

RESEARCH ARTICLE

Business accountability in the Anthropocene

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Email: janina.grabs@esade.edu**Abstract**

The arrival of the Anthropocene requires a profound rethinking of business accountability. A central challenge in this age is the possibility of pushing past planetary boundaries, which may irreversibly propel the Earth system into a new equilibrium that is less hospitable for human civilization. Businesses drive many of the processes contributing to such boundaries, and are powerful political actors who may shape or obstruct the necessary transformations to our socio-economic systems. We therefore need to reconsider their accountability, focused on the following guiding question: Who (in business) should be accountable to whom for what? The answer to this question has important implications for environmental policy and governance. Drawing on a range of recent conceptual and policy developments, I present four major lines of thinking for reconsidering business accountability in the Anthropocene context: to rethink the purpose of business; to acknowledge companies' expanded but shared accountability for productive activities; to heighten collective and individual liability for past and future actions linked to overshooting planetary boundaries; and to recognize business accountability for influencing political and societal processes. Each of these lines of thinking imply policy changes related to, inter alia, corporate governance, due diligence, liability, and lobbying laws. I further call on businesses to actively participate in the large-scale transformation necessary to keep within planetary boundaries by changing not only their production processes, but also product portfolios, business models, legal forms, and political and societal engagement; and highlight avenues for future research.

KEYWORDS

accountability, Anthropocene, businesses, corporations, environmental management, planetary boundaries

1 | INTRODUCTION

Current generations live in the Anthropocene—a new geological age in which many conditions and processes on Earth are profoundly altered by human impact (Anthropocene Working Group, 2022). Humanity's outsized influence on the planet might

push the Earth system past planetary boundaries, and propel it into a new equilibrium that is less hospitable for human civilization (Steffen, Richardson, et al., 2015). This danger calls for wide-reaching changes in our economic and social organization, with consequences for individual, political, and economic actors (Biermann et al., 2012).

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Some scholars suggest naming the epoch Capitalocene to highlight that capitalism, rather than humanity per se, lies at the origin of our current ecological crisis (Moore, 2017). While the structural elements of capitalism are powerful in shaping values, perceptions, and actions, this article focuses on the *actors* in the capitalist system: businesses, alongside policy makers that shape the legal playing field and civil society actors that provide businesses with the social license to operate. Much of the human production and consumption behavior that affects planetary boundaries is driven by and through business activity (Sjåfjell & Taylor, 2019). International institutions such as the United Nations have recognized that “businesses are also duty-bearers” and must “be accountable for their climate impacts and participate responsibly in climate change mitigation and adaptation efforts with full respect for human rights” (Seck, 2021; OHCHR, 2015, p. 4). The same is true for businesses’ impacts on other planetary boundaries such as land use change, nitrogen and phosphorus pollution, and the introduction of plastics and other novel entities into the biosphere.

In consequence, the arrival of the Anthropocene requires a rethinking of business accountability. Without it, businesses may act in accordance with past accountability expectations, but still contribute to planetary harms if their accountability is to the wrong account-holders or for an insufficient range of actions. Accountability discourses and practices shape the organizational view of the self and other (Black, 2008), and even fundamentally shape the “normative conceptions of what it is to be an ‘actor’” in a system with specific responsibilities (Boström & Garsten, 2008, p. xv). Novel accountability relationships thus hold the potential for a fundamental reform of the relationship of businesses with societal actors and the natural environment. This has profound consequences on how businesses should—and likely will—act in the future in response to stakeholder demands and corresponding changes in regulatory and legal systems.

While much contemporary analysis and critique is focused on corporations and ‘corporate accountability’ (Albareda, 2008; Brennan & Solomon, 2008; Clapp, 2005; Evans, 2020; LeBaron & Rühmkorf, 2019; Parsa et al., 2018; Ryngaert, 2018), in this article I will refer to ‘businesses’ or ‘business enterprises’ to capture a wider group of for-profit actors which may range from small and medium enterprises to multinational corporations. I do this for two reasons: First, to underscore that alternative forms of business and governance models exist other than the corporation, many of which may be more amenable to future economic organization in the Anthropocene. Second, to highlight that there is—to use the language of the United Nations Framework Convention on Climate Change—a common but differentiated responsibility of both large and small actors to contribute toward economic transformation. The scope of business accountability tends to be seen as proportional to their size and power in their respective industry; but small actors are not exempt, and indeed often model exemplary and innovative ways of responding to accountability demands.

I build upon multiple strands of literature to answer the following question: *Who* (in business) should be accountable to *whom* for *what* in the Anthropocene? Given the interdisciplinary nature of the issue, I

first conducted a critical review of current developments in the accounting, business ethics, regulatory governance, and legal literatures. I focused on developments in the past decade (2012–2022), situating us after the original Planetary Boundaries framework was developed in 2009 (Rockström et al., 2009). A critical review “presents, analyses and synthesizes material from diverse sources,” “includes a degree of analysis and conceptual innovation,” and presents as a result “a synthesis of existing models or schools of thought or [...] a completely new interpretation of the existing data” (Grant & Booth, 2009 p. 93). To do so, I combined a range of keyword searches concerning (business) accountability, the Anthropocene, and environmental and social (business) responsibility with a snowballing approach of reviewing the reference lists of relevant articles as well as pieces citing those articles. I further solicited feedback from colleagues in adjacent disciplines to identify potential omissions and subsequently integrated them. As the purpose of a critical review is not to provide a systematic overview of all extant literature, but rather to take stock of previous achievements, identify (and possibly resolve) competing schools of thought, and provide conceptual innovation, its search criteria are less formal and structured and the resulting product aims to provide a “starting point for further evaluation, not an endpoint in itself” (Grant & Booth, 2009, p. 97; Paré et al., 2015).

In the case of this piece, the critical review serves as the starting point for a broader normative argument that four lines of (re-)thinking can serve to clarify business accountability in the Anthropocene: (1) The definition of a new purpose of business; (2) the idea of expanding but shared accountability for productive activities along supply chains and business networks; (3) the application of collective as well as individual liability for environmental harms; and (4) the recognition that accountability also applies to businesses’ non-productive activities, especially concerning their influence on consumption culture and politics. Each of these lines of thinking has profound policy and governance implications, as a new set of regulatory tools is necessary to hold businesses to account in this way—some of which are already being developed.

Taken together, they define novel accountability relationships that move beyond businesses’ primary accountability to owners/shareholders, including introducing *accountability to society and nature as a whole*; questioning who should be accountable within the business, moving toward *strengthened accountability of individual managers and owners*; and *expanding the scope of business accountability*, moving beyond past actions by the company itself to include accountability for actions by supply chain partners, likely future impacts of the status-quo business model, and political activities. I argue that existing developments in these directions are important and desirable steps on the path to re-embedding economic activities within planetary boundaries and social needs.

In the remainder of this article, I proceed as follows. I first introduce a multidimensional conceptualization of business accountability that provides a way to explore the concept from an interdisciplinary perspective. I then describe the Anthropocene and businesses’ important role within it, which justifies a rethinking of their accountability in this new context. The following sections introduce the four lines of

thinking alongside their policy implications. The discussion summarizes my answer to the question at hand (*who* [in business] should be accountable to *whom for what* in the Anthropocene), and suggests future steps to follow for policy-makers, businesses and researchers.

2 | CONCEPTUALIZING BUSINESS ACCOUNTABILITY

The concept of accountability is notoriously amorphous and multifaceted (Joss, 2010; Mulgan, 2000; Sinclair, 1995). Not only is it used in a variety of disciplines ranging from accounting to global governance, it is also often given implicit and context-specific meanings (Koppell, 2005; Macdonald, 2014). To combat the conceptual fuzziness extant in the literature, Koppell (2005, pp. 94–95) developed a framework that “establish[es] a typology of the dimensions of [organizational] accountability that are generally referred to in both popular and academic use.” While its original purpose was to assess public institutions, this framework provides a useful entry point to structure the ways various literatures have thought about business accountability in the past, and to think through changes relevant to an Anthropocene context.

Koppell (2005) distinguishes the following five dimensions, and associated questions that may be asked when assessing an organization's accountability:

- Controllability: Did the organization do what the principal desired?
- Responsiveness: Did the organization fulfill the substantive expectation (demand/need)?
- Transparency: Did the organization reveal the facts of its performance?
- Responsibility: Did the organization follow the rules?
- Liability: Did the organization face consequences for its performance?

Historically, we can find three dominant strands of business accountability research in the literature, which can be associated with the five dimensions mentioned above.

The business ethics and corporate social responsibility literature tends to be most concerned with the *controllability* and *responsiveness* of businesses, and thus focuses on accountability relationships in particular accountability spaces (Black, 2008; Dubnick, 2011). A central debate is known as the shareholder versus stakeholder management question (Pedrini & Ferri, 2018). Corporations are typically conceptualized as a nexus of contracts in which managers are agents acting on behalf of—and being accountable to—the shareholders as their principals (Veldman & Jansson, 2020). Given this perceived primacy of shareholder interests, and shareholders' perceived interest in profit maximization, scholars have hotly debated to what extent managers can move beyond their fiduciary duty to shareholders and also be responsive to the demands of societal stakeholders (Freeman et al., 2007; Jensen, 2002; Marcoux, 2003). Normative stakeholder theory has

stressed that firms should pay attention to a wide range of societal actors when making managerial decisions, avoid giving primacy to one stakeholder group over another, and balance stakeholders' interests as “stakeholder interests go together over time” (Dunham et al., 2006; Freeman, 1984; Freeman et al., 2007, p. 52; Laplume et al., 2008). Who qualifies as stakeholder is contested, with some authors taking a very narrow conception while others have even included trees and other parts of the natural environment as relevant stakeholders (Driscoll & Starik, 2004; Laplume et al., 2008; Phillips & Reichart, 2000; Starik, 1995). CSR research has further investigated how firms can communicate their social commitment to the audience of societal stakeholders by engaging in Corporate Social Responsibility activities ranging from philanthropy to a wide variety of voluntary social and environmental measures, and documenting these actions via social and sustainability reporting (Naciti et al., 2022; Shabana et al., 2017; Tamvada, 2020).

However, the enduring legacy of the shareholder primacy assumption has led much of the management literature to continue searching for win-win solutions (such as identifying when being green pays off or defining shared value) and skirt the question on what to do when stakeholder demands by definition require lower economic returns (Carroll & Shabana, 2010; Porter & Kramer, 2011; Van der Byl & Slawinski, 2015; Wang et al., 2020). Even most stakeholder theory literature tends to be vague on clear prescriptions of how to manage trade-offs between stakeholder demands in practice. The theory's leading proponent, Freeman, for instance writes “where stakeholder interests conflict, the executive must find a way to rethink the problems so that these interests can go together, so that even more value can be created for each” (Freeman, 2007, p. 14).

The accounting literature tends to interpret accountability through the lens of *transparency* and, to a certain extent, *responsibility*. Accounting scholars' traditional starting point has been how to best achieve corporate accountability to shareholders, and thus focused on financial reporting (Brennan & Solomon, 2008). The literature subsequently widened out to include social and environmental accounting, which is used to generate “flows of information in which those controlling the resources provide accounts to society of their use of those resources,” with the overall goal of contributing to accountability as “the duty to provide an account (by no means a financial account) or reckoning of those actions for which one is held responsible” (Gray et al., 1996, pp. 37–38). In this framing, there are three essential components of social accountability: accounting, auditing, and reporting (ISEA, 1999). The generation of information and greater transparency about the organization's impacts is hypothesized to influence leaders to set targets to decrease those impacts, and help them track the progress in attaining such targets over time—a process known as ‘information inductance’ (Andersen et al., 2021; Gray et al., 1996; Prakash & Rappaport, 1977).

The political science and legal literatures tend to address business accountability from the perspective of *responsibility* and *liability*. Scholars of public administration examine to what extent businesses demonstrate accountability to the public by complying with



command-and-control, market-based, and other types of legislation, and have aimed to identify appropriate policy mixes and governance regimes (Lehmann, 2012; van den Bergh et al., 2021). Global governance and international political economy scholars have drawn attention to the mismatch between the boundary-spanning activities of multinational corporations and national-level legislation. Such legislation is further curtailed by regulatory competition downward by host countries aiming to attract foreign direct investment, while robust inter-governmental collaboration on the issue is lacking (Clapp, 2005). These mismatches led scholars to identify severe accountability gaps of (transnational) corporations (Koenig-Archibugi, 2004), to the extent that “not much remains of the accountability of market forces to political constraints” (Strange, 1996, p. 197). The proliferation of self-regulation via standards and codes of conduct in response to these accountability gaps has also drawn academic interest (Albareda, 2008). A leading question in this regard is whether private regulatory governance is able to substitute for or complement public policy in controlling businesses’ environmental and social impacts and re-establishing public accountability (Grabs et al., 2020). In addition, the accountability of private standard-setters themselves has been increasingly put into question and assessed (Arnold, 2020; Bäckstrand, 2006; Curtin & Senden, 2011; Gulbrandsen, 2008; Koenig-Archibugi & Macdonald, 2013).

The legal literature, in turn, has been most concerned with retrospective (as opposed to prospective) accountability and the legal liability of businesses for past transgressions. In the environmental realm, this is in line with the polluter-pays principle (Larson, 2005); in business and human rights, this relates to access to remedy where harm was caused, *inter alia* via state-based and non-state grievance mechanisms (United Nations, 2011). While environmental regulation and litigation both aim at the goal of deterrence of environmental harms done by companies, litigation-based approaches—in particular, civil liability and tort law—furthermore have the element of corrective justice in which victims of harms are entitled to appropriate redress (Schroeder, 2001). Case law experience however shows that it is not easy to access such redress in practice. This is due, *inter alia*, to the difficulties in accessing a court system with jurisdiction over the companies in question, challenges in establishing the legal standing of plaintiffs, problems in quantifying the damage and proving corporate liability, and issues in actually receiving awarded damages before companies enter bankruptcy proceedings or dissolve (Abate, 2019; Martin & Landman, 2020).

Collectively, these contributions draw a sobering picture. In it, businesses perceive themselves to be primarily accountable to their owners and shareholders; accountability to other stakeholders is only taken seriously if there are no goal conflicts with shareholder aims; public accountability is limited due to inadequate national and international legislation; private regulatory systems are unable to fill the accountability gap; and *ex-post* access to justice and remedies through court systems and non-state grievance mechanisms is a long and difficult road. These accountability gaps are particularly worrisome in an era where human actions, channeled through business activity, are rapidly destabilizing our Earth system: the Anthropocene.

3 | THE ROLE OF BUSINESSES WITHIN THE ANTHROPOCENE

While there continues to be contention about the exact starting point of the Anthropocene (Lewis & Maslin, 2015), its representations and implications (Lundershausen, 2018), and its name (Haraway, 2015), there is broad scientific agreement on the major feature of this environmental and geological period of history: the fact that human (economic) activities, rather than natural events, have become the main drivers of Earth system changes due to humanity’s intensified use of resources and material throughput. Since the start of industrialization, and particularly after 1950, the rapid rise in global Gross Domestic Product (GDP) is correlated with a ‘Great Acceleration’ in other Earth system indicators such as the concentration of greenhouse gases in the atmosphere, the level of ocean acidification, marine fish capture, tropical forest loss, and terrestrial biosphere degradation (Steffen, Broadgate, et al., 2015).

Many of those indicators form part of the nine planetary boundaries developed by researchers at the Stockholm Resilience Center (Rockström et al., 2009). These boundaries—including climate change, biosphere integrity, freshwater use, land-system change, and pollution levels—define the safe operating space for humanity, according to the best scientific evidence to date (Persson et al., 2022; Steffen, Richardson, et al., 2015; Wang-Erlandsson et al., 2022). Transgressing those boundaries, or tipping points, risks kickstarting self-reinforcing and irreversible changes to our Earth system’s functioning, leading to a new state that may be much less hospitable to human civilization (Steffen, Richardson, et al., 2015). The precautionary principle suggests that it is of utmost importance to minimize the anthropogenic perturbations to these critical Earth system processes.

Given that the current perturbations are the outcome of an economic process that started with industrialization (or, some would argue, with the European colonization of the Americas) and culminated in the globalized neo-liberal economy of the early 21st century, protecting planetary boundaries requires a fundamental reorganization of our economic system, alongside deep governance reforms (Biermann et al., 2012; Moore, 2017). Degrowth scholars, for instance, argue that reducing the material throughput of our economy is of utmost priority to ensure planetary stability; and that post-growth economies should be designed around maximizing wellbeing at lower energy and material throughput levels than at present (Fioramonti et al., 2022; Hickel et al., 2021; Hoekstra & Wiedmann, 2014; Kallis et al., 2020; Nesom & MacKillop, 2021; Vogel et al., 2021; Wiedmann et al., 2020). Raworth (2017) similarly argues for changing the goal of our economy by moving from a focus on GDP growth to meeting the needs of all people within the means of the living planet. This can only be done by rethinking other aspects of the economy, including moving toward economic models that are distributive and regenerative by design.

Business enterprises—which may range from small and medium enterprises to multinational corporations—play an essential role in this

process. They are the locus of the vast majority of production processes of the goods and services that circulate in our economy and are consumed by individuals (Folke et al., 2019). Transnational supply chains drive great amounts of deforestation, environmental degradation, and biodiversity loss, particularly in the Global South (Lambin et al., 2018; Pendrill et al., 2019). Compared to other actors, businesses consume the majority of resources and are also leading emitters of pollutants that threaten our Earth system (Heede, 2014). It is estimated that the industrial and commercial sectors account for over 60% of total energy use worldwide (EIA, 2021); the agriculture sector is responsible for 92% of global water consumption (Hoekstra & Mekonnen, 2012); and 13 corporations control 19%–40% of the most valuable fish stocks (Österblom et al., 2015). Businesses have thus been identified as ‘keystone actors’ for reducing fossil fuel use (Stern et al., 2016), promoting global water security (Sojamo & Archer Larson, 2012), and managing sustainable marine ecosystems and biospheres (Österblom et al., 2022).

Businesses' decisions on what to produce and put on the market also critically shape consumers' choice environment (Gunn & Mont, 2014), while societal culture, in particular ideas of desirable lifestyles, is decisively influenced by advertising (Galbraith, 1958). Finally, businesses—especially large transnational corporations—hold high political influence in many countries around the world and are important actors in global environmental governance (Falkner, 2008). Decisions made at the company level on levels, intensities, and forms of production thus have an outsized impact on the size and shape of our global economy. This draws our attention to the need for a renewed look at the accountability of businesses in this era, as changing accountability relationships and practices ultimately will lead to different norms, expectations, and actions of businesses that could reduce the human impact on the planet in important ways. In the following, I summarize the results of the critical review by outlining four lines of (re)thinking business accountability in the Anthropocene.

4 | LINE OF RETHINKING 1: A NEW PURPOSE FOR BUSINESS IN THE ANTHROPOCENE

One way of determining who businesses should be accountable to is to use a *controllability* lens, which is closely intertwined with the question of businesses' ultimate purpose and resulting corporate governance structures. It asks: Who should be the principal of the organization? Should it be the shareholders—or maybe society as a whole? The answer to this question, in turn, has profound implications for the *responsiveness* dimension of accountability, as it defines whose substantive expectations, demands, or needs should be fulfilled. This area represents a first trend where we see notable rethinking in progress.

In 2019 the Business Round Table, made up of the Chief Executive Officers (CEOs) of the United States' largest corporations, overturned a 22-year-old policy statement that defined a corporation's principal purpose as maximizing shareholder return. In its place, the

Round Table members adopted a new Statement on the Purpose of a Corporation declaring that companies should serve not only their shareholders, but also deliver value to their customers, invest in employees, deal fairly with suppliers and support the communities in which they operate (Business Roundtable, 2020). While this may seem little more than cheap talk, it does signal that there is increasing concern with re-defining the purpose and accountability relationships of businesses (Ilmonen, 2021). A number of scholars take up this concern, arguing that “the purpose of business is to solve the problems of people and planet profitably, and not profit from causing problems” (British Academy, 2019, p. 16). Some draw on ideas of Polanyian embedded capitalism by arguing that “the purpose of the firm should be to support the flourishing of the society in which it is embedded” (Henderson, 2021, p. 840). Sjöfjell and Taylor (2019, p. 62) make most reference to an Anthropocene framing by suggesting that a redefined corporate purpose, as enshrined by corporate law, should be “creating sustainable value¹ within the planetary boundaries while respecting the interests of its investors and other involved parties.” Such reframing implies the “displacement of the social norm of shareholder primacy with a legal norm of sustainable value creation” (Sjöfjell & Taylor, 2019, p. 62), and thus a fundamental reordering of accountability relationships.

Implementing such a reframing in practice likely requires a fundamental change of regulation and corporate law, as well as shifts in corporate governance, ownership, financing, investing, performance definition, and measurement (British Academy, 2019). At the moment, the dominant principal-agent theory of corporate governance awards corporations, in particular their absentee shareholders and executive managers, considerable capacities and protections. In contrast, other stakeholders bear most costs and risks resulting from companies' activities (Ciepley, 2013; Veldman & Jansson, 2020). Shareholders' liability is commonly reduced to the money the investors put into the company (Sjöfjell & Taylor, 2019), while executives are very rarely held personally accountable for the long-term impacts of decisions taken in office (Quinn, 2019). In this way, the incentives for the most powerful decision-makers in the company—managers and owners—are aligned to promote decisions focused on ignoring externalities in favor of short-term returns (Galperin & Kysar, 2020; Schroeder, 2001).

Policy reforms in the ambit of corporate law could remedy this imbalance. A first step into the direction of such policy changes has been the development of corporate law defining new types of for-profit business entities which are “legally required to create public benefit while simultaneously seeking to give their investors decent returns” (Henderson, 2021, p. 846). Most often such entities are denoted as benefit corporations, though they may also be called public benefit or social purpose corporations. Developed in part due to

¹Sustainable value would be conceptualized as “(a) environmentally sustainable in that it ensures the long-term stability and resilience of the ecosystems that support human life (for which the important outer limits are explicitly set as being ‘within the planetary boundaries’), (b) socially sustainable in that it facilitates good governance, the respect and promotion of human rights and other fundamental social rights, and (c) economically sustainable in that it generates wealth and work in a way that satisfies the economic needs necessary for stable and resilient societies” (Sjöfjell & Taylor, 2019, p. 62).



the advocacy of the B-Lab, a third-party certification scheme aiming to recognize businesses with high social and environmental performance, such law now exists in 35 U.S. states as well in Italy, Colombia, and the Canadian province of British Columbia (B Lab, 2022). In the UK, the community interest company model pursues similar aims (Cho, 2016).

A number of other legal forms and business models exist which run counter to the shareholder primacy norm, including low-profit limited liability companies, flexible purpose corporations, and other forms of social enterprises and hybrid businesses (Davies & Chambers, 2018; Hiller, 2013; Murray, 2012). Employee-owned businesses and cooperatives are not reliant on external shareholders expecting short-term returns (Schneider, 2018); and start-ups are increasingly considering 'exiting to community' rather than selling out to the highest bidder (Alleyne et al., 2020). Innovative enterprise design, particularly around more community and cooperative (what Kelly calls *generative*) ownership architecture, can thus be an important avenue of change (Kelly, 2013).

This new ecosystem of alternative business models seem to fit the demands of the changing accountability landscape better than past models; and businesses who move into such models—especially those that include distribution of profits by design—are in a particularly good place to ensure that they respect planetary boundaries while fulfilling societal needs (Raworth, 2017). Still, critics note that not all current legal forms have sufficient monitoring to ensure that businesses actually act upon their commitments to stakeholders. In particular, benefit corporation status may be used more as a marketing tool, and may be subject to business model-greenwashing unless coupled with strict third-party oversight (Cho, 2016). In addition, the current policy landscape only allows businesses to voluntarily strengthen their stakeholder accountability, rather than mandating it by law (Murray, 2012).

Farther-reaching steps include a revival of the corporation as a single legal entity (rather than a nexus of contracts) which has both privileges and responsibilities (Veldman & Jansson, 2020). In such a setting, the corporate board would act as agent of the corporate entity (and its respective aims and duties), rather than the shareholders only. This opens up discretionary space to executives and the corporate board to consider the interests of societal stakeholders and act upon their accountability toward them, including the creation of sustainable value within planetary boundaries (Sjåfjell & Taylor, 2019; Veldman & Jansson, 2020). Others suggest to enshrine directors' duties to ensure sustainable value creation in law and making such duties publicly (rather than privately) enforceable (Quinn, 2019), or to redefine the duties of shareholders and investment professionals to include "a duty to demonstrate engagement [with corporate management] on grounds of public long-termist interests" (Barnett & Peura, 2022; Chiu & Katelouzou, 2017, para. 7.04; Strine, 2019). A number of such proposals are currently studied at the EU level (Ilmonen, 2021).

These proposals comprehensively would shift the controllability of firms, moving from a (perceived) dominance of shareholders as principals toward a broader group of societal principals that managers

and owners are accountable to (Henderson, 2021). In sum, a first manner of reconsidering business accountability in the Anthropocene is to rethink the purpose of business as well as who it is mainly accountable to, and to change business law, corporate governance, and enterprise design in consequence.

5 | LINE OF RETHINKING 2: EXPANDED BUT SHARED ACCOUNTABILITY FOR PRODUCTIVE ACTIVITIES

Such changes in whom business should be accountable to subsequently lead us to think about shifts in the range of actions that companies need to be accountable *for*. This has consequences both for the *transparency* dimension (what facts should the company reveal?) as well as for the *liability* dimension of accountability (what types of performance should lead to consequences for the organization?). To date, business accountability has tended to focus on businesses' internal operations. Social and environmental accounting systems traditionally measure the overall and per-unit resource use of company activities as well as related social indicators. Similarly, corporate liability focuses on accidents or actions done by the company (e.g. expropriation of land or accidents resulting in pollution) (Larson, 2005; United Nations, 2011).

However, the rise of the Anthropocene changes this approach in important ways, as companies' pursuit of business as usual (even in the absence of accidents or legal non-compliance) is contributing to the rapid surpassing of planetary boundaries, and much of the associated environmental and social impact has been outsourced to actors in companies' supply chains. Despite the complex causal links between company activities and resulting impacts, it stands to reason that not all actors are equally responsible, and that greater power in the market—and profits from environmental resource use—should come with greater responsibility. This is the position of scholars that pursue ever-refined methods to attribute specific emissions (or other units of environmental degradation) to specific organizations. Recent advances in historical climate attribution science (Burger et al., 2020; Heede, 2014) aim to identify the sectors and specific companies most responsible for the carbon accumulated in the atmosphere. Such attribution science is crucial for attributing retrospective accountability and liability in climate litigation cases (Verheyen, 2015).

In a similar vein, Life Cycle Analysis approaches aim to generate more fine-grained accounts of how to attribute various environmental impacts to the supply chain of companies involved in the production process (Ryberg et al., 2016). Of particular interest is the development of consequential life cycle inventories which emphasize "quantifying the consequences of a decision" and thereby take into account how changes—for instance, in corporate demand patterns—will change environmental burdens at the margin (Brander et al., 2019, p. 514; Weidema et al., 2018). These technical issues have fundamental implications regarding the social responsibility of business actors, given that a consequentialist approach assumes that "responsibility extends to actions that could have been taken but were not, and also to

actions by others that could have been prevented, but were not” (Brander et al., 2019, p. 517). Given that climate change and the transgression of other planetary boundaries progress in our current business-as-usual scenario, such accountability for inaction (in preventing harmful practices) is of acute concern.

Such an approach is furthermore an important step toward seeing business actors as part of an interdependent, complex system that still recognizes actors' ability to make changes in those systems. A related development is the realization that environmentally harmful practices are not just the responsibility of a single company, but occur in a business ecosystem. In response, businesses—particularly those at highly concentrated nodes of global supply chains—have progressively been held accountable for developments (and associated emissions) happening within their value chains and business networks (Accountability Framework, 2019; Grabs et al., 2021; Hertwich & Wood, 2018). In accounting and reporting standards such as the Greenhouse Gas Protocol, companies are increasingly encouraged to take into account Scope 3 emissions, which refer to “all other indirect emissions that occur in a company's value chain” and tend to represent the majority of a company's impacts (Greenhouse Gas Protocol, 2011).

While this paradigm shift toward supply chain or joint liability began with voluntary commitments and pledges (Anner et al., 2013; Garrett et al., 2019), it is moving from soft to hard law with the proliferation of mandatory human rights and environmental due diligence legislation appearing at national and EU levels (ECCJ, 2020; Evans, 2020; Gustafsson et al., 2022; Schilling-Vacaflor & Lenschow, 2021; Weihrauch et al., 2022). Banks, institutional investors, and other financial actors are further held to account for their financing of activities that contribute to the transgression of planetary boundaries (Scholtens, 2017), with legislation such as the 2014 EU Non-Financial Reporting Directive and the 2022 UK Companies (Strategic Report) (Climate-related Financial Disclosure) Regulations increasingly mandating the corporate disclosure of climate- and sustainability-related information to inform and guide investments (Ameli et al., 2020; Jackson et al., 2020).

At the same time, the Anthropocene context implies that it is almost impossible to conclusively attribute causal responsibility for planetary and societal harms to single actors (Bebbington et al., 2019). This has led to renewed thinking on the sharing of accountability. In climate litigation, scholars have grappled with “how to allocate responsibility where multiple contributors to the harm may be identified and proof of causation is elusive” (Doelle & Seck, 2020, p. 676). There are several theories of liability that allow for shared accountability, including “contribution to risk (where multiple defendants contribute to the risk of harm but no single defendant can be proven to be the necessary cause), or market share liability (where responsibility is allocated according to the defendant's share of global emissions)” (Doelle & Seck, 2020, p. 676). The market share liability approach is particularly interesting for the case of business accountability as it tends to mirror economic power and resources that may be used to shift sectors into more sustainable pathways, or—conversely—obstruct change. The approach has been used to attribute

responsibility and financial liability for public health costs to leading tobacco companies in the past, opening up the possibility that similar legislation could come into play to hold fossil fuel companies liable for future climate change mitigation and adaptation costs incurred by governments (Olszynski et al., 2017).

This second line of rethinking business accountability thus simultaneously expands the accountability of businesses to include their supply chains, business networks, and consequences of their inaction, but also recognizes that accountability for harm may need to be shared among the firms of a particular industry or sector.

6 | LINE OF RETHINKING 3: HEIGHTENED COLLECTIVE AND INDIVIDUAL LIABILITY FOR PAST AND FUTURE IMPACTS

Tort law and expanded liability for environmental harm is increasingly seen as a powerful instrument to protect the environment because “by holding responsible parties accountable for the harm they cause, it provides both deterrence and corrective justice functions” (Phelps et al., 2019, p. 172). A rethinking of business liability in this way impacts both the *responsibility* and the *liability* dimension of accountability by redefining the rules that organizations have to adhere to as well as potential consequences of not complying.

While environmental litigation has historically focused on accidents and point-source pollution for which culpability is easy to determine, it has since expanded to climate litigation in which major fossil fuel companies are held accountable for climate change-related catastrophes (Abate, 2021; Ganguly et al., 2018; Seck, 2021). Though such attempts have faced similar challenges as other litigation-based approaches, changes in case law on who has standing as a victim of harm might shift the equation. In a number of countries, courts have recognized the rights and legal standing of nature irrespective of humans. For instance, in 2018 the Colombian Supreme Court recognized the Amazon River ecosystem as a subject of rights and beneficiary of protection (Bryner, 2018). The possibility of giving the environment legal standing opens up a much greater range of litigation than in traditional environmental lawsuits which require human plaintiffs to demonstrate that they suffered a concrete harm from the defendants' actions (Abate, 2019; Martin & Landman, 2020). Recent court cases have also substantially advanced the legal standing of children and future generations (see, for instance, legal victories in the Philippines, Netherlands, Colombia, and Germany) (Abate, 2019; BBC, 2022). Ganguly et al. (2018, p. 842) further identify rapid changes in the scientific, discursive and constitutional context of climate litigation which generate “new opportunities for judges to rethink the interpretation of existing legal and evidentiary thresholds for claimants to meet the burden of proof and apply them in a way that will enhance the accountability of private greenhouse gas (GHG) emitters.” It is foreseeable that such reasoning may soon also apply to other activities that threaten our planetary boundaries.

The heightened chance of Anthropocene-related litigation to succeed fundamentally changes the legal and financial risk landscape for



companies. Climate (and more broadly, Anthropocene) liability generally requires defendant companies to pay for the damages and associated costs caused by their past actions, particularly if they acted in the knowledge that harms were likely to take place (Seck, 2021). Following the example of tobacco companies which had to contribute to the public health costs that governments carried due to smoking-related diseases, carbon majors and major emitting companies may be asked to cover the public costs of governments rebuilding infrastructure after climate-related disasters or adapting their infrastructure in preparation for likely climatic changes (Olszynski et al., 2017).² Civic liability cases may require them to pay for losses and damages incurred by groups of individuals due to climate change (Doelle & Seck, 2020). Given that corporations currently have limited liability, though, it is likely that “defendants will seek bankruptcy protection before full compensation has been paid out—if any has been paid at all” (Doelle & Seck, 2020, p. 673). While this may prevent victims from receiving full redress, defendant companies entering bankruptcy proceedings may contribute toward dismantling corporate structures whose motive of existence is built around fossil fuel and environmental exploitation (Grasso & Vladimirova, 2020).

Another avenue currently under consideration is to make individual managers criminally liable for actions that are “sufficiently deliberate and morally opprobrious to be condemned as criminal by the international community” (Jodoin & Saito, 2011, p. 126). Some argue that fossil fuel CEOs should be charged for committing crimes against humanity by continuing to develop and exploit fossil fuel resources despite their knowledge of the likely climatic consequences (Gunderson & Fyock, 2021; Torcello, 2018). Given uncertainty over whether existing international criminal law might be interpreted in this way, a growing movement further aims to enshrine the crime of ‘ecocide’, defined as “the extensive damage to, destruction of or loss of ecosystem(s) of a given territory” as the 5th Crime against Peace, where it would join aggression, genocide, crimes against humanity, and war crimes (Higgins et al., 2013, p. 257). This would create new rules that “first, prohibit mass damage, destruction or loss of ecosystems, and second, impose a legal duty of care upon persons in positions of superior responsibility,” especially in corporations (Higgins et al., 2013, p. 264). Other scholars argue that individuals could be held accountable for crimes against future generations, defined as “acts or conduct undertaken in the present that have serious consequences in the present and that are substantially likely to have serious consequences in the future” (Jodoin & Saito, 2011, pp. 128–129).

In sum, both businesses as well as individual decision-makers within them are increasingly seen to be accountable for actions they took with knowledge of likely adverse environmental outcomes. If and when laws and court systems start to follow this reasoning, companies and their managers may be on the hook in both civil and criminal proceedings.

²It should however be noted that the continued centrality of fossil fuels to our current energy and economic system – which is much greater than the past importance of tobacco companies – means that despite the existence of a legal precedent, the political and legal dynamics in bringing fossil fuel companies to justice are likely to be much more complicated than in the precedent case.

7 | LINE OF RETHINKING 4: RECOGNIZING BUSINESSES' ACCOUNTABILITY FOR INFLUENCING CONSUMPTION CULTURE AND POLITICAL PROCESSES

Finally, we can rethink the requisite *transparency* of businesses to disclose their activities, their *responsiveness* to stakeholder and societal needs, as well as their *responsibility* for following rules, by considering the extensive activities they undertake that shape the social and political system more indirectly.

On the one hand, businesses shape the environment within which sustainable consumerism is possible. Even if consumers are willing to purchase more sustainable products, they rely on businesses to manufacture and sell options that fulfill those criteria (Gleim & Lawson, 2014). Consumers also rely on businesses to help them reduce waste by creating products that are repairable and recyclable, rather than products with built-in obsolescence which need to be replaced frequently (Polverini, 2021). Through advertising, businesses furthermore shape consumption decisions and aggregate demand, including generating new demand for hitherto unknown products. These actions, collectively, also influence culture and the notions of what it means to be a good consumer or high-status individual (Galbraith, 1958). Advertising may thus fuel overconsumption, but also shift demand into more sustainable directions or change the perceived desirability of certain products or lifestyles (Gossen et al., 2019).

There have been a number of recent policy initiatives aimed at enhancing business accountability for influencing consumption culture. After decades-long advocacy by consumer rights organizations and the European Parliament, the European Commission announced that it intends to introduce an effective ‘right to repair’ for consumers to combat planned obsolescence and foster the circular economy in the 2020–2022 work programs (Šajin, 2022). In 2021, Amsterdam became the first city in the world to ban advertisements from fossil fuel and aviation companies, and similar ‘Badvertising’ civil society movements exist in France, the UK, and the USA (Talbot, 2021). Here again, the model of tobacco promotion bans is used as precedence to justify the feasibility and relevance of legislative action (Rapid Transition Alliance, 2020). Some cities and US states have even banned billboards and outside advertisement completely (Rapid Transition Alliance, 2019).

On the other hand, whether via processes of political donations, lobbying, or due to institutionalized corporatist arrangements, political decisions today are strongly influenced by business interests, especially if such decisions create economic winners and losers (Clapp & Meckling, 2013; Hillman et al., 2004). Transforming the economic system in depth threatens the power and financial returns of many entrenched business leaders, who therefore oppose and block policy action of the scale that is needed to bring our economy within planetary boundaries (Downie, 2017; IPCC, 2022; Meng & Rode, 2019). Such interests are even wielded transnationally, for instance through investor-state dispute settlement mechanisms that create a ‘regulatory chill’ in a number of

countries for fear of having to pay out substantial lost profits to companies (Tienhaara, 2018).

Given the state of the planetary crisis, business lobbying for status-quo policy and against climate or environmental legislation carries extremely high social costs (Meng & Rode, 2019). In response, there is a growing sense that business accountability should also extend to the ways in which companies influence the political process. This may include a range of activities, from “lobbying against climate action domestically or internationally to funding others to undermine climate action” (Doelle & Seck, 2020, p. 676; Seck, 2021), as well as other types of corporate political activity that fall into the three broad categories of spreading information (to policy makers, experts, and reporters); providing financial incentives (to incumbent and prospective politicians, e.g. through campaign finance); and building constituencies in favor of companies’ preferred policies (both within the business world as well as among voters) (Hillman et al., 2004; Kolk & Pinkse, 2007). Examples of corporate political activity may include not just lobbying, but also “supporting think tanks, creating front groups, funding Political Action Committees (PACs) and super PACs, financing foundations, working through trade associations, participating in peak organizations, serving on advisory committees to government, and placing executives in administration roles” (Barley, 2010; Lyon et al., 2018, p. 16).

The UN Special Rapporteur is clear that “businesses should support, rather than oppose, public policies intended to effectively address climate change” (OHCHR, 2019, para. 72). We can extend this obligation to policies in general that accelerate a just transition to moving our economy into the safe operating space set out by the planetary boundaries. As businesses rely on regulation for defining the common playing field on the basis of which they then compete, removing corporate political activity that prevents changes in the legislative setting and providing business support for transformational policies is a key way in which businesses (as well as investors) can demonstrate their accountability to society in the context of the Anthropocene (Barnett & Peura, 2022; Meyer & Metzger, 2021). In this vein, management scholars have called for Corporate Political Responsibility, defined as “a firm’s disclosure of its political activities and advocacy of socially and environmentally beneficial public policies” (Lyon et al., 2018, p. 8), and argue that such activities should be integrated into company reporting, rankings and evaluations (Schendler & Toffel, 2011).

There are some indications that this is starting to happen, for instance, in the GRI Sustainability Reporting Standards or the OECD Guidelines for Transparency and Integrity in Lobbying. While there are also examples of business alliances for pro-climate and stronger environmental regulation (e.g., We Can Lead, or Business for Innovative Climate & Energy Policy), stronger action is still needed, particularly in the public policy arena—for instance via greater restrictions on lobbying access and more mandated disclosure of lobbying content. Lobbying regulation in North America and Europe to date has focused mainly on *transparency*, including the establishment of lobbyist registers and reporting obligations, without restricting the types or areas in which lobbying may happen (Holman & Luneburg, 2012). In many contexts, such registers were originally established to provide business interests with access to lawmakers rather than for the sake of

transparency, and thus were only voluntary in nature and functioned as ‘hall passes’ for lobbyists (Holman & Luneburg, 2012). To date, there are however few examples of legislative action to outlaw business influence on politics via lobbying outright, due inter alia to the perception that “without information, perspectives and proposals flowing from those who are governed, elected and appointed officials can often only dimly guess at what policies will advance the interests of those whom they are duty-bound to serve” (Holman & Luneburg, 2012, p. 78).

The fourth line of rethinking business accountability in the Anthropocene thus expands the scope of what businesses are accountable for to businesses’ non-market activities, particularly with regard to influencing consumer culture via advertising and influencing public policy via lobbying, and calls for greater regulatory action to curtail harmful influences in this realm.

Figure 1 summarizes the four lines of thought and presents normative and policy implications.

8 | DISCUSSION AND CONCLUSION: A CALL TO ACTION FOR POLICY-MAKERS, BUSINESSES AND RESEARCHERS IN THE ANTHROPOCENE

This article has argued that four lines of thought can serve to clarify business accountability in the Anthropocene: (1) The Anthropocene calls for a new purpose of business—to create sustainable value for society while respecting planetary boundaries. Underpinned by the requisite legislative changes to business and corporate governance law, such a new purpose could be furthered by alternative enterprise design and ownership architectures. (2) Given the important but diffuse environmental impacts of business ecosystems, businesses should hold expanded but shared accountability for productive activities along supply chains and business networks. (3) To change the corporate and personal costs of doing harm and appropriately hold perpetrators to account, collective as well as individual liability for environmental harms perpetrated by businesses should be enforced via legal avenues. (4) As businesses’ influence within the Anthropocene also extends to individual consumption behavior (via advertising) and political processes (via lobbying), they should also be accountable for such non-productive activities.

So, who (in business) should be accountable to whom for what? These proposals, collectively, suggest that in an Anthropocene context, businesses should be accountable to society or humanity (as a whole), both in the present and with regard to future generations. Progressively they may also be seen as accountable to nature. This accountability falls most to actors with the power to influence strategic decisions in the business, and therefore to managers as well as owners, which in public corporations means shareholders and their representatives on corporate boards. Given the recognition that impacts occur in business ecosystems, rethinking implies a widening of accountability—including to businesses’ supply chains and business networks, to consider business inaction, and to consider non-productive activities such as corporate political activity and to what

	Normative implication: Businesses should...	Policy implication: Requires...	Open (research) questions	
Controllability: Did the business do what the principal desired?	...Move from shareholder primacy toward having society as principal	...Novel corporate governance legislation	How can new principal-agent relationships be organized in an efficient and effective way?	Rethink the purpose of business
Responsiveness: Did the business fulfill the substantive expectation (demand/need)?	...Create sustainable value, fulfill a societal need or solve a societal problem while respecting planetary boundaries	...Novel corporate governance legislation	Can we define a hierarchy of stakeholders and expectations? How should contradictory societal needs be weighted against each other?	
Transparency: Did the business reveal the facts of its performance?	...Contribute to sustainability transitions via sustainable consumption opportunities and adjusting advertisement and lobbying strategies	...Stronger legislation on product sustainability, advertising, lobbying, and dispute settlement mechanisms	How can businesses contribute to a cultural shift to lower-impact lifestyles? How can lawmakers draw on the expertise of the business sector without losing control over legislation?	Accountability for cultural and political influence
	...Reveal facts about their entire supply chain and business networks, and consider impacts of inaction	...Mandatory reporting on scope 3 emissions; supply chain transparency and due diligence legislation	How can we ensure the accuracy of reporting and avoid under-, over-, or double-counting?	
Responsibility: Did the business follow the rules?	...Reveal facts about their non-productive activities, including political activity and lobbying positions	...Lobbying reporting legislation	How can transparency lead to changed business practices?	Expanded but shared accountability
	...Accept accountability for environmental and planetary harms they knowingly created, and avoid such harm	...Changing civic and criminal codes and creating new jurisprudence	How can businesses distinguish between harmful and non-harmful activities? Should there be a threshold of unavoidable harm? How would it be defined?	
Liability: Did the business face consequences for its performance?	...Follow rules on product sustainability and longevity; avoid cheating and greenwashing; follow advertising and lobbying rules	...Stronger legislation regarding product sustainability, advertising, lobbying, and dispute settlement mechanisms	How can compliance be enforced given commercial secrecy? How can affordability be assured for low-income consumers?	Heightened collective and individual liability
	...Be collectively accountable for the non-source pollution and environmental impact created by their operations, with responsibility distributed proportional to market share or economic power	...The introduction of new lawsuits and changing jurisprudence in civic cases	How can such accountability move beyond exemplary cases and be implemented on a broad scale?	
	...Be held financially liable for damages if they knowingly created environmental harm; decision-makers should be held criminally liable for the worst types of offenses	...Changing civic and criminal codes and creating new jurisprudence	What consequences are sufficient and proportional to serve the needs of the planet and support desirable futures?	

FIGURE 1 Five dimensions of business accountability and the normative and policy implications of the four lines of thought presented, alongside open (research) question.

extent these activities accelerate or hold back the necessary transformative processes—but also a diffusion of accountability across multiple actors via shared responsibility (cf. Macdonald, this volume). Such shared accountability might be implemented by holding businesses to account at a sectoral, rather than individual level, working through industry or sector associations and applying the principle of market share liability outlined above to incentivize industry-wide changes.

While all four lines of thinking are important, they are also interdependent. If we rethink the purpose of business and create new business forms, those new entities may also be more likely to lobby for additional progressive policy change. If we increase the accountability of companies for their supply chains and consequences of inaction, legal liability is more likely to take hold. While progress on any of those fronts is commendable, the four lines of thinking should thus be taken together as a whole and not seen in isolation.

As shown in Figure 1, such a shift in accountability relations has numerous implications for public policy. It requires changing corporate governance legislation to clarify companies' purpose and primary principal and make it easier and more attractive to create alternative business forms that champion co-ownership and profit distribution. Legislators should raise the bar on mandatory requirements on companies regarding product and portfolio sustainability as well as non-market activities such as lobbying. And legal codes should allow for the increasing liability of companies and their executives for environmental consequences to prevent further planetary harm.

How such legislative reform can come about goes beyond the scope of this article, though the example of the introduction of due diligence legislation is informative: Started via a concerted effort by civil society

actors at raising awareness and creating broad-scale coalitions at a country-level (e.g., in France and Germany), the introduction of legislation created a domino effect in neighboring countries and rapidly became elevated to an EU-level issue (Evans, 2020; Gustafsson et al., 2022; Weihrauch et al., 2022). Supranational legislation in turn helped to create an equal playing field that was supported by progressive business actors and may be mirrored in other jurisdictions. Drawing on supranational soft law such as the UN Guiding Principles on Business and Human Rights and OECD Guidelines for Multinational Enterprises added legitimacy and aligned legislative requirements with previously implemented voluntary business action (Gustafsson et al., 2022). The ongoing challenges in finalization and implementation of the due diligence legislation, however, also draws our attention to the fact that changing public policy on business action is a highly contested process and will require continued negotiation across political and stakeholder spectrums. This is likely to be the case for the proposals in this paper as well.

Fostering the four lines of rethinking outlined above, and moving them from their current (predominantly) academic origins into the societal mainstream, will thus require concerted action from a wide range of societal actors beyond businesses and business-related organizations. This may include the organization of bottom-up civil society campaigns that change public opinion and norms around business accountability; the top-down proposal and negotiation of legislation by politicians and its subsequent rigorous implementation by regulators; and the creation of case law and new legal precedents by judges, precipitated by small groups of individuals demanding the protection of their human rights. Equally important are changed expectations and reactions of other business stakeholders including customers,

employees, and financiers, who can withdraw their demand, labor, or financial support in response to businesses' lack of accountability. The examples given in the text highlight that such societal mobilization is starting to occur, particularly as part of the broader climate justice movement—even though such processes of societal transformation are also subject to many obstacles, first and foremost the threat of economic disruption and political opposition by powerful incumbent firms.

If we accept these lines of thinking, a question that follows is—what are businesses called to do in response? At their core, accountability tools—both retrospective and prospective—exist in order to move the behavior of accountable actors in line with the expectations of their account-holders (Schroeder, 2001). To date, the societal accountability of businesses—from the transparency, but also responsiveness dimensions—has mostly centered around companies' efforts to reduce the per-unit environmental burden of the products they produce, for instance by changing the production processes, input materials, and adopting circular economy principles (Di Vaio et al., 2022). The business and human rights perspective similarly focuses on preventing, accounting for, and redressing human rights violations as a consequence of business activities. This continues to be an important component of responding to Anthropocene accountability.

But, paraphrasing Phelps et al. (2019, p. 176), just as the Anthropocene pushes us to consider 'what are the futures that we want?' (Bai et al., 2016), prospective accountability further asks 'what do we need accountable actors to do (and stop doing) in support of the futures we want?' The recognition that there is a global carbon budget that we are rapidly exploiting, alongside other non-renewable resources and pollution sinks, requires us to move from focusing on per-unit emissions to a focus on total emissions and their reduction. Grasso and Vladimirova (2020, p. 175) distinguish two main duties for fossil fuel companies: the (retroactive) duty of reparation and the (prospective) duty of decarbonization, which entails "a large-scale transformation that carbon majors ought to undergo in order to reduce and eventually eliminate carbon emissions from their entire business model." The prospective duty can be broadened for the Anthropocene context to constitute a duty of businesses to *actively participate in the large-scale transformation necessary to keep within planetary boundaries*.

This duty suggests that companies not only make per-unit improvements, but that they also revise their product portfolio to focus on products and services that are less carbon- and environmentally intensive, and phase out others (Grasso & Vladimirova, 2020). Such changes are supported by the specter of impending liability lawsuits, and could be further supported by legally mandated phase-outs of the most harmful products toward more sustainable alternatives, as happened for CFCs and leaded gasoline (Abate, 2021). Beyond changing their product portfolio, companies that are currently struggling to take sufficient action due to shareholder primacy may also move in advance of changes to corporate law by focusing on changing their own governance structures, ownership, financing and business models to bring them in line with their societal accountability. Any such actions become easier the more the societal and legal

structures make this a mandatory component of contemporary business practices, which is why deep reforms of environmental policy as well as corporate law and governance are likely necessary for large-scale success. Businesses have a concurrent duty to support, rather than oppose, such policy reforms.

Finally, these new ways of thinking open up a range of new research questions that are outlined in Figure 1 pertaining to normative and practical concerns of defining societal priorities and sustainable value, ensuring accuracy of reporting and compliance with rules, and pursuing liability and consequentiality of firm actions beyond exemplary cases. How public policy at the requisite level of ambition can be introduced, enforced, and coordinated across national boundaries in order to have the desired effect is another promising area of research. Continuing this line of research is particularly important given the rapidly shifting governance and legal environment alongside the plurality of initiatives, civil society actions, and lines of scholarly thinking that are currently concerned with this issue.

For the same reasons, as well as due to the space limitations inherent in the article format, it is possible that I overlooked developments in other areas or did not cover corollary trends. As the aim of this piece is to launch a dialogue, future authors are encouraged to add to the identified lines of thought or add other perspectives. For instance, this article has mainly focused on lines of thought that take the current economic system—broadly—as a given. It would be useful for future work to further unpack the systemic elements at the heart of the Capitalocene framing and inquire whether and how business accountability is a useful concept when making wider-ranging, system-level critiques of capitalism. Additionally, this piece takes a Western framing of (business) accountability as its starting point and summarizes mainly developments in Western thinking on the topic. Alternative perspectives coming from different philosophical traditions and worldviews could enrich the debate considerably (cf. Woermann & Engelbrecht, 2019).

Are these lines of thinking unrealistic or impossible to achieve at scale? Would expanded business accountability create such a chilling business environment that it would stifle innovation, productivity, and progress? Not if this accountability is built around principles of proportionality, science-based knowledge, and the pursuit of sector-specific best practices. A gradual shift toward such renewed business accountability—as is already happening—includes focusing on the worst offenders first, companies who knowingly and willingly pursue business-as-usual and obstruct progressive policies despite their knowledge of catastrophic consequences at scale. It includes creating greater transparency and the need for justifications of unsustainable business practices, alongside verifiable progress toward improvements and accelerated innovation. But in many cases, we already have the knowledge of what sustainable business means, as well as technologies and practices to pursue it. What we lack is the impetus for businesses to follow suit—which a renewed casting of business accountability in the Anthropocene can give us.

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