New Approaches to Law and Planning
INTRODUCTION: NEW APPROACHES TO LAW AND PLANNING
KARTHIK RAO-CAVALE 3

PLACE, POWER, AND THE CITY SQUARE: OCCUPY VANCOUVER AND THE UN/MAKING OF PUBLIC SPACE
BRADLEY ALEXANDER POR 13

LAW’S ECOLOGICAL RELATIONS: THE LEGAL STRUCTURE OF PEOPLE-PLACE RELATIONS IN ONTARIO’S AGGREGATE EXTRACTION CONFLICTS
ESTAIR VAN WAGNER 35

PUBLIC INTEREST LITIGATION AS A SLUM DEMOLITION MACHINE
ANUJ BHUWANIA 67

DEPENDENT DEVELOPMENT: LAW AND SOVEREIGNTY IN SOPORE, KASHMIR
AMRITA SHARMA & PEERZADA RAOUF 99

PRIVATE MAINSTREAMING: USING CONTRACTS TO PROMOTE ORGANIZATIONAL AND INSTITUTIONAL ADAPTATION
JESSE M. KEENAN 119

AUTHORS’ BIOGRAPHIES 140
ABSTRACT

This article develops the concept of ‘Private Mainstreaming,’ which is a process for developing intra-organizational capacities to horizontally identify, manage and diffuse value-add innovation primarily through the utilization of contracts. Private Mainstreaming is an extension of the concept of ‘Public Mainstreaming’ wherein climate policies are horizontally integrated across a variety of divisions and agencies with the intent to build cross-linkages across heterogeneous actors based on the emergence of common values and language. While adaptation scholarship has focused almost exclusively on public law and policy, understanding the nature and mechanisms of private sector adaptation through contracts is critical to understanding larger dimensions of socio-ecological and institutional adaptation. This article sets the stage for future research into the operationalization of organizational mainstreaming in the promotion of more robust adaptive capacities in the private sector.
Introduction

The severity of the impact of climate change on society will depend on the ability to distribute limited resources in order to mitigate risks, to invest in resilient social and physical infrastructure and to build adaptive capacities to accommodate the larger social, economic and environmental unknowns. Arguably, the widely distributive impact of climate change is well beyond the capacity of the public, private or civic sectors to accommodate in isolation. It is assumed that, in the best case scenario for reasons of equity and justice, it is the rule of law which will help guide the allocation of capital to make investments necessary for a collective process of adaptation which results in co-benefits between the public and private sectors (Paavola & Adger 2002; Adger 2006; Toth 2013). However, in the absence of positivist public laws which impose or facilitate adaptation across sectors, adaptation in the private sector is dependent, in part, on process and technological innovations that create new value to offset the costs of change (Stern 2007; Fankhaeser et al. 2008; Gans 2012). Private capital is unlikely to be motivated to make investments which offer co-benefits for public beneficiaries, unless those co-benefits offer equal or greater levels of return relative to alternative investments which bear exclusively private benefits (Lockie 2013).

This raises a broader research question—assuming that political and institutional stagnation thwart the ability of society to resolve the competition for limited resources in a timely and efficient manner—what role will positive law have in the promotion of adaptation which advances benefits to an equitably distributed class of public and private interests? This article argues that while the scholarship has focused on the socio-ecological adaptation through the operations of public law and policy, private law should also be evaluated as an equally critical and flexible instrument for climate adaptation. This argument is premised in part on the position that institutional change is based on both exogenous and endogenous influences that may arise from the operations of climate policy and contracts, respectively. This research examines the extent to which the adaptation of private law through contract, together with specific organizational processes, can and does promote the capacity of organizations to adapt.

Scholarship has identified a process of Public Mainstreaming (“Public Mainstreaming”) wherein elements of climate change planning and design are incorporated horizontally across a wide array of public sector policies and agencies (Kok & De Coninck 2007; Brouwer et al. 2013; Wamsler et al. 2014). The intent of mainstreaming is to develop a process of horizontally integrating climate change policies from across an organization and/or organizations with the intent to build cross-linkages across heterogeneous actors based on the emergence of common values and language (Juhola & Westerhoff 2011). For these reasons, Public Mainstreaming is argued to be a more effective alternative to designated climate policies which are top-down and generally do not benefit from modes of experimentation or even the validity generated by more localized decision makers and circumstances.
This article argues that the general principles of mainstreaming also apply to the private sector. The concept of Private Mainstreaming (“Private Mainstreaming”) suggests that value-add innovation may be: (i) identified and managed by organizational structures that mediate conflicting interests and define common values; and, (ii) memorialized and diffused by contracts. Innovation must be distinguished as creating additional value that, at the minimum, off-sets the costs of adaptation, as institutional and organizational changes bear a transactional cost and perhaps an opportunity. Through an examination of existing literature, and as exemplified through hypothetical scenarios involving real estate assets, organizations, markets and rules, the concept of Private Mainstreaming sets forth a logical explanation for how firms are likely to adapt or develop the capacity to adapt.

Private Mainstreaming has potential applicability as firms develop management processes and structures for promoting the capacity to recognize and diffuse innovation. This has been particularly true in recent years with the development of adaptation units in Fortune 500 companies to manage supply chain disruptions (Westervelt 2015). Ultimately, Private Mainstreaming could be viewed as an operation for the promotion of a firm’s adaptive capacity which is theoretically dependent on modes of organizational and human intelligence for the recognition and management of change (Staber & Sydow 2002; Grothmann & Patt 2005; Pahl-Wostl 2009; Keenan 2015a). To this end, this research may also contribute to a larger debate as to the merits of the ‘Porter Hypothesis’ (Porter 1991; Porter & Van der Linde 1995) by showing that organizational processes and non-regulatory policies (e.g., disclosure, communications, etc.) help explain why firms may or may not economically benefit from environmental innovation (Arjaliès & Ponssard 2010; Ambec et al. 2013).

As climate change accelerates in its impact on the built environment, the promotion of the adaptive capacity of actors within the built environment is critical for preventing a potentially broad distribution of transactional costs associated with a failure: (i) to mitigate risks; (ii) to be resilient to known risks; and, (iii) to be adaptive to the long-term known and unknown risks occurring within the useful life of individual assets, portfolios and cities at-large. A failure to build adaptive capacities is likely to result in amplified impacts which cut across private and public sectors. Private Mainstreaming may provide a useful concept for building adaptive capacities when public law and policy otherwise fall short in accommodating innovation.

Rules as Mechanisms of Adaptation

Institutional Adaptation

Institutions can be defined as a set of rules guiding the behaviour of its members across time and space (Giddens 1984). These rules take time to develop and offer a degree of stability for its members through common practices and traditions. At the same time, institutions are constantly in a state of flux as rules evolve and adapt.
For the purposes of this article, the institutions of the built environment are defined by the rules and norms which operate to guide the financing, development, design, operations and transactions of property, real estate and infrastructure. To conceptualize the adaptation of the institutions of the private sector and its constituent actors (e.g., organizations/firms), it is necessary to conceptualize the nature of rules as they relate to the evolution and adaptation of institutions. Thereafter, rules—as manifested in the rule-of-law—can be understood as mechanisms by which human intent may some control or design, for better or for worse, the process of adaptation.

The formation and evolution of institutions follows three primary lines of thought—rational choice, sociological and historical institutionalism (Hall & Taylor 1996). Rational Choice Institutionalism (“RCI”) argues that the “rules of the game” are exogenously derived and serve as a constraint on behavior (Shepsle 2008). RCI has positioned institutions as positive social phenomena which are made up of formal and informal rules which produce desirable and stable outcomes for its members. Sociological Institutionalists (“SI”) argue that institutions are endogenously derived as the “play of the game” or strategies created when agents repeatedly interact in a particular situation (Brousseau et al. 2011:10). Institutions shape the rules of the game and the range of individual options for playing the game based on their own preferences, which are themselves rationally grounded in a set of socially defined morals. This distinction between defining the game and responding to the game represents the ontological duality inherent in institutional thought. Social actors operate within the constraints imposed by institutions, but their actions ultimately define and change these institutions as well. Historical Institutionalism (“HI”) acknowledges this duality and attempts to explain the existence of institutions based on path dependencies and critical junctures that characterize the evolution of social actors and institutions (North 1990; Thelen 1999).

This article attempts to construct a narrative for institutions of commerce that attempts to describe what is likely already happening as a matter of organizational adaptation through contracts. The division between exogenous and endogenous rules is analogous to the division between public climate policies and private contracts. As Fitzpatrick (2014: 3) notes, “[i]nstitutions-as-constraints theories focus on institutions as exogenous rules of the game. Institutions emerge through political processes of interest group bargaining rather than the equilibrium coordination of interacting individuals.” Therefore, it is assumed that public climate policies are an outcome of political interest group bargaining and not equilibrium seeking behavior of coordinating agents, as is the case in the endogenous rules of institutions. As such, it is the operations of contracts and game playing that resolve in a coordinated equilibrium defined by the exchange of resources that is analogous to endogenously derived rules. This division is important to the extent that this article assumes that institutions may change and adapt by a combination of exogenous and endogenous influences. Therefore, if society focuses largely on matters of public policy in addressing climate change, it may be missing an opportunity to advance adaptation.
through private contracts which may have an equally impactful influence on the adaptation of institutions that are critical to society.

In terms of timing and pace, theories of institutional change run along a spectrum from radical to organic evolutionary change. The middle ground is one populated by incrementalism and the notion of institutional design which is loosely defined by a deliberate imposition of rules which cause, influence or perhaps accelerate institutional change (Bromley 1991; Alexander 2002). It has been suggested that institutional design is at the core of planning practice, regardless of whether one follows the rational and communicative models (Innes 1995; Innes & Booher 2015). However, scholarship has been largely focused on a clear dichotomy of design versus evolution (Gualini 2001; Buitelaar et al. 2007). Not all institutions are created the same, and different modes of change and evolution may apply to different institutions (North 1990). As will be discussed, the implementation of processes in line with Private Mainstreaming may be viewed to be consistent with institutional design as a deliberated act or acts that promote an adaptive capacity of the organization. By contrast, the mechanisms (i.e., rules) of the adaptation of institutions are in a constant state of flux (e.g., gradual shifting of contractual terms and values) which is consistent with the incremental nature of evolutionary change. Therefore, it is assumed that the adaptation of institutions is likely a combination of design and evolution that are in dynamic response to exogenously and/or endogenously derived rules.

Legal Adaptation

Adaptation is a process and is measured by a host’s capacity to adapt (Keenan 2015a). Adaptation is not an absolute good. Adaptation at one scale and perspective (e.g., private interests) may be maladaptive at another scale and perspective (e.g., public interests)—and, vice-versa. Private sector adaptation may result in inequalities; and, as such, the design of an adaptive capacity has a latent moral implication. In addition, it is the operation of property rights and contracts that likely contributed to the acceleration of human induced climate change (Harstad 2012). However, contracts are morally neutral instruments even though they may transfer moral intent (Haran 2013; Fried 2015). The intent of this section is to provide some theoretical legal basis for describing what is likely already happening in the process of organizational adaptation through contracts. While this adaptation may result in inequalities, it may also result in co-benefits that accrue to public beneficiaries. This is particularly likely in the built environment where public and private divisions of space and capital are not always clear.

While elements of this Private Mainstreaming are normative to the extent that their incorporation may advance a firm’s adaptive capacity, the overall concept is likely to be descriptive of current or actual phenomena in the operation of law. Thinking about the evolution and adaptation of law is not a recent phenomenon, as one might
expect with the recent proliferation in the complexity of law. Benjamin Cardozo
viewed the adaptation of law as a function of judicial discretion when he wrote,

“[i]f abrogation is permissible in cases of extremity, still more plainly
permissible at all times is continuing adaptation to varying conditions.
This is not usurpation. It is not even innovation. It is the reservation
for ourselves of the same power of creation that built up the common
law through its exercise by the judges of the past” (Cardozo 1924: 137).

However, Cardozo’s perspective was relatively narrow in terms of the larger social
and equitable values of interpreting common and statutory law within the confines
of nuanced facts and/or changing moral or cultural values (e.g., preferences).

The legal theorist Wolfgang Friedmann (1959) argued that there were two funda­
mental restrictions on the unlimited adaptation of the law that Cardozo referred to.
The first restriction is based on the operations of constitutional law and common
law precedent which imposes restraint on judicial discretion. The second restriction
is the necessity to balance the utility of adaptation with the value of certainty in
the law. Friedmann observed that following periods of judicial adaptation of the
law to social problems, there were generally subsequent periods of “consolidation
and reaction” (Friedman 1959: 28). The often underappreciated intellectual impact
of Darwinian evolution on jurisprudence has held that incremental change of laws
is a function of “[e]volution, not revolution; slow and unconscious adaptation, not
self-conscious institutional engineering…” (Ackerman 1991: 6). Therefore, it could
be argued that legal adaptation in its plurality of process is fundamentally not an
outcome of institutional design but evolutionary process.

With the emergence of positive economic analysis, scholars have argued that not
only was common law effective in its ability to adapt but it was also efficient (Posner
1977). This led to a great deal of debate as to nature of the biases of judges and
litigants and the incentives of the parties for either rent-seeking or efficiency seek­
ing actions. In a line of thought parallel to adaptive capacity (Fazey 2007; Pelling et
al. 2008), some have carried this research forward by examining the extent to which
legal adaptation is predicated on a court’s capacity for learning and for acquiring
information (Hadfield 2011). However, this body of scholarship was predicated on
the assumption that litigation was the principal mechanism for adaptation. Given
the complexity of the vast amount of existing administrative and regulatory law, the
more contemporary discourse on the adaptation of law has focused on the internal
designs of administration and management of laws and regulations.

In terms of regulatory and administrative law, the current state of environmental,
natural resource and land use law provides a highly relevant perspective,
especially when contextualized to climate change and the built environment.
As Craig (2010) observed, these legal regimes are ill equipped to deal with climate
change because they are based on stationary principles of preservation and
conservation. Craig calls for a series of bi-modal legal principles which balance flexibility and discretion on one hand and precautionary principles on the other. In a framework for adaptive management, Craig & Ruhl (2014) extend this argument by proposing an administrative system which is not exclusively reliant on ‘front-end’ analysis and the rationality of the present. Such an alternative administrative order would build in more periodic moments of discretion and a greater role for the public as means of gathering intelligence about the nature and impact of environmental change. The authors contrast this adaptive management approach with the broad strokes of market based mechanisms. As will be discussed, the concept of Private Mainstreaming – which operates in part on a finite scale of bi-lateral contract negotiations premised in part on market forces – is also reliant on administrative innovation to give legitimacy to the innovation that the process of mainstreaming seeks to validate, transact and diffuse. For example, technological experimentation of energy systems in a building will need to pass muster with building code administrators who might not otherwise be incentivized to oversee an experimental technology.

This is consistent with what many have normatively positioned as a response to the complexity of law, in that collaborative (e.g., public and private) mechanisms of policy making arguably offer a wider range of potential paths which address, in part, the problem of path dependencies of historic decisions based on information which is now out of date (Axelrod 1997; Dorf & Sabel 1998; Hornstein 2005; Broto and Bulkeley 2013). There is now global recognition that local governments offer the optimal scale for legal, process and technical experimentation (Amundsen et al. 2010; Brunner & Lynch 2013; Nalau et al. 2015). As Flatt (2012) argues, local political will together with broad police powers —albeit delegated — place local governments in a position to tailor solutions to local problems which may not be perceptible or scalable in terms of responsive or preparatory interventions at the federal level. As such, an evaluation of the adaptation of law in the advancement of larger measures of socio-ecological adaptation is perhaps most fruitful at the local level and within the confines of the built environment which is almost entirely a function of local governance, economy and society.

Because public and private interests are so interconnected within the built environment at a local level, this scale provides a ripe level of analysis for understanding the experimentation and diffusion of innovation which is dependent on the adaptation of not only public law and legislative policies but also private law and market rules and norms. There is some empirical precedent for the role of private contract law driving institutional adaptation as mediated by public law. This occurred most notably with the promulgation of various state and federal brownfield amendments that allowed risk to be managed through contract, including insurance contracts, in the remediation and redevelopment of toxic brownfield sites (Keenan 2005). The result was a great deal of innovation in terms of governance and technology which led to a new generation of brownfield sites being redeveloped (Orts & Deketelaere 2001; Wernstedt & Hersh 2006; Buchanan 2010).
In relating institutional theory to the legal scholarship cited herein, it can be argued that public climate policies are largely exogenously derived through plurality of the legislative and judicial processes and that private contract formation is largely endogenously derived through strategic game playing in markets. Together these exogenous and endogenous influences drive larger cycles of institutional formation and adaptation. Again, this division is not clear-cut because even the rules of the game are historically path dependent with respect to a point in the institutional cycle where rules might have been exogenously derived, and even exogenously derived rules are subject to some measure of game playing by judges and litigants. Brousseau & Raynaud (2011) make a complementary argument which acknowledges the limitation of exogenously derived rules that are mitigated in part by the operation of contracts.

“These rules may take the form of state-level collective rules or social norms that grant agents initial rights and offer coordination solutions, thereby setting the initial transaction costs. However, this order is both incomplete and imperfect. It is incomplete because it cannot cover the diversity of coordination needs of heterogeneous agents; it is imperfect because it provides only broad, general solutions that may not be well adapted to particular or evolving situations. For this reason, agents have an incentive to make individual efforts toward tailoring their property rights over economic resources, transferring these rights, and ensuring that they are enforced. Such efforts take the form of bilateral contracts between parties that (incompletely) describe each party’s commitments and related enforcement devices” (Brousseau & Raynaud 2011: 68).

By focusing exclusively on the adaptation of relevant commercial institutions as designed by public climate policies, the scholarship has overlooked the value of a theory of adaptation driven in equal measure by contracts which are produced at a much more finite scale (i.e., bi-lateral regulated market negotiation) and are arguably more facile in their ability to coordinate collaborative partners. If contract law is the instrument of the diffusion of innovation, then it is the process of Private Mainstreaming where contracts, rules, organizations and institutions collectively adapt in a synchronistic fashion yet be explored. It is not one or the other—it is a combination of influences between policy and contract that will give some measure of design to the ongoing evolution of markets and firms.

This research is positioned within a larger known phenomena as to the lag between innovation and regulation which poses a significant barrier to the rule mechanisms of adaptation (see generally, Oster & Quigley 1977; Jaffe & Palmer 1997; Brunnermeier & Cohen 2003). When contextualized to the built environment, innovation comes in multiple forms generally attributable to technological innovation in building and infrastructure systems and process innovation (e.g., regulatory experimentation) in land use and environmental planning. While the latter is principally driven as a matter of process by public law, it is the former which is the primary object of the concept developed herein.
Private Mainstreaming

This article extends the concept of mainstreaming to the public policy domain by suggesting that private sector organizations (i.e., firms) at various scales are able to mainstream adaptation through private-law based corporate actions and strategies. As a general principle, mainstreaming is a process of horizontally integrating climate change policies within an organization or across organizations with the intent to build cross-linkages across heterogeneous units based on the bottom-up emergence of common values and language. The intent is to facilitate a series of homogeneous translations as to the nature of impacts and the definition of interventions and strategies to address known, anticipated and unknown impacts and risks. If mainstreaming is successful, then the adaptive capacity of the subject organization is more robust in that the organization has the capacity to identify, utilize and transact innovation which is critical for addressing risks and opportunities associated with climate change.

In the context of Public Mainstreaming, innovation is derived largely from process innovation in terms of administration and management within local and/or state government. This process innovation also serves to advance the identification, evaluation and promotion of technological innovation, as in Private Mainstreaming. However, with Private Mainstreaming, innovation may manifest along more conventional pathways of operation and transaction which may or may not be subject to same degree of institutional constraints. As innovation is defined and property rights are assigned thereto, mechanisms which promote institutional change scale up from within the organization to a constellation of organizations and then beyond to a wide array of actors and institutions.

This article will use the hypothetical examples of a building, a real estate firm and set of related built environment actors to illustrate the concept of Private Mainstreaming. It is first useful to conceptualize the nature of the intent and operationalization of mainstreaming in a commercial context. Climate change poses a vast array of stimuli with varying degrees of proximity to climatic conditions which may be distilled to costs relating ultimately to either supply or demand. Likewise, it is assumed that the goal of a private firm is to seek a state of stable equilibrium which maximizes profit and minimizes costs. As such, value-added innovation is a mechanism for minimizing costs and creating additional enterprise value through the exploitation of opportunities and/or preparation for disruptions either in the supply and operations of buildings or in demand from users and investors.

Intra-organizational Processes

In more immediate terms, the goal of strategically mainstreaming in the private sector is two-fold. First, it contextualizes a specific risk which may be unrealized to
a known range of problem-solution sets within an existing organizational capacity. This is important as a means of identifying and communicating the risk and for deliberating contextual modes of action for addressing the risk. For example, flooding within commercial buildings has historically impacted below-grade critical buildings systems which have in turn impacted user operations. By mainstreaming the risk within design, maintenance and operations departments of an organization, there exists an opportunity to create value on the operations side of the asset in terms of the business continuity of users, for example. By compartmentalizing and dividing a singular risk into multiple risks managed by different departments within the organization, there exists an opportunity for the collective organizational enterprise to become adaptive to not just the risk of flooding but other related risks such as power surges and brownouts on hot days. This method has been observed to be consistent with managing supply chain risks in highly turbulent markets, wherein each element of risk is positioned within the context of systematic and dependent relationships for each relevant division/unit of a firm (Trkman & McCormack 2009).

Second, aligning multiple benefits from the incremental cost of mainstreaming increases the marginal benefit of the action, as well as the benefit associated with risk mitigation and/or transfer. In returning to the example above, a department responsible for overseeing design of a critical power system may require a passive connection to the electrical system for autonomous power generation. The cost of implementing this technology may add only one or two percentage points to the cost of the power system. The reason for this design requirement may be based on the mainstreamed deliberations from both the operations and maintenance departments within the organization. In the example above, the relatively limited incremental costs of designing and constructing a passive connection may mitigate business continuity risks which minimizes actuarial risk that may be reflected in lower insurance premiums among other benefits. Of course, if the amortized cost of this incremental technology is grossly misaligned with the actuarial, actual or perceived risk in net present value terms, then it might not be worthwhile to proceed; but, this too is also a positive outcome to mainstreaming as adaptation may involve both action and inaction in the allocation of resources.

An approach to mainstreaming which unites the first and second strategic processes is to promote consistent measures of value and risk across departments such that it becomes possible to assess the aggregate benefits which may accrue to the actions of one department at costs borne by another department. An early review of case studies in interdepartmental conflicts suggests that the management of these processes is accomplished through a combination of rewards and consequences (Walton & Dutton 1969). Empirical research in the intra-organizational diffusion of IT has suggested that (i) managing departmental conflict is most effective when interdepartmental contracts are utilized to enforce incentives and consequences; and, (ii) contracts that are regularized are more effective than limited one-time contracts for shaping this cooperative behavior (Bhattacharjee 1998). In the hypothetical example presented above, the design department now bears a higher construction cost which
benefits the operations and maintenance departments. This disconnect between departmental accounting may result in certain frictions. However, mainstreaming in the private sector could be conceptualized to not only include adaptation internal to each department but across departments. In this dual intra-organizational scale, the top-down cross-departmental deliberation may act to net-out these disparate departmental allocations of costs and benefits through methodological or accounting solutions (i.e., formal contracts) and through political or communicative solutions (i.e., informal contracts). The question for future research then becomes what is the normative executive hierarchy of departments or personnel which could mediate and execute mainstreaming?

Prior research has suggested that senior executives in small and mid-sized firms and corporate real estate and service executives in a large firm have served this mediation role (Keenan 2015a; 2015b). However, this is unlikely to be scalable or sustainable as the diversity of external influences is beyond the capacity or attention of leadership that is tasked with a variety of tasks and roles. Research in technology firms have suggested that each department or division should be responsible for not only mediating and resolving conflicts, but they should anticipate and plan for conflicts that might arise as innovation is first identified (Marshall & Vredenburg 1992; Meyers et al 1999; Kim & Pae 2007). While the answer to this question is entirely dependent on a variety of conditions outside of the scope of this article, it is expected that several departments may serve this cross-departmental intra-organizational role depending on the nature of the subject innovation, as characterized by its compatibility, complexity and observability (Kim & Srivastava 1998). As previously cited, many corporations now have designated adaptation units that have to-date mainly focused on supply-chain disruption. As such, should innovations specific to the built environment be advanced by an adaptation unit that focuses exclusively on elements relating to technological and process innovation? Empirical research across a variety of technology dependent industries has suggested that a focused unit with a refined capability to design contracts is likely be the most effective organizational structure to promote innovation (Argyres & Mayer 2007).

The most immediate facet of corporate strategy for mainstreaming is within the risk management department. Enterprise risk management is generally an autonomous department within an organization which identifies, mitigates, avoids, absorbs and transfers risk in various other departments including, strategic planning, marketing, accounting compliance, governance and ethics, law, operational quality assurance, design and construction, operations, asset management and audit departments. While the identification and management of risk falls within the risk management department, the department may or may not be able to enforce or mediate adaptive capacities across other departments depending on the organizational governance structure and the department's level of sophistication in identifying and managing risk which often falls outside of known actuarial parameters (i.e., statistical probability) and/or methods (i.e., inability to measure non-proximate phenomena yet to exist). Borgelt and Falk (2007) argue that risk management tends to ‘dumb
Projections

12

down' complexity that works against the development and diffusion of innovation. Prior research suggests that risk management departments in real estate firms are ill equipped to incorporate climate change into their methodologies and practices (Keenan 2015b). Other potential departments which conventionally work across various departments are strategic planning, law and operations. However, each one of these departments may be subject to the same aforementioned institutional and practical limitations. These constraints reinforce the arguments for a designated specialized unit consistent with the findings of Argyres & Mayer (2007).

The process of mainstreaming may be department specific in its initial stage with secondary phases being defined by cross-departmental sub-organizations and/or processes that mediate and execute mainstreaming across departments as those frictions arise. From a macro perspective, the creation of new processes and the modification of existing processes as a consequence of mainstreaming within an organization, whether that is for conventional risk management or the utilization of new technologies, represents an important part of process innovation. The optimal outcome is the identification and underwriting of innovation so that future assignments of value and property rights may be pursued through contracts outside of the organization. However, it is also conceivable that intra-organizational contracts may be utilized to incentivize cooperative behavior among employees and/or units that have historically had limited interaction or competing internal interests.

**Constellation of Organizations**

Aside from the advantages and hurdles to mainstreaming in an intra-organizational context, there exist influences within a group of organizational actors which also impact institutional change in favor of adaptation. While some have theorized that institutions possess an innate adaptive capacity independent of the operation of rules and norms (Gupta et al. 2013), the limited definition utilized herein of institutions as merely rules and norms suggests an alternative perspective on institutional change and adaptation. Through an actor-oriented perspective, this article conceptualizes a 'constellation' of organizations which relate to each other through multi-lateral interactions—in this case, in the built environment—in both cooperative and non-cooperative terms (Scharpf 1997). It is assumed, as Scharpf identifies, that institutional change can either be deliberate by design or can be through evolutionary processes of mutual adaptation (Brennan & Buchanan 2008; Shivakumar 1998). Of course, one notable exception to this horizontal cooperation is the provision of anti-trust regulation (Jorde & Teece 1993). By mutually aggregating incremental exercises in risk taking in the advancement of innovation, the constellation can more fluidly and flexibly accommodate change. This is particularly relevant for real estate where the costs of institutional non-compliance are great by virtue of the fixity and lack of diversification in the property rights regime.
While the mainstreaming processes may be different at this intermediate constellation scale from those of the intra-organizational scale, the discrete innovative outcomes derived from intra-organizational mainstreaming may be diffused through the constellation by the instrumentation of contract as mechanism of mutual adaptation (Williamson 2002). Case studies in multiple sectors have identified firms that have developed intra-organizational contracting capacities that have advanced inter-organizational innovation, including aerospace (Crocker & Reynolds 1993), IT (Kalnins & Mayer 2004), biotechnology (Lerner & Merges 1998) and healthcare (Rolfstam 2008). In continuing the example above, let us assume that Firm A undertook certain actions cited to design, install and operate passive energy connections for autonomous power generation. At the same time, Firm B has mainstreamed a variety of strategies within their legal and accounting departments, and, as such, these departments are aware of the value associated with the technology. If Firm A contracts to sell to Firm B, and Firm B requires contractual language which requires Firm A to warrant the condition of the equipment, then Firm B is benefiting from constellation level mainstreaming. It is also possible that Firm A benefits because it can now assign value to the technology in a manner which is understood by Firm B's accounting department and is allocated to the purchase price. Even if Firm B did not recognize the technology and its underlying value, Firm A's contract (or, offer) would put Firm B on notice of the innovation whether or not the transaction closes. As this contractual language proliferates and is modified by and between Firms A and X Y Z, then a variety of actors and institutions are adapting by virtue of a change and/or modifications of the rules and norms.2

Over time, as these contracts create larger bodies of private law, they themselves form the basis for an intermediate level institution which supports innovation (or, at least particular types of innovation such as technology). This is consistent with Brousseau and Raynaud's theory that,

"Intermediary institutions emerge to address coordination problems at a lower cost than bilateral and generic devices. Collective ordering yields benefits due to the combination of at least three effects in the design and enforcement of rules: economies of scale and scope, learning and specialization benefits, and reduction of collective welfare losses by managing interdependencies among community members" (Brousseau & Raynaud 2011: 68).

An example of this intermediate institution grounded in contract and private law is the Leadership in Energy and Environmental Design (LEED) standards promulgated originally by the U.S. Green Building Council—itself positioned within a constellation of organizations. The rules of the program were designed to promote technological innovation in building systems, design and management and were ultimately diffused by local community benefits agreements, covenants within commercial leases for tenants' operation in the buildings, and a number of other legal
instruments. Likewise, when many LEED buildings did not perform as they were predicted, it was litigation based on contract rights which helped drive not only another generation of technology but another generation of more sophisticated contracts. This highlights the mutual dependency between public and private law as an influence of institutional adaptation.

**Relationship between Public and Private Mainstreaming**

Aside from mainstreaming innovation in contract, cooperative or semi-cooperative behavior in the diffusion of innovation may be motivated by factors which are not necessarily reducible in immediate terms to monetary value, such as social approval (Rege & Telle 2004). Regulatory approval may provide monetary value in terms of timing, efficiency and risk and/or may also be reduced to contract (e.g., community benefits agreement, brownfields contracts, etc.). For instance, regulatory process innovation by one actor may set the stage for other actors to benefit and for collective adaptation through constellation interaction. A classic example of this is the constant development of on- and off-site mitigation interventions and strategies developed pursuant to various wetlands and environmental regulations, such as within a wetlands banking platform (Robertson 2004). The innovation is either in terms of bioremediation technology or methodologies for assessing impact and benefit. Contractual agreements with the Army Corps of Engineers and various agencies are closely monitored by industry in order to place a price and a risk metric to certain untested innovations.

Mainstreaming in the literature conventionally refers to acts within public policy development which are horizontal in the sense that legitimacy is derived from the alignment of adaptation with other public policy goals—very often with dominion over private actions and benefits (Klein et al. 2007; Van Buuren et al. 2014). Unfortunately, the private sector is often too quickly conceptualized as providing “constraints” to the legitimacy or efficacy of mainstreaming in the public sector (Dovers & Herzi 2010: 218). To the contrary, private actors may initiate bottom-up regulatory mainstreaming through the promotion of value with wider benefits.

In returning to our hypothetical scenario, there may be a situation in which the laws and regulations relating to the energy, environmental and construction domains have not explicitly caught up with the passive energy technology sought to be utilized in the building by Firm A. If Firm A takes the steps to lobby for and even litigate for the adoption of public policies and regulations which allow for the utilization of the technology, then Firm B, Y, and X all benefit from these actions which may arise by virtue of contract or by their own independent use of the technology in other buildings. Pursuant to this example, these benefits—assuming a positive value innovation—would be amplified as they scale up from the building to the organization to constellation of organizations and perhaps even to intermediate institutions which allow for the innovation to be scaled down back to the building.
This highlights the constant cycle between exogenous and endogenous rules over the lifecycle or institutions whose duality of influence is observed to be reciprocal, if not mutually dependent. Likewise, it can also be conceptualized that institutions reflexively adjust rules for the implementation of innovation as both a deliberate and evolutionary process which results in a constant feedback loop of trial and error in the development and diffusion of innovation. By examining case-specific technological and process innovations and contextualizing their realization within this framework, it is anticipated that future researchers will not only be able to identify barriers and efficiencies in the process of mainstreaming but will also be able to make normative claims on this basis. It is likely that these processes are already underway in organizations and institutions and have yet to be fully evaluated or understood.

Conclusions

As a set of rules in a constant state of evolution, yet manipulated by design, there is nothing static about institutions—adaptation is as perpetual as existence. The same can be said for even the most discrete elements of public and private law. As climate change progresses in its severity and impact, the larger question is the extent to which the speed and depth of the adaptation of institutions, organizations, laws and rules will intersect in synchronistic fashion with environmental, economic and social objects that bear the impact of change. While some measure of lag is to be expected, the concept for Private Mainstreaming is intended to identify a logical connection between contracts and the adaptive capacity of organizations that may result in process and technological innovations diffused across various scales. While this may ostensibly be self-serving to private interests, the capacity to adapt may very well serve co-benefits to public interests. In a regulated economy, such as real estate, institutional and organizational adaptation is a reflection of the intersection between public and private rules. Therefore, an understanding of the nature of innovation and the mechanisms of its diffusion would help maximize the opportunities for co-benefits where they may exist.

Future research has the opportunity to continue to advance an understanding of the operationalization of adaptive capacities through various potential applications of Private Mainstreaming. For instance, what are the optimal organizational structures to mediate friction between the assignment and control of innovation within an organization? How can these structures work collaboratively as a matter of firm policy to draft and enforce contractual provisions? What are the internal controls for understanding when experimentation no longer accommodates strategic goals? As major global firms such as Nike, Hewlett-Packard and Starbucks continue to develop sophistication in their adaptation units, there is an opportunity to develop empirical research which draws out a series of values and risks and the extent to which these values and risks are registered and weighted along a continuum from
day-to-day business to the long-term shareholder value for future generations (Westervelt 2015).

While companies will be drawn into litigation and will rely on public laws to protect their interests and to efficiently and justly mediate the allocation of limited resources, private contracts will fill the void where timing, efficiency and predictability are critical values. In order to promote a firm’s adaptive capacity, it will be necessary for these contractual relationships to move outside of the limited confines of risk management and legal departments to engage a much broader range of intra-organizational actors who are often themselves the source of innovation. Likewise, firms will need to develop external modes of intelligence which extend beyond supply chains and customer networks in order to register incremental changes and to identify innovation as it is underwritten, assigned and transacted.

While the market forces associated with property rights and the negotiation of contract might be timely and efficient, they will not always result in just or equitable outcomes. Therefore, Private Mainstreaming has to be contextualized within a broader concept of the necessity of law to adapt in both the private and public domains. While the scholarship to date has focused on the public regulation of direct impacts, it is the indirect consequences of climate change in economic and social terms which must also be addressed. A failure to think across a wide variety of legal domains, organizations, and institutions will result in a piecemeal approach which is likely to lead to inefficient outcomes whose costs will ultimately lead to greater social inequality and environmental injustice. Ultimately, society will need to ‘mainstream’ not only at the scale of institutions and organizations but also at the scale of each individual as they balance their ethical responsibilities as consumers and citizens which serves as the basis for the rule of law and the ordering of civil society (Hart 1961).

NOTES

[1] Under COP21, local governments will for the first time have a seat at the table in global climate change negotiations in Paris in December, 2015.

[2] Of course, it could also be maladapting if the economic allocation of resources to manage a risk are ultimately inefficient by virtue certain biases and illusions collectively shared by the organizations within the constellation that do not represent actuarial or actual risk. Likewise, innovation may possess both positive and negative values in its utilization and generalized application.

REFERENCES


Bhattacherjee, Ano! (1998) "Managerial Influences on Intraorganizational Information Technology Use: A Principal Agent Model," 29 Decision Sciences 139-162.


