- Another remarkable observation is that the fares for transport in the REM will be determined by the CDPQ Infra and then integrated into the ARTM's fare grid, not the other way around. This situation is paradoxical because the new governance framework is considered precisely as a reform of coherence and integration of metropolitan public transport in Greater Montreal. The CDPQ Infra will have full independence in its management of the REM and its relationship with the ARTM, and the government will be limited to a commercial agreement.
- The risks of the CPDQ are limited while the provincial government risks remain high. The agreement provides that, if 5 years after the expected completion date the CDPQ decides to cease operation, the government has the option to purchase the entire REM project at fair market value; or to compensate the CDPQ for the loss of revenue.

In sum, this section has clearly demonstrated that we are faced with a new model of governance for urban public transport megaprojects. With its neoliberal philosophy that places profit and return objectives at the forefront, its financial model and its operational characteristics close to those of private management, we conclude that we are faced with a business model that is very favorable to the CDPQ's objectives which raises questions regarding the interests of public transport users.

Opening the window of opportunity

In classic Kingdon's model, windows of opportunity open after the three streams are coupled. This is particularly true when the problem attracts a lot of attention that requires a public intervention; the solution is available and accepted, and the policy context is favorable. This coupling, as Kingdon calls it, creates an opportunity for entrepreneurs to propel the solution (or policy) they support. This opportunity is what Kingdon refers to in his model as a "window of opportunity", which usually opens for a short period. These windows of opportunity can be both predictable and unpredictable. In the case of the REM, the window of opportunity was predictable as the problems of road congestion and high ridership were well-known, and a cycle of public transport reforms in the Montreal area had already been initiated by the previous provincial government.

In the case of the REM, the opening of the window occurred after the interaction and convergence of the three streams. Premier Philippe Couillard did not choose his inaugural message to address public transport issues in Montreal to the Quebec National Assembly on May 21st, 2014, by accident. Mr. Couillard even went straight to the point by announcing that the real problem of public transport in Montreal is that of governance. In doing so, we argue that the Premier of Quebec wanted to introduce a solution that other governments have not considered: the creation of a public-public partnership with the CPDQ.

To direct the flow of problems toward interaction with other flows, the dynamics of the actors tend to prepare the ground for the proposal of the solution. In the case of the REM, the government of Premier Couillard was the main mobiliser during this period. This mobilization took the form of strategies and action plans as well as coordination with the *Communauté métropolitaine de Montréal* (Montreal Metropolitan Community—CMM). Philippe Couillard also promised a major restructuring of the AMT and transport governance in the Montreal region. In the same

inaugural speech, Couillard announced that his government would be the government of "rigour and balanced budgets" (Bellerose, 2014).

Secondly, in the case of the REM, we can observe what Kingdon calls the *political stream*, a political window that opens following a political event. This political window was open when the Couillard government borrowed from the same strategy as the former provincial government, which was favorable to massive investments in the electrification of public transport and took advantage of his majority to initiate a megaproject that builds on the electrification of transport. It thus established an action plan to implement the promises of the previous government, thereby bypassing too much opposition. Like Montreal's transportation electrification plan, this provincial plan, called *Propulser le Québec par l'électricité* (Driving Quebec with electricity), has set a deadline of 2015 to 2020 for implementation, creating a sentiment of urgency to adopt the REM. The government took the opportunity to outline how it would finance these projects by proposing a commercial agreement between the Government of Quebec and the CDPQ (Ministère des Transports du Québec, 2015).

In this situation, there is an interaction between the three streams of problems, solution and political context, i.e., there are public transport and governance problems requiring large financial investments and reforms. At the same time, the newly elected Couillard government, which leaned neoliberal, did not intend to increase its budget deficit any further.

Finally, the CDPQ saw the Couillard government's austerity plan as an investment opportunity to make its depositors' money go further, so it proposed its REM solution. The CDPQ's involvement in the REM governance model was therefore crucial and decisive for putting the REM on the agenda. The governance model, which includes a public-public partnership, the implementation modalities and the involvement of private companies as CPDQ Infra subsidiaries, was part of the solution proposed by the CDPQ even before the REM was put on the agenda.

As a result, the window of opportunity for putting REM on the agenda was opened in April 2016, first by choosing an innovative governance model that would make the solution a reality. The three streams converged and the interests of many of the stakeholders were satisfied:

- The government, by avoiding increasing the budget deficit through investment in expensive transport megaprojects;
- CDPQ, by proposing a solution that meets its profitability objectives;
- The City of Montreal, which will benefit from an electric mobility system that meets its strategic objectives for the electrification of transportation without taking a predominant leadership or financial role;
- A national and urban political context was opportune with a consensus, including that of the opposition and a majority of the government after the COP 21, to find innovative solutions to public transport problems and the electrification of transportation.

Conclusion

In this article, we have largely demonstrated that Kingdon's model is still useful in the field of public administration and that his main hypothesis tends to be confirmed. The policy solution to a problem is often more opportunistic than it is based on rigorous analysis and pluralists' debates. In the case of the REM, the government did not follow the logical process of making a well-founded comparative analysis between the different possible solutions. Instead, it directly chose, without a call for tenders, a newly created institution to deal with the financing and managing infrastructure of a megaproject worth several billion dollars. Moreover, the REM is presented as a solution by the CDPQ Infra only 6 months after the government's request, which appears to be a very short period for a megaproject of this scale. For all those reasons, we conclude that the actors associated with the choice of a governance model is as important as the problem, policy and political streams. It is for this reason that we wanted to revisit the Kingdon's model by proposing a new stream which is that of the governance stream.

Through the linking of Kingdon's theoretical framework and PPP governance model, we have shown that the "megaproject" solution includes a governance stream as presented in Figure 3. We conclude that the choice of a governance model has largely influenced the putting on the agenda of megaprojects by being part of the current solution. This influence is therefore achieved through the convergence of the governance model chosen with the solution stream to join the two other streams, problem and political context, thus opening a window of opportunity. Therefore, if the solution is accepted for inclusion on the agenda, it means that the proposed governance model is also accepted. We are indeed talking here about the acceptance by the decision-makers. That is to say that the solution is adopted if the entrepreneurs manage to convince the decision-makers and the stakeholders that the proposed solution is available and defensible, socially and politically acceptable, technically feasible and financially and anticipates future constraints.

On the other hand, despite criticism, the government showed great determination to move quickly by exploring new governance avenues to fund, build and manage megaprojects. By using a public-public partnership, the REM project was more expeditious compared to a traditional project or a conventional PPP. Today, the project is under construction and the service should start in 2024. The province and the City of Montreal will consolidate their transport electrification strategies. The proposed financing model partly avoids the need for public actors to justify significant borrowing from taxpayers, who have become increasingly suspicious of public authorities. The profits, spinoffs and economic opportunities from this project will partly benefit the public interest. The expertise developed by the CDPQ Infra will serve as a springboard for other investment projects in public infrastructure megaprojects in Canada or abroad in the future. Although the project is extremely political in nature, as shown in this article, the management of the project will take place outside the metropolitan quarrels fuelled by inter-municipal competition and the complexity of

metropolitan governance. In the end, once built, it will be a game changer for regional public transit in the greater Montreal region.

The novelty that we observed in the results of this article lies in the diversity of the entrepreneurs of the projects in each stream. In the literature that mobilizes Kingdon, such as the model of Garraud (2019), the entrepreneurs of a public policy put strategies and weave relationships with actors close to the decision-making spheres such as government officials, experts and the media in order to ensure the trajectory of the agenda setting. The REM case shows that this trajectory can be distributed among several contractors who will take over from one phase to another.

For example, we did not observe the presence of CDPQ Infra, which is the entrepreneur of the solution, in the currents of the problem or in the political current. This does not exclude the possibility of what Garraud (2019) describes as "silent corporatist action", i.e., direct contacts behind the scenes between the government and the CDPQ to prepare the agenda. Through our analysis, we have concluded that the government of Philippe Couillard has done all the work upstream to ensure the opening of a "problem window" and downstream to ensure a favorable political context ("political window"). In this case, the CDPQ became the main contractor since it proposed and chose the solution without competition from other alternatives and without a call for tenders from the government. Also, CDPQ became the spokesperson for the policy, instead of the government, to defend the project. Faced with a contribution—the most important in the project—of planning, financing, operation, and appropriation of the CDPQ, the case of the REM demonstrated a secondary decision-making role of the two levels of government concerned, whether the government of Quebec or the City of Montreal. An interesting situation to observe where the government facilitates the implementation of a public service project for an organization whose primary objective is the profitability of its investments, which calls into question the role of multilevel governance in this case.

In this sense, this article has shown us the limited autonomy of cities and municipalities in the governance of urban megaprojects, while they are the first concerned by these projects. Ruhlandt (2018) explains that the degree of autonomy of the city refers to its position in the decision-making process, more particularly in a context of multilevel governance with the other levels of provincial and federal governments. In the case of the REM, our analysis of the window of opportunity *via* the Kingdon model showed the secondary role of the City of Montreal in the decision-making process for putting the REM on the agenda. Admittedly, the City of Montreal has announced plans and strategies such as the "2016–2020 transport electrification strategy", but these strategies are only an adaptation of the policies of the Government of Quebec. As we demonstrated in the section on entrepreneurs of the REM policy, it was the CDPQ and Premier Phillipe Couillard who played a central role in REM policy. In addition, the announcements of the then mayor Denis Coderre about the REM represented a kind of "marketing for Montreal" and only confirmed the positions of the Couillard government to prepare the ground for the REM proposal.

Finally, the business model proposed by the CDPQ demonstrates a direct relationship with the Government of Quebec with a limited role for the City of Montreal in this model. As presented in the section on the solution, it is the Government of Quebec and not the City of Montreal that has requested proposals for solutions to transportation problems in the metropolitan area. In short, the degree of autonomy of the City of Montreal in the decision-making process of the REM was rather weak and was limited to a platform for integrating the project to its own public transit system. One of the main reasons that we raised during our analysis of the role of the actors is that of the financial contribution to the project. We demonstrated that the financial imperative was decisive in the governance of the REM, while the City of Montreal did not participate directly in the realization of the project at the financial level.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding authors.

Author contributions

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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