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# THE ROLE OF ESSENTIAL BUSINESSES IN WHOLE-OF-SOCIETY RESILIENCE TO DISRUPTION

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**"Whole-of-society resilience" articulates a new multilevel policy ambition on resilience to disruption. The term is intuitive, appears incontestable, and places a new prominence on businesses by allocating them new obligations to enhance local resilience. However, a lack of conceptual clarity and a gap between policy expectations and business delivery problematizes operationalization of the term. This vagueness obscures how the policy is translated to assure businesses' own continuity as well as the resilience of their external environment. These issues are particularly critical for businesses that deliver essential services to people who are disproportionately vulnerable to a disruption (e.g., people with chronic health issues). To explore the implications of this new expectation, we review scholarly and policy literature to identify the role of these "essential businesses" in operationalizing whole-of-society resilience to disruption. We propose a definition for whole-of-society resilience to disruption and discuss how, and for whom, essential businesses can be involved in its operationalization. We present a framework to outline how essential businesses target society's essential needs and mobilize support to help society adapt and advance in changing environments. We explain the implications for essential businesses, challenge the operational value of "whole-of," and uncover implications for policy.**

Major disruptions from acute shocks such as wide-scale power outages, and chronic stresses such as climate change (Cutter, 2018), undermine the continuity of businesses that are not resilient (McKnight & Linnenluecke, 2016). Such disruptions cause direct impacts on businesses, such as financial instability, or indirect impacts through affected supply networks (Rose, Benavides, Chang, Szczesniak & Lim, 1997). This requires businesses to build their resilience to disruption by reinforcing the continuity of their key functions (Hillmann & Guenther, 2021), dynamically responding to lessen disruptive impacts (Caiazza, Phan, Lehmann & Etzkowitz, 2021), and mobilizing capabilities to recover affected operations (Duchek, 2020). However, as actors in social systems, businesses both affect and are affected by wider social and natural systems (Folke & Berkes, 1998). In suggesting an interdependence between a business's resilience and the resilience of its business environment, the socio-ecological perspective (Berkes, Colding & Folke, 2003) renders insufficient a singular focus on the resilience of internal business operations (Williams, Whiteman & Kennedy, 2021). With this, Dentoni, Pinkse, and Lubberink (2021) identify the need for further research to examine how businesses influence and support the environment in which they are embedded. Our article contributes to this gap by exploring how businesses contribute to societal resilience.

Linnenluecke (2017: 25) discusses this interconnectedness and positions resilience in a "multi-level context" such as the recursive global, national, regional, local, and neighborhood systems in which businesses are embedded (Pollock & Steen, 2021). Driving a new multilevel resilience perspective, "whole-of-society resilience" (commonly abbreviated to WoSR) was first advocated by the Health Organization (2009) because governments and healthcare providers alone could not deal with the intense and far-reaching social, humanitarian, and economic impacts of a pandemic. Their guidance emphasizes the need for multilevel collaboration—for example, the private sector and civil society combining their critical resources. When the COVID-19

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pandemic hit, every level of society mobilized spontaneously in ways not previously seen, reflecting the scope and scale of disruption and required response (Samaan et al., 2022). To exemplify one level, businesses took unprecedented steps to support employees, reinforce supply chain continuity, and consider how to meet customers' rapidly changing needs (Mahmud, Ding & Hasan, 2021), all while recognizing that they had an essential stabilizing role when perturbations hit society. Despite the multilevel response to COVID-19 exposing the capacity of whole-of-society in disruptions, the response was reactive and at times chaotic. Thus, the acceleration of national and international policy on whole-of-society resilience (e.g., European Parliament, 2021; HM Government, 2023c) necessitates examination of the roles and interactions of society's different levels in resilience (Samaan et al., 2022).

One such policy, the UK Resilience Framework (HM Government, 2022), places a new national prominence on how businesses can continue to supply the essential services on which society depends when disruptions hit. These businesses create such significant societal value that interruptions to their continuity can profoundly impact society's capacity to respond to a disruption and recover from it (Crane & Matten, 2021; Wiśniewski, Szwarc & Skomra, 2023). Recognizing this, COVID-19 saw policy define such businesses as "essential" (Storr, Haeffele, Lofthouse & Grube, 2021). These businesses, described by Kouvali (2021), included healthcare, critical infrastructure like water and energy, food production and delivery, human services operations, communications, and financial services. Henceforth, we use the term "essential businesses" to describe those businesses that are critical to society's functioning during disruption (Kouvali, 2021). Our article draws on Linnenluecke's (2017) concept of society as a multilevel system to focus on how essential businesses can become more resilient and contribute to the resilience of their environment.

Discontinuity in the provision of these essential services risks acute and disproportionate impacts for the most vulnerable people in society, such as those with chronic health issues or without sufficient agency to self-determine their own resilience. For example, Dugan, Byles, and Mohagheghi (2023) discuss how a major power outage can have ripple effects on water, communications, and health services that exacerbate risk to life for vulnerable people who then struggle to meet their basic essential needs. In pinpointing essential businesses' importance, whole-of-society resilience policy generally "responsibilizes" (Pitidis, Coaffee & Bouikidis, 2023: 699) essential businesses and nudges them further toward being pseudo-governmental entities on which society's functioning relies (Scherer, Palazzo & Matten, 2014; Schrempf-Stirling, 2018). However, beyond providing a broad description of a new ambition for multilevel resilience, and the importance of essential businesses in that, whole-of-society resilience policy does not substantively inform how essential businesses should take this agenda forward.

Adoption of whole-of-society resilience in policy has been so fast-paced that management research has not yet caught up. As a policy rhetoric and philosophy, whole-of-society resilience is intuitive and thus difficult to argue against; however, as a concept of operations, it lacks conceptual clarity and highlights a disconnect between policy expectation and on-the-ground delivery. Our article identifies several tensions that problematize the operationalization of whole-of-society resilience by essential businesses, and we explain how these can be overcome. For example, the use of "whole-of" suggests equal treatment of, and expectation on, everything and everyone in society, which, counterintuitively, fails to prioritize those most vulnerable to the impacts of disruption and the essential services they rely on. Research is urgently needed to identify the implications for essential businesses of this new policy and address the conceptual and implementation gaps it creates. To identify and begin to close these gaps, we comprehensively review academic and policy literature guided by our central research question (RQ): How can whole-of-society resilience be translated and operationalized by essential businesses?

Our literature review capitalizes on the explosive increase in policy and scholarly use of whole-of-society resilience (Figure 2). Our findings recalibrate the whole-of-society resilience expectations on essential businesses and identify how whole-of-society resilience can be translated from ambitious policy rhetoric to practical action. First, we detail our methodology, before presenting our findings, culminating in a definition for essential businesses of whole-of-society resilience to disruption. Our discussion presents a framework to operationalize whole-of-society resilience, and we explain essential businesses' role in that. We explore the implications for essential businesses of their role in whole-of-society resilience,

question the value of operationalizing "whole-of," and consider the implications for policy.

## METHODOLOGY

Snyder (2019) established the semi-systematic literature review (S-SLR) method for business research to analyze broad research areas with varied conceptualizations. With over 8,500 citations on Google Scholar, S-SLR has rapidly gained approval as an approach to analyze academic literature and policy documents. By reviewing policy documents, we follow Aguinis, Jensen, and Kraus's (2022: 858) definition of "policy" as "governance principles that guide courses of action and behaviour" for businesses, government, and society. "Policy documents" include publications from government and nongovernmental institutions and organizations (Mahood, Eerd & Irvin, 2014). Our S-SLR follows four-stages: (1) *design*—establish search strategy; (2) *conduct*—identify relevant documents, screen, and conduct full-text assessment; (3) *analyze*—interrogate selected literature and synthesize findings; and (4) *report*—communicate findings. Below, we detail our application of these stages.

### Design

To guide our S-SLR, we defined three RQs: (1) What is the role of essential businesses in operationalizing whole-of-society resilience to disruption? (2) What are the implications for essential businesses of their role in delivering whole-of-society resilience to disruption? and (3) What are the implications for policy of essential businesses' role in whole-of-society resilience to disruption?

Snyder's (2019) search strategy requires the design of search terms, database selection, and inclusion criteria. On whole-of-society resilience, the terms "whole-of-society" and "resilience" were essential, and our prework discovered that whole-of-society resilience was sometimes abbreviated to "whole society" and synonymous with "all of society." We included hyphenated and non-hyphenated versions for surety. A wildcard (*) was used on "society" ("societ*") and "resilience" ("resilien*") to capture variations such as "societal" and "resilient." We searched a broad set of bibliometric databases for academic literature (Paul & Criado, 2020): Web of Science (ISI), Scopus, Wiley, and ProQuest's ABI/Inform. All databases selected, except Wiley, accepted the wildcard.

Thus, we defined the following search strings: ["whole of societ*" OR "whole-of-societ*" AND "resilien*"], ["whole societ*" OR "whole-societ*" AND "resilien*"], ["all of societ*" OR "all-of-societ*" AND "resilien*"]. Hereafter, we use the term "whole-of-society resilience," but this includes "all-of-society resilience" and "whole-society resilience" unless otherwise stated. We defined three inclusion criteria to select relevant publications (Snyder, 2019): (1) the article indicates a focus on whole-of-society resilience or the role of essential businesses in resilience, (2) the article offers a substantial component on whole-of-society resilience by using the terms from our search strings more than twice in-text (excluding bibliography), and (3) the article discusses how whole-of-society resilience can be operationalized by essential businesses and society.

The selection of policy documents followed a purposive sampling process where we searched Google and Google Scholar and chased policy documents cited in academic literature (Haddaway, Collins, Coughlin & Kirk, 2015). We applied the same three criteria with an adjustment to criterion 1, which we call 1b for policy: document title contains the defined search terms, or the document source is a government or nongovernmental organization working on resilience (e.g., North Atlantic Treaty Organization or United Nations).

### Conduct

Focusing on quality, we sought academic journal articles that were peer reviewed (Xiao & Watson, 2019). The World Health Organization's *Whole-of-society pandemic readiness* (2009) is frequently cited as a landmark publication on whole-of-society resilience (Addy, Poirier, Blouin, Drager & Dubé, 2014; Dubb, 2020; Fogg, 2023), so our search focused on articles published from January 2009 to June 2023 in English. Our academic literature search returned 2,808 articles, which were organized into reference management software *EndNoteX9*. Following protocols outlined by Paul and Criado (2020), we removed duplicates and misclassified results that failed our criteria, resulting in 2,509 articles. The policy search and purposive sampling identified 67 policy documents. These articles and documents were then screened.

For the academic articles, two researchers independently screened 2,509 results to identify those that satisfied criterion 1. The agreement between researchers was 97% and full agreement was reached through discussion. This resulted in 519

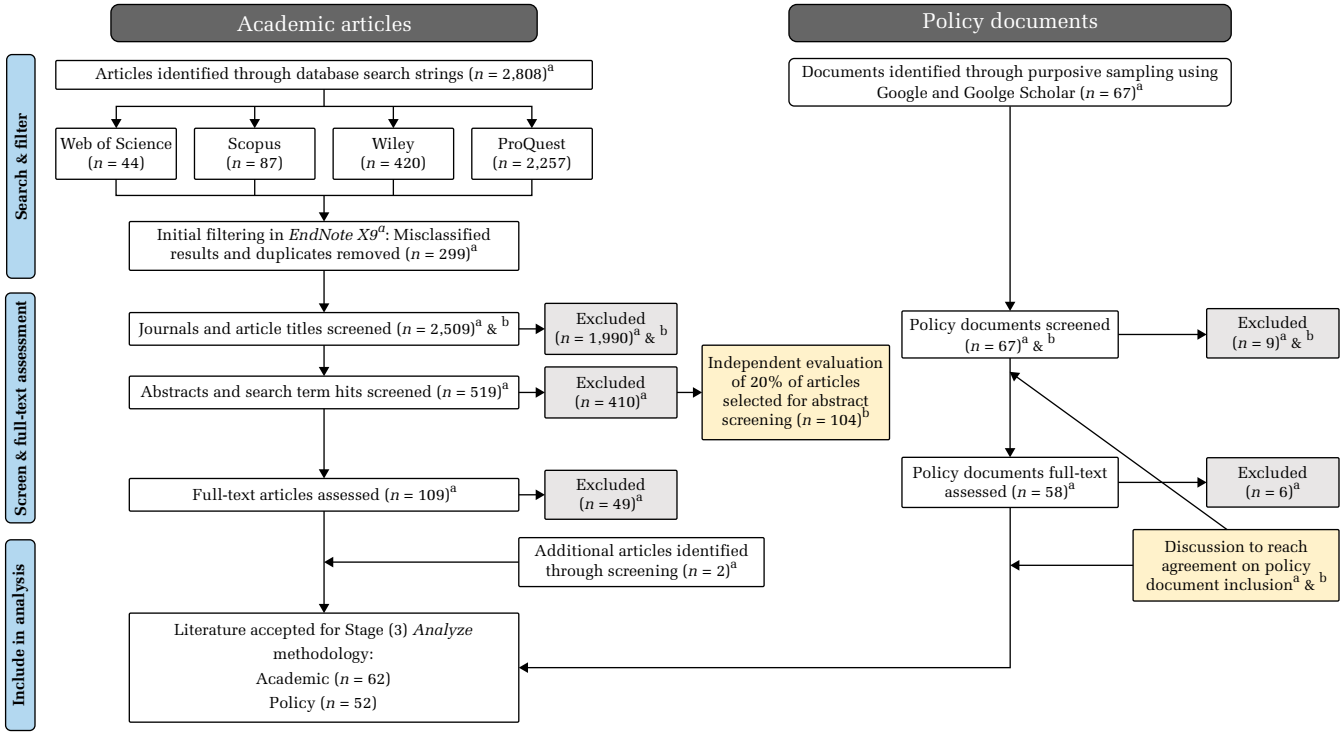
articles, of which Researcher 1 screened the number of search term hits by applying criterion 2, and abstracts by applying criterion 3. Researcher 2 independently screened a 20% random sample (104 publications), with full agreement being attained. From this, 109 articles were selected for full-text assessment applying criterion 3, which added two further articles (Addy et al., 2014; Dubb, 2020, cited in Hsieh, Wang, Wong & Ho, 2021).

For the policy documents, Researchers 1 and 2 screened the 67 documents applying criteria 1b and 2. This resulted in the selection of 58 documents for full-text assessment applying criterion 3. Following Mahood et al. (2014), Researchers 1 and 2 had ongoing discussions to broaden coverage of the policy documents. Regarding criterion 2, articles or documents were excluded where the terms were used twice or more but were insubstantial—for example, were used as a descriptor, adjective, or recommendation without detail. Full-text assessment resulted in a final selection of 62 academic articles and 52 policy documents to inform our literature review. Adapting Page et al. (2021), Figure 1 presents a PRISMA diagram for Stage 2, *Conduct*.

## Analyze

Following Snyder (2019), descriptive data were recorded in evidence tables for our 62 academic articles and 52 policy documents. This data were inductively coded as follows (Williams & Moser, 2019): *open coding* involved labeling data that answered the RQs (see examples in Table 1); *axial coding* compared open codes, identified relationships between them, and generated "thematic categories"; and *selective coding* refined and integrated axial categories to generate "primary themes" (see coding structure in Table 2). We analyzed the academic articles and policy documents separately to enable comparison in how whole-of-society resilience is understood and operationalized, finding significant alignment in their characteristics of whole-of-society resilience and the role of essential businesses. This lack of differentiation led us to combine our database and, henceforth, describe them as "114 publications." The following section addresses Stage 4 by reporting on the main findings of our S-SLR. We first provide an overview of the 114 publications before analyzing their content with specific reference to essential businesses.

**FIGURE 1**
**PRISMA for S-SLR Stage 2 *Conduct***




[a]Researcher 1.
[b]Researcher 2.

**TABLE 1**
**Open Coding Examples**

| Citation | Quote | Open code(s) |
|---|---|---|
| European Parliament (2021: 21) | "strategic planning process" | ■ *Strategy* |
| Uhnoo and Persson (2022: 441) | "a shared responsibility" | ■ *Shared responsibility* |

## REPORTING OUR FINDINGS

### Publications Overview

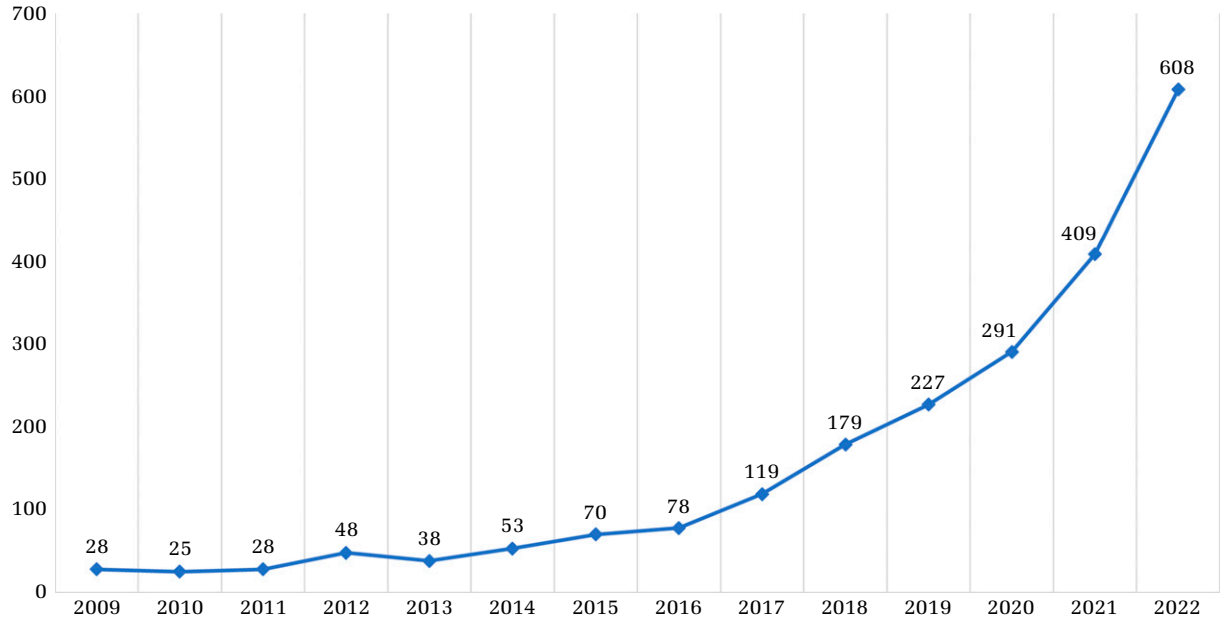
The whole-of-society approach is described by the Organization for Security and Co-Operation in Europe (2020) as originating in the field of public health and its specialized agencies, like the World Health Organization (Samaan et al., 2022). The term has since been applied by the United Nations (2021) in disaster risk-reduction and -management, and by governments in national security and resilience (HM Government, 2021) and sustainable development (Cázarez-Grageda, 2018). This is reflected in the high number of selected publications using the defined search terms in health-, disaster-, and sustainability-oriented journals. Figure 2 illustrates the term's low use in 2009–2012, steady increase in 2013–2016, and significant annual growth from 2017 (accounting for 84% of selected publications). Methodological approaches favored in the articles were empirical (29), conceptual (21), and analytical (12). Policy documents included government policies (12); guidance and technical documents from specialized agencies and nongovernmental organizations (9); and reports and publications from institutions and government networks (31).

Of the 114 publications, 63 offered specific descriptions of the characteristics of whole-of-society resilience to disruption. Comparing the characteristics, we discovered similarities in the actors involved, the ambition, and features of whole-of-society resilience such as the broad principles of inclusivity, collaboration, and shared responsibility. The descriptions failed to fully illuminate the role of essential businesses beyond "stakeholder" or provider of capacity (e.g., Appleby, 2020; British Red

**TABLE 2**
**Coding Structure**

| Selective Codes | Axial Codes | Open Codes | Frequency ($n$ =) |
|---|---|---|---|
| Align with local cross-sector partnerships | Work through cross-sector partnerships | Establish multi-actor or -sector collaboration | 81 |
| | | Engage local actors | 46 |
| | | Share responsibility | 27 |
| | Coordinate to manage delivery | Establish local governance | 24 |
| | | Agree the partnership strategy | 42 |
| | | Facilitate coproduction | 30 |
| | | Coordinate by integrating systems | 40 |
| | | Provide strategic and tactical leadership | 28 |
| | | Cooperate by sharing intelligence | 30 |
| Support the provision of essential services | Target essential needs | Pinpoint essential needs | 80 |
| | | Analyze how the context is changing | 33 |
| | | Ensure continuity of provision | 42 |
| | Mobilize delivery of support | Develop local capacities and capabilities | 50 |
| | | Test systems | 20 |
| Manage in changing environments | Adapt and advance | Prepare for, respond to, recover from | 70 |
| | | Innovate through renewal | 19 |

**FIGURE 2**
**Distribution of Publications January 2009–December 2022 ($n$ = 2,201)**




Cross, 2022; European Parliament, 2021), and did not explain how whole-of-society resilience is delivered by essential businesses.

## Thematic Analysis Results

Thematic analysis of the 114 publications revealed 16 open codes that characterize whole-of-society resilience and the role of essential businesses. Table 2 presents the primary themes as resulting from a coding structure of three selective codes (primary themes), constructed from five axial codes (thematic categories), formed from 16 open codes, each of which frequently appears in the dataset. We first introduce the primary themes (identified via the main headings) that were selected to represent the thematic categories (identified in subheadings) that are described by the open codes (denoted via in-text *italics*). Figure 3 presents a framework resulting from our analysis and provides a blueprint of our core findings which we explain later with specific reference to essential businesses in the Discussion section.

## Primary Theme 1: Align with Local Cross-Sector Partnerships

Our first of three primary themes describes how essential businesses can address whole-of-society resilience by working through local cross-sector partnerships. These partnerships require a governance framework to design and implement whole-of-society resilience. The selected publications provided evidence to describe this first primary theme through two thematic categories (Table 2): "work through cross-sector partnerships" and "coordinate to manage delivery," which are explained by nine interrelated open codes (three and six open codes, respectively), detailed below.

***Thematic category 1: Work through cross-sector partnerships.*** Whole-of-society resilience requires essential businesses to *establish multi-actor or -sector collaboration* through cross-sector partnerships involving a range of societal actors (Papademetriou & Benton, 2016; Pan American Health Organization, 2015; Waldman, Yumagulova, Mackwani, Benson & Stone, 2018; World Health Organization, 2021). Essential businesses that provide services such as healthcare and utilities are, for the Association of Southeast Asian Nations (2021) and Dubb (2020), crucial to these partnerships due to their value to society's resilience and the risks or cascading impacts that interruptions to their operations would create. Cross-sector partnerships operationalize whole-of-society resilience at the local level, guided by national policy directives (Colgan, Kennedy & Doherty, 2015; World Health Organization, 2009). Essential businesses as contributors should align with the collective ambition for whole-of-society

resilience of their partnerships. However, the characteristics of different essential businesses, such as firm size and resources (Kong & Sun, 2021), will influence their level and type of contribution, requiring flexibility in a partnership's design of whole-of-society resilience collaborations.

Multilevel participation from essential businesses and society in whole-of-society resilience is advised by the International Committee of the Red Cross (2017), Samaan et al. (2022), and the U.S. Government (2022). Essential businesses should *engage local actors,* which Matsuoka and Rocha (2021) specify to include local government, organizations (including private and nonprofit organizations), communities, and individuals. More broadly, whole-of-society resilience is described by Gavari-Starkie, Casado-Claro, and Navarro-González (2021) as all-inclusive—it "leaves no one behind" (Lillywhite & Wolbring, 2022: 3). This is similarly referenced by Simpson, Shearing, and Dupont (2019: 6) as involving "all people and institutions." Other scholars show that partnerships can be comprised of specific local actors with relevant knowledge to address focal areas like migration (Appleby, 2020) or extremism (Organization for Security and Co-operation in Europe, 2017; Pierobon, 2021). Sector-specific partners during COVID-19 are illustrated by Dubb (2020), including examples of telecommunications companies providing logistical support to health services, and manufacturing companies surging their supply of clinical equipment.

Essential businesses are expected to *share responsibility* for the design and implementation of whole-of-society resilience—for example, by taking responsibility for the continuity of the services they provide that society depends on (Commonwealth of Australia, 2011; Swanson, Murphy, Temmer & Scaletta, 2021; Kim, Goh & Kang, 2022; Uhnoo & Persson, 2022). Shared responsibility for whole-of-society resilience is described by Bergstrom (2018: 31) as a shift in what has been traditionally government responsibility for whole-of-society resilience to "local and decentralized responsibility." This responsibility, according to Shmueli, Ozawa, and Kaufman (2021), is shared across local business–business networks and business–government or –nonprofit networks. The World Health Organization (2012) advocates that these networks should support firm competitiveness by whole-of-society resilience enhancing the socioeconomic environments in which they operate.

***Thematic category 2: Coordinate to manage delivery.*** Essential businesses should *establish local governance* to support them in the coordination of whole-of-society resilience activities. Two distinct frameworks for local governance appear in the literature. First, self-governance is described by Bednarska-Olejniczak, Olejniczak, and Klímová (2021) and Korosteleva (2020) as involving essential businesses designing and managing their own whole-of-society resilience activities. Second, polycentric governance is recommended by Addy et al. (2014: 217) for multi-actor governing arrangements that involve business–business and business–government or –nonprofit networks that facilitate "multiple centers of decision making." Uhnoo and Persson (2022) discuss how essential businesses should adhere to established governance mechanisms, especially when partnering with official responder agencies.

To organize for whole-of-society resilience, essential businesses and partners should *agree the partnership strategy* that enables them to collaboratively articulate the vision, define a collective ambition, establish strategic objectives, and identify delivery partners and activities (Addy et al., 2014; López-Gunn et al., 2021; Yong & Lemyre, 2019). To concentrate on local impacts, whole-of-society resilience strategy should be aligned with a clear understanding of local knowledge and priorities (Kjellen & Wong, 2023; Yuan, Lin, Wu, Yu, Tu & Lü, 2021). This will, for Korosteleva (2020), help essential businesses and society to increase their agency to take responsibility for, and self-determine, their future resilience. The European Parliament (2021) exemplify Finland's national whole-of-society resilience policy, which articulates that a whole-of-society resilience strategy should define the roles and responsibilities of each partner. National guidance and frameworks are emphasized by the World Health Organization (2017b) to support essential businesses and partners to organize effectively for whole-of-society resilience, individually and collaboratively. For example, HM Government (2022) highlights the importance of guidance on continuity planning, assurance frameworks, and risk standards.

Shmueli et al. (2021) advocate that essential businesses should *facilitate coproduction* so that they can engage the partners they require to collaborate on whole-of-society resilience. Coproduction is a process used to transform shared ambition into collaborative action (O'Sullivan & Phillips, 2019), which Brunk (2016) found lays solid foundations for delivery. Several publications caution that effective coproduction processes rely on inclusion, trust, and meaningful engagement of essential businesses and societal partners in the implementation of whole-of-society resilience (Bromley et al., 2017; Elavarasan, Pugazhendhi,

Shafiullah, Irfan & Anvari-Moghaddam, 2021; Friends of Europe, 2022). Here, coproducing whole-of-society resilience goes beyond consultation and requires effort to build relationships and remove barriers, and is delivered through equitable practices that heighten trust among partners (O'Sullivan, Corneil, Kuziemsky & Toal-Sullivan, 2015).

Coordinating essential businesses to deliver whole-of-society resilience activities is challenging because, as Månsson, Abrahamsson, Hassel, and Tehler (2015) point out, partners view and plan for risks differently. Thus, whole-of-society resilience requires essential businesses and partners to *coordinate by integrating systems*—for example, to manage risk and plan responses. In many reviewed publications, this integration requires and enables a cooperative approach to governance based on common viewpoints and methods (Bangladesh Government, 2020; Hsieh et al., 2021; Panneer, Kantamaneni, Pushparaj, Shekhar, Bhat & Rice, 2021). Integrated systems involve vertical coordination across scales (local–regional–national business or government) (North Atlantic Treaty Organization, 2021; Shmueli et al., 2021) and horizontal coordination across sectors (Kindornay & Kocaata, 2019; Weiland, Law & Sunjka, 2020; World Bank, 2021). Coordination through integrated systems, as noted by Ongkowijoyo and Doloi (2017), helps to moderate cascading impacts by systems working together to prevent and respond more quickly to emerging cascades.

Whole-of-society resilience requires essential businesses to *provide strategic and tactical leadership* to maintain focus, manage resources, and ensure accountability (Brunk, 2016; Généreux, Petit, Roy, Maltais & O'Sullivan, 2018; London Councils, 2023). The crucial leadership roles of essential businesses and government are emphasized by the World Health Organization (2017a) and Jonas (2013), including the roles of their networks such as supply chains.

Integrated systems require a comprehensive approach to communications so that they can *cooperate by sharing intelligence* on whole-of-society resilience (HM Government, 2023a; Sundelius & Eldeblad, 2023). Sharing intelligence is found by Lin, Nilsson, Sjölin, Abrahamsson, and Tehler (2015) to help managers to communicate and make collaborative decisions about whole-of-society resilience. Essential businesses are key sources of intelligence on services that society's function depends on. For example, Pöyhönen, Nuojua, Lehto, and Rajamäki (2019) argue that they provide crucial intelligence on the risks and vulnerabilities in socio-technical systems (e.g., digital societal services) and are central actors in the preparation and management of technological incidents that undermine whole-of-society resilience. Complementing intelligence from essential businesses, the United Nations (2021) highlights that nonprofit organizations provide intelligence on vulnerable people's dependency on essential services, which helps to identify gaps in services resulting from disruption (Al-Mulki, Hassoun & Adib, 2022).

### Primary Theme 2: Support the Provision of Essential Services

Our second primary theme describes how to focus the provision from essential businesses to enhance whole-of-society resilience. Publications evidence the prioritization of people who are most in need due to the impacts of a disruption, as well as the essential services they depend on, and explain how working through cross-sector partnerships enables essential businesses to target those essential needs. This primary theme comprises two thematic categories (axial codes) (Table 2): "target essential needs" and "mobilize delivery of support." These are explained by five interrelated open codes (three and two open codes, respectively), detailed below.

***Thematic category 3: Target essential needs.*** To deliver value for networks, organizations, communities, and individuals, whole-of-society resilience should *pinpoint essential needs* (Domicelj & Gottardo, 2019; Federal Emergency Management Agency, 2011; Meszaros & Toca, 2020; Sagara, Stables & Baehr, 2022). A "needs-based approach" is described by Pickering, Dancey, Paik, and O'Sullivan (2021a: 175) as focused on the demands for assistance arising from the impacts of a disruption—for example, essential healthcare, food, water, sanitation, and hygiene needs (United Nations, 2021). To target whole-of-society resilience activities informed by intelligence on essential needs, HM Government (2022) and the North Atlantic Treaty Organization (2021) highlight the importance of comprehensively understanding which parts of society have essential needs during periods of disruption, identifying what those essential needs are, and determining how they can be addressed by essential businesses and partners.

To deepen understanding of essential needs, whole-of-society resilience activities should *analyze how the context is changing* as society's essential needs are affected by dynamic socio-ecological environments (D'Andrea, Grifoni & Ferri, 2022; Moungar & Baldeh, 2020; South et al., 2019; United Nations, 2019; Yong & Lemyre, 2019). Contextual

social factors such as marginalization, structural inequalities, and conflict (Haldane et al., 2021; Moya & Goenechea, 2022) exacerbate essential needs in a disruption and impede whole-of-society resilience, requiring activities to establish a better understanding of the root causes of essential needs. Contextual ecological factors such as flood risk can be addressed through "nature-based solutions," which is an approach advocated by the Council of Canadian Academies (2022: 44) for the responsible stewardship and protection of dynamic ecological contexts. In changing socio-ecological contexts, essential businesses and partners require systems that provide timely and accurate intelligence (Månsson et al., 2015) to monitor change (Bento & Couto, 2021) and inform dynamic decision-making (Vieira, Serrao-Neumann & Howes, 2019). This, for Codreanu, Antonoaie, and Vasilescu (2021), enables essential businesses to balance their objectives with changing contexts that bring new aspects to whole-of-society resilience. For example, Genik and Godsoe (2015) discuss essential businesses monitoring the changes in socio-ecological risk that overlap with their operations.

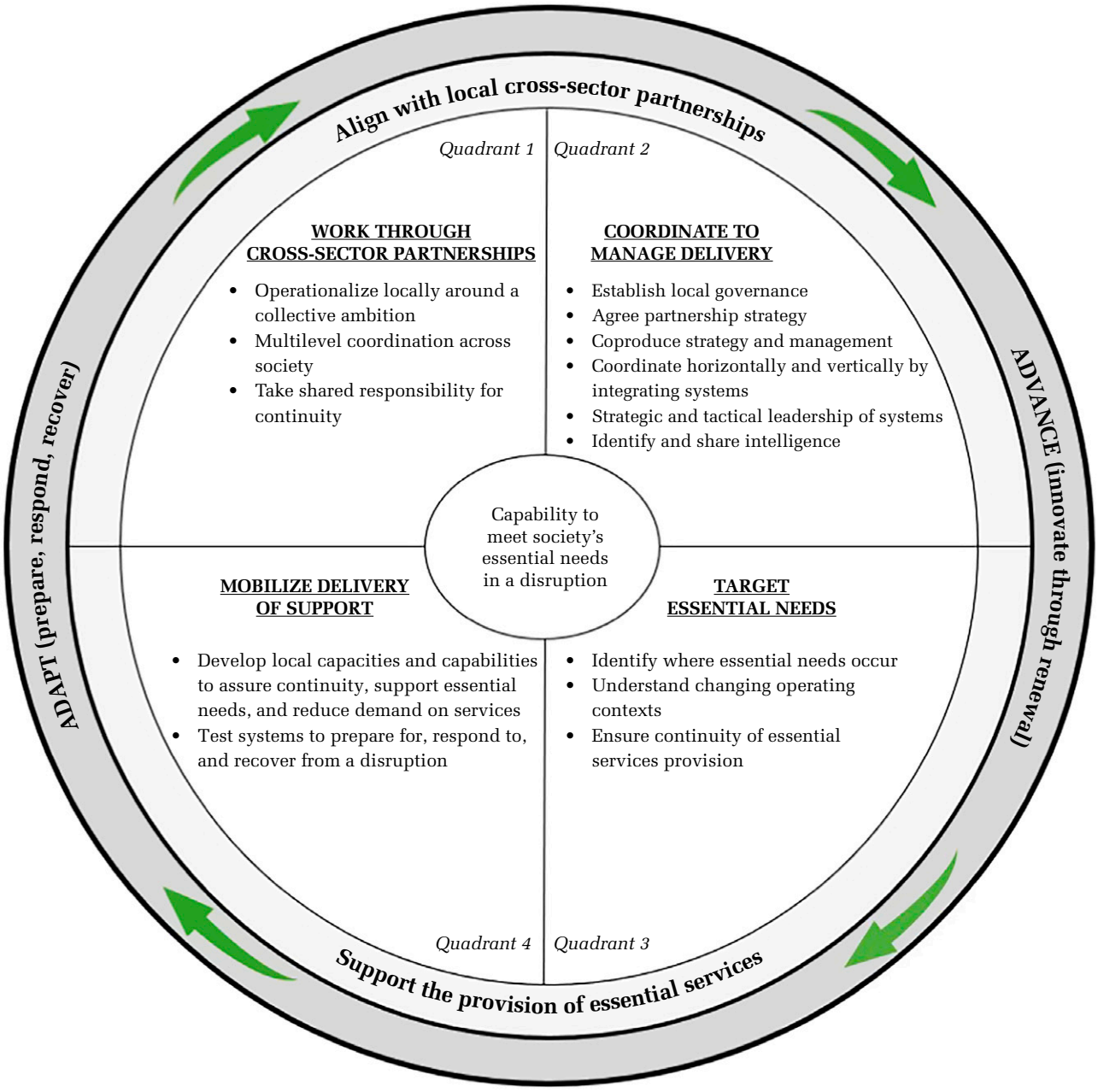
Society relies on essential businesses to provide services that target its essential needs, and so whole-of-society resilience activity should *ensure continuity of provision* of these essential services during disruption (International Displacement Monitoring Centre, 2018; Laitinen, Katko, Hukka, Juuti & Juuti, 2022). Continuity is characterized by the European Parliament (2021) as the ability of essential businesses to assure internal operations and retain vital functions to provide services, scale up where demand has surged, and, as Dubb (2020) adds, adapting operations to respond to changing essential needs. Many continuity challenges that essential businesses face also affect society (e.g., national–local coordination and communication issues), which means that, for Tómasson (2023), business continuity contributes wider significance to managing whole-of-society resilience to disruption. Continuity is the link between the resilience of essential businesses and wider society (World Health Organization, 2009). Here, essential businesses depend on the resilience of society (and vice versa), are impacted by external contingencies such as supply chains and stakeholder relationships (Codreanu et al., 2021; Zackery, Amankwah-Amoah, Heidari Darani & Ghasemi, 2022), and have a responsibility to customers and employees (Smith-Bingham, 2021). These factors, for Acciarini, Boccardelli, and Vitale (2021), necessitate a departure from a reactionary response to disruption toward a more proactive approach to continuity by essential businesses. With this, continuity requires a deeper understanding of society's essential needs and the corresponding responsibilities that essential businesses have for whole-of-society resilience. For example, essential businesses can help identify customer essential needs in disruption and target assistance to them (HM Government, 2022).

***Thematic category 4: Mobilize delivery of support.*** Support for whole-of-society resilience is described by HM Government (2022) and Liang et al. (2018) as the help that networks, organizations, communities and individuals require before, during, and after a disruption. This includes, for Acciarini et al. (2021), essential businesses that will struggle to deliver services to those in need, described by McClelland, Jordan, Parzniewski, Shaw, O'Grady, and Powell (2022) as those that lack the agency to help themselves and that require additional support. Resources to be mobilized that deliver support and reduce demand on services require whole-of-society resilience activities to *develop local capacities and capabilities* (Council of the European Union, 2023; Hickey, 2023). Whole-of-society resilience capacity includes adaptive and transformative capacities within and across sectors (Yanakiev, Dimov & Bachvarov, 2018), to which the World Health Organization (2009) specifies the support from essential businesses to meet surging demand for services during disruption. The systems required to support whole-of-society resilience capacity are described as capital, technology, knowledge and skills, equipment, infrastructure, planning, communications, and coordination (Kong & Sun, 2021; North Atlantic Treaty Organization, 2021; Pickering, Guy, Al-Baldawi, McVean, Sargent & O'Sullivan, 2021b).

Whole-of-society resilience capabilities reflect the efficient and effective mobilization of systems for whole-of-society resilience and, for Williams et al. (2018), include essential businesses' self-sufficiency and integrated partnerships that establish collective resources and enable self-organization. Self-organization is described as employing local intelligence to align the provision of support with local essential needs, identifying gaps in provision (Pickering et al., 2021a; Simpson et al., 2019), engaging in self-help for business continuity (Tómasson, 2023), and utilizing business networks for mutual aid (World Health Organization, 2012).

To continually improve how the capacities and capabilities from essential businesses are mobilized for whole-of-society resilience, the Finland Ministry of Defense (2017) advise that these businesses

**FIGURE 3**
**Operationalizing Whole-of-Society Resilience to Disruption in Changing Environments**




regularly *test systems*. Smith-Bingham (2021) recommends that essential businesses exercise their systems with wider business networks, government, and nonprofit organizations. For many, testing bolsters and integrates efforts of whole-of-society resilience partners, enhances risk awareness, encourages proactive behaviors, and helps to share knowledge on best practice, capacities, capabilities and gaps in support (e.g., Cox, Hill, Plush, Heykoop & Tremblay, 2019; Smith-Bingham, 2021; Oostlander, Bournival & O'Sullivan, 2020).

### Primary Theme 3: Manage in Changing Environments

Our third primary theme focuses on the purpose of whole-of-society resilience capacities and capabilities that essential businesses and society develop for

managing whole-of-society resilience in changing environments. Evidence from publications describe this primary theme through one thematic category (axial code) (Table 2): "adapt and advance." This is explained by two interrelated open codes detailed below.

***Thematic category 5: Adapt and advance.*** To adapt, the systems that exist within essential businesses should be flexible to their changing business environment (Genik & Godsoe, 2015). Here, to adapt is, for essential businesses, to *prepare for, respond to, and recover from* disruption (Asia-Pacific Center for Security Studies, 2023; HM Government, 2021). Focusing on local recovery, McClelland et al. (2022) illustrate that the COVID-19 environments in which essential businesses operated were continuously changing and creating cascading disruption. Many such disruptions are beyond the influence of essential businesses; these include climate and ecological events (HM Government, 2023b), wide-scale health-related events such as pandemics (Wang, Viseu Cardoso & Forgaci, 2022; Wernli et al., 2021), or widespread technological hazards and major incidents such as power outages and cyber incidents (Pöyhönen et al., 2019). Essential businesses manage whole-of-society resilience in changing business environments and should focus on the impacts arising from many types of hazards rather than on a single, specific, forecasted event.

To advance, whole-of-society resilience activities should work to transform essential businesses' approach to resilience so that they can *innovate through renewal* to strengthen their resilience to future disruption (United Nations, 2017; Vieira et al., 2019; Yanakiev et al., 2018). Innovation, for Acciarini et al. (2021), involves strategic transformation, such as the configuration of new business models and strategies for whole-of-society resilience for which the broad-based knowledge of partnerships is crucial. McClelland et al.'s (2022) framework advises that renewal through whole-of-society resilience includes essential businesses delivering transactional (short-term) and transformational (long-term) activities across a range of disruptions and impacts. Through adapting and advancing, essential businesses aim to deal with impacts no matter what happens, where, or when—meaning that whole-of-society resilience is a generic capability for all times and disruptions.

### A Framework to Operationalize Whole-of-Society Resilience in Changing Environments

To integrate these findings from our S-SLR, Figure 3 offers a framework to operationalize whole-of-society resilience to disruption. Our findings illustrate that whole-of-society resilience is a multilevel concept (Addy et al., 2014; Dubb, 2020; World Health Organization, 2009) in that it works across different societal levels (HM Government, 2022), and it differs from other resilience approaches that isolate discrete societal levels such as the organization or community. Thus, we present Figure 3 as a neutral framework that can be translated to all levels, including networks, essential businesses, government, organizations, communities, and individuals, and their cross-cutting relationships at multiple scales (local, regional, national, global). Next, we discuss our framework's application to essential businesses.

## DISCUSSION

Ambitions for whole-of-society resilience articulate a new vision for multilevel system resilience in which there is a new prominence on the role of essential businesses. We first discuss our answer to RQ1 by explaining our framework (Figure 3), leading to a definition of whole-of-society resilience to disruption. We then address RQ2 by discussing the implications for essential businesses, and respond to RQ3 by considering the implications for policy.

### Operationalizing Whole-of-Society Resilience

Our primary themes (below in-text in italics) and their subordinate codes inform Figure 3, which presents our framework to operationalize whole-of-society resilience to disruption, answering RQ1: "What is the role of essential businesses in operationalizing whole-of-society resilience to disruption?" Although our framework is applicable to different levels of a multilevel society, we discuss our framework through the lens of essential businesses. Our framework begins in the center of Figure 3 by essential businesses contributing to a capability that strives to meet society's essential needs in a disruption. These essential needs may be new, or have heightened demand, due to the impacts of the disruption (Hickey, 2023).

Our framework is presented in quadrants and the following discussion enunciates our theory. We begin by discussing Quadrants 1 and 2, which sit under Primary Theme 1, that essential businesses should *align with local cross-sector partnerships* through which they can work collaboratively to design and implement whole-of-society resilience (Kim et al., 2022; Uhnoo & Persson, 2022). In Quadrant 1, "work through cross-sector partnerships" first

requires essential businesses to understand their own priorities and the priorities of others to identify partners from diverse sectors with which they can align on a collective ambition for whole-of-society resilience to establish their partnership. Whole-of-society resilience is operationalized by that partnership via its local actors, which contribute their insight of the essential needs that may arise in their society from a disruption. That partnership should coordinate roles and objectives across multiple levels of society (Addy et al., 2014) including networks, essential businesses, government, organizations (including nonprofit), communities, and individuals (United Nations, 2019). Through partnerships, essential businesses share responsibility for whole-of-society resilience, such as their responsibility for continuity, and should endeavor to balance their firm's economic priorities with their social responsibilities (Zackery et al., 2022). In Quadrant 2, "coordinate to manage delivery," cross-sector partnerships should establish local governance to support their effective collaborative working (Panneer et al., 2021). Governance should also seek to balance the impact of disruption on the internal operations of essential businesses to ensure continuity (Tómasson, 2023). Partners should agree the partnership strategy and outline the expectations on essential businesses and partners to deliver whole-of-society resilience (European Parliament, 2021). Partnerships should coproduce strategy and the corresponding coordination and management of whole-of-society resilience activities (World Health Organization, 2017b). This coordination should work horizontally (across diverse partners) and vertically (across multiple societal levels) through systems that integrate core delivery functions. Whole-of-society resilience strategy should include strategic and tactical leadership of management and communication systems for whole-of-society resilience, and intelligence on risk and essential needs (Lin et al., 2015; World Bank, 2021).

Quadrants 3 and 4 sit under Primary Theme 2 that essential businesses should *support the provision of essential services*. In Quadrant 3, "target essential needs," essential businesses should identify where they can effectively contribute to the essential needs that occur in all parts of society, including with respect to their supply chain, customer base, and impacted employees (Codreanu et al., 2021). To target essential needs, essential businesses require intelligence that helps them to understand and reduce risk (Genik & Godsoe, 2015), pinpoint essential needs and changes therein (Lillywhite & Wolbring, 2022), enhance preparedness for the next disruption (Eyerkaufer, Lima & Gonçalves, 2016), and raise awareness of the need for continuing resilience (Kitagawa, 2019b). Our findings show that the intelligence-led partnerships that involve essential businesses should understand their changing socio-ecological (Folke, 2006), socioeconomic (Council of Canadian Academies, 2022), and socio-technical (Pöyhönen et al., 2019) contexts. This will ensure that essential businesses are able to continually provide services to meet society's changing essential needs in a disruption (European Parliament, 2021). In Quadrant 4, "mobilize delivery of support," essential businesses should develop operational capacity and capabilities to mobilize the delivery of support that assures continuity, addresses essential need, and reduces demand on services (Hickey, 2023). Publications discuss how specialized business capabilities can target specific business needs, like infrastructure protection (Kitagawa, 2019a), while generic capabilities can provide all-hazards support, such as systems for providing business continuity advice, communicating warning and informing messages of impending incidents (Canadian Government, 2017; German Federal Government, 2016), and managing business volunteers (Waldman et al., 2018). Whole-of-society resilience capabilities mobilize systems to enhance the capacity of essential businesses to meet changing conditions during disruption, such as surging demand. Essential businesses should test these systems to prepare for, respond to, and recover from a disruption, including the management of business continuity and supporting the essential needs of vulnerable people (Finland Ministry of Defense, 2017).

In the outer circle of Figure 3, whole-of-society resilience support is mobilized before, during, and after disruption to help society *adapt* and *advance* in *changing environments*. Practically, adaption includes delivering whole-of-society resilience activities to enhance preparedness and response, as well as the recovery of internal and societal operations (D'Andrea et al., 2022; Eyerkaufer et al., 2016). Here, adaption is the capacity of essential businesses to prepare, respond, and recover in a way that builds their capacity to deal with disruption. This aligns with Folke and Berkes's (1998: 12) classical definition of socio-ecological resilience as these systems cope with disruption by "absorb[ing] perturbations … and changing." For whole-of-society resilience, this change aims to be a positive move toward society's advancement following disruption. To advance, is for essential businesses to renew

(McClelland et al., 2022) after a disruption to strengthen the resilience of internal operations—for example, by innovating their business models and strategies (Acciarini et al., 2021). Renewal also describes advancement as involving strategic action to transform how an essential business addresses issues in its environment that exacerbate risk and vulnerability. The changing business environments in which essential businesses manage whole-of-society resilience are portrayed in our framework by the green arrows, representing the dynamic, processual nature of whole-of-society resilience to disruption (Addy et al., 2014; Lee & Nakamura, 2021). Efforts to manage whole-of-society resilience and organize capabilities to mobilize support for prioritized essential needs are not static and should be continuously reviewed against changing business environments. The capability of essential businesses to prepare for all-hazards signals their capacity to adapt and advance; thus, we conceptualize whole-of-society resilience as a generic capability to manage whole-of-society resilience to disruption (Helfgott, 2018; Kikkert & Lackenbauer, 2021). Our framework provides conceptual clarity to define whole-of-society resilience as: *capability* that *targets essential needs* and *mobilizes support* to help society *adapt* and *advance* in a *changing environment.*

While this definition is relevant to essential businesses, it is not limited to that level as it is equally relevant to multiple levels of society, including networks, public- and voluntary-sector organizations, communities, and individuals. However, following the focus of this article, next we explore the implications for essential businesses of their role in whole-of-society resilience.

## Implications for Essential Businesses in Delivering Whole-of-Society Resilience

To address RQ2, "What are the implications for essential businesses of their role in delivering whole-of-society resilience to disruption?" Figure 3 shows how essential businesses are integral to the cross-sector partnerships and management processes required to operationalize whole-of-society resilience. However, essential businesses are not just delivery partners—they will also benefit from the multilevel resilience system that the whole-of-society resilience strategy sets out to achieve (World Health Organization, 2009), including benefits to stabilize their business environment and support their employees, customers, and suppliers (Smith-Bingham, 2021).

Our analysis identifies two primary implications for essential businesses of their role in whole-of-society resilience. We frame these implications by integrating the internal and external organizational perspectives that are evident in each of Quadrants 1–4. Whole-of-society resilience should underpin a dual assurance that essential businesses are: (a) internally resilient—an internal assurance that maintains business continuity and delivery of essential services during a disruption (Wiśniewski et al., 2023); and (b) strengthening their external resilience—an external assurance in which essential businesses contribute to, and benefit from, the resilience of the environment on which they depend for their own continuity (Folke, 2006). As examples of the latter, Rahman, Paul, Agarwal, Shukla, and Taghikhah (2024) recommend flexible supply chains to meet demand surges, and Williams et al. (2021) discuss strategies to support the resilience of the ecosystems businesses depend on. We next explore these perspectives and discuss how essential businesses can fulfill their role in whole-of-society resilience.

Essential businesses are lead actors in the network of whole-of-society resilience support that society depends on to meet their essential needs in disruption; thus, their internal assurance of their organizational resilience is paramount (North Atlantic Treaty Organization, 2020; World Bank, 2020). Organizational resilience is conceptualized by Hillmann and Guenther (2021) and Caiazza et al. (2021) as the capacity of essential businesses to respond to disruption by mobilizing resources to maintain key business functions. Resources that essential businesses can develop that contribute to their internal continuity include: knowledge, skills, economic and structural resources, strategic practices, and innovative capacities (Raetze, Duchek, Maynard & Kirkman, 2021; Williams, Gruber, Sutcliffe, Shepherd & Zhao, 2017). How organizations strategically mobilize resources to strengthen their resilience is conceptualized by business scholars through the capability perspective (Duchek, 2020; Haarhaus & Liening, 2020), exemplified by Williams et al. (2017) as self-organization and self-help capability. Extending the capability perspective, Duchek (2020: 216) frames the multiple capabilities that essential businesses require in relation to different phases of disruption, and term this "meta-capability." According to this perspective, to ensure continuity and delivery of essential services for whole-of-society resilience, essential businesses should: (a) anticipate by monitoring business environments to mitigate threats and inform continuity planning, (b) rapidly respond by

activating plans and self-organize by coordinating through wider networks, and (c) utilize disruption to encourage change and improve adaptive capacity by implementing learning (Duchek, 2020). Whole-of-society resilience, according to Deloitte (2023), provides essential businesses with opportunities to interrogate their existing approach to organizational resilience and establish new strategic priorities and capabilities that align with their ambitions on whole-of-society resilience. Exercising continuity plans should strengthen how essential businesses understand disruptive impacts, the efficacy of businesses to deal with those through business continuity (Deloitte, 2023), and the implications of their service interruption or failure (Wiśniewski et al., 2023) on the resilience of service users with essential needs.

Scholars such as Williams et al. (2021) highlight that research on organizational resilience has focused on organization-level analysis. This primarily internal perspective is noted by Beninger and Francis (2022: 229) as contributing to a boundaried framing (Hill, 2010) of essential businesses as "self-contained" economic actors (Porter & Kramer, 2011) separated from, as opposed to embedded in, wider socio-ecological contexts (Folke, 2006). Reflecting these observations, business scholars advocate for further research on the external contextual factors in business environments that interact with and impact on internal organizational resilience (Brueller, Brueller, Brueller & Carmeli, 2019; Linnenluecke, 2017). For example, illustrating the dependence of organizations on their socio-ecological environments, Williams et al. (2021: 95) present a "cross-scale systemic" perspective that essential businesses can adopt to inform strategies that strengthen their own continuity, enhance the resilience of their business environments, and contribute to whole-of-society resilience. Our framework shows that by collaborating with the whole of society, essential businesses can contribute capacity and capabilities to whole-of-society resilience and benefit directly from the collective capacity and capabilities generated. This benefit, Hall and Lamont (2013) and Williams et al. (2017) describe, creates a dynamic interaction that enables the whole system to mobilize collective adaptation. Beninger and Francis (2022) articulate this through a framework of integrated capitals, such as financial and human, that provide dual roles to support internal resilience and contribute externally to their wider business environments.

Our findings establish that essential businesses take responsibility for the continuity of their services on which whole-of-society resilience depends. Scherer et al. (2014) and Schrempf-Stirling (2018) argue that, as economic actors providing societal services, essential businesses are politicized by policies like whole-of-society resilience that position them as pseudo-governmental entities with responsibility to deliver obligations that were traditionally held by the government. Whole-of-society resilience expectations challenge essential businesses to reformulate strategies and practices to balance their profit-making objectives with their responsibility to contribute to the resilience of their business environment for their own and society's benefit. A further tension that challenges essential businesses in their role in whole-of-society resilience is that, for Crane and Matten (2021), essential businesses contribute to societal risk, yet whole-of-society resilience identifies them as key contributors to the solutions required to overcome risk. This requires responsible practices from essential businesses (Wickert, 2021), which should minimize potential harm that their business operations might cause if they fail (Wiśniewski et al., 2023). Such practices, for Folke (2006) and the Council of Canadian Academies (2022), can prioritize the stewardship of natural resources on which essential businesses' provision of essential services rely.

Corporate social responsibility (CSR) has emerged as a popular mechanism through which many essential businesses create value for both the organization and their business environments (Zackery et al., 2022). CSR activities that contribute social value are described by Mahmud et al. (2021) as corporate philanthropic and charitable initiatives, such as spontaneous donations that support essential needs in a disruption. However, recent scholarly debate questions the predominance of CSR measurement through firm-level benefits, and whether CSR actually delivers against its ambition of creating societal value and impact (Barnett, Henriques & Husted, 2020; Brammer, Branicki & Linnenluecke, 2020; Crane & Matten, 2021). The whole-of-society resilience agenda challenges essential businesses to rethink CSR activities and adapt, in Wickert's (2021: 2) term, from "business-centric" to "society-centric" activities; our framework in Figure 3 outlines key aspects to accomplish such a movement. By working with cross-sector partnerships that have intelligence on society's essential needs (Dentoni et al., 2021), essential businesses can enhance their understanding of what value whole-of-society resilience requires them to contribute (Deloitte, 2023), and thereby design strategies and social responsibility

practices on how to create that value through whole-of-society resilience. Scholarship would benefit from empirical examination of the proactive contributions of essential businesses to whole-of-society resilience beyond CSR and entrepreneurial activities initiated for resilience rather than solely in response to a disruption.

Bringing together these strands, our article's second contribution focuses on four implications for whole-of-society resilience of the role of essential businesses as: (1) critical in the network of support to address society's essential needs, (2) a core delivery partner providing capacity and capability, (3) a beneficiary of whole-of-society resilience for their own continuity, (4) a contributor of risks that jeopardize society's smooth functioning. This implies that, to fulfill their role in delivering whole-of-society resilience, essential businesses should: establish *capabilities* before, during, and after a disruption that support *business continuity* and the *external systems* on which they rely to *reduce risk* and *create value.*

This translation of whole-of-society resilience for essential businesses reflects the priorities of these businesses and positions essential businesses as a key contributor to societal risk and whole-of-society resilience to disruption.

## From Policy Rhetoric to Practical Action

We now focus on RQ3, "What are the implications for policy of essential businesses' role in whole-of-society resilience to disruption?" Policy's use of "whole-of" creates the rhetorical appeal. The political necessity of "whole-of" is understandable because government cannot leave parts of society behind (Lillywhite & Wolbring, 2022), and, when framed as "who should be involved," encourages a vague broadening of partners that includes "all sectors" (Liang et al., 2018: 4) and "everyone in society" (Oostlander et al., 2020: 4). However, this vagueness obscures its operationalization by failing to identify a starting point, which undermines the careful selection of cross-sector partnerships and corresponding targeting of essential needs. Most essential businesses have resilience, and can activate this before, during, and after a disruption to help themselves and support their supply chains, customers, and employees (Acciarini et al., 2021). Other essential businesses are less resilient and lack the capacity to reduce their own risk and vulnerability to the impacts of disruption (Rodrigues, Franco, Sousa & Silva, 2021). For example, disruption can exacerbate continuity challenges to micro, small, and medium-sized enterprises, including access to cash, human capital, and digital technologies (Rodrigues et al., 2021). These essential businesses are more vulnerable, have specific needs, and require targeted support to enhance their resilience.

From this perspective, the "whole-of" aspect is problematic as the essential business sector and society are broad, heterogenous, and formed of complex systems that differ in their advancement, pace, and resources (Kong & Sun, 2021; Wernli et al., 2021). However, policy's rhetorical use of "whole-of"-society resilience suggests homogeneity, which sets a blanket and unrealistic ambition that could demoralize business leaders, especially where essential businesses think they are in the early stages of building resilience. In addition, homogenization distracts from businesses that are providing essential services to meet essential needs, putting equal focus everywhere irrespective of risk, vulnerability, or essentiality. With this, literature defines a starting point for policy and practice as targeted action (McClelland et al., 2022) to identify who requires support or where it is required, those individuals' essential needs, which actors can address those needs, and what capabilities are required. The framing "for whom and by whom" provides essential businesses and society with the goal to operationalize whole-of-society resilience as a capability (Helfgott, 2018: 854). Thus, we find that a national whole-of-society resilience policy should provide the strategic directive of targeted action through which essential businesses deploy resources to meet essential needs.

Cross-sector partnerships are key, as essential businesses working alone cannot reach all of society's essential needs; thus, support from local partners is required to target action at essential needs and local risks. Strategic, cross-sector partnership working should include essential businesses providing knowledge and resources (Eyerkaufer et al., 2016), and public or nonprofit organizations providing insight into local essential needs (United Nations, 2023). However, cross-sector partnerships cannot assume responsibility for whole-of-society resilience and deliver it in a top-down manner. Our findings uncover a tension of shared responsibility within the literature that can translate as shifting responsibility from government to networks, essential businesses, organizations, communities, and individuals without all societal actors having adequate input and the capability to help themselves and others (Atkinson & Curnin, 2020). This devolution is observed as "responsibilization" by Pitidis et al. (2023: 699), which, they argue, reinforces existing governance arrangements and power relations

that recycle structural inequalities and prevent society from self-determining resilience.

The Council of Canadian Academies (2022: xxi) argues that policy should provide a "clear delineation of responsibility among actors." However, responsibility should not be assigned to essential businesses without the corresponding cascade of support (North Atlantic Treaty Organization, 2021). While whole-of-society resilience should not be a form of blanket responsibilization, it can mobilize renewed governance structures and relations by means of strategic cross-sector partnerships (World Health Organization, 2019). National policy implications include the direct involvement of essential businesses in the design and implementation of whole-of-society resilience policies and governance systems to encourage ownership and the cascade of support, local knowledge, and capabilities to mobilize resources (Atkinson & Curnin, 2020). Guidance and flexible frameworks (Kong & Sun, 2021) should accompany this delineation of responsibility covering accountability, assurance, and risk standards (HM Government, 2022)—for example, guidance on how to establish cross-sector partnerships, processes for joint-decision making, governance arrangements, management and communication systems, conflict resolution, and evaluation of partnership value (World Health Organization, 2012).

## CONCLUSION

As whole-of-society resilience moves from policy rhetoric to practical delivery (HM Government, 2023c) and scholarly attention matures (Figure 2), early definition and conceptualization of the term for essential businesses and society is crucial to inform its operationalization.

Figure 3 provides a foundation for future research, beginning with empirical examination of the multilevel application of our framework to a whole-of-society view. Our findings provide strong support for the application of our framework to multiple levels of society—including networks, essential businesses, governments, organizations, communities, and individuals—and future empirical research to test this framework would strengthen this suggestion. The success of the multilevel response during COVID-19 (Kuhlmann & Franzke, 2022) can be attributed to the ability of local action to immediately reduce local risk in local systems. The magnitude and intensity of local risk motivated society's spontaneous activation as local action could have an immediate positive impact—for example, providing vital assistance to vulnerable neighbors (Mao, Fernandes-Jesus, Ntontis & Drury, 2021). In comparison, the impact of local actions to address other, more chronic, disruptions, like climate change, are obscured by some high-profile national policies, practices, and politics (Banerjee, 2018; Dodd, Butterfield, Davies, Furbo, Morris & Brown, 2023), and undermine resilience ambitions.

Furthermore, although academic and policy literature provide broad geographical scope, this framework would benefit greatly from application in diverse societal contexts. Future research should explore the processes that successfully support cross-sector partnerships in their design, implementation, management, and evaluation of strategy for whole-of-society resilience. This includes processes to identify strategic cross-sector partners, which essential businesses require to collectively agree the vision, aims, and objectives that will inform the strategy to operationalize whole-of-society resilience to disruption as a capability. Research should also explore the nature of those partnerships to coproduce governance arrangements for the implementation and management of, and the process for evaluating, whole-of-society resilience to disruption.

Enacting whole-of-society resilience will challenge which essential businesses, partners, and people in society are involved; their motivations; how power dynamics influence direction and outcomes; and how conflicting priorities are addressed (Brinkerhoff & Brinkerhoff, 2011). Thus, three further lines of inquiry emerge in this respect: the extent to which collaboration across networks, essential businesses, government, organizations, communities, and individuals is enabled; whole-of-society resilience modes of collaborative governance; and how shared responsibility is distributed, managed, measured, and accounted for (Genik & Godsoe, 2015). Finally, future research should examine the processes that support essential needs in this endeavor by examining how local strategy translates into targeted activities; for example, questioning: By and for whom are whole-of-society resilience practices initiated? Which businesses are deemed essential by society? How is the interdependence of essential businesses and society prioritized in whole-of-society resilience? How are essential needs identified and what inequalities are evident in this respect? The way in which these questions translate through whole-of-society resilience design and implementation will determine whether whole-of-society resilience has a substantive impact on the resilience of essential businesses and society.

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