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Implementation of Integrated Project Delivery in Quebec's Procurement for Public Infrastructure: A Comparative and Relational Perspective

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Abstract: Province of Quebec (Canada) is in the process of implementing integrated project delivery (IPD) in its procurement process for public infrastructure to more effectively and efficiently achieve functional, environmental, and economic objectives. This paper analyzes the procurement legislation, regulations, and context of three jurisdictions through a comparative law approach and under the light of Macneil's relational contract theory. It is found that Quebec's procurement process has transactional features that should be counterbalanced, in the context of IPD implementation, by focusing on relational values, whether at the macro or personal level. These relational mechanisms should help legislators and public bodies establishing and operationalizing a viable and relational context of professional services and construction works procurement for IPD projects.

Keywords: public procurement; integrated project delivery; relational contracts; environmentally friendly buildings

1. Introduction

The public sector has traditionally used design-bid-build as its main delivery method to complete construction projects, usually adjudicated using the lowest responsive and responsible bidder criterion. In this delivery method, the client maintains a direct contractual relationship with the contractor, and the role of the various parties to the contract is very circumscribed, therefore creating a silo effect between the key stakeholders who work separately and focus on individual goals, rather than project goals [1]. This linear form of procurement and project execution, associated with the use of standardized contracts, leads to finger pointing and disputes when problems arise [2]. The traditional public-sector construction industry is fragmented, specialized, and has a legacy of litigation [3]. Many studies have demonstrated limitations associated with the use of the traditional delivery methods, such as the creation of adversarial relationships, a lower productivity rate, inefficient methods leading to the recommencement of certain jobs and poor quality, as well as high rates of disputes and a lack of innovation. Those limitations lead to an increase in costs, schedule delays, and poor quality [4–6]. To overcome these problems, the industry has turned to alternative delivery methods and adjudication mechanisms, focusing on value rather than price, and advocating the integration of project teams and phases, namely finance, design, construction, operation, and maintenance.

In Quebec, The Société québécoise des infrastructures (SQI) is the public body responsible for advising the government on all matters relating to public infrastructure projects, as well as providing

services of a strategic, financial, and contractual nature to various ministries and organizations [7]. In its latest annual plan, SQI stated that the implementation of integrated project practises is now necessary. By integrated practices, the organization refers specifically to integrated project delivery (IPD). SQI acknowledges the contributions of this practice, which is likely to increase efficiency at all stages of the infrastructure life-cycle, essentially through reduction, and ideally, the elimination of traditional fragmentation within project teams [7]. It initially planned to implement IPD in all major projects at the start-up stage in 2016. IPD can be defined as a method for building high performance buildings by using a multidisciplinary and collaborative process covering the entire life-cycle of the infrastructure, and that relies on the synergy of infrastructure system strategies to achieve integrated and optimal solutions [8]. Integrated project delivering is considered as an example of relational contracting that aligns project objectives with the interests of key participants [2].

Ian Macneil's relational contract theory [9] attributes a role to the phenomena of interaction in exchanges and focuses on the whole relationship between the different parties, representing a different paradigm of contracts and contract law [10]. Macneil assumes that there are 10 common contractual norms, which are interpreted according to a discrete/relational spectrum, and determining how contracting parties must, or should, behave during the exchange: these norms are role integrity, reciprocity, planning, effectuation of consent, flexibility, solidarity, linking norms (restitution, reliance, and expectation), power, propriety of means, and harmonization with the social matrix. This sociological approach to contracts helps to understand the relational, non-market aspects of economic activities [10], making it an appropriate theoretical framework to study the implementation of IPD in Quebec's public procurement process.

Relational contract theory has been applied in the construction and governance fields. Research has focused on factors facilitating the use of relational contracting and its effect on project performance [3,11–15]. However, most of IPD projects were completed in the private sector. Research asserts IPD is not currently used, in its purest form, in the public sector due to state laws limiting public authorities in their choice of a delivery system and the difficulty of changing these laws [16]. The widespread use of open lump sum bidding also causes problems for public authorities wishing to implement IPD methodology [17], and research has identified the need for improved selection of project partners [11]. Relational contract theory has also been studied in the context of competitive tendering, especially in the United Kingdom (UK) [18–21], but few authors have studied what form should take the regulatory frameworks for the compulsory procurement of public construction projects. Procurement of complex performance research, in the governance field, has found that procurement processes can present numerous regulatory issues and are considered by some researchers as an exogenous uncertainty leaving little scope to apply a more relational contracting [22,23], while influencing parties' cooperative behavior [24].

The literature has generally identified the legislative and regulatory framework as a barrier to relational contracting or has identified the need for an appropriate framework. However, the characteristics of competitive tendering can be counterbalanced by relational mechanisms. This article aims at deepening existing literature regarding the specific transactional characteristics arising from the regulatory framework as well as their relational counterparts, and therefore at providing guidelines for a regulatory framework more conducive to relational agreements such as IPD. In other words, what are the specific regulatory transactional features acting as a barrier to IPD implementation and which relational mechanisms could help to mitigate those features? This study aims at providing legislators and public bodies, such as the SQI, establishing and operationalizing a viable and relational context of procuring professional services and construction works for complex projects, in terms of developing the necessary innovations to deliver environmentally friendly buildings at a competitive cost, and thus achieve environmental goals and sound management of public funds by using IPD.

To qualify Quebec's legislative and regulatory mechanisms, according to Macneil's discrete/relational spectrum, a comparative law approach that is based on the common contractual norms is used to emphasize the presence or absence of these values in public procurement's legislative and regulatory

environment, as well as the way in which they are operationalized. The comparative law approach is used in a critical way [25], with the hope of influencing a law reform for the implementation of IPD and collaborative approaches in Quebec's public procurement process. The comparative law approach is a contextualized, integrated and differential micro comparison of public procurement legislation and regulations [26]. Following a preliminary analysis of potential regulatory frameworks, the jurisdictions authors chose to analyze in this research project are Quebec, Colorado, and the United Kingdom. Colorado was chosen because of the importance it attaches to energy efficiency and the presence of an IPD process in their Procurement Code and Rules (CRS) [27], while the United Kingdom's Public Contracts Regulations 2006 [28] served as a model for the drafting of the public procurement procedure in Quebec, especially regarding the public-private partnerships (PPP) process. The choice of the United Kingdom, which was part of the European Union at the time of the study, also made it possible to consider the European Parliament's Directive 2014/24/EU [29] through its implementation in the Public Contracts Regulations 2015 (PCR) [30]. Selected jurisdictions had to present substantially contrasting regulatory frameworks to satisfy the differential criteria of the comparative law approach.

The paper has eight sections. Following the introduction, Section 2 presents the main conceptual notions regarding IPD, relational contracting and its application in the fields of construction and governance. Sections 3 and 4 mainly concern Quebec's public procurement discrete and transactional features, since it is the jurisdiction to be reformed, while Sections 5–7 introduce relational features and mechanisms, derived from each jurisdiction, which could be used to facilitate the collaborative work towards innovation in designing and constructing environmentally friendly buildings. The paper concludes by formulating implications for public authorities, policy makers, and outlining future research.

2. Conceptual Background

2.1. Integrated Project Delivery

To improve the atmosphere as well as the performance of delivering construction projects, the construction industry has relatively recently turned to IPD, an evolving delivery approach, which has the potential to create a non-adversarial project team from different organizations [31]. IPD relies much more on the relationships between key stakeholders than the delivery method or contracting process used [12,32]. IPD is designed to help clients and other stakeholders to more effectively and efficiently achieve their clearly defined and innovative functional, environmental, and economic objectives. The successful implementation of an IPD requires ongoing collaboration between stakeholders, upstream iterations, innovation, decision-making driven by performance objectives, ongoing value management, use of energy simulations, a post-occupation assessment of the building, a holistic approach, effective and open communication, and the maintenance of quality assurance throughout the process [8]. The use of IPD enables to meet or exceed owners' expectations regarding budget, schedule, design quality and sustainability [33]. IPD projects, in comparison to non-IPD, attained a higher quality level, with a superior completion time, a lower number of changed orders, and this without significant increase in total project costs [32]. Because of the key stakeholders' early involvement and collaboration, the motivations to choose IPD as a delivery method are market advantage, cost predictability, schedule predictability, risk management, and technical complexity [34]. Integrated project delivering is considered as an example of relational contracting that aligns project objectives with the interests of key participants [2].

2.2. Relational Contract Theory

IPD contracts seek above all to formalize long-term collaboration between stakeholders that build mutual trust and flexibility in order to minimize the sources of conflict and the unforeseen events that will certainly occur over the course of the relationship. These traits are partially shared by contracts with a high relational content [35]. Ian Macneil's relational contract theory [9] attributes

a role to the phenomena of interaction in exchanges and focuses on the whole relationship between the different parties, representing a different paradigm of contracts and contract law [10], more organic and less static than the classical vision based on Coase [36] and Williamson's [37] work regarding transaction costs theory. The relational contract theory tries by various means to capture the norms of a dynamic economic context, subject to change, more cooperative and symbiotic, and partly created by the phenomenon of specialization of labour [38]. Macneil assumes that there are 10 common contractual norms, which are interpreted according to a discrete/relational spectrum, and determining how contracting parties must, or should, behave during the exchange: these norms are role integrity, reciprocity, planning, effectuation of consent, flexibility, solidarity, cohesive norms (restitution, reliance, and expectation), power, propriety of means, and harmonization with the social matrix. A norm means an action principle, existing or ideal, which binds parties and serves to guide, control or regulate behaviour [9]. These common norms interact and should be in equilibrium: an accentuated or unbalanced norm could distort the relationship [20].

Contracts with strong relational tendencies have certain characteristics, such as the existence of a relationship of significant duration and the importance of close personal relationships. Individuals that are involved in the relationship are numerous and have individual and collective interests, and their future cooperative behaviour is expected and essential. The links between friendship, reputation, interdependence, morality, and altruistic aims are an integral part of this relationship. The object of the exchange typically comprises readily measured quantities and quantities that are not readily measured. The benefits and burdens of the relationship must be shared rather than divided and allocated. The binding nature of the relationship is limited. Finally, participants never expect to see the entire future of the relationship presentiated at any given time. Presentiation means bringing all future dimensions of the contractual relationship to the notice of the parties at the time of the contract preparation. Instead, participants view the relationship as a continuous integration of common and personal behaviour that will grow and vary according to events and circumstances of a largely unpredictable future, where problems are unavoidable and expected [35].

Researchers have studied Macneil's norms applicability in a commercial exchange context. A study developed a method to measure the structure of commercial exchange relationships through the norms of solidarity, mutuality (reciprocity), flexibility, role integrity, restraint of power, conflict resolution (harmonization of conflict), and relationship focus (implementation of planning and effectuation of consent), which were found to be operationalizable to describe commercial exchange relationships between the buyers and sellers [39,40]. Authors have also studied how the norms of reciprocity, role integrity and solidarity affect a party's perception of unfair treatment by using a sample of marketing organizations in contractual litigation. They found that a link exists between the perception of unfairness by a party and the level of hostility that it retains after the conflict episode concludes, and therefore that solidarity relates to the level of perceived fairness [40,41]. Others have constructed multiple-statement scales to measure the norms of flexibility, information exchange (reliance and expectations), shared problem solving (harmonization of conflict), and restraint of power, which all exhibited positive correlation, which agrees with relational contract theory [40,42].

2.3. Relational Contracts in Construction

Relational contract theory has also been studied in the construction field. Research in connection with relational integration has found four components of facilitating factors for the process of team building (1) client's competencies and overall learning/training policy; (2) previous interactions, performance, competencies, and specific input and outputs of various partners; (3) compatible organizational culture, longer-term focus, and emphasis on trust building; and (4) improved selection of project partners and better responsibility delegation. The authors state that this last factor, which directly relates to public procurement regulatory frameworks and the need to explore the matter further, emphasizes the aspect of partners' competencies instead of price only consideration, while also including the need for early disclosure of important project information for

feedback [11]. The five components of deterring factors are: (1) lack of trust, open communication, and uneven commitment; (2) commercial pressure, absent or unfair risk/reward plan, incompatible personalities, and organizational cultures; (3) lack of general top management commitment and client's knowledge/initiative; (4) lack of good relationships among the team players; and (5) exclusion of some team players in risk/reward plan, errors, and cultural inertia [11]. These components, as well as studies that furthered them [12,13], are specific to the Singapore construction industry, but make sense regarding relational contract theory [40].

While not exactly using indicators specifically associated to relational contract theory, authors studied the effect of relationships on project performance and determined that the breakdown of a supply chain relationship increases the occurrence of poor project performance and specifically affect budget more than time or quality [14]. A recent study also investigated relational transactions and overall relationship quality by utilizing, among others, the norms of role integrity, flexibility, contractual solidarity, propriety of means, and harmonization of the social matrix. The authors found significant positive correlations between relationship quality and its influence on time performance and client satisfaction, as well as between high propriety of means and better cost performance and higher client satisfaction. They affirm that the relationship quality among project team members can be predicted by the extent to which relational contracting practices are implemented, practices, such as (1) adoption of flexible strategies; (2) readiness to compromise on unclear issues; (3) willingness to commit on a long-term basis; (4) attitude towards teamwork; (5) trust among team members; (6) sharing of project information; (7) understanding among team members; and (8) alignment of the objectives of different parties [15]. One of the most recent studies explored measured project integration using relational contract theory. This study concluded that relation contracting could define project integration in terms of expected behaviors. The author also noted that IPD contracts highlight integration more than design build, construction manager at risk, and design-bid-build contracts, and correlations were found between contractual norms and projects success [40].

Relational contract theory has also been studied in the context of competitive tendering, especially in the UK. While competitive tendering may be seen as being prone to transactional tendencies, those can be counterbalanced in some instances by relational techniques or mechanisms, such as the award of contracts to the same provider over a number of tendering rounds, the negotiation of details after the decision to award the tender, the use of approved lists, and knowledge of tendering parties through reputation and past dealings [20,21]. Contractual problems were noted to be the result of compulsory competitive tendering and the climate of mistrust plaguing it [18]. On the other hand, voluntary tendering has been shown to be more relational because of public authorities being able to exercise greater choice and a more flexible procedure regarding time frames and selection criteria. Voluntary tendering was also identified to allow greater scope for dialogue associated with face-to-face negotiation and give-and-take bargaining. Case studies have also shown that cooperative relationships can be established in the context of housing management and legal services [18–21]. In practice, appropriately implemented competitive tendering should not be an insurmountable barrier to relational contracting, but few authors have studied what form the regulatory frameworks for the compulsory procurement of public construction projects should take.

2.4. Relational Contracts and Governance

Governance is also a field of study interested in relational contract theory. More specifically, procurement of complex performance research has recently emerged [43,44]. Complexity is usually defined according to different factors such as the number of project stakeholders, the length of the planning/contracting negotiation and construction phases and by the extent of which infrastructural components are bespoke or highly customized [43], criteria that applies to IPD. Literature has found that the two main types of governance regarding inter-organizational relationships are contractual and relational [45]. Contractual governance refers to the importance of formal contracts and their rules to safeguard from opportunistic behavior and conflict [45], a concept that is close to the transactional

pole of Macneil's spectrum. Relational governance, or trust, is an alternative to mitigate uncertain and transaction-specific investments [9,42,45], just as Macneil's relational pole.

Researchers have found that the development of trust is a cyclical process of recurrent bargaining commitment and execution of events amongst both partners [46], which is a concept that relates to relational trust [47]. Recent research also shows the importance of fostering interpersonal and inter-organizational trust to establish feedback channels and to facilitate team familiarity, which in turn could lead to increased project performance [23]. During the earlier and more vulnerable project phases, it was also found that the establishment of interpersonal relationships between partnering organizations to overcome obstacles had a positive effect on the relationship and led to a more flexible contractual interpretation in later project phases [23]. Nonetheless, contractual and relational governance need to be considered as complementary mechanisms [45,48,49]. Contractual exchange governance in complex procurement arrangements should benefit from an increase in relational exchange governance [23]. It was also noted that increasing relational content of a governance structure that contains contractual agreements could improve performance for relationships when the level of uncertainty that is found in the contractual relationship is high [50].

Concerning the procurement regulatory framework, researchers have found that the procurement process can present numerous regulatory issues at multiple levels that necessitated formal documentary process which might lead a private buyer to seek a less bureaucratic approach. They also found that the contracting process was influenced by ex-ante transactional (design and service specifications) as well as infrastructural (financial and organizational structures) complexity [22]. The procurement regulatory framework is considered by some researchers as an exogenous uncertainty leaving little scope to apply a more relational contracting approach relying on risk-sharing mechanisms, open communication, and joint goals, and this externally imposed regulatory framework could hinder the development of inter-organizational trust [23]. Research also advances that regulatory frameworks, or legal systems, can alter the effectiveness of contracts, and therefore, affect the parties' cooperative behavior by imposing constraints [24]. To manage high levels of complexity, research has found that organizations should respond with more complex strategies, structures, and decision processes, instead of trying to reduce it [51,52].

3. Power and Public Markets for Professional Services and Construction Works

In Quebec, public procurement for construction work and professional services is subject to the Act respecting contracting by public bodies (ARCPB) [53], the main purpose of which is to determine the conditions applicable to contracts that a public body may conclude with a supplier. The ARCPB covers public contracts for professional services, construction works, and public-private partnerships (PPP). It applies to the various public bodies of the governmental administration, as well as those from the education, health, and social services network. The ARCPB establishes the conditions relating to the selection of suppliers, the awarding of contracts and their management. Its principles are transparency in the contracting processes, fair treatment of competitors, accountability based on the answerability of public body's managers, consideration of government orientations in terms of sustainable development and environment to create effective and efficient procedures, as well as the sound management of public funds. Restricted and invitational procedures, which are usually used for procurement below certain value thresholds, are left out of this study's scope, which focuses on open and public tendering procedures.

Quebec's public procurement market, as well as its legislative and regulatory tools, presents certain features that can be associated with transactional economy [54], a concept that is defined by Max Weber and used by Macneil to illustrate the discrete pole of his spectrum. Transactional economy is characterized by power and domination measures employed by bureaucratic structures and is illustrated in Quebec's case by the linearity and rigidity of the procurement process, as well as the use of standardized contracts. This is not to say there are no valid or practical reasons for those measures, but only that they have the effect to distort the contract norms' necessary equilibrium, and contribute

to the transactionalization of the procurement process, which could prove to be problematic in the context of procuring complex projects requiring a more collaborative and relational approach in order to achieve the construction of environmentally friendly buildings at a competitive cost.

3.1. Monopsony Features of the Public Market and Its Impact on Perception of Fairness

The public procurement market presents monopsony features, which means demand, and not supply, is subject to domination from one party, making it the opposite of a monopoly. In this type of market, the state and its organs are often the only option for the private sector. Thus, in the supply and demand equation, the dominant party is on the demand side, that is, the state and its bodies as clients, and the industry, which offers its services, competes to appropriate a portion of this public market. Even in the case of privatization of demand, for example, by opting for a public-private partnership in which the private partner deals with procurement in place of the public partner, this dominance is delegated [55]. In Quebec, the public sector is responsible for more than 68% of investments totaling \$17 billion in terms of non-residential construction [56], suggesting that the state exercises an economic pressure on potential suppliers. Another aspect contributing to the monopsony features of this market resides in the type of infrastructure that is to be built by the state: a firm of architects or engineers specializing in the construction of hospitals, penitentiaries or schools does not have a market for their services other than government. However, these facts must be put into perspective: supply can potentially be organized in an oligopolistic way and thus offer a counterweight to the domination of the government apparatus.

This control of the market is often exacerbated in some regions by the presence of barriers to access transnational procurement opportunities to encourage the provision of professional services and construction contracts to local firms. For example, the United States has put forth the Buy American Act, limiting the opportunities for foreign firms to participate in the public procurement process by favoring local procurement. Since the 1990s, Quebec has entered multiple market liberalization agreements with the federal government, different provinces, and the State of New York, just to name a few. It is also bound by the Agreement on Government Procurement of the World Trade Organization. These agreements have the effect of opening public markets to external firms, according to specific thresholds and on a reciprocal basis. While allowing for Quebec firms to participate in foreign jurisdictions procurement opportunities, these agreements also have the effect of introducing competitors into a market whose demand is already and primarily controlled by public agencies, thus adding to the climate of instability and empowering public bodies for the negotiation of construction works and professional service contracts.

The domination features of the public market can also have an impact on the way negotiations are conducted and their possible outcomes, whether they relate to price or non-price factors [57]. The relative bargaining power of parties entering a contract influences its content, especially the price factor, which is an important component of the reciprocity norm regarding the sharing of benefits, and could therefore influence the perception of the relationship by the parties. Quebec included fixed-remuneration scales in its procurement regulations to standardize the rates that are applicable to different services or works [58,59]. While it has the effect of creating a form of stability and certainty for the suppliers, it also limits their potential gains and furthers the silo effect by which each stakeholder of the contractual relationship could try to maximize its own individual interests, instead of being bound to the project success. The impacts on the reciprocity norm are unclear: while reciprocity does not ask for an equal remuneration, but for some form of regularity, it is to be used as a binding tool to share the benefits and burdens, costs, and risks, deriving from the relationship. With a fixed-remuneration scale, there is no possible way the benefits could be shared between the parties since the project success is not apparent, and measurable, in the first place. The price factor and reciprocity norm are heavily influenced by the public bodies' power in determining the limits to which architects, engineers, and contractors can reap the benefit of their work. This negatively affects the value-creating process of public procurement by creating barriers for project-oriented remuneration by focusing on silo tasks.

But what about the contract design, the non-price factors of the contract? Choi and Triantis identify ways in which a shift in the bargaining power might lead to inefficient contract design [57]. Value-claiming, rather than value-creating strategies, are exacerbated by the pursuit of advantage in negotiation, a rather transactional and discrete feature of the contractual relationship, a way to maximize individual interests instead of the team or project-oriented goals. The public bodies, the party with the greater bargaining power, also have more incentives to create value by contract design than the suppliers. Therefore, it is plausible to believe that one-sided bargaining power can lead to the inefficient use of non-price terms of a contract [57]. This does not mean that the contract is unfair: the question rather lies in the perception of fairness by the parties of a long-term contractual relationship, a perception that is illustrated by the difference between reciprocity and mutuality, two important notions in relational contracts theory. Mutuality relates to the act of sharing a feeling or a relationship, the act of taking part into something jointly, whether reciprocity, a common contractual norm, concerns the object being shared in an equivalent, not necessarily equal, manner. The effect of bargaining power on price factors concerns reciprocity, but it is mutuality and other norms, such as flexibility, role integrity, and power, which are affected when the non-price factors are in play, factors which are decisive, maybe even more than the price, in the conduct of a relationship regarding the relational contract theory [10]. The public bodies' power in contract negotiations, often one-sided, assuredly affect the perception of mutuality by the supplier and represent a discrete aspect of the contractual relationship in Quebec's public procurement for construction works and professional services.

3.2. Bureaucratization as a Form of Domination

Another notable aspect of the discrete values governing the public market for construction works and professional services lies in bureaucratization as a form of domination, and especially an impersonal form of domination illustrated by the standardized and adhesion features of public contracts, as well as a propensity to use policies and directives, especially in the fields of sustainable development and environment.

Organizations, such as the State and its bodies, employ power measures, like standardized contracts, whether they present adhesion features or not, to gain predictability [60]. This contractual language uniformity is an important factor in risk calculation and is useful for controlling and excluding irrationality in litigation, and they are usually put forth by enterprises, or public agencies in this case, with strong bargaining power [61]. Impersonal domination, or coercion, of suppliers is achieved to enable formally rational action [62], which means that a quantitatively or logically calculable rationale traditionally used by bureaucratic structures. Quebec, and one of the 10 largest clients in Canada, the SQI, are no exception, for they use Canadian Construction Documents Committee contracts and mostly standardized contracts. This is not to say these contracts are poorly drafted or that they create unwanted results, but that their use illustrates the power imbalance in the public market for construction works and professional services, as well as the general transactional and impersonal approach that is used by public bodies to achieve their means. While the size alone of these public bureaucratic structures can be considered as an important variable of the power calculus [63], it should be considered in parallel to the quasi-monopsonic nature of the public market. Organization size and control of demand create an imbalance of power which can influence social action [64] of the stakeholders over the course of the relationship or during the settlement of disputes.

In Quebec's civil code (CCQ) [65], contract of adhesion (CCQ, art 1379) means that there is no freedom of discussion, of negotiation, or compromise. Contractual freedom is reduced to its simplest form and if the contractor still has a choice, that choice is reduced to that of contracting or not contracting, but that freedom does not apply to the terms of his engagement. The party who wishes to contract must automatically accept all of the clauses and conditions of the agreement unilaterally fixed by the solicitor [66]. It is therefore possible to establish a reasoning linking the notion of contract of adhesion and power in that freedom of contract enables enterprises, or in this case, the State, to legislate by contract in a substantially authoritarian manner without the appearance of

authoritarian forms [61]. This is the case with the use of standardized contracts, which frequently present adhesion features. A classic example is when the potential contractor agrees in advance not to withdraw the offer that he made while the other party reserves the power to accept or reject it, a situation perfectly applicable to the procurement process and the concept of tendering. But freedom of contract is not something clear and definite, easily appreciable, and should be interpreted in the light of the type of contract, and, more importantly, the degree of monopoly enjoyed by the author of the standardized contract [61]. Macneil also argues that monopolists often use contracts of adhesion that contain one-sided terms [64], which resembles the use of CCDC and SQI-standardized contracts in a monopsony market. No contractual terms negotiation procedure is provided by Quebec's procurement regulatory framework, except for PPP contracts. While some price and time clauses may be negotiated, the fact they are limited by external regulations only reinforces the adhesion features of the procurement process [58,59]. Professional services and construction works public contracts are thus adjudicated in a monopsony market on a take-it or leave-it basis, using standardized contracts, with no or limited negotiation possible.

In Quebec, literature does not unanimously admit that those contracts are of an adhesion nature, even if a lonely case law points in this direction [67]. In the United Kingdom, commercial contracts negotiated between businessmen that are capable of looking out for their own interests and deciding how risks inherent in the performance of various kinds of contracts are allocated are not considered adhesion contracts or as illustrating an imbalance in bargaining power [68,69]. On the other hand, a few case laws deal with the notion of standard terms and imbalance in bargaining power, noting that imbalance should be considered as so only if contrary to the requirement of good faith [70–74]. The notion of contracts entered by sophisticated and knowledgeable businessmen not being of an adhesion nature is equally present in the United States [75]. But the United States (U.S.) Supreme Court also decided, in choosing between two constructions of an ambiguous contractual provision in a fixed-price construction contract, to favor the weaker party because of Government's vast economic resources and stronger bargaining position in contract negotiations [76]. The objective of this section is not to establish public construction and professional service contracts as being of an adhesion nature, but merely to point out the asymmetry of powers between the parties in a public market where demand is vastly controlled by the State [77].

Another aspect contributing to the power imbalance, and having a potential effect on institutional trust [47], understood as trust in a system, is the use of policies and directives that prove to be non-opposable to public bodies. Social, political, or economic factors are sometimes more important than legal factors in explaining and understanding administrative action [78], and these external factors are usually crystallized by public bodies' manuals, guidelines, and directives. Quebec has its own set of administrative rules, such as the major public projects management directive and The Wood Charter [79]. To apprehend administrative action in this field, one must understand that these rules are put in place to satisfy lobbies, to homogenize administrative management, and/or, to respond to concerns of the population and scientists for the environment. The problem does not lie in the content of the policies or directives, but in the anticipation of a possible breakdown of the boundaries between legislative and administrative powers, which could lead to a gradual shift, in terms of control of the power, from the legislation to the administration, especially if public officials are not to be held accountable. This phenomenon of empty shells would enable the legislative power to put in place principles and values without real enforcement mechanisms in favor of a series of administrative acts that are not opposable to the State, thus greatly serving the interests of the administration at the expense of the suppliers and the public. Such a phenomenon could hypothetically lead to a more heterogeneous management by public bodies, thereby making an already labyrinthian system even more complex for the lambda supplier. This shifting of regulatory power would also give administrators more obligations and responsibilities, without necessarily conferring the corollary proficiency needed, which could lead to lax decision-making, a high level of discretion and no external control, which in turn, could affect the trust level of the suppliers at the institutional level.

4. Fragmentation, Linearity of the Process, and Prescriptive Requirements

The features of the public market for construction works and professional services contribute to the transactional, or discrete, values of the system, by creating an imbalance of power that can affect the perception of fairness of the process by the suppliers, as well as reciprocity and institutional trust towards the administration. But other factors contribute to the transactionalization of public procurement, such as the fragmentation of the procurement process, as illustrated by the asymmetry between regimes for professional services and general contractors, and the price-laden quality award mechanism, as well as the linearity of the approval process.

4.1. Distinctive Regimes for the Procurement of Professional Services and Construction Works

An illustration of the fragmentation of the procurement process lies in the asymmetry between the qualification processes for professional services and general contractors, regimes that are governed by distinct regulations, respectively, the Regulation Respecting Construction Contracts of Public Bodies (RRCCPB) for construction works and the RRCSCPb for services [80,81]. The purpose of the qualification of potential suppliers is essential in terms of relational contracts theory, as propriety of means is considered a common contractual norm, as well as an especially relational norm. The purpose of qualification, as well as the norm of propriety of means, is to verify whether the suppliers have the financial, material, and personnel resources and skills that are necessary to complete the project. The relational pole of this norm requires the parties to the contract to possess the necessary means to carry out the relationship. The qualification process is also used to verify the integrity of the tenderers, a recurring theme in Quebec's procurement regulations. This task was assigned to the *Autorité des marchés financiers* (AMF), who is responsible for issuing licenses to companies that are wishing to enter into public contracts and subcontracts incurring an expense that is equal to or greater than the thresholds determined by the government.

While both contractors and service providers must meet eligibility requirements, such as the necessary administrative authorizations or the need to have in Quebec, or in a territory that is covered by an applicable intergovernmental agreement, an establishment where activities are carried on a permanent basis or any other eligibility requirement specified in the tender documents (RRCCPB & RRCSCPb, art 6), the same is not true for the qualification phase. Service providers may be qualified by a public body according to a determined set of criteria (RRCSCPb, art 43). The same applies to the qualification of contractors prior to entering construction contracts pertaining to transport infrastructure (RRCCPB, art 36). But Quebec's legislation has a unique omission: there is no qualification mechanism for general contractors who do not bid on mixed, road infrastructure, or construction manager contracts.

The content of the regulations concerning the qualification of professional services and construction works suppliers slightly diverges, something that is understandable when the predominant delivery method was the traditional design-bid-build, where the general contractor was mainly the executioner of the designers' work. But, the emergence of alternate delivery methods, such as construction manager at risk, design-build, partnering, alliancing, and IPD, has modified the traditional roles associated with construction projects. Roles in integrated teams, and in relational contracts, become somewhat more complex and multidimensional, having for effect to crumble the barriers between the different stakeholders, or professions, in a project. The role of the general contractor has evolved, and his early involvement upstream of the design phase illustrates the variance in the skills that are now demanded from him. With a status somewhat nearing that of a consultant or a service provider, the general contractor now participates in the implementation of the project by offering, among other things, his opinion on constructability matters, the estimation of the costs, the timetable, as well as the type of materials that is used on the project. So, why differentiate the service providers from the general contractors, if they essentially have the same role, that is of a consultant? This distinction was understandable in the context of the design-bid-build approach, but is obsolete in the context of integrated project delivery teams, where each prime member is supposed to have

an equivalent type of input in the decision-making process. Integrating a general contractor on the lowest bid basis certainly does not help to create relational trust, or organic solidarity, between the parties to a contract. Qualifying the general contractor on the same basis as a service provider could help to create a level playing field in the design team regarding the respect of each other's opinion and skills during the decision-making process. It would also ensure general contractors are qualified to participate in such collaborative processes.

The distinction between the service providers and the general contractors' regimes does not stop at the qualification phase of the procurement process. It overflows to the award criteria that are used by public bodies in their adjudication process. Professional services are solely adjudicated on a quality basis (RRCSCP, art 24). Quality is evaluated through a minimum of three objective criteria, which can take numerous forms, such as the number of years of experience, the number of similar previous contracts, or the existence of a quality assurance system. However, it is unclear whether these criteria appropriately and truly reflect work quality, for they are an objective assessment of a subjective matter. It is impossible for a public body to be fully certain of the quality of the service that will be provided to them, for quality is easier to denote than to define. Life-cycle evaluation of infrastructure made us understand that the performance of infrastructure is to be appreciated over an extended period. The use of objective criteria undermines the subjective procedure inherent to a qualitative assessment, and represents a form of the discrete norm of presentation. An objective evaluation of a subjective matter could raise problems, and public bodies should consider evaluating more subjective qualities, such as the ability to collaborate with team members in previous projects, and doing so by inviting core team members to a collective interview process or by adjudicating contracts to joint ventures after evaluating their synergy and collaboration.

The general contractors' adjudication criteria also present another example of objectification and presentation of quality, which can be found in the use of the "k" coefficient (RRCCPB, schedule 5). This coefficient expresses the percentage, which can vary between 15% and 30%, which a public body is prepared to pay more to go from a quality score of 70 points to a quality total of 100 points. It thus has the effect of attributing a monetary value to quality. However, studies suggest that most people would insist on being paid much more to consent to a worsening situation than they would be willing to pay to improve their situation [82], a notion that directly applies to the "k" coefficient and its use by public bodies. The quality-adjusted proposals seem to express an impersonal form of adjudication: professional qualities, quality assurance system, means used to carry out the project, or recent experience in similar projects all have more or less a link with the quality of the work or services of suppliers, and trace the outlines of a more varied and broader constellation of values than the one-time submission of a price, but do not assess the ability of different stakeholders to interact, collaborate, and respect each other.

The fragmentation and transactionalization of the procurement process, as illustrated by the asymmetry between regimes for professional services and general contractors and the price-laden quality award mechanism are other examples of the discrete values that are put forth by the public market for the procurement of professional services and construction works.

4.2. Planning Linearity and Rigidity

The linearity of the procurement process can find its source in the bureaucratic structure of the State, associated to discrete and transactional features, mainly because of the quantity and source of approvals. It is a form of intensification of planning, which enhances discreteness and presentation [20]. Approvals, and their according timetables, do look at first glance as an iterative process, but there is a major difference with IPD's iterations: the iterative process created by the divergent sources of approval does not actually involve the private stakeholders who will be working on the design. It is rather an institutional iteration, which is mainly constrained by budgetary and political considerations, and it does not favor the implication of the suppliers in the value-creation process. The first step of the pre-project phase is when Quebec's cabinet members express their

intention to start an infrastructure project, to which the Secretary of the Treasury Cabinet (STC) allocates a budget envelope. The Minister responsible for the public body initiator of the project (PBIP) then prioritizes the major projects once the PBIP has produced a preliminary project sheet and the SQI has given its opinion on the key parameters of the project. The responsible minister will then seek the approval of the STC to proceed with the project, which in turn, will give an opinion on the pre-project file before forwarding it to the cabinet members who then will or will not approve the realization of the dossier of opportunity, thus putting an end to the pre-project phase.

The next step is called the start-up stage, and it starts when the cabinet members proceed to integrate the project to Quebec's infrastructure plan under the heading "project under consideration" and inform the Minister, PBIP, and SQI of their doing. The SQI will then be a lot more involved, having to complete a project manager agreement with the relevant public body, inscribe the project in the budget portfolio, determine the project boundaries, develop and implement the project management plan and then transmit this information to the PBIP. The PBIP completes the study of the needs and requirements of the project. The SQI will then determine the realization options, identify the issues and risks of the real estate options, and finally choose the best long-term option. At this point, the SQI determines the functional and technical requirements and the delivery method, identifies the risks, and establishes the schedule and the total cost of the project, together with the PBIP. The SQI then completes the dossier of opportunity, confirms the quality review, and attests the dossier of opportunity. The Minister and PBIP subsequently certify the dossier of opportunity, before turning to STC for advice on the dossier. The cabinet members must thereafter authorize the completion of the business case and enter it in Quebec's infrastructure plan under the planning section.

Ensuite basically the same steps, with the Minister and PBIP having to inform the SQI of the project's inclusion in the infrastructure plan. The latter will be able to update the agreement, the project portfolio and the project management plan. It will then conduct or finalize the necessary studies, manage the risks, formalize the functional and technical content of the project, as well as the schedule and the total cost. The SQI then completes the business case, confirms the quality review, and certifies the business case. The Minister and PBIP subsequently certify the business case, before once again submitting it to the STC for advice. The cabinet members must then authorize the realization of the project and inscribe it in the infrastructure plan. The Minister and PBIP must then inform the SQI of the project's inclusion in the infrastructure plan under the heading "realization." The SQI will update the agreement, project portfolio, and project management plan, just as in the planning phase, and is what constitutes the final step before the actual realization of the project.

Over the course of the pre-project and start-up phases, five different institutional and political stakeholders have already voiced an opinion on the project and defined the critical parameters. Those different levels of approval point out to the institutional table tennis match of budgetary and political considerations already under way, way before the appointment of the suppliers who will actually work on the project and help public bodies to define their needs. These institutional iterations have the effect to crystallize, after each step and approval, the parameters, risks, and functional and technical solutions without the input of the private sector suppliers, or the members of the project team, whose advice and expertise are relegated as an afterthought. This desire to internally define and refine the requirements for the State's infrastructure projects is understandable in minor, and less complex, projects, where the needs of the public clients are already well established and subject to little change, and where the design-bid-build delivery method is adequate to complete the projects. But, when it comes to highly sophisticated, complex infrastructure in terms of developing the necessary innovations to deliver environmentally friendly buildings at a competitive cost, ignoring the value input of the private sector and the interactions between the construction and service professionals makes less sense and is incoherent with the administration's risk-transfer approach, as exemplified by the use of integrated delivery methods such as design-build or PPP. This is a prime example of the formal rationality associated with bureaucratic structures: obedience to a system based on operating and internal rules, without necessarily calling into question the needs and the foundations of the projects

by relying on the expertise of those who effectively realize it. The substitution of private suppliers input by institutional iterations, creating a planning linearity and rigidity, can also be exacerbated by the use of preliminary technical requirements.

When adding up the monopsony features of the public construction market, the bureaucratization as a form of impersonal domination of suppliers and the rigidity and linearity of the process, it appears that Quebec's public procurement process is entrenched in old practices that value the transaction more than the relation, and that derives from the use of the traditional design-bid-build and low bidder concepts. Since public bodies have expressed their desire to orientate the public sector towards more integrated and innovation-friendly practices, such as IPD, mechanisms must be put into place to mitigate the discrete, and transactional, values that are put forth by the actual public procurement process. These mechanisms are external, in the sense that some concern the process or the system by which suppliers are chosen and requirements are determined, and internalized because some measures have a direct effect on the direct contractual relationship between the public bodies and the project's suppliers. Finding equilibrium between transactional and relational poles could potentially benefit the use of IPD in the public sector.

5. Factors Influencing Regulation Content and Decision-Making of Public Bodies

The next three sections of this paper present relational aspects and mechanisms that could be implemented to find the necessary equilibrium between the discrete and relational poles in the public procurement legislation and process, which could ease the development of the necessary innovations to deliver environmentally friendly buildings at a competitive cost by using IPD. Relational norms can be internal, internalized, or external [20]. This study focuses on external and internalized norms, as internal norms concern the contract and the development and state of the actual relationship. The internalized norms are relational trust, levelling expectations, mutuality, flexibility, and harmonization of conflict. Those norms will be notably analyzed through performance evaluation, preliminary market consultation or information, multi-step solicitation methods, performance objectives, functional requirements, and internal conflict resolution. The external norms explored in this paper are harmonization with the social matrix, choice, and trust at a macro level, respectively, through an analysis of the social context leading to the adoption of legislation and regulations, adjudication criteria, and transparency measures.

5.1. Social Context as a Driver for Choice

Values that are embodied in the laws and regulations relating to the procurement of construction and professional services, values influenced by the adoption context of each jurisdiction, and furthered by legislative or regulatory changes, relate to the common contractual norm of harmonization with the social matrix, where law reflects its environment, at least partially.

In Quebec, an analysis of the parliamentary work leading to the adoption of the ARCPB in 2006 enabled the identification of the government's motivations for public procurement [83]. Thus, it was in the framework of the modernization of the State and more particularly the modernization of relations between the State and the private sector that this legislation was developed. The problem at the time was that there were two ways of doing business in the public sector: a relatively strict system of obligations that applied directly to what fell directly under the management of the Treasury Board, and a parallel regime that was applicable to the health and education networks, where most services and construction contracts are adjudicated, and which were not covered by the transparency requirements. For parliamentarians, the government constantly faced a lack of social acceptability in the awarding of public contracts, and the adoption of a new bill and its transparency measures would make it possible to regain the confidence of the population. Indeed, for the first time a bill enshrined the principles of transparency, fairness, and accessibility to contracts. Another objective of this project was to unify and harmonize the conditions to access contracts, so that suppliers could benefit from similar standards in their relations with the State, whether it is a ministry, a school board,

or a hospital. This would help small entrepreneurs who often do not have the resources and the means to adapt to the particularities of each sector. Finally, the administration wished to introduce standards and conditions governing the award of public-private partnership contracts based on the United Kingdom's experience on the issue.

Subsequent amendments to the ARCPB resulted from allegations of corruption and collusion in construction, a memorable saga that was most recently concluded in the form of the report of the Charbonneau commission, published in 2015 [84]. The first allegations surfaced in 2007 with the City of Montreal water meter scandal, allegations restated during the Royal Canadian Mounted Police Colisée project. The AMF, although created in 2004 by the Act respecting the Autorité des marchés financiers [85], is given more responsibilities for the award of public contracts under the Integrity in Public Contracts Act [86]. From then on, companies wishing to conclude a public contract must obtain a prior authorization from the AMF, which judges suppliers' integrity. In the case where it approves a supplier, the authorization shall be valid for three years and shall be entered in the Register of authorized suppliers. Legislative and social developments in public contracts have mainly crystallized measures concerning the integrity of enterprises and public confidence in the state system and apparatus, a situation that has developed somewhat similarly in the United Kingdom.

For nearly two decades, the United Kingdom has emphasized the importance of limiting and preventing anti-competitive behaviour, cartels, and abuse of power. The Competition Act 1998 [87] specifically prohibits such anti-competitive practices and enables the State to fine suppliers an amount equivalent to 10% of their worldwide turnover for the year in which the infringement occurred. The Enterprise Act 2002 [88] goes further and introduces tougher penalties for the same kinds of crimes, with fines now unlimited and a possibility of imprisonment for up to five years. However, the Organisation for Economic Co-operation and Development (OECD) found these measures insufficient and called on the United Kingdom to tackle corruption more severely by relying on its own anti-corruption convention [89], which resulted in the UK Bribery Act 2010 [90], which raises the maximum penalty of imprisonment to 10 years and allows for a supplier to be disqualified for a period of up to 15 years [91]. It was amid this quest for integrity that the Public Contracts Regulations 2006 [28] was adopted. The objective of this new regulation was substantially the same as in Quebec: to harmonize and clarify previously scattered procedures and rules to facilitate the access of small and medium-sized enterprises to public contracts opportunities.

Unlike Quebec, the United Kingdom recently updated their regulations with the adoption of the Public Contracts Regulations 2015. The main reasons for these changes were initially external, due to the obligation of implementing the European procurement rules, the Directive 2014/24/EU [29], and subsequently of an economic nature. One of the flagship legislative changes is the replacement of the lowest responsible tenderer rule with that of the most economically advantageous tender (MEAT), which may, however, be based solely on price considerations. The analysis of parliamentary processes once again allows for us to identify the grounds for the jurisdiction's adaptation, which are a rapid transposition of the European directive to take advantage as soon as possible of the economic benefits, to promote transparent competition and offer opportunities for economic operators, to increase competition, to obtain a better performance from economic operators, and thus achieve savings.

Conversely to Quebec and the United Kingdom, Colorado's procurement rules have developed under environmental and energetic considerations. The Colorado Procurement Code and Rules (CRS, 24-101-101 to 24-101-113) was adapted from the Model Procurement Code prepared by the American Bar Association in the late 1970s, itself inspired by federal rules [92]. Notably, one of the only sections of the bar model that was not adopted is the ethics one, a marked difference from the considerations of Quebec and the United Kingdom. On the other hand, an interest in energy consumption and the importance of life-cycle cost analysis for public procurement has been developed since the late 1970s [93], an interest that could probably find its source in the two energy crises of 1970 and 1979, which hit the United States and forced some regions to rethink their energy consumption methods [94]. Another major energy crisis hit the northwest of the United States in 2000–2001. The latter

was considered to be a perfect storm, a confluence of several unfavorable trends and events, including years of underinvestment in the energy production sector. The triggering event was the historically low level of the Columbia River, a precursor to poor hydroelectric generation conditions, an event that was worsened by the inadequate management of California hydroelectric resources requiring the intervention of neighboring states [95]. These considerations have been reflected at the legislative level by several measures, including a legislative statement of the Procurement Code, in which the legislature recognizes the significant impact of public infrastructure on the state's energy consumption and that appropriate practices would permit its optimal use (CRS, 24-30-1304). It also states that the design of the infrastructure should consider the total cost of the life-cycle, including the initial cost of construction, the cost over the economic life of the facility, energy consumed, replacement costs, as well as operating and maintenance costs, including energy consumption (CRS, 24-30-1304). Public bodies are also required to achieve the highest environmental performance standards for new infrastructure (CRS, 24-30-1305).

This is to say that the jurisdictions did take the social matrix into account when the public procurement procedures and their subsequent amendments were introduced. As a result, Quebec pays specific attention to the integrity of the process, thus putting less emphasis on the actual outcome, in terms of environmental and social impacts. The United Kingdom sought to maximize its potential savings and to open its market to Europe through the introduction of flexibility measures, and Colorado focuses on and gives prominence to the process outcomes in terms of energy efficiency. Those specific values guided each jurisdiction's legislators, and have an influence on public bodies' choice of suppliers, as the formal rationality of those bureaucratic structures that guides them to abide by their internal administrative rules.

5.2. Max Weber, Types of Rationality and Ideal Choice of Tenderer

One of the common norms of Macneil's theory of contracts is that of choice, or consent, which is normally seen as having a more discrete tendency, under the premise that making a choice means giving up other possibilities. As this theory is a nuanced one and is based on a dialectical view of the contract, choice can still be expressed in a more or less relational way. In the procurement process, the choice of a supplier takes the form of adjudication. To identify what form of adjudication would have a relational tendency, we must explore the foundations of sociology of law, those at the heart of the development of relational contract theory, and especially of the German jurist, economist, and sociologist, Max Weber. For Weber, anchored mainly in value-oriented and means-end types of action, are four types of rationality, which are understood as methodological and heuristic tools used to analyze rationalization as a socio-cultural process. Of those four, two are interesting in the context of public procurement: formal and substantive rationality. The three jurisdictions analyzed use five broad adjudication categories: price as a single factor, most economically advantageous tender (MEAT), best value, qualifications-based selection, and life-cycle costs.

The use of the single price criterion, or low bid, is a characteristic of transactional economics, a concept that is taken up by Weber and Macneil through his notion of presentation. An example at the financial level is the net present value, which uses actualization to determine the value that an asset will provide in the future by bringing it back to the present. A single price criterion is an attempt to reduce the future to the present and to obtain the immediate lesser cost to ensure "sound" management of public funds. There is no consideration of the personal qualities of individuals and represents a perfect example of formal rationality. Formal rationality usually concerns structures of domination whether legal, scientific, or bureaucratic, such as public administrations. It resembles practical rationality in the sense that the result is an action in finality, but while the individual refers to his pragmatic and selfish interests, the structures of domination ultimately act according to rules, laws, or regulations. Decisions taken according to formal rationality are made without regard to the personal qualities of the individuals concerned, in addition to excluding any form of arbitrary decision.

According to Weber, bureaucracies use formal rationality because their actions are oriented by general rules and can be analyzed intellectually.

Other examples of formal rationality include Quebec's quality adjudication process for the procurement of construction works. Although the best value criterion considers certain factors that are external to the price, it remains tinted and strongly influenced by it, as price cannot be excluded from the calculus. Quality adjudication takes the form of a two-stage tendering process in Quebec's legislation, which is not an obligation for the procurement of construction works. It reflects this price-centric approach: the first stage consists of qualifying potential suppliers, by using "objective" criteria and therefore mainly excluding the personal qualities of suppliers, and the second revolves around price. In this scenario, price is the deciding factor, the criterion that makes a difference in the choice of a supplier, while the objective qualification of suppliers seeks the attainment of an "acceptable level of performance" (RRCCPB, annex 4). This is to say that even in the quality adjudication processes, price remains the deciding factor. The UK's MEAT (PCR, reg 67) has the possibility to go the other way around. Although it shares a lot of characteristics with best value adjudication such as the possibility to include criterion of quality, technical merit, and aesthetic and functional characteristics, just to name these few, it is permissible to use cost as a fixed price on which tenderers will compete on quality only. In this case, the deciding factor is actually quality, with price serving as a minimal requirement. Therefore, switching quality and price in a two-stage process has for effect to change the critical and deciding factor in the adjudication process.

Life-cycle cost analysis, which is mandatory in Colorado (CRS, 24-30-1305) and optional in the UK (PCR, reg 68), widens the constellation of values necessary for substantive rational choice, just like qualifications-based selection. Substantive rationality directly orders actions in patterns, but not only according to purpose, but rather according to a postulate of values arranged in a constellation, thus excluding a single, directing value, such as price. This type of rationality exists as a manifestation of man's ability to act in accordance with values. We can also distinguish two sub-categories, namely personal or impersonal substantive rationality. Bureaucratic ethics and efficiency are but a few examples of impersonal values, contrary to trust or forgiveness. Life-cycle cost analysis and qualification-based selection concerns mainly impersonal values, such as the efficiency of systems. In Colorado, life-cycle cost analysis can include the positioning and orientation of the infrastructure in the field, the amount and type of fenestration, the thermal performance of the building, the level of illumination, and energy consumption simulations of heating, cooling, or ventilation systems. It is a prime example of presentation, even an infinitely advanced exercise of bringing the future to the present. While life-cycle and qualification-based selection broaden the constellation of factors evaluated for the adjudication of a contract, there is once again a lack of consideration for the personal qualities of suppliers so essential to integrated practices.

For Weber, "only action oriented to substantive rationality has the potential to introduce methodical ways of life that subjugate the practical rational way of life based on interests or the formal rational orientation to rules" [62]. By rejecting the concept of a single directing value and by abiding to a hierarchical constellation, substantive rationality stands in opposition to the formal rationality that is normally associated with bureaucratic structures and moves further from a transactional approach.

In the case of IPD, where personality traits that promote collaboration, such as trust and mutual respect, are required and where collaborative tools, such as Building Information Modeling, the use of objective criteria such as the "k" coefficient, or the previously discussed presentation mechanisms, do not seem to permit the identification of potential suppliers that could truly add value to the interactions between design and construction teams. This would entail introducing a system of personal substantive rational choice, a form of personality supply that would require public bodies to exercise a high degree of discretion in the evaluation of tenders submitted to them. Substantive rationality's personal form is probably the closest to the relational pole. Interviews, which can be one of the criteria of choice in quality adjudication, should have a relatively significant weight in the choice of a supplier. They should also enable conception and construction teams to interact to verify whether

teams' strategies and vision are compatible for the realization of a complex project, instead of being subject to silo evaluations by the administration. It would also be interesting to explore the use of psychometric tests, already well established in the human resources departments of large companies, which allow for evaluating and determining the characteristics of the general and specific behaviour of an individual and psychological skills, such as reasoning, communication, leadership, or emotional intelligence. The ability of suppliers to interact and collaborate with other stakeholders could be so determined and allow for the public body to make an informed choice of suppliers in the context of IPD through the use of personal substantive adjudication criteria.

5.3. Macro Source of Trust and the Tenderer's Perception of Public Bodies

Lack of trust has plagued public administrations in the field of construction in the latest years. The analysis of the social context of the United Kingdom and Quebec clearly illustrates it, with collusion and corruption allegations. Distrust in the system is currently exacerbated. The same goes in the United States, with Mashaw stating that media coverage encourage Americans to ignore government procurement or to think of it as both inefficient and corrupt [96]. Trust is an essential part of Macneil's theory: the common contractual norm of solidarity is used as a synonym for trust [20]. It derives from Durkheim's concept of organic solidarity, the solidarity of differences arising from the interdependency that is created by the phenomenon of specialization of labour [38].

Since institutional trust could potentially influence the production of trust between state and suppliers, as well as affecting suppliers' perception of fairness in terms of access to information, equal and fair treatment, and of process integrity, jurisdictions should not skimp on transparency measures regarding the procurement for professional services and construction works. One possible solution to foster institutional trust lies in a very Kantian perspective, the notion of publicity. Kant underlines the fact that publicity guarantees that politics are in harmony with the rights and interests of the public, and that politics and morals can coexist [97].

Trust is a complex concept, and it is hard to fathom it being produced in a single way. Zucker distinguishes three forms of trust according to their mode of production: *intuitu personae*, relational or process-based trust, as well as institutional trust [47]. *Intuitu personae* trust is attached to a person, based on his or her own characteristics, such as belonging to an ethnic group or a professional order, a type of trust that is similar to Durkheim's mechanical solidarity, a trust of similitudes. Relational trust relies on past or expected exchanges, based on the reputation of the parties, while institutional trust is attached to a formal structure that guarantees the specific attributes of an organization. At the macro level, and in the analysis of external values, it is the latter which is interesting.

All three jurisdictions have implemented an electronic tendering system to facilitate communication and publish contract adjudication results, which is a step in the right direction, but do have different ways of dealing with transparency measures. In Quebec, the Treasury chair had to submit a report to the government on the carrying out of the ARCPB once in 2014, and must do it every five years after that (ARCPB, art 22.1). There is also an obligation to publish additional contractual expenditures higher than 10% of the original amount (RRCCPB, art 41.1 & RRCSCP, art 51.1), as well as to publish the final description of the contract (ARCPB, art 22; RRCCPB, art 41.2 & RRCSCP, art 51.2). Selection committees evaluate tenders, and there is a penal infraction for attempting to contact its members (RRCCPB, art 31 & RRCSCP, art 26).

In the United Kingdom, contracting authorities must justify why they will not use electronic means of communication (PCR, reg 22, par 7) and need to document oral communications with economic operators or tenderers (PCR, reg 22, par 9 and 10). An interesting feature is the obligation to retain contract copies for services that cost over \$1,000,000 and for works over \$10,000,000 (PCR, reg 83). They must also give written reports on why the competitive procedure with negotiation and competitive dialogue were used (PCR, reg 84). Contracting authorities must publish statistics every fiscal year regarding the payment of invoices, according to their obligations, expressed as a percentage of the total number of invoices that were, or should have been, paid in accordance with those obligations

(PCR, reg 113, par 7). In Colorado, public bodies must also give written determinations and their content, like facts, circumstances, reasoning, and others for the use of procedures or certain types of contracts (CRS, 24-101-201).

Even though each jurisdiction has its own way of using publicity as a transparency measure, it still feels like there is not enough. Every single one of the aforementioned measures could easily be adopted by the other jurisdictions, without seemingly disastrous consequences other than administrative burdens, but are not, leaving what might be a hole in the institutional trust that suppliers should have for the administration in the procurement process. This is without taking into account the actual application and operationalization of those measures, where defects are regularly identified by the competent auditors.

6. The Need for a Particularistic Source of Trust

As much as institutional trust is necessary, the development of a more particularistic source of trust, process-based, or relational trust, is at the heart of creating solidarity between parties in a long-term contractual relationship. Procurement legislation and regulations, as well as the broader legislative framework, contain provisions that must be internalized in the public construction or professional services contracts, and that influence relational trust. Whilst an obligation of collaboration could potentially fail to achieve this objective, performance evaluation mechanisms and processes to level parties' expectations could serve as a foundation for relational trust.

6.1. Development of Relational Trust in the Procurement Process

A possible solution to foster collaboration between contract stakeholders would be a strengthening and an adequate definition of the duty to collaborate (CCQ, art 2471), which could include a precise job description, an obligation to communicate at fixed times, or an obligation to attend meetings. This formalization of the concept of collaboration represents a prime example of the application of a formal vision of the contract. Without a change of attitude in the behaviour of the stakeholders, formal arrangements for collaboration can only be fruitless [98]. It is possible to imagine a situation in which an obligation of collaboration is formally entered in the contract, with precise and objectively defined tasks. It would create a similar problem to the one that is affecting quality assessment: an objective assessment of a subjective notion. A supplier could participate in meetings and transmit his documents at the time specified in the contract, it does not guarantee that he will be open-minded, share ideas or resources, will trust his partners, or express mutuality. In my opinion, a requirement to collaborate in a construction contract is tantamount to formalizing an obligation of love in a marital relationship. It is not its inscription on a legal document that will force the couple to love each other: it will be loyalty, deference, compassion and respect for the other. The same goes for the obligation of good faith, a notion that is formalized by all three jurisdictions, but that also requires a change of attitude in the behaviour of stakeholders to be truly effective. Hence, the importance of promoting the use of more relational norms.

One of the last steps of an infrastructure project is the client's performance evaluation of suppliers. Quebec, the United Kingdom, and Colorado all have this in common: performance evaluations are carried out unilaterally by the client, and only negative evaluations can influence the future choice of public bodies by preventing non-performing suppliers to participate in the future procurement opportunities. Although it is possible to exclude suppliers who have carried out work that is considered insufficient or inadequate, this performance evaluation mechanism is a purely negative one that does not help to foster relational trust between the parties, an essential element for the maintenance of long-term contractual relationships. What explains this negative rationale? The most logical explanation seems to be the fear of developing business relationships between private providers and public customers, a fear embedded in the state's desire to reduce corruption in construction. Yet, if public bodies had the power to produce positive performance evaluations that are based on an exemplary success of the project and the relationship, it could serve as a foundation of relational trust between

private and public actors. This seems to raise a dilemma between competition and relation for public bodies. Giving value to an exemplary project and relationship in a quality-based adjudication process would likely decrease competition, as suppliers who have already done exemplary business with the State would have an edge over the ones who have not. One should wonder if rewarding suppliers for the excellence or quality of their works, professional services, or healthy relationships, is not better suited to fulfilling the public interest, instead of relying on a competition system, which only takes into account negative past performance.

Moreover, if these evaluations were recorded in reports and made public, how would there be a fear of discretion in the choice of a supplier? Public bodies and officials are already aware of the reputation of the firms that are best capable of carrying out major public infrastructure projects. Instead of allowing for selection committees to be influenced by their feelings and perceptions in their choice of a supplier, which are difficult to justify in the event of political or media scrutiny or questioning, it would be much more logical to assign a value to project and relationship success in the future evaluation of firms that have previously met the expectations of public bodies. Similarly, a unilateral evaluation, from the public client to the suppliers, leaves out an essential element to the success of IPD and collaborative practices, which is the course of the relationship. Thus, the performance evaluation should contain a second component that of a peer review by the other parties to the contract. This evaluation would allow for a holistic view of the performance of the contract, relying on the perceptions of each actor. Failures in terms of communication, collaboration, or respect would thus be identified and would provide a relational foundation for the choice of future suppliers of public clients, as well as serve as a continuous improvement process.

6.2. *Levelling Expectations Between the Parties*

The pre-project phase for major infrastructure projects is critical as it is at this point that the Minister responsible for the public body applies for authorization to proceed with the project, along with a preliminary project sheet, which must, among other things, express the needs of the public body and contain estimates of the total costs of the project. However, Quebec does not have any legislative or regulatory tools that allow or frame preliminary discussions with market participants to better define needs. The SQI does have an internal division of technical expertise and estimation, but formalizing the possibility to obtain prior advice from potential service and construction suppliers could be beneficial to public bodies regarding estimation precision, scope definition, and needs formulation. This information is crucial for levelling the expectations for both suppliers and public bodies, which is a crucial concept for trusting the potential partner and enabling a comprehensive understanding of the future long-term contractual relationship.

To define better technical specifications, achieve better results and reduce schedule times [99], the UK promotes and encourages the use of a preliminary market consultation mechanism between clients and suppliers (PCR, reg 40 and 41). Thus, before entering any procurement process, public bodies have the option to conduct market consultations to inform prospective suppliers of their needs and requirements. Colorado has a similar process, which takes the form of a request for information (RFI), which is used “to obtain preliminary information about a market, a type of service that is available or a product that has insufficient information available to write an appropriate specification or statement of work” (CRS, 24-103-203-01). Not only can the RFI be used for informational purposes, but it may also require a supplier to assist the public body in preparing specifications for a subsequent project and to request price estimates if these are given voluntarily. The actors targeted in both cases are not only private suppliers but consultants and independent authorities, such as universities and professional bodies, for the public bodies to learn more about industry practices and standards (PCR, reg 40) [100].

This mixing of public and private actors in the determination of public infrastructure needs could potentially frighten the bearers of a strong anti-corruption message and transparency for the activities of the State. That is why public bodies are not given unlimited latitude. The State of Colorado

advises to solicit information from more than one potential bidder and to inform them in advance that their interest is strictly for research purposes and that formal requests for prices or other information will be carried out through the normal tendering process. Also, it is not recommended to provide any competitive advantage to potential bidders by asking the same questions for all and avoiding providing too specific details about the project [100]. The fact remains that these internal management rules do not give rise to formal obligations for officials, thus creating concern in terms of transparency and institutional trust. The United Kingdom is addressing this potential lack of accountability by making this process subject to the conditions that it will not distort competition and it will not impede the principles of non-discrimination and transparency already provided for in regulations. It is the responsibility of the public body to ensure that these principles are respected by communicating to all the candidates the information that would have been provided by, or to, a party during the preliminary market consultation and that could potentially unduly restrict competition. Public bodies must allow sufficient time for potential tenderers to gather their ideas and rework their submissions before launching the procurement procedure. If it is impossible to maintain an appearance of fair treatment of potential suppliers, the party providing the information may be excluded, a measure subject to appeal by the suppliers (PCR, reg 40). All information or communications must be transcribed in a report to be made available at the request of the Cabinet Office (PCR, reg 84, par 1), thus ensuring some transparency.

Preliminary market consultations, which seek to level the parties' expectations of the contractual relationship and stimulating trust through communication, finds a counterpart in Colorado's preliminary conferences (CRS, 24-103-203-01). These take place once the invitations to tender have been sent and only concern potential suppliers. Their intent is to explain the procurement requirements of the public body and they must be announced to all potential suppliers. The conference should be held long enough after the publication of the invitation to tender to allow suppliers to familiarize themselves with it, but sufficiently before the opening of the tender to allow them to consider the results of the conference during the preparation of their submissions. The purpose of this conference is not to modify the content of the invitation to tender, but to clarify the contractual objectives. In conjunction with the questioning procedures from potential suppliers, to be answered publicly by the State, public bodies thus ensure that contractual terms and conditions are clear and that expectations are adjusted between the parties as to the conduct of the relationship. This process also exists in Quebec, but it is not formalized in the legislation. It is instead included in the call for bid or proposal. No rules govern the transparency and fairness of the process.

Another way to level expectations of the parties is to determinate performance by referring to external standards or norms, which is also considered to be a flexible form of planning [35]. All of the jurisdictions analyzed have the possibility, and in the case of Colorado, the obligation, to refer to standards of quality or environmental performance, such as ISO 9001 or LEED. Colorado's distinction lies not only in the mandatory nature of the obligation, but also in the expected level of performance (CRS, 24-30-1305). Indeed, public bodies must aim for the highest level of certification available for any construction project, making it clear that the main objective is excellent. The use of external certification and standardization bodies makes it possible to level the expectations of the parties with respect to the results of the project by offering an external measure of project performance.

Therefore, to strengthen interpersonal trust between public and potential suppliers, public bodies should make a point of organizing post-procurement conferences that would explain, in person and in detail, the reasons of the exclusion of, and to, unsuccessful suppliers. Although apparently innocuous, such a procedure would allow for suppliers to improve the quality of their responsiveness to public procurement requests regarding future procurement opportunities. This conference would also be an opportunity for suppliers to express their grievances, reservations, or appreciation, which would also allow the government to record these comments, a necessary feedback exercise for continuous improvement.

7. Mutual Planning of Objectives and Conflict Resolution

For Macneil, contract planning is the act of determining goals and ascertaining costs through communication [35]. He specifically points out that mutuality of planning through communication is a necessary process, and that focus should be put on anticipatory communication, which is when a party considers the effect of their desires on the other. The concept of mutuality is significant for the future conduct of the relationship and it affects the perception of participation in the determination of the contractual terms and objectives by which each party will be remunerated and the contract executed. Since these steps are being taken in the procurement process and will later be part of the actual contract, this norm is of an internalized nature. Communication, discussions, negotiations, and iterations are also key concepts of IPD, where value is created by confronting ideas of distinct professions or trade. Therefore, the following section of the paper will focus on the possible ways of planning public works or services using multi-step solicitation methods that encourage a more collaborative approach. It will also address the possibility of formulating flexible preliminary requirements to reduce the risk of conflict, as well as the actual dispute and conflict resolution mechanisms.

7.1. Mutual Determination of Objectives

The use of multi-step processes is advantageous at the relational level. First, discrete transactions are usually characterized by the sharp-in, sharp-out nature of the relationship [35], that is, a fast, dry, and impersonal integration of the stakeholder to the relation, and an equally precipitate end. Thus, a general contractor who responds to a one-stage tender, awarded to the lowest bidder, is thrust into a contractual relationship, without any premise or time of adaptation other than being acquainted with the invitation to tender and its contents. Having a multi-stage process, involving interpersonal interactions with the public client, allows for the supplier to acclimatize and to become familiar to the context of the long-term contractual relationship in which it engages. Another point to consider is that mutuality of planning in multi-step processes formalizes iterations and value creation processes. This mutuality allows an overall understanding of the benefits and risks of the project and each party's role, as well as levelling the expectations of the project stakeholders. The ability for joint ventures to participate in this process could serve as a foundation for relational trust and enable public bodies to truly understand and evaluate the suppliers' team dynamic. In conjunction with preliminary market consultation and interviews, the use of iterative solicitation methods formalizing the use of discussions and negotiations enables a truly mutual planning of the contractual relationship and the development of relational trust.

Multi-step tendering processes, which are solicitation methods, are a crucial step in procuring works or professional services. As previously stated, Quebec has distinct solicitation methods for professional services or construction works. In terms of professional services, and specifically in the case of architects and engineers, the only available solicitation method in Quebec is the one-stage public tender (RRCSCPB, art 3), which may be preceded by a qualification process, adjudicated on a quality basis (RRCSCPB, art 23), a method that was also put forth in Colorado (CRS, 24-30-1403). The principle is the same for construction works, namely the open public tender (RRCCPB, art 3), but awarded according to the lowest responsible bidder criterion (RRCCPB, art 13). It is possible to carry out the solicitation in two steps, the first consisting of a quality evaluation, and the second, involving only the selected contractors, implies submitting a bid with only a price (RRCCPB, art 22). For mixed construction and professional service contracts, a public body may consider the level of quality of a bid by applying the conditions and methods of evaluation provided for in the regulations, and which consist in an evaluation of quality according to predetermined criteria, with price having a relative weight depending on the public bodies' will. In short, the method of solicitation is very simple: it is open, public, in one or two stages and concerns quality and/or price. The professional service provider provides a proposal, the contractor a bid, and they are evaluated by the public body. Thus, the principle in Quebec's solicitation methods is the submission of unilateral proposals or bids on which few adjustments are made during the procurement process. The only alternative solicitation

method in Quebec is that of the public-private partnership, which “may involve different stages depending on the complexity of the project and the number of potential competitors. The steps of this procedure must be determined in the tender documents, but they may be adapted with the consent of the majority of the competitors involved in the subsequent stages” (ARCPB, art 19). Public bodies, therefore, have freedom in the solicitation process for these types of contracts, freedom not governed or controlled by regulations or directives, leaving a huge level of discretion to the State.

Colorado and the United Kingdom’s approach regarding solicitation methods differ greatly from Quebec. Colorado formalizes the need to conduct discussions and negotiations in multi-step solicitations (CRS, 24-30-1403, 24-92-103.5 and 24-103-203). The United Kingdom has implemented solicitation methods that are based on the improvement of proposals or bids that formalize discussions, negotiations and iterations, which in turn allows public bodies to obtain the best value in terms of quality infrastructure. These specific solicitation methods are adapted to procurement for complex projects requiring innovations to deliver environmentally friendly buildings, and involve mutual planning of the contractual relationship, which is an important relational aspect for the use of IPD. Although these two jurisdictions also use conventional solicitation methods (PCR, reg 27; CRS, 24-103-202), such as in Quebec, they conversely provide their public bodies with a form of flexibility in the choice of their solicitation method, and for the adjustment of proposals and submissions, to truly meet their needs.

The first example of an alternative solicitation method is the competitive procedure with negotiation, which develops in the form of successive stages of negotiation (PCR, reg 29). The public body makes a call for competition to which any supplier can respond with a request to participate containing the required qualitative information. The call for competition documents must specify the public bodies’ needs, summarily defined, in addition to indicating the minimum requirements that are to be met. Only successful suppliers will be able to submit a proposal that will serve as a basis for subsequent negotiations. The public body may decide to limit the number of invited candidates, with a minimum of three (PCR, reg 65). At each stage of the process, the contracting authority negotiates with the potential suppliers the content of the initial offer, without ever renegotiating the minimum requirements, and it may eliminate candidates, at its discretion, based on the adjudication criteria previously indicated in the call for competition. During the rounds of negotiation with the various suppliers, the public body must ensure the fair treatment of the tenderers, notably by not providing information in a discriminatory way to a potential supplier so as not to provide a competitive advantage. They are also required to inform all candidates not eliminated of the changes made in the content of the tender documents or technical specifications, while leaving them sufficient time to amend their proposals. The latest proposal from suppliers is not negotiable. It is therefore truly an iterative process, which is so important for integrated approaches, involving the suppliers and the public client, in which the provider and client mutually define the needs and objectives of the project.

Competitive dialogue is a form of solicitation that is similar to the competitive procedure with negotiation. It proceeds through a call for competition, a minimum of three candidates is required, carried out in several successive stages with the possibility of eliminating candidates, according to the predetermined tendering criteria in the call for competition documents, and public bodies are subject to the same rules for the equitable treatment of potential suppliers. The objective of the dialogue is to identify and define the most appropriate means of meeting the needs of the public body. During this process, absolutely every aspect of procurement can be discussed, conversely to the competitive procedure with negotiation. The way in which this procedure is formalized in regulations, the public bodies have a great deal of discretion as to the actual course of the dialogue, with discretion reminiscent of Quebec’s PPP procedure (ARCPB, art 18 and 19). It was precisely to encourage the implementation of PPPs in Europe that the European Commission had decided to create the competitive dialogue, while indicating that it was set up to respond to the lack of flexibility needed for the procurement of complex projects [101]. The European version offers, however, a little more guidance for public bodies than Quebec’s version, mainly regarding the content of the discussions and negotiations, which is

an essential element in maintaining the institutional and macro trust of potential suppliers towards the State. Moreover, the output is not necessarily a PPP contract, but can take a multitude of forms, whether it is IPD or design-build.

In 2009, more than 3000 projects in Europe, including 39.5% in the United Kingdom, used competitive dialogue as a solicitation method [101]. From these experiences, the literature has identified four main ways in which this dialogue has been implemented in practice. The first is to consider several solutions from potential suppliers and to reduce the differences between them until the creation of a hybrid solution, which is based on the best proposed ideas, during the first phase of the dialogue. Subsequently, the participants could formulate additional solutions in the subsequent phases until the contract is awarded. A second formula requires the candidates to present a solution outline, and then gradually more detailed solutions in subsequent phases. The third is a sequential approach, that is, a discussion about the technical and operational objectives in the first phase and the financial considerations thereafter. Finally, the public body can propose the solution that it has identified as the basis for the dialogue, and the subsequent phases seek to improve it without destroying its foundations. It may be noted that some problems could arise from the use of such a procedure, mainly the fact that public bodies could use it without having done their homework beforehand, which was the case in the United Kingdom, where a presumption against the use of competitive dialogue was formulated in 2011. Among other things, public bodies were criticized for not using sufficiently the preliminary market consultation mechanism to better define their needs, instead relying on the conduct of the dialogue [102]. To use the competitive dialogue or the competitive procedure with negotiation, public bodies must either demonstrate that their needs cannot be met without adapting existing solutions, that the project requires design solutions or innovative solutions, that the project involves specificities related to its nature, complexity, financial, or legal arrangement or associated risks, or that the specifications cannot be established with sufficient precision (PCR, reg 26).

In addition to helping the understanding of the contractual terms, mutual multi-step bidding or tendering also helps to determine the objectives or modalities under which the parties will be remunerated, potentially reducing perceptions of injustice in the distribution of benefits, perceptions finding anchorage in unilateral negotiations, fixed and task-oriented pay scales, and differences in the bargaining power between the parties in a negotiation for a public contract [57]. Moreover, parties who have participated in multistage processes should be compensated for their work, which was essential in determining a solution adapted to the needs of public bodies, a solution found by this value-creating process. Although investing more at the design phase may not, at first glance, appear as a sound way to manage public funds, it is essential to consider the Paulson curve [103], whereby the more changes in a project are made upstream of the process, that is at the time of design, the less expensive they will be, and vice versa. Sound management of public funds should, under this logic, require investment upstream of the process. Mutual planning of the relationship would also allow for the actors involved in thinking about innovative ways to pay the parties to the contract, acting on the reciprocity norm. In this sense, Quebec proposes an interesting solution, with the possibility of paying the parties to the contract out of the savings made in terms of energy efficiency (RRCCPB, art 27), a form of Taylorism, a vision according to which the remuneration must be objectively set and motivating for the parties [104].

7.2. Flexible Requirements and Conflict Resolution

Different options exist for public bodies for the formulation of preliminary requirements, such as the use of detailed technical prescriptive specifications or performance targets, which can also be called functional requirements. This choice in the formulation of the requirements of public bodies has an impact on the roles of the various parties that are involved in the contract. In relational contracts, roles must be complex, multidimensional and stimulate the achievement of project objectives rather than maximization of particularistic interests. By formulating requirements in a specific and prescriptive manner, i.e., in the form of a silo, each stakeholder knows the extent of its responsibilities

and risks, but they are individual and do not represent an incentive to collaboration and therefore create a risk of conflict or dispute.

The use of quantifiable and measurable performance objectives binds stakeholders to the success of the project and encourages them to consider the work of others, thus stimulating interaction and encouraging the development of organic solidarity between the actors [38]. The aim is to formulate functional requirements and to allow for the market to deal with technical and potentially innovative solutions to meet the requirements [105]. The use of performance objectives leaves the market more flexibility in its choice of means to achieve the goals, another important relational value. This type of formulation, mandatory in Colorado and the United Kingdom, but non-addressed in Quebec, inserts itself in the holistic approach to construction, a requirement of integrated project delivery that promotes the interactions between the different systems of the infrastructure, and that considers the potential significant environmental and social impacts the infrastructure can have [105].

Macneil thinks that flexible determination of risks should necessarily, in a relational fashion, rely on “agreements to agree” [35], or put in other words, incomplete contracts where parties embrace unforeseen and unpredictable events as being inherent to the maintenance of a long-term contractual relationship. In the event, or when, conflictual situations arise; teams should be prepared to deal with it without the use of an external intervention. The norm of harmonization of internal conflict is a relational norm, derived from the common norms, essential to the harmonious development of a long-term contractual relationship. In the UK, breach of duty is actionable by economic operators who suffer or risk suffering loss or damage (PCR, reg 91). In those cases, proceedings must be started in the High Court, an external way of dealing with conflicts and dispute, even though the Architects Code encourages alternative methods of dispute resolution [106]. In Colorado, the head of the purchasing agency is authorized to settle and resolve controversies such as breach of contract or contract modification (CRS, 24-109-101). Protested solicitations and awards also go to the hand of a purchasing agency (CRS, 24-109-102), while appeals are directed to the district court (CRS, 24-109-205). Even though Colorado has an internal way of trying to deal with disputes before going to court, there is an imbalance in power because the person responsible for trying to settle disputes is part of the State and there does not seem to be an appearance of impartiality in the process.

A relational mechanism for the harmonization of conflicts is the use of an alternative internal dispute resolution process, a concept that is put forward by Quebec’s procurement regulations for construction works, where parties must first attempt to resolve their disputes (RRCCPB, art 54), which is also the case for professional services (RRCSCP, art 54). For the latter, if the amicable attempt fails, it is necessary to turn to an administrative body, a court of justice or an arbitrator. In the case of construction works, the second step is to bring together a manager representing the public body and the contractor’s agent who will attempt to resolve the dispute (RRCCPB, art 51). In the event of failure, the parties mutually agree on the choice of a mediator and the rules applicable to the mediation process (RRCCPB, art 52). If the parties still do not reach an agreement, they may have recourse to an administrative body, a court of justice, or an arbitrator. Although it is the most relational dispute resolution mechanism in the jurisdictions analyzed, because of its internal and self-regulatory nature, there is still an asymmetry between professional service providers and contractors. Regime harmonization is essential in an IPD context where everyone is chosen for their qualities as consultants, not mere executioners of tasks. But this process will only be “completely” relational if the parties agree to forego their possibility of resorting to the courts. Because a dispute settlement procedure, however collaborative it may seem, is never final if a party can block the settlement process and hope to resort to traditional methods of recourse to the courts, thus leaving a sword of Damocles suspended above other parties’ heads. A liability waiver between the parties should thus be essential for genuine internal dispute settlement and for the well-being of the relationship.

8. Conclusions

This paper aimed to identify the specific regulatory transactional features acting as a barrier to IPD implementation and the relational mechanisms that could help to mitigate those features. In the seventies, Macneil identified competitive tendering as being inherently transactional: “What is the most transactional of transactional ways to create contracts and their content? What else but competitive price bidding on unilaterally formed plans sent out for bids?” [107]. This article has deepened existing literature regarding the specific transactional characteristics arising from the regulatory framework. As such, it was found that a jurisdiction presenting monopsony features could influence contracting parties’ perception of fairness. The use of standardized contracts presenting adhesion characteristics and the use of non-opposable policies and directives could have a negative impact on trust. Also, having distinctive regimes for the procurement of professional services and construction works could have the impact of creating a cleavage between key stakeholders of the project and affect the future relationship. Institutional linearity and rigidity for the planning of construction projects further the transactional aspect of the public procurement process by enhancing discreteness and presentation. However, the characteristics of competitive tendering can be counterbalanced by relational mechanisms [20].

This paper offers insight to policy makers and public authorities looking to implement IPD in their public procurement regulatory framework by putting forth relational mechanisms. Some researchers had already narrowed relational techniques that could counterbalance the transactional elements of the public procurement market, such as the award of contracts to the same provider over a number of tendering rounds, the use of approved lists, and the knowledge of tenderers’ reputation and past dealings [20,21]. According to the preceding analysis, there exists even more relational mechanisms in the public procurement process that can be put forth and should be considered by public bodies and the State in the context of developing the necessary innovations to deliver environmentally friendly buildings at a competitive cost by using collaborative and integrated practices, such as IPD. The new role of general contractors in those types of projects, nearing that of a consultant or service provider, reinforces the need for the harmonization of the procurement regimes for construction works and professional services. Even if the best value adjudication is a step in the right direction, new adjudication criteria that are based on life-cycle assessments push further back the notion of adjudication according only to price. The use of information mechanisms such as preliminary market conferences and post-award conferences can also help to level expectations between the parties and ease the relationship, as well as serve as a continuous improvement mechanism. The same goes for the use of multilateral performance evaluation, positive as well as negative, to assess the quality of the relationship and serve as a trust foundation for the future ones. The determination of mutual objectives through multi-step solicitation methods also impacts the sharp-in sharp-out aspect of the relation and has the potential to enhance participation and reduce conflict if requirements are redacted in a functional instead of a prescriptive way.

These mechanisms could counterbalance the current transactional aspects of Quebec’s public procurement process and facilitate the implementation of IPD, which is a more relational approach to construction that enables public bodies to tackle complex projects, complex in terms of developing the necessary innovations to deliver environmentally friendly buildings at a competitive cost. This study furthers the idea that contractual and relational governance should act as complementary measures for the procurement of complex projects [45,48,49]. The use of IPD should help public bodies to achieve significant improvements in terms of quality, schedule, project changes, communication, as well as environmental and financial performance. The results of this research should be considered within the context of the jurisdictions analyzed, although their application to similar jurisdictions and regulatory frameworks could provide helpful insight to policy makers and public authorities.

Since the mechanisms analyzed in this paper are only of an external or internalized nature, and future research should focus on the actual content of the contracts as well as empirically test its impact on relationship development over time, to holistically analyze whether public procurement

contracts for construction works and professional services could be provided for in a more relational and environmental way.

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