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Public administration and politics meet turbulence: The search for robust governance responses

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Abstract

This introduction to the symposium on “Robust politics and governance in turbulent times”; examines how different governance paradigms have conceptualized the relationship between order and disorder and stability and change. We selectively focus on two prominent and well-established paradigms—public bureaucracy and network governance—and then contrast them with a third emerging paradigm, robust governance that aims to provide stable conditions for the development of robust responses to heightened turbulence through a combination of flexible adaptation and proactive innovation. We account for the three governance paradigms one by one with a view to how they deal with turbulence. We then define robust governance, discuss its distinctiveness compared to crisis management, resilience and agile management, and investigate the conditions and strategies for pursuing it. Finally, we endeavor to incorporate the findings of the symposium articles into the new and emerging perspective on how to advance robust governance in times of turbulence.

1 | THE RISE OF TURBULENCE

Public governance has always been challenged by turbulence, defined as “situations where events, demands, and support interact and change in highly variable, inconsistent, unexpected or unpredictable ways” (Ansell &

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Trondal, 2017, p. 1). Social conflicts, economic recession, war, and political leadership contests create turmoil and chaos to which governments aim to respond with a mixture of repression, concession, reform, and regime change to maintain or restore some form of social, economic, and political order. Political philosophers such as Machiavelli and Hobbes depicted history as a circular movement where the rise of relatively stable regimes predicated on the exercise of hard power ultimately gives way to decadence, corruption, and ruin that erode the social and political order. In contrast, Hegel and Marx portrayed history as a linear trajectory governed by the rational unfolding of a dialectics whereby new, contradicting developments challenge the old, stable structures, thus leading to turbulent transitions that bring society to higher and higher stages. Despite their different views on history, they all agreed that order is temporary and invariably disturbed by short spells of crisis and heightened turbulence occurring at regular intervals but tending to foster a new period of relatively stable rule.

Today, there seems to be a new sense that turbulence has become a chronic and endemic condition for modern governance. This new condition cannot be traced to any single factor, arising instead from multiple interacting developments. A first factor is that acute or creeping crises seem to be arising more frequently, affecting a wider range of sectors, spilling across political boundaries, and possibly producing multiple interacting crises (dubbed “poly-crisis” by Zeitlin et al., 2019). A second factor is how social, economic, and political interactions among widely distributed, multi-level parties are accelerating—producing interactions of surprising speed, scale, and scope (Hong & Lee, 2018). Communication and information technologies create lightning-fast information exchanges demanding a rapid and timely response to far-flung citizens, suppliers, stakeholders, and decision-makers who may not have even been part of the administrative picture until recently. Keeping up with potentially destabilizing, mediated events can easily devolve into a constant stream of fire drills (Cottle, 2006). A third source of turbulence arises from an intensification of political conflict that challenges existing norms and mechanisms of conflict mediation. While public organizations are familiar with politics and conflict, they must now adapt to shifting political issues, polarized populations, rapid leadership turnover, clashing reform agendas, and uncertain planning horizons—sometimes all at once (Kriesi et al., 2012).

Although the concept of turbulence implies the need to respond and adapt to change, it refers to a certain kind of adaptation and certain kind of change. When change is slow and steady, when shifts and trends can be clearly anticipated, and when important parameters change in observable, understandable, and relatively discrete ways, we are not in a turbulent world. When we have the leisure to respond to change through planned adaptation, when we seek to optimize structures or processes through comprehensive system reforms, or when we tweak operations to adapt to expected variance in resources, supplies, or personnel, we are generally not in a world of turbulence; instead, turbulence describes a state in which change is sudden, surprising and difficult to understand or track. It describes a world where we must deal with multiple, simultaneous changes, each demanding our immediate attention, often creating contradictions and dilemmas. Adaptation to turbulence can be like a group of strangers rapidly assembling a puzzle, where the picture is blurry and the pieces fit together poorly.

While crises, speed, and political conflict are by no means novel challenges for public administration, our existing theories and analytical perspectives treat them as peripheral and exceptional rather than central and commonplace. Both political systems theory (Easton, 1965) and neoclassical economics (McKenzie, 1959) have focused on the occasional disturbance of a systemic equilibrium and the subsequent efforts to restore the equilibrium. Similarly, historical institutionalism talks about periodic crises that disrupt stable policy paths until new self-reinforcing paths are restored (Streeck & Thelen, 2005; Torfing, 2009). Even poststructuralist discourse theorists describe how hegemonic discourses are dislocated by events that they cannot domesticate, thus leading to turbulent political power struggles aimed at creating a new stable political and moral-intellectual leadership (Laclau & Mouffe, 1985). The common story here is that societal order and stable political rule prevail despite brief interregnums of crisis and heightened turbulence.

The intellectual legacy of this sharp order–disorder dichotomy is reflected in the difficulty we have in understanding how governance structures and processes can be designed, led, and managed where complex interactive change is normal rather than exceptional. Our theories of public institutions tend to associate stability with the absence of change, while change is understood as a disruption of stability. As intuitive as this is, it often prevents us from understanding what makes governance robust in the face of complex and dynamic challenges. The key to addressing these challenges is to re-conceptualize how public administration theory views the stability–change

relationship; we must focus more on how change enables stability and, reciprocally, how stability enables change. To be robust (as opposed to resilient, as explained below) essentially means to be able to continue providing public value in the face of variable, inconsistent, unexpected, or unpredictable events and demands. We argue that by paying attention to the interdependence—as opposed to opposition—of stability and change, we can illuminate some of the mechanisms contributing to robustness.

This special issue suggests that we can address the challenges of turbulence by thinking about the robustness of our governing institutions and processes. To situate and frame the argument about the need for robust governance in turbulent times, we examine how different governance paradigms have conceptualized the order–disorder and stability–change relationships. We selectively focus on two prominent and well-established paradigms—public bureaucracy and network governance—and then contrast them with a third emerging paradigm: robust governance (we leave new public management out of the analysis because robust governance does not build as directly upon it). We account for the three governance paradigms one-by-one with a view to how they deal with turbulence. We then define robust governance, discuss its distinctiveness compared to crisis management, resilience, and agile management, and investigate the conditions and strategies for pursuing it. The following section reviews some prior theoretical claims about robust governance and relates them to the findings of the articles in this special issue. We conclude by returning to the notion that stability and change must be seen as interdependent, and we use it as a springboard for suggesting some additional strategies for achieving robust governance.

2 | PUBLIC BUREAUCRACY

Although the ideas about impersonal rule by civil servants have a long history (Kiser & Schneider, 1994; Nickerson, 1996), the growth of Weberian and Wilsonian bureaucracy was particularly pronounced in the interwar and postwar periods. The core ambition of modern bureaucracy was to create and maintain stable rules and societal order based on predictable administrative decisions (Du Gay, 2000). Separating private interests and personal whims from the public authority exercised by professionally trained and rule-bound civil servants provides a potent tool for securing a steady, controlled rule with few surprises. The bureaucratic quest for stability and predictability is motivated by an interest in maintaining sovereign political leadership while simultaneously protecting citizens against arbitrary administrative decisions. Hence, stability is seen as inherently good, thus making instability and disorder a problem. Since turbulence is regarded as exceptional, however, it poses no significant threat; indeed, bureaucracy was invented to tame and eliminate turbulence, which shows its ugly face if bureaucracy is incomplete or breaks down in extraordinary, unforeseen crisis situations.

Modern bureaucracy was a child of the industrial revolution. Public bureaucracies administer numerous large-scale programs and systematically coordinate the actions of large numbers of people working at different levels to achieve common goals. They focus on economies of scale and delivering standardized service solutions to the masses. Built on centralized hierarchical structures, orders flow from top to bottom, and compliance is a key success criteria. Hierarchy along the vertical axis of public bureaucracy is complemented by a functional division of labor along the horizontal axis. The compartmentalization of public organizations into separate departments, agencies, and bureaus creates a specialization advantage, allowing a group of professionally trained public employees to become experts in undertaking a particular task while greatly enhancing the need for coordination provided by higher-level agencies. Together, the vertical hierarchy and horizontal division of labor help to keep everyone in check. In theory, employees should know exactly what people in their position should do, how they should do it, and what resources they have at their disposal.

The formulation of written rules is the ultimate tool for securing compliance, predictability, and transparency, especially when combined with formal accountability systems based on monitoring, auditing, and legal sanctions (West, 2005). The bureaucratic governance paradigm relies on organizational structures and written rules to ensure that public employees perform as expected. Deviation from the organizational script is limited by professional norms

and altruistic concerns for the public interest. Hence, there is little use for transactional and transformational leadership aiming to motivate public employees. Elected politicians lead by defining the overall policy goals and occasionally reshaping the public sector, whereas public managers lead the administration by overseeing the implementation of policies and dealing with occasional rule breaches.

Being an integral part of liberal democracy, the bureaucratic governance paradigm is deeply concerned with securing free and fair elections based on universal suffrage, maintaining democratic control of the government, and preventing societal pressure groups from gaining excessive influence. Both democratic elections and the administrative implementation of legislation are regulated by rules, norms, and procedures aimed at guaranteeing fairness and preventing the abuse of power. Hence, in the bureaucratic governance model, input legitimacy and throughput legitimacy prevail over output legitimacy (Schmidt, 2013).

It has long been recognized that the bureaucratic governance paradigm—with its rule-based command-and-control and formal legal accountability—may create a rigid, siloed organizational system that makes adaptation to changing events sluggish (Downs, 1967). This begs the question of how a large bureaucratic system can adapt to changing circumstances. The initial answer was “planning”; the planning of budgets and activities in the present and coming years is central to bureaucracy and relies on the forecasting of demographic developments, changing needs, and economic activities that largely determine tax revenues. Planning helps public bureaucracy to rationally predict and provide services, and it is undertaken by central departments responsible for producing comprehensive planning documents based on information from statistics bureaus requesting all parts of the public sector to submit relevant information (Friedmann, 1971). Comprehensive planning is supplemented by sector planning, and coordination emerges as a key instrument to align sector plans that may diverge and prompt a need to reduce conflicts and create synergies. Coordination is also needed to prevent overlaps and gaps in services and government activities sponsored by public agencies at different levels and in different sectors (Bouckaert et al., 2016). Bureaucratic coordination is top-down in the sense that higher-level bodies make authoritative decisions about who does what and how many resources they have at their disposal. Optimism for top-down comprehensive and sectoral planning peaked in the early 1960s, after which the assumptions underpinning rational and comprehensive planning were severely criticized (Lindblom, 1959; Wildavsky, 1973).

Despite its fall from grace, planning did not disappear; instead, it assumed more modest and targeted forms that sought to facilitate adaptation to specific challenges. Strategic planning sought to anticipate challenges over the mid-to long-term and to provide context-dependent responses shaped by multiple stakeholders, thus differentiating itself from rational-comprehensive planning (Bryson, 2018). Contingency planning became fashionable in the late 1960s in the face of several environmental crises (Lentzos & Rose, 2009). Contingency plans are essentially decision-making tools determining who does what and takes which decision based on the anticipated circumstances possibly arising in a crisis. They are often mandatory, although the challenge is that planning assumptions are often foiled by actual events (Clarke, 1999).

Organizational scholars also increasingly recognized that large bureaucratic organizations were open rather than closed systems and began questioning how they could be resilient in the face of external shocks. Thompson (1967) described how open-system organizations could buffer their “technical core,” coining the term “boundary spanner” to describe the specialized functions of managing external fluctuations that might disturb this core. Cyert and March (1963) described the importance of organizational “slack” as a resource that could be called upon when organizations undergo stress. Landau (1969) introduced the concept of redundancy as an important back-up system for ensuring organizational reliability.

Finally, organizational scholars pointed to the need for special structural adaptations to respond to unique problems or challenges. For example, the term “adhocracy” was coined to describe a temporary organization that draws its membership from different parts of the bureaucratic organization and is sufficiently flexible and adaptable to cope with the heightened turbulence following in the wake of crisis events (Mintzberg & McHugh, 1985; Toffler, 1970). Large-scale organizations were urged to become “ambidextrous” by effectively exploiting well-known solutions while exploring the need to develop new solutions to cope with future demands (March, 1991).

In sum, while Weberian and Wilsonian perspectives still dominated public administration thinking until the late 1980s, an increasing number of theoretical developments hinted that adaptation to change was becoming an increasingly important concern. However, change remained a monumental task for large public bureaucracies, and one that occurred only periodically when demands for change became urgent (Fernandez & Rainey, 2006).

3 | NETWORK GOVERNANCE

Often associated with the New Public Governance paradigm (Osborne, 2006, 2010; Torfing & Triantafyllou, 2013), network governance emerged as a pluricentric alternative to the unicentric bureaucratic governance model (Kersbergen & Waarden, 2004), which is seen as limiting the mobilization of resources and exploitation of advantages associated with collaborative governance (Huxham & Vangen, 2013). The network mode of governing fits well with the postindustrial and post-Fordist logic of flexible specialization, since small groups of public and private stakeholders are brought together to design tailor-made solutions for particular target groups and subsequently amend them when circumstances and preferences change (Jessop, 2002). Governance networks thus focus more on economies of scope than economies of scale. Digital tools may support the sustained interaction between manifold network actors and facilitate knowledge-sharing in distributed settings.

Collaborative governance in networks, partnerships, and so forth was initially perceived as a lender of last resort in the sense that it was only introduced when other bureaucratic or market-based forms of governance had failed (Ansell & Gash, 2008). This eventually became a standard tool in the public governance toolbox and was frequently used when public and private actors confronted complex and wicked problems (Rittel & Webber, 1973) and where there is a need to mediate conflicts between interdependent stakeholders (Rhodes, 1997). Wicked problems have both cognitive and political dimensions in the sense that the problems in question tend to be ill-defined and poorly understood due to the presence of tangled causalities, and the existence of tradeoffs between competing goals tends to hamper the formulation of solutions (Head & Alford, 2015). Complex problems vary in terms of their cognitive and political wickedness, thus calling for customized collaborative arrangements (Head & Alford, 2017).

Much like its corporatism and policy network prequels, the overall ambition of network governance is to create islands of provisional stability in cognitively and politically complex—and therefore relatively unstable and challenging—policy contexts (Mayntz, 1993; Provan & Kenis, 2008; Sørensen & Torfing, 2007). Provisional stability is fostered by involving key stakeholders in networked governance through which distributed actors find ways of constructively managing their differences (Gray, 1989) and agreeing on particular understandings of the problems and challenges at hand and on a set of satisfactory governance solutions. Hence, network governance recognizes turbulence as a key challenge for governance but perceives it largely to be a matter of situational complexity.

So how do governance networks manage to deal with cognitively and politically complex problems that easily spin out of control and cause heightened turbulence? First, they connect public and private actors across levels and sectors around specific problems that they all have an interest in solving. Second, the actors participate in trust-based collaboration in relatively self-regulated institutional settings. Collaborative interaction sometimes takes the form of hard-nosed bargaining, while at other times it involves open-ended deliberations through which the actors search for novel solutions and foster provisional agreement. Third, the actors contribute to the implementation of joint solutions over which they establish common ownership (Ansell & Gash, 2008; Emerson & Nabatchi, 2015). Compared to the *modus operandi* of bureaucracy, network governance replaces hierarchy, organizational insulation, and sovereign power with horizontal inter-organizational collaboration based on resource interdependency. Network governance tends to grant priority to output legitimacy, which prevails over input and throughput legitimacy. Pragmatic concerns for problem-solving and getting things done override concerns for impartiality and observing a fixed set of norms and procedures in the decision-making process.

Nearly by definition, networks are understood to be “flexible”; a property that is clearly advantageous when responding to changing circumstances. In the absence of a centralized, hierarchical authority, planning becomes

emergent and based on alignment as it aims to combine the plans of a diverse set of actors with jointly negotiated ideas about what should happen, when, and how (Innes & Booher, 2010). In network governance, the actors are interdependent but retain their operational autonomy. Hence, they bring their respective prefabricated ideas and plans to the negotiation table to explore congruencies and possible synergies, make mutual adjustments, and develop alternative joint planning scenarios contingent upon different priorities and future conditions. Thus, as Provan and Kenis (2008) observe, networks often face a “flexibility–stability” tension.

This tension is well represented in the crisis management literature. Networks are now typically understood as critical for crisis response (e.g., Comfort & Zhang, 2020; Kapucu, 2006; Moynihan, 2008; Nohrstedt, 2018). They provide flexible and adaptive frameworks for responding to unique situational demands. However, crisis situations often demand rapid authoritative decision-making and often appeal, by necessity or fiat, to the importance of hierarchy, both as “command center” and as an orchestrator of networks in hybrid forms of governance (Christensen et al., 2016).

Network coordination is often described as a “self-organizing” process (Innes et al., 2010), meaning that organizational actors come together in an emergent (rather than mandated) fashion and tend to be self-regulating. Research in the tradition of complexity theory particularly stresses this self-organizing nature of networks, underscoring how self-organization makes them adaptive to changing circumstances (Duit & Galaz, 2008; Koliba, 2013). In contrast to the bureaucratic governance paradigm, the network governance paradigm also tends to stress the informal nature of social networks (Hawkins et al., 2016). Still, leadership is important for convening actors, supporting their collaboration, and mediating conflict. This leadership tends to be facilitative rather than directional (Kickert et al., 1997) and may be organized in more or less distributed ways (Provan & Kenis, 2008).

By stressing the values of flexibility, self-organization, and informality, the network governance paradigm is in many respects the mirror image of the bureaucratic governance paradigm. Indeed, networks have been seen as responding to the failures of public bureaucracies—particularly the significant limits placed on coordination by bureaucratic formality and hierarchical authority or by the fragmentation produced by the horizontal division of labor and contracting out public services. Although less studied than bureaucratic failures, networks also encounter failures (Koolma, 2013; Schrank & Whitford, 2011; Sørensen & Torfing, 2007; Teubner, 2009), which can occur through failures of collaboration; or, as Schrank and Whitford (2011, p. 170) vividly put it, when “exchange partners either screw each other or screw up.” Transaction costs may be high in governance networks (Lubell et al., 2017), and the interdependence associated with governance networks can increase the risk of failure. Governance networks often face paradoxes of how to manage conflicting demands, such as unity and diversity (Ospina & Saz-Carranza, 2010). Network failures can also arise due to the challenge of managing accountability (Koliba et al., 2011) and securing democratic anchorage (Sørensen & Torfing, 2005).

While networks are considered flexible and are often called upon in crises, the temporal dimensions of network governance have rarely been explicitly considered. Yet effective negotiation and trust-building takes time, particularly as the number of stakeholders and the complexity of the issues grow (Ansell & Gash, 2008; Johnston et al., 2011; Klijn et al., 2010). Networks often imply shared leadership, which itself takes time to develop (Ulibarri et al., 2020). Failure to negotiate, build trust, and develop shared leadership can produce “collaborative inertia” (Huxham, 2003).

If the traditional bureaucratic governance paradigm confronts a number of challenges related to its emphasis on order, control, and stability, the network governance paradigm equally confronts challenges related to its very flexibility, self-organization, and informality. Moreover, neither public bureaucracies nor governance networks are likely to simply replace one another. A more likely scenario is that they will simultaneously compete and co-exist (Christensen et al., 2016). As Agranoff (2014) rightly observes, bureaucracy tends to be reconstructed and transformed by growing societal turbulence and the rise of network governance. Moreover, bureaucratic actors may increasingly play the role of metagovernors aiming to initiate, support, and influence network governance processes without reverting unduly to command and control that is likely to constrain the built-in flexibility and scare off the network actors (Sørensen & Torfing, 2009; Torfing et al., 2012).

While pursuing a flawless governance approach is quixotic, we suggest that considering the drawbacks of both bureaucratic and networked governance in light of the challenges of turbulence prompts us to search for a viable alternative. The new, embryonic public governance paradigm—what we call “robust governance”—aims to face up to the heightened turbulence of present societies and enhance the capacity of public organizations to permanently engage in the production of robust solutions through the creation of agile and developmental organizations capable of fostering improvisation, experimentation, and rapid learning and systematic involvement of relevant and affected actors beyond the narrow group of organized stakeholders involved in existing policy and governance networks.

4 | TOWARD A NEW PARADIGM: ROBUST GOVERNANCE

Envisioning a new approach to governance in the face of turbulence requires rethinking the stability–change relationship and the institutional and political modalities through which they interact. While public bureaucracies often exhibit an impressive stability, they may occasionally be characterized as “galloping elephants” (Rainey & Steinbauer, 1999) and are not generally known for their adaptability. Governance networks are known for their flexibility and self-organizing qualities, but while they may undergo processes of institutionalization (Ulbarri et al., 2020), they are not generally touted for their stability. As these two paradigms suggest, stability and change are generally viewed as opposing attributes: stability is about preventing change, change is about disrupting stability. On an abstract level, building governance systems that can meet the challenges of turbulence requires examining the stability–change relationship in a new light: rather than posing them as mutually opposing conditions, we must explore how stability requires change and change requires stability.

We argue that the key property for relating stability to change in a new way is robustness. The notion of robustness is used in a wide range of scientific disciplines—from biology, engineering, and statistics to economics and sociology—to signify an ability to carry on or hold up across a wide range of demanding conditions (Anderies & Janssen, 2013; Carlson & Doyle, 2002; Holling, 1973; Huber, 1981; Kitano, 2004; Leeson & Subrick, 2006; Lempert et al., 2010; Schupbach, 2018). Robustness may simply refer to the ability of key features of a system to persist across a range of different circumstances and across temporal flux, implying some basic stability in the face of change. However, robustness is different from its cousin, resilience, in the sense that it does not refer, as does the latter, to the ability of a system to bounce back to a stable state after a shock. Although not necessarily part of its definition, robustness tends to point to the ability to uphold basic systemic functions (stability) through continuous transformations (change) that are supported by particular institutional infrastructure (stability). Hence, robustness is an instance of dynamic conservatism through which a system bounces forward to maintain some of its key functions in new and perhaps more attractive ways (Ansell et al., 2015).

The robustness concept that stresses the need for agile adaptation in the face of turbulence has first recently found its way into the study of public governance, policy, and administration (Ansell et al., 2021; Capano & Woo, 2018; Ferraro et al., 2015; Howlett, 2019; Trondal et al., 2021). It all began with a growing interest in building societal resilience, which refers to the ability of a system to bounce back to its previous state of equilibrium in the wake of disruption triggered by external events or internal malfunctions (Duit, 2016; Juncos, 2017; Lindbom & Rothstein, 2006; Walker et al., 2004). Recent strands of governance research distinguish between static and dynamic resilience; whereas static resilience is the ability to restore the systemic equilibrium that was disturbed by external or internal turbulence, dynamic resilience is the ability to adapt the system of governance continuously so that it can function well under changing circumstances and perhaps even improve its performance in relation to a particular set of key goals, values, and functions (Ansell & Trondal, 2018; Howlett & Ramesh, 2022). There seems to be a clear resemblance between the notion of dynamic resilience and the new concept of robust governance advanced by Ferraro et al. (2015), Capano and Woo (2017), and Howlett (2019).

Explaining the difference between resilience and robustness, Ansell and Trondal (2018) capture how robust governance aims to build flexibility into organizational and institutional arrangements and aims to absorb complexity,

not only by improving the fitness of an organization to its new environment but also by incorporating requisite variety. Hence, robustness emphasizes the importance of maintaining multiple repertoires that can be flexibly redeployed to meet changing circumstances. The endeavor to exploit crises and heightened turbulence to go in new and innovative directions while flexibly adapting the existing forms of governance to maintain basic ambitions, functions, and values is also clearly recognized by Bothner et al. (2010), Padgett and Powell (2012), and Ferraro et al. (2015), all of whom refer to the need for action that does not merely adjust the existing path marginally, but which aims to keep future lines of action open and to shift direction to fulfill some basic goals. Similarly, Sørensen and Ansell (2021) talk about robust political systems as systems capable of responding to disruptive political tensions in dynamic and constructive ways and argue that this robustness may be a property of political institutions, processes, and policies. Hence, a political system is deemed robust if it can continue to produce an authoritative allocation of values in the face of turbulent demands and events that potentially disrupt this production and do so without producing new, challenging demands.

Building on this discussion, we suggest that robust governance systems must be able to change to preserve their functionality in the face of turbulence (stability requires change); to do so, however, they must provide the scaffolding and infrastructure that helps to support and generate change (change requires stability). This point is not simply about how the imperatives of stability and change must be balanced and traded off against one another; rather, the shift in perspective is more fundamental and stresses the stability–change interdependence. Moreover, it alters the meaning of both stability and change. Stability cannot be seen as stasis, nor can change be viewed as either restorative efforts to maintain or disrupt the status quo ante; rather, stability occurs when a function, objective, or value is carried on through time and in the face of varied and dynamic challenges. However, the function, objective, or value is not necessarily preserved in its original form—this would be another version of stasis—but may be revised, expanded, refined, and elaborated in response to changing circumstances. By the same token, change cannot be conceived as simply reactive and incremental, designed to shore up the status quo, nor as disruptive in the sense of transforming the status quo to a new equilibrium. Instead, change is better imagined as proactive innovation to preempt disruption or as flexible adaptation that grasps the opportunities inherent in turbulence for promoting and revising governance practices.

Another way to say this is that robust governance calls for responding to the windows of opportunity that turbulence and crisis open for advancing basic ambitions, functions, and values in new and better ways. For example, the US Federal Emergency Management Agency is strongly committed to “building back better.” Hence, when working in areas regularly hit by hurricanes and earthquakes, the mission is not merely to rebuild houses and infrastructure, but also to assist people in creating new and smarter installations, houses, and infrastructure that can better withstand future pressures and improve the local quality of life.

The robust governance paradigm sees value in both the public bureaucracy and network governance paradigms and regards hybrid forms of governance as viable but envisions both paradigms as requiring revision in line with this new model of stability and change. We label a first key dimension of revision “structural.” The bureaucratic governance paradigm focuses on creating the structural conditions for reliable delivery of public value. This structure is typically programmatic and built around long-term investments in a fixed capacity to routinely deliver program objectives. Line programs tend to have well defined boundaries, elaborate rules, and hierarchical command structures. They may contain slack or redundancy that buffers them from external turbulence, or they may cope with these vicissitudes through reactive, incremental patterns of change. When these programs become too misaligned with their environs, they may periodically engage in large-scale planned change efforts. The robust governance paradigm suggests that these programs must build a capacity for continuous innovation directly into program management rather than treating innovation as a staff function or periodic revamping. To do so, programs typically must evolve toward trust-based management that relaxes the rule-based structuration of work practices and empowers local teams to reflect on the need for adaptation and innovation in the face of turbulence (Torfing & Bentzen, 2020). Change processes will tend to become more emergent than planned (Van der Voet et al., 2014).

As the network governance paradigm makes clear, effective change efforts require coordination between a plethora of stakeholders, but the scope for coordination is widened to also include coordination across sectors and levels, between responses to different kinds of crises, and between daily operations and the strategies for adaptation and innovation. While these networks are often innovative, their ad hoc, cross-program, and temporary status typically means that they face resistance in mainstreaming their strategies and innovations back into programs. To better align and support these networks, public bureaucracies must act more like collaborative platforms that facilitate shifting coalitions of actors to come together in purpose-built arenas and then scaffold their interaction (Ansell & Gash, 2018). Both the formation of collaborative platforms and the turn from bureaucratic control and performance management to more trust-based management can be seen as instances of generative governance aimed at generating possibilities for transformative action.

Network governance is often regarded as a flexible structural solution to the fragmentation caused by program structures. The modus operandi of robust governance paradigm is different from network governance, since the focus is less on inclusion, collaboration, and deliberation as an instrument for dealing with cognitive and political complexity. Problems are not merely complex in the sense of being politically contentious or difficult to understand. Rather, they are constantly changing, interacting, and producing new and unforeseen effects and thus constitute moving targets requiring adaptive and innovative solutions. Hence, governance solutions are not merely customized, but constantly changed and iteratively revised to match the dynamic problems and contexts and exploit opportunities for innovation that help to protect engrained systemic ambitions, functions, and values. Robust solutions require holistic situational analysis, negotiated knowledge, experimentation, revision, and innovation, all while basic public services and regulatory forms of governance are delivered. Hence, there is a high premium on ambidexterity. This is particularly the case, since the pursuit of robust governance is mainstreamed into all public governance. The days where turbulence is dealt with by specialized crisis management organizations are over.

We label a second key feature of paradigm revision as “temporal.” With their emphasis on stability and order, public bureaucracies tend to develop long-term perspectives, while flexible networks are often oriented to addressing immediate problems. Robust governance requires short- and long-term change efforts being brought together. In times of heightened turbulence, however, planning beyond capacity building and short-term process planning becomes impossible. As planning horizons become shorter and constant adaptation and innovation becomes the order of the day, there is an increasing risk of losing the long-term goals of society. This is where strategic agility (Xing et al., 2020) becomes important. The short-term reactive adaptability perspective (agility) must be combined with a long-term strategic perspective on the long-term management of turbulence that may further important societal goals. Hence, economic stimuli packages in the post-corona era may seek to create new green jobs rather than just bringing people back to their past jobs.

A third dimension of paradigm revision relates to “leadership.” Leading adaptive and innovative processes aiming to promote key features of the social, economic, and political system are a challenging task. Crisis and heightened turbulence may enhance the scope for a transformative leadership aiming to formulate, communicate, and stick to a particular course for societal development, but leaders must be able to revise their narrative and pursue slightly new directions without losing too much credibility. Moreover, political and administrative leaders must find ways of incorporating experts into their strategic reflections over problems, goals, and solutions, and they must use horizontal, distributed, and integrative leadership to mobilize a broad array of public and private actors and turn them into changemakers (Bolden, 2011; Crosby & Bryson, 2010; Morse, 2010). To illustrate, executive public leaders worked closely together with major Danish business firms with a global logistics capacity to secure the delivery of protective health equipment during the COVID-19 pandemic.

Leadership of robust governance draws on three sources of legitimacy. First, relevant and affected actors must be involved in the creation of adaptive and innovative solutions to secure support for their implementation. Second, formal procedures, informal norms, and bureaucratic concerns for legality and the demonstration of proper cause must be respected to avoid the risk of backlash and popular protest, which is particularly acute when crisis management challenges citizens' basic rights. Finally, the ultimate source of legitimacy is that the efforts to produce robust

governance work in practice and deliver visible results. Interestingly, in most countries, the national performance during COVID-19 has been benchmarked against the performance in other countries, thus providing a relatively transparent measure of success or failure.

As turbulence becomes more endemic, the values of stability and flexibility are not well served by treating them as a dual system. Public bureaucracy proficiently delivers predictable standard services in modern mass societies, but its closed, rule-bound style is slow to adapt and limited in its ability to mobilize societal (non-bureaucratic) resources. Network governance is flexible and engages a wide range of public and private stakeholders, but networks often lack authority, capacity, and accountability, and mainstreaming their outputs is sometimes difficult. Robust governance requires investigation of how to combine and integrate the public bureaucracy and network governance paradigms effectively to optimize these values of stability and flexibility.

In his longitudinal survey study of Norwegian civil servants in this special issue, Trondal (2022) finds that organizational structures and formal rules provide long-term stability to the public sector, producing routine patterns of interaction among civil servants and public officials. These patterns resist external disruptions and allow for stable response over the long-term. While these findings echo the public bureaucracy paradigm, Trondal also finds that the Norwegian public sector has been adaptable over time and that collegial structures are an important organizing strategy that helps public officials and civil servants accomplish specific tasks or meet certain time-delimited challenges. By introducing flexibility and bridging institutional boundaries, these structures embody the ideas expressed in the network governance paradigm. The Norwegian public sector has successfully managed the stability-adaptation tension, Trondal argues, through “structured flexibility” that combines formal organizational structures and rules with ad hoc collegial structures. Similarly, research on highly reliable organizations finds that collegial authority structures become more prominent modes of coordination (in contrast to hierarchical authority structures) as the “tempo of operations” increases (La Porte, 1996, p. 64).

In their contribution to this special issue, Carstensen et al. (2022) suggest an alternative to how the paradigms of public bureaucracy and network governance might be integrated. They note that the public sector must often marshal different governance paradigms at different times and for different purposes. Doing this, they suggest can be conceptualized as a process of bricolage, using the tools and resources at hand to customize responses. Thus, they highlight the importance of “bricoleurs” for assembling and integrating these paradigms to create custom responses to turbulent problems.

While the ideas of structured flexibility and bricolage suggest general frameworks for thinking about how robust governance might integrate bureaucratic and network paradigms, the next section explores some specific strategies for making governance more robust in the face of endemic turbulence. The next section reviews existing work and integrates key insights from the contributions to this special issue.

5 | STRATEGIES FOR ADVANCING THE ROBUST GOVERNANCE PARADIGM

Thus far, we have proposed that if heightened turbulence is becoming the new normal, the public sector must develop capacities for robust governance. If turbulence is the problem and robust governance the answer, we must discover the conditions for responding robustly to turbulence. Public organizations ready for robust governance will want to know what to do, and the ambition of this special issue is to develop a better understanding of the strategies and tools that may be used to this end. The literature has already advanced some general claims about robust governance (Ansell et al., 2021; Capano & Woo, 2018; Ferraro et al., 2015; Howlett et al., 2018; Sørensen & Ansell, 2021; Vliet & Kok, 2015), but as Capano and Toth (2022) argue in this special issue, this research agenda must achieve greater scope and specificity.

Key questions for advancing this research agenda include “What are the structural properties of robust governance systems?” and “How can we design for robust governance?” Howlett et al. (2018) claim that we can design

for robustness by incorporating slack in policies and governance solutions that provides resources and offers room for adjustment and change. Robust governance may also be facilitated by “overdesigning” solutions by building redundancies into policy solutions and service systems that provide a range of options that can be up- or down-scaled, depending on the contextual changes to enhance effectiveness. Using instruments that can be used in different ways and for different purposes may also enhance robustness. Howlett and Ramesh (2022) extend this analysis of design for policy robustness in their contribution to this special issue; rather than optimizing a policy design for a specific set of conditions, they suggest that designing for robustness implies adopting designs that respond to a variety of conditions over time. In highly dynamic contexts, this means going beyond built-in slack or redundancy. Moreover, robust policy designs will incorporate procedural mechanisms that allow for ongoing review and revision of policy designs. Others have also argued that robust governance calls for cultivating capacities for self-reflection and self-transformation (Christensen & Læg Reid, 2020; Ferraro et al., 2015).

Capano and Woo (2018) also point out the importance of design for policy robustness. In addition to the structural property of redundancy, they emphasize the importance of diversity and modularity as two other important design properties. However, they caution that we should not optimize for one of these properties, instead balancing redundancy, diversity, and modularity. They argue for the importance of the polycentricity concept and combining these different structural properties. A robust policy design will combine a pluricentric decision structure (i.e., polycentricity) with sufficient political and technical capacity to adapt to challenging conditions.

Ferraro et al. (2015) identify three properties of robust governance: participatory architecture, multi-vocal inscription, and distributed experimentation. *Participatory architecture* calls attention to the importance of institutional frameworks allowing diverse and heterogeneous actors to interact constructively over prolonged timespans to exploit their experience, knowledge, ideas, and resources. *Multi-vocal inscription* refers to the ability to create a discourse that respects and sustains the different interpretations of various actors with different evaluative criteria, thus promoting coordination based on a constructive management of difference. *Distributed experimentation* is about the conditions that allow parallel and iterative experimentation, which can contribute in an evolutionary manner toward significant change. While stated somewhat differently, these three properties resemble the structural properties of diversity, redundancy, modularity, and polycentricity described by Capano and Woo (2018).

While structural properties are important and useful targets for design, robust systems must also effectively pair structure with process. In their assessment of the Italian response to COVID-19 in this special issue, Capano and Toth (2022) emphasize how crisis situations typically call for “unplanned” responses to novel situations; that is, customized responses to time-sensitive demands. An important process trait is *outside-the-box thinking*, which requires those making decisions to adopt a reflective and critical stance toward the received wisdom. A second important process trait is *improvisation*, which is the ability to inventively use existing resources and ideas for unanticipated needs. A third process trait is *fast learning*, which refers to the collective ability to learn in a timely manner from changing circumstances, rapidly revising strategies and tactics accordingly.

Pot et al. (2022), in this special issue, are also attentive to the process dimensions of robust governance. Arguing that we must think of robustness in temporal terms, they demonstrate how robust governance can use time both tactically and strategically. Based on a discussion of Dutch water management policy, the authors point to the challenge of coping with crises operating on different time scales; that is, simultaneously “acute” and “creeping” crises. They identify five generic strategies for handling multiple time horizons, including timing, crafting time horizons, pacing, futuring, and cyclical adaptation, and they illustrate how the use of these temporal strategies has rendered Dutch water governance more robust. They show how Dutch water authorities have used the acute crisis of flooding to drive a longer-term adaptation strategy and, reciprocally, have built on this long-term strategic agenda to craft more immediate tactical responses.

Sørensen and Ansell (2021) essentially combine structure and process considerations to develop a framework to examine “political robustness.” At the polity level, they hypothesize that robustness is produced through the availability of authoritative forums for collective decision-making with the capacity to encourage and facilitate cross-boundary dialogue, institutional experimentation, and learning. At the politics level, robustness is produced by factors

that facilitate broad-based coalitions and that support pluralistic respect and the value of innovation. On the policy level, robustness is enhanced when policy is “modularized” in such a way that it provides latitude to customize policy to local contexts and when policy allows for different narrative interpretations that facilitate coalition-building.

Boswell et al. (2022), in this issue, build on this framework in their analysis of six European climate assemblies, which were organized as deliberative mini-publics that have engaged citizens on climate policy issues. They draw on the robust politics framework to investigate the “integrative design” of these assemblies, which is concerned with how mini-publics are embedded in and integrated with their wider social and political environments. They argue that this broad-based design perspective is crucial for appreciating the political success of assemblies. Several valuable design issues emerge from examining national climate assemblies through a robust politics lens. A first important design issue calls attention to the diverse ways that assemblies are connected to external institutions; particularly to government institutions (polity robustness). A second important design issue considers how assemblies operate in political environments with different degrees of politicization, which ultimately influences the uptake of assembly outputs (political robustness). A third important design issue is to develop an appreciation for how these assemblies will operate in the policy cycle and how they are likely to persist in various forms after officially coming to an end (policy robustness).

Building on much of the prior literature, Ansell et al. (2021) summarize six different strategies combining structural and process dimensions. These six strategies provide a framework for organizing the empirical findings of a number of the special issue articles that investigate robust governance strategies during the COVID-19 pandemic. Below, we briefly describe each of these strategies and then report on the findings of the relevant special issue articles. Although some of the articles refer to multiple strategies, we discuss them under the strategy we believe most relevant.

5.1 | Scalability

The capacity to rapidly scale resource mobilization and organizational response to align them with problems as they emerge and transform. Although this capacity has long been a concern for crisis management agencies, bureaucracies that provide more routine public services tend to operate on more fixed scales.

Krogh and Lo (2022), in this special issue, investigate the role of volunteers in Danish and Norwegian emergency management, finding interpersonal trust to be a valuable resource for the scalability of emergency response, particularly for facilitating the trust of professional emergency managers in volunteers. Interpersonal trust is a vulnerable resource, however, in that it is not always available at the required place, time, and scale. Emergency managers identify six sources of institutional trust that can remediate this vulnerability: (i) “collaborative platforms and arenas” that pre-structure the collaboration between emergency management and volunteers; (ii) certification and training systems that attest to the competence of volunteers; (iii) common standards, routines, and professional jargon; (iv) the reliability with which volunteers can be delivered to a desired location so that they can be directly assigned to tasks; (v) the willingness to respect hierarchical authority within the emergency response system; (vi) the availability of compatible and integrated communication systems. An overall lesson from this research is that emergency management can rely on volunteers to scale up when civil society organizations exist to maintain the competence and reliability of volunteers on an on-going basis.

5.2 | Prototyping

The ability to iteratively fashion and refashion problem solutions through experimentation and rapid feedback. Such a strategy is particularly valuable where organizations and networks must respond rapidly to changing circumstances.

Cristofoli et al. (2022), in this special issue, evaluate the robustness of the Italian response to COVID. Based on a content analysis of local newspaper coverage of the Italian COVID-19 vaccination campaign, they use qualitative comparative analysis to evaluate how different configurations of variables contribute to a robust governance response. The authors investigate four hypothetical variables expected to contribute to robust governance: pragmatic (problem-oriented) versus rational decision-making, flexible experimentation (i.e., scaling, bricolage, and prototyping) versus conventional action, decentralized versus centralized vaccination networks, and civic versus individualistic communication with the public. They find that no single configuration of these variables is necessary or sufficient for explaining effective governance during the vaccination campaign. Instead, they identify three different sufficient patterns. The first pattern broadly comports with the model described by Howlett et al. (2018), Capano and Woo (2018), and Ansell et al. (2021), and it combines pragmatic decision-making, flexibility (experimentation), and decentralized networks. However, they also find a very different-looking second pattern, which combines rational decision-making, conventional action, and a centralized vaccination network. A third pattern is a hybrid, combining, either pragmatic decision-making, conventional action, and civic communication or pragmatic decision-making, flexible action, and individualistic communication. From their analysis, the authors conclude that there is no single model or recipe for robust governance, but rather multiple possible paths to robustness.

Modularization is the ability to flexibly assemble and reassemble the “building blocks” of organizations, policies, and programs to respond to situations as they arise. Modularization combines some of the advantages of mass production and customization, and it contributes to the scaling strategy.

Zhong et al. (2022), in this special issue, investigate the robustness of crisis communication in the United States during COVID-19. They suggest that robust crisis communication requires the ability to adapt messages to the public in an agile fashion that is responsive to changing conditions and demands. They argue that modularity is a key feature of robust crisis communication because it provides the ability to customize different messaging topics, sentiments, and interactions conceived as communication modules. Examining the tweets of the 50 US state governors in the first half of 2020, they find that the governors' communication strategies were significantly influenced by political considerations (i.e., reelection) and reputation management. This pattern was accentuated as the crisis grew more acute. They also find that the governors did not significantly adapt their respective messages to public demands.

5.3 | Bounded autonomy

The relative freedom that local actors enjoy to flexibly adjust national strategies to the conditions on the ground and to develop joint ownership of local solutions through collaboration.

Scognamiglio et al. (2022), in this special issue, conduct a systematic review of the literature published in the first year of the COVID pandemic on the co-creation processes used to manage the pandemic. They identify 28 studies for review and evaluate them for whether they mention the six factors for robust governance identified by Ansell et al. (2020). They find that all six factors are mentioned in these studies, but with different frequencies. The mostly common cited factor was bounded autonomy, followed in order by bricolage, scalability, prototyping, strategic polyvalence, and modularization. This review also identified a seventh important factor discussed in relation to robust governance: the voluntary compliance of citizens with state-sanctioned measures and guidance (e.g., mask mandates).

Capano and Toth (2022), introduced in the previous section, found that following top-down rules had a constraining effect in the early stages of the Italian COVID response. They stress that outside-the-box thinking is crucial for an agile and flexible response, which requires an open and critical stance toward rules (although by no means a willy-nilly rejection of rules).

In a study in this special issue of how Danish public healthcare managers responded to the second wave of COVID-19, Lund and Andersen (2022) investigate how high (but not extreme) turbulence affected the development and (de)-activation of professional norms. Investigating how public health professionals respond to the shifting

parameters, surprising interdependence, and temporal complexity associated with turbulent situations, they found that frontline managers deactivated norms that did not fit shifting parameters or complex timing. However, they also created new knowledge and developed new professional norms to respond to the turbulence associated with the COVID-19 response. Lund and Andersen observe that this ability to deactivate some professional norms while activating others is an essential feature of a response that exhibits dynamic resilience.

Liu et al. (2022), in this special issue, examine COVID-19 responses across 110 countries using a necessary condition analysis to analyze the important factors contributing to or ameliorating COVID-19 mortality. A necessary condition is a condition that must be present at a certain threshold for a particular outcome to occur. Based on a review of the literature, they identify several important policy (delayed first-response; low stringency first-response), institutional (decentralization; individualistic culture) and demographic factors (high proportion of elderly; high level of urbanization) expected to contribute to early COVID-19 mortality. Their analysis finds that delayed first response, decentralization, and urbanization have high necessity effect on mortality, while a high proportion of elderly has moderate necessity effects. With respect to the analysis of robustness, the analysis finds that early response was particularly crucial for limiting early COVID deaths, and they interpret it as providing support for an “agile” government response. However, the negative finding about decentralization is in tension with the argument for bounded autonomy and contrasts with at least one of the successful configurations discerned by Cristofoli et al. (2022) in their analysis of the Italian vaccination campaign.

5.4 | Bricolage

The ability to redirect and recombine existing resources and capacities designed for a particular use in response to emergent problems. Bricolage contributes to robust governance because it facilitates the rapid mobilization of resources, ideas, and institutions at hand rather than constructing them *de novo*.

Carstensen et al. (2022), in this special issue, use examples from COVID-19 and the 2007–2008 financial crisis to develop the concept of bricolage as a strategy of robust governance. They conceptualize bricolage in terms of the stock of repertoires available to the bricoleur for problem solving. Problems trigger dialogue about how to combine these repertoires in a manner that addresses situational needs, and outcomes are constrained by the repertoires available to the bricoleurs, leading them to cobble together problem solutions that are workable rather than elegant or internally integrated. They suggest that bricolage is a good representation of what time-constrained public managers and officials realistically encounter when confronting turbulent conditions. Probing the institutional conditions that can support bricolage, they point to the importance of institutional flexibility that permits experimentation, including deliberation based on intense communication and support for effective action.

5.5 | Strategic polyvalence

The flexibility to use resources, institutions, and ideas for multiple purposes or for different agendas. This concept is similar to the “multi-vocal inscription” idea suggested by Ferraro et al. (2015).

No article in the special issue directly addresses this point, although it overlaps with the bricolage argument.

6 | CONCLUSION AND FUTURE DIRECTIONS

This introduction to the special issue has sought to provide readers with an overview of the emerging agenda for studying robust governance. The core claim of this agenda is that the public sector increasingly faces turbulent conditions that place a premium on the robustness of governance. Robustness is the property of a system that allows it

to carry on in the face of shifting and challenging conditions through adaptation and proactive innovation. It is similar to the concept of resilience in some respects, but it stresses the ability of a system to adapt to challenges rather than to weather or bounce back from them. The paper began by reviewing two existing public sector paradigms—public bureaucracy and network governance—and how they each emphasize the values of stability and flexibility. We have argued that the robust governance agenda involves a search for effective combinations of these values.

As several of the authors in this special issue note, research on robust governance is in its infancy. The previous section introduced some early theoretical contributions and synthesized them with the theoretical and empirical contributions of this special issue. Our review suggests two general issues that researchers who wish to contribute to this research agenda should keep in mind. First, the review suggested that there are both structural and processual dimensions to robust governance, both of which are useful to develop. These different dimensions are obviously closely related, but keeping the analytical distinction in mind may reveal a range of different possibilities for achieving robustness. For example, the paper by Pot et al. (2022), which emphasizes the process dimension, points to the potential value of thinking about the temporality of governance. Second, while the papers in this special issue provide some important empirical support for the theoretical frameworks that we have reviewed, they also provide some anomalous findings that require follow-up. For example, Cristofoli et al. (2022) finds that there is no single model for robust governance and that while some configurations support theoretical expectations, others do not. Similarly, Liu et al. (2022) find that while “agility” was a crucial factor for increasing robustness, decentralization was a negative factor; a finding that runs counter to the claim about bounded autonomy.

We think these anomalous findings may support the value of further consideration of how stability and change are paired and interdependent conditions. Indeed, the basic formula for robust governance advanced in this introductory article—that stability requires change and vice versa—suggests additional insights that can advance the robust governance agenda. Building on this formula, we propose five generic strategies that we hope may inspire future research.

6.1 | Integrate tactics and strategy

A first generic strategy calls for the public sector to strive to integrate short-term “tactical” responses to turbulence with more long-term “strategic” agenda-setting. Turbulence is challenging because it throws both bureaucracies and networks into a coping mode where the goal is merely to survive the gale and where meeting immediate operational challenges becomes paramount. The result is organizational drift and an unhealthy bifurcation between tactics and strategy. While not every turbulent twist in the road can become an opportunity for strategic advantage, robust governance implies injecting a strategic focus into responses to turbulence. A key idea that we derive from this perspective is that *immediate responses to turbulent conditions must be treated as “experiments” for longer-term strategic adaptation*. In other words, public organizations must strive to see their efforts to cope with turbulence as opportunities to try out new courses of action. This idea differs from incrementalism, which valorizes tactics over strategy. Instead, robust governance calls for using tactics to build strategy.

6.2 | Enable rule adaptability

The second generic strategy focuses on how we can both uphold and adapt bureaucratic rules to turbulent situations. Rules create organizational stability, guide constructive action, and safeguard values, but they can also create rigidity and delay in the face of the need to rapidly adapt to turbulence. It is not easy to balance rule compliance and rule adaptation, but there are different approaches that require further analysis. One strategy is to enhance manager and employee discretion while also, through socialization and communication, taking steps to ensure that everyone understands the purpose and value of rules. Research on high-reliability organizations has generally emphasized this

strategy of combining greater discretion with strong cultural overlays that support rules (Jahn, 2016; La Porte, 1996). Another strategy is to develop capacities for the continuous review and revision rules, the goal being to prune out less relevant rules, while revising, recasting, or maintaining relevant ones.

6.3 | Support proactive innovation

A third generic strategy stresses that governing institutions must invest in and prioritize proactive innovation, which means innovating before you are forced to innovate or before the possibility of innovation is foreclosed. Proactive innovation requires bureaucracies and networks to explore how basic goals can be achieved using new, path-breaking solutions that disrupt the conventional wisdom or established routines in particular contexts. For example, if enhancing employment levels in the post-corona era is a key government goal, there are good alternatives to using public money to boost employment in the old declining sectors (e.g., mining, fossil fuel production), instead stimulating the creation of new green jobs by building better public transport systems and expanding the sustainable energy sector. Drawing on our robust governance formula—stability requires change and vice versa—we propose that proactive innovation depends on a stable institutional framework for engaging in proactive innovation.

6.4 | Foster generative conditions

A fourth generic strategy is to pay attention to the generative conditions that produce robust response. These conditions often straddle short- and long-term processes in a way that is analogous to our discussion of tactics and strategy. Robust action in response to any specific set of challenges is highly contingent and contextual. However, the resources, skills, and knowledge that permit effective short-term response may be cultivated over long periods of time. For example, it is common knowledge in the crisis management community that “plans” often fail to be relevant in any given crisis situation but that relationships developed during planning processes are often exceedingly valuable (Keller et al., 2012). In other words, without attention to the stable conditions that permit change, robust governance responses are less likely.

6.5 | Balance rapid sense-making and critical reflection

The fifth generic strategy relates to how bureaucracies and networks interpret turbulent conditions as they unfold. It is well known that individuals and organizations confronted with novel information, situations, or challenges will respond with some version of confirmation bias, wishful thinking, group think, or normalized deviance (Snook, 2011; Vaughan, 1996). Turbulent conditions not only require that bureaucracies and networks have the stable capacity to detect, register, observe, describe, disentangle, and make sense of disruptive problems in real time through some form of early warning system, but also that they have the wherewithal to disrupt their own expectations, biases, hopes, and group norms as they interpret incoming information. As Lund and Andersen (2022) observe, invoking the work of Donald Schön, professionals must be capable of reflection-in-action.

While these five generic strategies do not exhaust the potential for thinking fruitfully about the stability–change relationship as the basis for advancing robust governance, we hope they will stimulate further debate, research, and experimentation among scholars and practitioners alike.

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CONFLICT OF INTEREST

There are no conflicts of interest regarding publication of this paper.

DATA AVAILABILITY STATEMENT

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