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Redefining Agency Theory to Internalize Environmental Product Externalities. A tentative proposal based on life-cycle thinking

Redefining Agency Theory to Internalize Environmental Product Externalities.
A tentative proposal based on life-cycle thinking

Beate Sjåfjell[1]

1 Introduction

This chapter challenges the shareholder focus of the mainstream use of agency theory, and explores the possibility of redefining agency theory. The aim is to investigate the potential of *internalizing* environmental externalities of products. Economists define *externalities* as the external costs of an exchange in a market.[2] External costs related to a product exist when the product creates negative environmental consequences, when produced, transported, in use or when it is disposed of, which neither the manufacturer, nor the seller, nor the user is required or feels obligated to take into account.[3] Such a situation leads to over-production and over-'consumption', as well as unrestricted disposal of these products, with grave environmental effects that would not have taken place if these consequences had been internalized somewhere along the global value chain or life-cycle of the product.[4] I use *internalizing* in the strong sense here, meaning that the environmental consequences are integrated along the whole life-cycle of the product – from the design and to the recycling or disposal of the product. Internalization in the strong sense entails that products are designed, produced, transported, used, recycled, and/or disposed of in a way that the negative environmental consequences are mitigated as much as possible.[5]

The life-cycle thinking the aim of internalization in the strong sense requires, is reflected in the Circular Economy Package of the EU, and is in contrast to the linear business model on

[1] As the Project Coordinator of Sustainable Market Actors for Responsible Trade (SMART), with funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No 693642, I gratefully acknowledge its support. My warmest thanks to Eléonore Maitre-Ekern, for organizing the conference at which this chapter was presented as a working paper, to participants at the conference, as well as the SMART team for stimulating discussion, and to the editorial team for insightful comments to the draft of this chapter.

[2] R. Cooter and T. Ulen *Law and economics*, 4th ed., (Boston, Mass.: Addison-Wesley, 2004), pp. 44–45.

[3] N. Sachs 'Planning the Funeral at the Birth: Extended Producer Responsibility in the European Union and the United States' (2006) 30 *Harvard Environmental Law Review*, 51–98.

[4] Ibid. 'Consumption' is in quotation marks because the problem is precisely that many of these goods are not consumed, but thrown away, creating an environmental problem.

[5] As I discuss below, just being more environmentally friendly is insufficient – there are non-negotiable ecological limits to be considered, as is also implied in the Environment Action Programme to 2020, Decision No 1386/2013/EU of the European Parliament and of the Council of 20 November 2013 on a General Union Environment Action Programme to 2020 'Living well, within the limits of our planet', OJ L 354, 28.12.2013, 171–200.

which our economy has been based.[6] It is also in contrast to the fragmentation of the product life-cycle into the smaller spheres of responsibility of the numerous individual businesses that typically populate global value chains.[7] Indeed, finding out how to internalize environmental, social, and economic impacts of corporate activity is one of the most pressing and pervasive issues of our time.[8] This chapter concentrates on the environmental externalities (although much will be relevant also to social and economic issues).

In spite of all the business initiatives using a sustainability language,[9] status quo remains very much unchanged: 'business as usual' continues, and is a very certain path towards a very uncertain future. The dire status as regards the convergence of environmental crises facing global society is encapsulated in the concept of 'planetary boundaries', which was first identified in the ground-breaking article by Rockström et al. in 2009,[10] and updated and re-affirmed by Steffen et al. in 2015.[11] Planetary boundaries define global sustainability criteria for critical environmental processes that regulate the stability of the life-support systems on Earth, currently setting out nine parameters of the Earth system to indicate a safe operating space for humanity.[12] According to Steffen et al., human production and consumption is placing us in an increasing or high risk in relation to at least four of the boundaries: climate change, biosphere integrity (genetic diversity, with ongoing scientific discussion about alternative metrics of biological diversity),[13] land system change, and biogeochemical cycles (phosphorus and nitrogen).[14] The grand challenge of sustainability lies in securing the social foundation for humanity now and in the future while staying within planetary boundaries; in

[6] And indeed is increasingly reflected in EU policies; C. Dalhammer, 'The application of "life cycle thinking" in European environmental law: theory and Practice'. (2015) 12 *Journal for European Environmental & Planning Law*, 97-127 See further Chapter 2 in this volume: E. Maitre-Ekern, 'A Circular Economy for Products'.

[7] Eva Heiskanen, 'The institutional logic of life cycle thinking', *Journal of Cleaner Production* 10 (2002) 427–437

[8] Externalization of impacts of corporate activity entails that the corporation does not take responsibility for these impacts, see further below.

[9] See e.g. the approach of the World Business Council for Sustainable Development, available at wbcsd.org/Overview/Our-approach, and the SDG Business Hub, available at sdghub.com/

[10] J. Rockström et al., 'Planetary boundaries: exploring the safe operating space for humanity' (2009) 14 (2) *Ecology and Society*, available at ecologyandsociety.org/vol14/iss2/art32/ (last accessed 24 July 2015).

[11] W. Steffen et al., 'Planetary Boundaries: Guiding human development on a changing planet' (2015) 347 (6223) *Science*, available at sciencemag.org/content/347/6223/1259855.abstract (last accessed 24 July 2015).

[12] See, e.g., the UN General Assembly Secretary-General Synthesis Report 69/700, 'The road to dignity by 2030: ending poverty, transforming all lives and protecting the planet. Synthesis report of the Secretary-General on the post-2015 sustainable development agenda', A/69/700, (4 December 2014), p. 18, para 75: 'To respect our planetary boundaries we need to equitably address climate change, halt biodiversity loss', available at www.undocs.org/A/69/700 (last accessed 24 July 2015).

[13] A quantitative global analysis of the extent to which the proposed planetary boundary has been crossed, shows that across 65 per cent of the terrestrial surface, land use and related pressures have caused biotic intactness to decline beyond 10 per cent, the proposed 'safe' planetary boundary. The authors state that biodiversity intactness within most biomes (especially grassland biomes), most biodiversity hotspots, and even some wilderness areas is inferred to be beyond the boundary, adding that such widespread transgression of safe limits suggests that biodiversity loss, if unchecked, will undermine efforts toward long-term sustainable development'; T. Newbold et al., 'Has land use pushed terrestrial biodiversity beyond the planetary boundary? A global assessment' (2016) 353 (6296) *Science*, pp. 288–291, DOI: 10.1126/science.aaf2201.

[14] Steffen et al., 'Planetary Boundaries: Guiding human development on a changing planet'.

Kate Raworth's words: achieving a safe and *just* operating space for humanity.[15] Business contribution to meeting this grand challenge is vital.

The concept of planetary boundaries, or in EU terminology, 'limits of our planet',[16] thereby also sets the framework within which a discussion of internalizing environmental externalities should take place. 'Greener', or more environmentally-friendly, products, are not sufficient – we must reduce the environmental impacts enough to stay within planetary boundaries. This also underlines the need for a life-cycle approach, to transcend the fragmentation of responsibility for environmental impacts per corporation (or per country).[17]

This chapter deals with the corporation, the dominant legal form of doing business, including the development of new products, and of manufacturing and marketing them. Recent research has given us some insight into why corporations in aggregate behave in such an unsustainable way. The reductionist approach of the Chicago School of law-and-economics in this field has served to promote the detrimental social norm of shareholder primacy, where the primary – even the only – goal of corporations is to maximize returns for shareholders.[18] While progressive corporate law scholars have attempted to mitigate this effect,[19] the influence of these economic theories, or more correctly, postulates from them, have had much success in corporate law discourse (apparently greater than they have had in economics).[20] The influence of these ideas and the legal myths they have contributed to creating, of corporations as the property of shareholders and profit maximization as the legal duty of boards, can hardly be overestimated.

Because of the dominance of the mainstream use of certain law-and-economics theories, law-and-economics has had a tendency to be equated with shareholder primacy, so that a discussion of whether one is in favour of shareholders' primacy or has a broader perspective on the role of the corporation may be perceived as a question for or against law-and-

[15] K. Raworth, 'A safe and just space for humanity: can we live within the doughnut', discussion paper (Oxfam International, 2012), available at www.oxfam.org/en/research/safe-and-just-space-humanity, and M. Leach, K. Raworth and J. Rockström, 'Between social and planetary boundaries: Navigating pathways in the safe and just pathway for humanity', in *World Social Science Report 2013: Changing Global Environments*, pp. 84–90 (OECD, 2013), available at: www.oecd-ilibrary.org/content/book/9789264203419-en, DOI: 10.1787/9789264203419-en.

[16] Environment Action Programme to 2020, 'Living well, within the limits of our planet', OJ L 354, 28.12.2013, 171–200.

[17] Thereby not ignoring the significance of local impacts or the differentiation between planetary boundaries that are global in the sense that the impact depends directly on the magnitude of dimension, and those where the location of the changes matter, not just the overall magnitude. See T. Häyhäa, P.L. Lucas, D.P. van Vuuren, S.E. Cornell, H. Hoff, 'From Planetary Boundaries to national fair shares of the global safe operating space – How can the scales be bridged?' (2016) 40 *Global Environmental Change*, p. 60.

[18] Representative of this stream of research is e.g. Frank H. Easterbrook and Daniel R. Fischel, *The Economic Structure of Corporate Law* (London: Harvard University Press, 1991),

[19] From, e.g., L.E. Mitchell (eds.), *Progressive Corporate Law: New Perspectives on Law, Culture and Society* (Westview Press, 1995); via I. Lynch Fannon, *Working Within Two Kinds of Capitalism (*Hart, 2003), K. Greenfield, 'New principles for corporate law' (2005) *1 Hastings Business Law Journal* 87, to more recently e.g. C. Mayer, *Firm Commitment: Why the Corporation is Failing Us and How to Restore Trust in It* (OUP, 2013), and M. A. Welsh, P. Spender, I. Lynch Fannon and K. Hall, 'The End of the End of History for Corporate Law' (2014) Volume 29 *AJCL*, 147-168.

[20] I. Lynch Fannon, *Working Within Two Kinds of Capitalism (*Hart, 2003).

economics. However, law-and-economics is more than the dominant theories referred to in corporate law. Further, agency theory, which in its mainstream version is one of the dominant theories underpinning much of the current understanding of corporate law and corporate governance, has value beyond its current mainstream use. In the current situation, however, agency theory, in the dominant but rather limited and overly shareholder-focused variant, lends support to the social norm of shareholder primacy, which encourages the *externalization* of environmental and social impacts.

The mainstream version of agency theory takes as given that shareholders are the appropriate ultimate decision-makers in the corporation. However, shareholder primacy is a main barrier to corporate sustainability.[21] Together with insights into the nature of the shareholders and the rise of 'secret' agents and principals, this gives reason to question the legitimacy of the rise of the shareholders as corporate decision-makers. Additional questions are raised when what from a real-life point of view is one enterprise or business is split into various legal entities, with a further fragmentation of accountability, use of networks, and global value chains, contrary to life-cycle thinking.[22] Redefining agency theory for corporate law, as a tentative proposal for an analytical tool to find out how to internalize the environmental externalities of products, is a response to these concerns.

Section 2 introduces agency theory by explaining its usefulness in analysis of corporate law, and then presents the problematic nature of the mainstream use of agency theory in this context. Section 3 presents the tentative proposal for redefining agency theory. Section 4 concludes with reflections on the necessity of such a new approach in the context of the convergence of crises that we face.

2 The problem with (mainstream) agency theory

2.1 Why agency theory is useful to corporate law

Central to agency theory is the identification of potential conflicts of interests between decision-makers and those impacted by the decisions. In agency theory terminology, the decision-maker is the agent, and the person or entity on whose behalf the decision is made, the principal.[23] This makes agency theory highly relevant to corporate law, as the very nature of the corporation means there always will be decision-makers making decisions on behalf of and affecting others. The corporation is a legal entity – it cannot make any decisions or do anything else by itself. One of the defining aspects of the corporation across jurisdictions is

[21] Corporate sustainability may be defined as when a business in aggregate creates value in a manner that is (a) *environmentally* sustainable in that it ensures the long-term stability and resilience of the ecosystems that support human life; (b) *socially* sustainable in that it facilitates respect and promotion of human rights and of good governance; and (c) *economically* sustainable in that it satisfies the economic needs necessary for stable and resilient societies.

[22] Heiskanen, 'The institutional logic of life cycle thinking'.

[23] For this basic introduction to agency theory, I draw on J.W. Pratt, and R.J. Zeckhauser, 'Principals and Agents: An Overview' in J. W. Pratt and R. J. Zeckhauser (eds.), *Principals and Agents: The Structure of Business* ([Repr. with new introd. orig. publ. 1985], Boston, Mass.: Harvard Business School Press, 1991), pp 1–35.

accordingly that there is decision-making undertaken by or under the supervision of the corporate board. In all jurisdictions, although the number of levels and names of organs may vary, there is one or several boards and one or several levels of management. In this chapter, I refer to the corporate board generically, not distinguishing between the Anglo-Saxon system with one corporate board (single-tier), the approach typical of Continental-European jurisdictions with two boards (one focusing on supervision and one on management; denoted two-tier), or the Nordic approach with one board and management as a corporate organ below (which some call the one-and-a-half tier).. To what extent the corporate board can make certain management decisions and to what extent it merely supervises management also varies but what is always present is the board's overarching responsibility (and, as a matter of corporate law, potential liability) for the governance of the corporation.[24]

The corporate board is also distinguished by being the only decision-making organ of the corporation that has no legitimate self-interest. Management (below the board) normally comprises employees, with a legitimate self-interest as such.[25] The general meeting of shareholders, the corporate organ that we also find across jurisdictions where shareholders as a group according to corporate law can make decisions affecting the corporation (although again the types of decisions they are allowed to make varies), may legitimately also consider the interests of the shareholders themselves, in their relationship with the corporation.[26] The members of the corporate board, however, have as a matter of law no legitimate self-interest to consider in making their decisions. The board members have no additional role, as do employees,[27] or protected economic interests in the corporation, as do the shareholders.[28] The board is bound to protect and promote the interests of the corporation. What this encompasses, according to corporate law, varies, as we shall see below.

We see from this that there are decision-makers on several levels, and agency theory offers a way to identify and understand the potential conflicts of interest and the mechanisms that govern them. Agency theory may therefore help us discern the effects of any given regulatory effort (including de- or reregulation). Agency theory may serve to structure the discussion of two fundamental questions: Who makes the decisions? What are the costs, or, more broadly,

[24] On the significance of the corporate board, see e.g. B. Sjåfjell and L: Anker-Sørensen, 'Directors' Duties and Corporate Social Responsibility (CSR)' in H. Birkmose, M. Neville and K. Engsig Sørensen (eds.), *Boards of directors in European companies – reshaping and harmonising their organisation and duties*, (Alphen aan den Rijn: Kluwer Law International, 2013), Ch. 7.

[25] Of course not entailing that they are entitled to put their personal interests as employees before their management duties.

[26] Although there are limits to the extent which interests of the shareholders are legitimate concerns in the general meeting; briefly discussed in B. Sjåfjell, 'Achieving Corporate Sustainability: What is the role of the shareholder?' in: H. S. Birkmose (ed.), *Shareholders' duties* (Kluwer Law International, 2017).

[27] Where the board members also are employees, such as the executive directors in Anglo-Saxon jurisdictions, or the employee-elected board members in Nordic and Continental-European jurisdictions, the employee-related interests of the individual board members are irrelevant to the board as a corporate organ (to the extent labour is a part of the interests of the corporation to protect and promote, this is on a general level and not focused on the personal interests of the board members).

[28] Indeed, the fallacy of blurring the lines by making the board members' fee dependent on the results of the corporation, an initiative not flowing from corporate law but from the law-and-economics influenced, Anglo-Saxon inspired corporate governance movement, become abundantly clear after the financial crisis of 2007-2008.

the consequences of the decisions? Analysis of agency issues may pinpoint who is dependent on whose decision, which will in turn indicate who is in a position to exploit or take advantage of whom (i.e. to put their own interests ahead of others'). It may also shed light on the costs of trying to alleviate or hinder such potential negative effects.

The costs of these alternative methods are known as agency costs. The term cost does not (necessarily) mean that money is directly involved, it means costs in the broadest sense of the word: consider, for instance, the costs in terms of time, money, and energy involved in having a corporate board checking on managers at all times to make sure they are acting in accordance with directives from the board. Nor does the term imply that a figure has to be attributed to the cost – often we will not have the information required to do this, so we must try intuitively to assess whether the costs, or more generally the disadvantages, are, for example, excessive, tolerable, or negligible.

Two important keywords for understanding the basics of agency theory are information and incentives. From the perspective of corporate law, the persons actually controlling the corporation – whether this is the day-to-day management, the members of the board, or a large and active shareholder – can be seen as agents for other parties that are affected by the actions of the firm. These other parties – the principals – may, for example, be the (other) employees at the firm, or the (other) shareholders of the firm, who are affected by the agent's decision. The principal may not have the same information as the agent, and may be unable to monitor the agent's actions without incurring excessive costs, and must therefore try to find the right incentives to make the agent act in the principal's interest. Or, from a legislator's point of view, someone else might consider finding or creating these incentives. The description of legal strategies in Kraakman et al. aims to cover the options at the legislature's disposal when dealing with agency issues,[29] and is a helpful starting point for discussion.

2.2 Why the mainstream use of agency theory is so detrimental

In spite of its potential usefulness to any systematic analysis of corporate decision-making and corporate law regulating such decision-making and its costs, agency theory has in its mainstream version a highly negative effect on the corporate law debate. Rather than opening up the discussion, which it has the potential to do, the mainstream use of agency theory has a reductionist impact.

Although the seminal article on agency theory in a corporate context by Jensen and Meckling in 1976 recognized that agency issues arise in the relationship between the corporation and employees, suppliers, customers, creditors, etc., they concentrated on a single agency issue,

[29] See the table providing a breakdown of the main legal strategies (sub-divided into regulatory and governance strategies) the legislature has at its disposal to handle agency issues in J. Armour, H. Hansmann, R. Kraakman, 'Agency Problems and Legal Strategies', in R. Kraakman, J. Armour, P. Davies, L. Enriques, H. Hansmann, G. Hertig, K. Hopt, H. Kanda, M. Pargendler, W-G. Ringe, and E. Rock (eds.), *The Anatomy of Corporate Law: A Comparative and Functional Approach*, 3rd edn., (Oxford: Oxford University Press, 2017), Ch. 2, p. 32.

that is, the shareholders (as principals) vs. the managers (as agents).[30] The modern mainstream version of agency theory, in the highly influential book by Kraakman et al., *The Anatomy of Corporate Law*, continues in the same vein.[31] In their introduction, the authors set out a broad goal for corporate law (as opposed to what they denote as the immediate *function* of corporate law, 'of defining a form of enterprise and containing the conflicts among the participants in this enterprise'):

> (T)he overall objective of corporate law – as of any branch of law – is presumably to serve the interests of society as a whole. More particularly, the appropriate goal of corporate law is to advance the aggregate welfare of all who are affected by a firm's activities, including the firm's shareholders, employees, suppliers, and customers, as well as third parties such as local communities and beneficiaries of the natural environment. This is what economists would characterize as the pursuit of overall social welfare.[32]

Even taking into account the authors' reductionist economic focus, which leads them to speak only of 'beneficiaries of the natural environment' and not the environment itself, we can see that this broad perspective of corporate law's purpose offers an interesting starting point in a volume that sets out to outline and discuss agency issues.

However, in the topics selected for the substantive discussions in the volume, and in the terminology employed, we see that Kraakman et al. are also in their 2017 edition still overly restricted to the shareholders.[33] The three core or 'generic' agency issues in corporate law are, according to Kraakman et al., the 'firm's owners' (i.e., the shareholders) vs. 'hired managers'; controlling vs. non-controlling 'owners'; and 'the firm itself – including, particularly, its owners' vs. contractual parties, referred to otherwise in the book as non-shareholders.[34] The combination of referring to shareholders as 'owners' while using, rather symptomatically for the focus of the discussion, the term 'non-shareholders' for everybody but shareholders (and 'managers'), as well as identifying the corporation with the shareholders,[35] sets the stage for an analysis that is too narrow in its focus.

This is not say that Kraakman et al. do not recognize that the corporation also affects other interests. Indeed, as they explain, these can arise in situations 'where a firm imposes costs on parties who do not contract with it', the 'so-called "externalities"', which they state is the topic of two separate chapters.[36]

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[30] M.C. Jensen and W.H. Meckling, 'Theory of the Firm: Managerial Behaviour, Agency Costs and Ownership Structure' (1976) 3 *Journal of financial economics*, 305–360 at 310. The authors use 'managers' as a generic term to cover the corporate board as well as subordinate levels of management.
[31] Kraakman et al., *The Anatomy of Corporate Law*.
[32] J. Armour, H. Hansmann, R. Kraakman and M. Pargendler, 'What Is Corporate Law?' in Kraakman et al., *The Anatomy of Corporate Law*, Ch. 1, pp. 23-24 (footnote in original omitted).
[33] I made this argument in 2010 against the 2009 (2nd edition) of Kraakman et al., *The Anatomy of Corporate Law*, in B. Sjåfjell, 'More than Meets the Eye: Law and Economics in Modern Company Law' in Erik Røsæg, Hans-Bernd Schäfer and Endre Stavang (eds.), *Law and economics. Essays in honour of Erling Eide*, (Cappelen Akademisk, 2010), pp. 217-235. Section 2 and Section 3.1 of this chapter draws on that 2010 text.
[34] Armour, Hansmann, Kraakman, 'Agency Problems and Legal Strategies', pp. 29-30 and *inter alia* p. 89.
[35] As illustrated by this quote: 'the firm itself – including, particularly, its owners', Armour, Hansmann, Kraakman, 'Agency Problems and Legal Strategies', p. 30.
[36] Ibid., with reference to Chapters 4 and 5.

However, the first of these two chapters starts out with a discussion of the protection of minority shareholders (the agency issues of controlling vs. non-controlling shareholders), before discussing one 'non-shareholder' interest, namely that of employees, who obviously have a contractual relationship with the corporation.[37] When the authors eventually get to 'external constituents', they recognize the detrimental impact corporations may have, when 'left unchecked': 'environmental degradation, violations of human rights, anticompetitive behavior, or practices that pose systemic risk to the economy'.[38] They also recognize that 'limited liability – an essential feature of the corporate form – serves to compound the problem, by permitting shareholders to bear only a fraction of the costs their companies' activities cause for third parties.'[39] Nevertheless, the authors remain sceptical to what they see as a 'recent trend toward employing the legal strategies of corporate law to tackle broad social problems'.[40] The authors are right in questioning whether this trend (which is very limited and mainly consists of inadequate reporting rules), is 'a functional response to government failures in addressing externalities, or merely window-dressing to deflect more fundamental regulatory reforms'.[41] What is notable, however, are their reasons for their scepticism as to whether corporate law is the right area to tackle concerns 'which reach far beyond the *agency problems* that form *its core competency*'.[42] We see here how the identification of agency issues (or problems) is used as a normative basis to define certain societal interests as external and therefore something that should be regulated by other areas of law, ignoring then, it seems, the vast breadth of research explaining the limits of, for example, environmental law.[43]

The second of the two chapters, where the authors claim to discuss 'externalities', and which I do not have space to discuss in depth here, concentrates on creditors.[44] Suffice it to say that their discussion of creditors, although also mentioning non-voluntary creditors – which could have been a gateway to discussing the impact of the international trend with lawsuits against corporations for environmental harm – concentrates on ordinary economic claims.[45]

Understanding the problematic nature of the shareholder focus in mainstream agency theory, exemplified here by Kraakman et al., entails an understanding of the shareholders' position as a matter of corporate law. It also involved understanding that the social norm of shareholder primacy, which mainstream agency theory supports, has a detrimental impact on the environment, on people, on the businesses themselves, and on shareholders that have a long-

[37] As is acknowledged also by L. Enriques, H. Hansmann, R. Kraakman, and M. Pargendler, 'The Basic Governance Structure: Minority Shareholders and Non-Shareholder Constituencies', in Kraakman et al., *The Anatomy of Corporate Law*., Chapter 4, p. 89.
[38] Ibid. p. 93.
[39] Ibid. p. 93.
[40] Ibid. p. 93.
[41] Ibid. p. 107.
[42] Ibid. p. 107 (emphasis added).
[43] E.g. N. Kuraj, 'The Intermittent Nature of the Precautionary Principle in the EU REACH Chemicals Legislation and the Case of Endocrine Disrupters Regulation', Ch. 11 in this volume.
[44] J. Armour, G. Hertig, and H. Kanda, 'Transactions with Creditors' in Kraakman et al., *The Anatomy of Corporate Law*, Ch. 5.
[45] Ibid.

term perspective with their investment (as many shareholders, as institutional investors, today have). Indeed, shareholder primacy is one of the largest barriers to corporate sustainability.[46]

I use the term *social* norm of *shareholder primacy* as distinct from the *legal* norm of *shareholder value* that we find in certain jurisdictions. The mainstream use of agency theory takes as its starting point that shareholders are, and should be, the most important and ultimate decision-makers in the corporation (based on the idea of shareholders' having a residual interest). While sceptical to the possible negative impacts of corporate law being seen as having maximization of returns for shareholders as a goal,[47] it appears to be perceived as a beneficial instrumental goal: by maximizing returns for shareholders, 'social welfare' will indirectly be maximized.[48] This supports the idea that corporate law sets out a duty for boards to maximize returns for shareholders, which is a logical normative conclusion to draw from the idea, presumably originally intended to be descriptive, that boards (and by extension management) are agents of shareholders.

This idea, however, is a legal myth. Boards are, legally speaking, not the agents of shareholders; they are the stewards of the corporation, with a legal duty to protect and promote the interests of the corporation.[49] Shareholders across jurisdictions have certain economic rights and control rights, to encourage their investment in businesses and protect their non-contractually regulated economic interests. The interests of the shareholders, as investors, are a crucial element of the interests of the corporation. The extent to which corporate law emphasizes the interests of the shareholders varies, with the spectrum ranging from shareholder value jurisdictions, such as the UK, where corporate law sets out that the interests of the corporation are to be promoted to the benefit of the shareholders as a whole, to pluralistic jurisdictions such as Norway, where corporate law sets out a broader set of interests to be balanced. Across jurisdictions, corporate law does not set out a duty to maximize the returns to shareholders,[50] and certainly not to ignore all other interests.[51] However, the social norm of shareholder primacy, informed by the dominant understanding of agency theory, has become so strong that it has taken over the space corporate law gives boards to ensure that the corporations are run in a good way. Shareholder primacy drive narrows the scope of the considerations of the boards and shortens their time perspective. With the perceived duty of maximization of returns for shareholders, any environmental impact that is not enforceably regulated as the corporation's responsibility is ignored. The barrier to corporate sustainability posed by the shareholder primacy norm is exacerbated by the chasm between company law's

[46] B. Sjåfjell, A. Johnston, L. Anker-Sørensen and D. Millon., 'Shareholder Primacy: The Main Barrier to Sustainable Companies' in B. Sjåfjell & B. Richardson (eds.), *Company Law and Sustainability: Legal Barriers and Opportunities* (Cambridge University Press, 2015), pp. 79-147.
[47] Armour et al., 'What Is Corporate Law?', pp. 23-24
[48] Ibid.
[49] As substantiated in the multijurisdictional comparative analysis in Sjåfjell et al., 'Shareholder Primacy: The Main Barrier to Sustainable Companies'.
[50] With the exception, in some jurisdictions, in the relatively rare occurrence for the individual corporation, of the uninvited takeover, where the board's responsibility is to a greater extent limited to ensuring that selling shareholders get a good price for their shares.
[51] Indeed, the UK Companies Act 2006 explicitly lists other interests to be considered, including the environment.

approach to corporate groups and the dominance and practice of such groups, and current regulatory efforts in this respect are simply insufficient. [52]

An inherent limitation in agency theory's structure, which may further undermine the holistic balancing of interests that corporate sustainability requires, is the pairing of interests/parties in the agency issues with its lack of an overall assessment of the trade-offs between the various issues.[53]

3 Redefining agency theory for modern business

3.1 The corporation as a real-life entity

A starting point in a redefining of agency theory to make it more useful in a modern corporate law debate may be to consider a real-life picture of the corporation, which I have outlined in previous work and draw on here.[54]

A real-life picture of the corporations provides a basis for ordering the interests involved in, and impacted by, a corporation, in three levels: First, those within the corporation, in other words, the employees. That Kraakman et al., as discussed above, regard employees as a *'non-shareholder' external* contractual relation is symptomatic of their shareholder focus. Corporations appear in that picture to be empty, profit-creating vehicles. In real life, of course, if any group of persons is to be seen as *internal* to the corporation, it is exactly the employees.

The second set of interests comprises those that directly or indirectly have a legally recognized relationship with the corporation. This includes but is not limited to the shareholders, and other financiers, as well other creditors and suppliers, and customers. By extension, this also encompasses workers in the corporation's value chains, as well as local and other public authorities with which the corporation has a legally recognized relationship, through, for example, a building permit.

The third set of interests encompasses those more broadly affected by the business of the corporation, without any directly legally recognized relation, notably people and the environment that are affected by the social, environmental, and governance impacts of the business of the company.

3.2 Three new core agency issues

The above outlining of involved parties and affected interests provides the basis for a new identification of the three core agency issues in corporate law.

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[52] Sjåfjell et al., 'Shareholder Primacy: The Main Barrier to Sustainable Companies'.

[53] The significance of considering the trade-offs was pointed out already in the first edition of Kraakman et al., *The Anatomy of Corporate Law*(2004), p. 223.

[54] B. Sjåfjell, *Towards a Sustainable European Company Law. A Normative Analysis of the Objectives of EU Law, with the Takeover Directive as a Test Case* (Alphen aan den Rijn: Kluwer Law International, 2009), Ch. 4.

In all three core agency issues (outlined below), the agents are the *corporate decision-makers*. Corporate decision-makers, as a matter of corporate law, are *the general meeting* (where the shareholders as a matter of law have a voice); the *corporate board*; and the *corporate management*.[55] This three-tier set of corporate decision-makers allows each of the three core agency issues to be split into three separate issues, with the general meeting, the board, or the management, as agents. Here we include them together because they are all corporate decision-makers, and because seeing them together as such has value in itself. Also, the decisions may be interlinked – the general meeting deciding on a proposal from the board; the board following a general meeting decision; management executing board decisions.[56] Which levels are required for a specific decision will also vary from jurisdiction to jurisdiction and even from case to case.

The first core agency issue in a redefined agency theory for modern corporate law should be the agency issue between *the corporate decision-makers as agents, and the corporation itself, including, notably, its employees, as principals.* Setting out the corporation as the principal is repositioning the corporation as the core entity in corporate law, rather than the shareholders.[57] Including the employees as a notable part of the corporation as principal, is an acknowledgement of the employees' core position within the corporation. It is also quite a different approach than that of Kraakman et al., where the corporation is identified with the shareholders,[58] where the employees are dealt with as 'non-shareholders',[59] and where the corporation as principal has no place.

Proposing this agency issue as the first core agency issue does not, of course, mean that there cannot be other agency issues between the corporation and the employees, or between groups of employees. Indeed, the list of possible agency issues between and within sets of interests identified here is probably endless, where agents in one setting may be principals in another. The aim here, however, is to redefine the three *core* agency issues. Analysis of this first core issue could help us understand the impacts of decision-making encouraged or permitted by current legislation and so-called self-regulation, on corporations as vital components of the real economy.

The second core agency issue proposed here is that *between the corporate-decision-makers as agents and the shareholders of the corporation as principals*. Analyzing this second issue could help us understand what is actually good for shareholders on an aggregate level (which may be different from what the mainstream corporate governance discourse advocates). It is an especially important issue to consider for that reason, as it is such a central topic in the mainstream corporate law and corporate governance debate and so closely linked to the

[55] Here to be understood as the level below the board in jurisdictions where the board is seen as a part of management.
[56] This is not to say that there cannot be conflicts – and agency issues – between them.
[57] The shareholders are not ignored, though, and are considered below, in the redefined second core agency issue.
[58] See e.g. their description of the third core agency issue in corporate law, where the agents are: 'the firm itself – including, particularly, its owners', Armour, Hansmann, Kraakman, 'Agency Problems and Legal Strategies'.
[59] Ibid.

shareholder-centricity of the debate. Kraakman et al.'s first and second core agency issues, between what they denote the 'hired managers' (i.e., the board and by extension management) as agent, and the shareholders as principal, and between controlling shareholders (as agent) and non-controlling shareholders (as principal), are, as we see, included in this proposal for a redefined second core agency issue. An important nuance in this redefinition of core agency issues is the focus on the general meeting, corporate board, and corporate management, seen together as *corporate decision-makers*, which emphasizes their role as such when analyzed as agents for the shareholders as principals. This as opposed to the shareholder-centric manner implied in the language of Kraakman et al. where they start out with shareholders and (implicitly: their) 'hired managers', and move on to the power struggle between groups of shareholders.[60] We see already in these first and second redefined core agency issues that they contribute to a more comprehensive view and thereby to mitigating the intrinsic limitation of agency theory with its pairing of interests.

The third core agency issue, which is the largest and most important shift in focus from the mainstream use of agency theory in corporate law, is the agency issue *between the corporate decision-makers as agents, and people and the environment directly affected by the business of the corporation as principals*. We remember from section 2 above that, in Kraakman et al., the impact of corporate activity on people that do not have a legally recognized relationship with the corporation and the environment is not discussed as an agency issue but defined rather as a question of *externalities*. Such interests 'extraneous to' the corporation should in their view normally be considered and protected through other areas of law.[61] However, how to internalize the environmental and social impacts of business into corporate decision-making, or in other words, how to ensure that corporate decision-makers act thoughtfully and appropriately as agents for people and the environment the corporation impacts as principals, is arguably the most pervasive and crucial issue of modern corporate law. Analyzing it as an agency issue, and considering the various legal strategies that may be employed to reduce agency costs, notably the negative impact on the principals of the negligence (externalization) by the agents of the interests of the principals, opens up a new field of enquiry with a broader perspective. This enquiry will not therefore take as its starting point that environmental concerns must be protected by environmental law, or that a corporation in country A cannot be held responsible for impacts in country B, or that broadening the scope of interests to be considered is impinging on 'property rights' of shareholders. Rather, it takes the two fundamental questions of agency theory – Who makes the decisions? What are the costs, or, more broadly, the consequences? – and places them in the context of modern business. The first question may then be formulated as: Who makes the decisions that bring products onto the market that are environmentally unfriendly in their production, transportation, use and/or after-use treatment? The answer is corporate decision-makers deciding to design, produce,

[60] Ibid.
[61] Enriques, Hansmann, Kraakman and Pargendler, 'The Basic Governance Structure: Minority Shareholders and Non-Shareholder Constituencies', p. 93.

and/or import and sell the products.[62] The answer to the question of the costs, or more broadly the consequences, emphasizes the crucial nature of the issue. From an agency theory perspective, when the chosen legal strategies are ineffective, different approaches ought to be considered. When research has shown us that a main barrier to corporate sustainability is related to corporate law, it should open up the debate to a more comprehensive discussion of how environmental externalities as a corporate law agency problem, can be handled.

It could be posited as an argument against defining people and the environment impacted by corporate activity as principals that they are not easily identifiable, nor do they necessarily have any kind of formal representation (especially concerning global environmental issues). How can corporate decision-makers be agents for principals that are unknown, unidentifiable, and/or unrepresented? The answer is, however, that identifying these issues relevant to the corporation should be a central part of the corporate decision-makers' responsibility. It is another way of asking how each corporation can find out how to contribute to meeting the grand challenge of our time: securing the social foundation for people everywhere now and in the future while staying within planetary boundaries. Operationalizing planetary boundaries on the level of a sector, or a line of products, is one of the important research questions of our time. There are numerous efforts of quantifying and reducing the negative environmental impacts of products. Much of this is informed by a desire among thought-leaders in business and finance to be a part of the shift to sustainability. To be successful will require finding out how to operationalize and integrate planetary boundaries into corporate and financial business models.

To complete the comparison between the three 'generic' agency issues of Kraakman et al. and the proposal for a redefinition of the three core agency issues here, Kraakman et al.'s third issue requires a brief comment. This is that of 'the firm itself – including, particularly, its owners' vs. contractual parties. This, in my redefinition of agency issue, would be a fourth issue, and I would rephrase it as that of the corporate decision-makers as agents for the corporation's external contractual parties. It is important, but I have not seen it as central enough to include among the three core issues. Contractual parties, for example creditors and customers, are protected by other areas of law and through the contracts themselves. Individual customers and small suppliers may be in a vulnerable position but, on a general level, not to the same extent as employees (the first issue above), whose whole (working) life is dependent on being thoughtfully considered by the corporate decision-makers, beyond the protection their labour contract gives them. Arguably, the contractual parties will indirectly benefit from a proper alignment of the principal–agent issue in the agency issue above: that of the corporate decision-makers as agents for the corporation.[63] If the corporation is properly run, with its sustainable prosperity as the core, it should be beneficial for the corporation's contractual parties as well. As opposed to shareholders (the second issue above), contractual parties will, or should at least, have their rights (and duties) set out in the contract. Contractual

[62] This is not to ignore the role of the legislator in regulating – or not – the design, production, sales, use, repairs, and recycling of the products, also discussed in other chapters in this volume; but the focus in this chapter is on the corporations, who do indeed make the decisions.
[63] This chapter does not allow room to discuss the limitations of this argument.

parties are also generally less vulnerable than people and the environment affected by corporate activity, without a legally recognized relationship with the corporation (our third issue above).

With a broader perspective of the corporation, the principals in the three core agency issues are therefore: (1) the corporation including the employees; (2) the shareholders; (3) people and the environment impacted by corporate activity. The latter provides a new analytical basis for discussing the internalization of negative environmental impacts of products. First, however, two more steps are necessary in this tentative redefinition of agency theory in corporate law. The first is a discussion of the role of the shareholders in modern business and finance, and the second involves the role of the single corporation in the global life-cycle of a typical product.

3.3 Decoupling the shareholder as direct principal

Newer insights into the nature of the shareholders give reason to question the legitimacy of the rise of the shareholders as corporate decision-makers (an agent in all three agency issues above), and as principals (in the second agency issue above). This leads to us to ask whether the shareholder should not be decoupled as a direct principal and regarded with caution as an agent.

Shareholders are a very heterogeneous group. Distinctions may be drawn between natural persons as shareholders, corporate shareholders, and institutional investors, between minority and majority shareholders, controlling and non-controlling, domestic and foreign, between shareholders interested in the long-term development of the company, and shareholders only concerned with maximizing short-term returns (and all the variations in between), and between traditional shareholders (where the economic and control rights are present), and synthetic shareholders (financial instruments, which do not necessarily control the underlying share – or which control the share but do not bear the underlying economic risk).[64] Adding to this, the opaque nature of shareholdings today, where we may have many layers between the actual beneficiary and the proxy advisor or nominee account-holder voting in the general meeting, we often do not know who shareholders are (we have 'secret shareholders' as well as 'secret agents' for them).[65] Recognizing also that this is just part of the corporate and financial complexity of control and power in business and finance, including what may be denoted the new vote-buying era,[66] this challenges our traditional understanding of the role of shareholders and the overall influence of their decisions at the general meeting.

Taking into consideration the opaque complexity of these 'secret' agents and principals, I therefore suggest focusing rather on the corporation and its board, and with a (Continental/Nordic) European definition of the interests of the corporation. In this context, the sustainable continuity of the enterprise is the core. The legitimate interests of the

[64] L. Anker-Sørensen, 'Financial Engineering as an Alternative, Invisible Veil for the Corporate Group' (2016) 13 (5) No. 2016-01 *European Company Law, University of Oslo Faculty of Law Research Paper*, 158–166.
[65] Ibid.
[66] Ibid.

shareholders (whoever they are) are taken care of indirectly, based on the assumption that the legitimate interest of shareholders is that the company is run well in a sustainable, long-term perspective, and provides for returns to shareholders based on the profit of the company. There is basis for this in corporate law, which in many jurisdictions does not consider the interests of the shareholder as the only interest of the corporation.[67] Although drawing on a (Continental/Nordic) European approach in suggesting this redefinition of the core agency issues in corporate law, it is also valid in analysing corporate law in shareholder value jurisdictions such as the UK. The main elements – the corporation and the corporate board – are universal. Further, the indirect relationship between the duty of the board and the interests of the shareholders is also present in a shareholder value jurisdiction like the UK, although the emphasis on shareholders and their supremacy is clearly and directly expressed in corporate law. Indeed, as the mainstream use of agency theory clearly takes an Anglo–American inspired shareholder emphasis as its default value (and informs and supports the highly detrimental shareholder primacy norm), this alternative approach to using agency theory in corporate law may also be seen as a Continental-European push-back against the dominance of one understanding of the corporation, the corporation function and the corporate objective.

Such an approach does not entail that the second core agency issue proposed above, with the corporate decision-makers as agents for the shareholders as principals, is not an interesting and important corporate law issue to analyse. It does mean, however, that the shareholders, at a general analytical level, must be a fictional shareholder, where we assume an old-fashioned investor directly interested in the performance and profits of the corporation, which very well may not be the case today. This dovetails with the approach of traditional Nordic and Continental-European corporate law, as explained above. It also means that where there are conflicts between the resolution of the three core agency issues proposed above, the corporation as the principal in the first issue and people and the environment as the principal in the third issue, should be given priority over the presumed interests of the shareholders as principals in the second issue. The shareholders' legitimate interests are promoted through protecting the corporation as principal. Resolving conflicts between the corporation, including its employees, on the one hand, and people and the environment affected by corporate activity, on the other, is arguably the most important issue to deal with, and the balancing of these interests is fundamental to achieving corporate sustainability.

In light of the opaque nature of what goes under the name of shareholder, we must also proceed with caution with the shareholders as corporate decision-makers in the general meeting. We not only risk that shareholders, or those representing them at general meetings, make decisions prioritizing short-term profit over longer term considerations, with a narrow focus based on externalization of the environmental impacts of products that the corporation makes money on, but that those voting at the general meeting represent economic interests contrary to those connected with having shares in the specific corporation, and vote accordingly.[68] This may significantly exacerbate the negative impact of the shareholder

[67] Sjåfjell et al., 'Shareholder Primacy: The Main Barrier to Sustainable Companies'.
[68] Anker-Sørensen, 'Financial Engineering as an Alternative, Invisible Veil for the Corporate Group'.

primacy drive. Introducing this perspective into corporate law and corporate governance debates, informed as they are by the mainstream, shareholder-centric version of agency theory, is crucial. If we are to move forward with internalizing environmental externalities of products, giving more power to shareholders is a risky approach, while redefining and strengthening the corporate purpose and the role and duties of the corporate board are arguably necessary steps.[69]

3.4 From entity to enterprise: the life-cycle of products

We have now moved away from shareholder-centricity, and set out agency issues taking into account the broader set of interests affected by the corporation. However, further questions are raised when, what from a real-life point of view is one enterprise or business entity, is split up into various legal entities, as we know often to be the case in practice. Adding to this opaque corporate complexity, the further fragmentation of accountability through the use of networks and global value chains, a renewed and even broader evaluation of the feasibility of an agency theory approach is necessary.

Considering the individual legal entity, as a matter of corporate law, the corporate decision-makers, and notably the corporate board, must still focus on their own legal entity. From an agency theory perspective, this gives rise to concerns regarding all three agency issues identified above, with especially grave repercussions regarding the first and third agency issue. For the first agency issue, the corporate decision-maker as agent for the corporation and, notably, its employees as principals would only provide a very limited realistic picture, where decisions affecting the employees in one or several entities are made in other entities. The same problem arises for shareholders as principals in the second agency issue, but here a more nuanced picture emerges: some of the shareholders, as principals, may be the same that created this fragmented set of legal entities to start with, while other sets of shareholders may find their legitimate interest undermined, with no clear idea of which corporate decision-maker that actually is their agent. The challenges posed to the third agency issue here epitomises the crux of the problem with the externalization of environmental and social impacts, with fragmented and opaque structures making the practical identification of the relevant corporate decision-makers difficult and holding them legally responsible close to impossible.

A redefinition of agency theory for modern corporate law therefore requires a broader, enterprise-based view. For any type of corporation which involves the production, sale, or other distribution of physical goods (e.g. mobile phones, textiles or food products), it would involve a life-cycle-based mapping of these products, from cradle to cradle, as an intrinsic

[69] See further, B. Sjåfjell, 'Bridge Over Troubled Water: Corporate Law Reform for Life-Cycle Based Governance and Reporting' (2016) *University of Oslo Faculty of Law Research Paper* No 2016-23. Available at SSRN: www.ssrn.com/abstract=2874270

element of drawing up the boundaries of the enterprise.[70] Within these boundaries the agency issues relevant to corporate sustainability should be identified and analyzed.

The corporate decision-makers for the enterprise would then need to be identified within that product life-cycle, which typically will be the board and, by extension, the management of the lead corporation. This leads then to a broadening of the three core agency issues that I have tentatively proposed. First, with these corporate decision-makers as agents for the involved corporations (or other types of business entities), including their employees, as principals (the first agency issue). The second agency issue, with the shareholders as principals, is now subordinated to the first issue, based on the discussion above in section 3.2, where the interests of the shareholders (or more broadly the investors) across the enterprise are taken care of through the protection and promotion of the corporations. Most importantly, in the context of finding out how to internalize environmental impacts of products, the corporate decision-makers in the lead entity of the enterprise defined by the product life-cycle, are identified as agents for the people and the environment impacted across the product life-cycle as principals (the third agency issue).

Operationalizing this broader and life-cycle-based approach to agency issues in corporate law, arguably requires both legislative reform and changes in corporate culture. Through legislative reform, life-cycle thinking can be included in the duties of the corporate board, barriers to corporate sustainability can be removed, and drivers can be strengthened. Done thoughtfully, this can tap into the creative and innovative capacity of businesses and the rising will among thought-leaders in business and finance to contribute to corporate sustainability. As Jon Elster points out, legal norms can change social norms and even moral norms.[71] A thoughtful and research-based corporate law reform can shape and promote corporate culture that is based on life-cycle thinking and life-cycle management. While other legislative reforms also are needed, such a corporate law reform is arguably key.[72] By introducing life-cycle thinking in the corporate boards of European lead companies, reforming corporate culture from within, the fragmentation of responsibility and accountability across the global value chains could be mitigated.[73] Such legislative reform could draw on the most appropriate of the voluntary guidelines, standards, and certification schemes available, and contribute to a level playing field where the front-runners are rewarded for their efforts.[74]

[70] See, for example, the work-in-progress presentation of 'Social and Environmental Risks in the Mobile-Phone Lifecycle', by M. van der Velden, Work Package Leader in the SMART Project (smart.uio.no) (available at www.majava.kumu.io/social-and-environmental-risks-in-the-mobile-phone-lifecycle)

[71] J. Elster, *Explaining Social Behavior: More Nuts and Bolts for the Social Sciences* (Cambridge: Cambridge University Press, 2007) pp. 358–359.

[72] B. Sjåfjell and A. Wiesbrock (eds.), *The Greening of European Business under EU Law: Taking Article 11 TFEU Seriously*, (Routledge, 2015).

[73] Contributing to realizing the potential of life-cycle thinking as an 'end to organized irresponsibility' and 'a wider accountability and transparency in product markets', Heiskanen, 'The institutional logic of life cycle thinking'.

[74] Sjåfjell, 'Bridge Over Troubled Water: Corporate Law Reform for Life-Cycle Based Governance and Reporting'.

This would entail a shift from the current regulatory approach, where environmental concerns mainly are sought protected through environmental law, including the limited regulatory initiatives included in the Circular Economy Package. Exceptionally, the EU's so-called Non-Financial Reporting Directive may be seen as encouraging life-cycle thinking and life-cycle management through its corporate reporting requirements, with requirements of reporting on the business model, and due diligence to gain overview of the environmental impacts of the business, including, tentatively, the global value chain.[75] However, the Directive is limited in its scope, has opted for a comply-or-explain model, and does not require verification of the information (although it does encourage Member States to require verification). A comprehensive approach to corporate legislative reform should include realizing the potential of this Directive, ensuring through proper enforcement that the legislation is complied with and through mandatory verification of the reported information that it is relevant and reliable.[76]

4 Internalizing externalities in a sustainable circular economy

There is a high-level support for sustainability as an overarching goal, as we see indicated in the UN Sustainable Development Goals.[77] At the EU level, the EU treaties clearly show that to achieve the EU's ultimate aim of promotion of peace, the EU's values, and the well-being of its peoples,[78] sustainable development is a prerequisite. Sustainable development is the overarching objective and is meant to be the guiding principle of the EU's policies and activities. The Treaty on the European Union (TEU) emphasizes the position of sustainable development, in Europe and globally.[79] The significance of business and finance contributing to the overarching goal of sustainability, environmentally, socially, and economically, is recognized. Business and investors are also increasingly signing up to this recognition. Yet the existing system of corporate regulation, governance, and control does not deliver sustainable economic activity.

The EU's Circular Economy Package, on its own, is insufficient if it just leads to more resource-efficiency in the production of goods.[80] To be environmentally sustainable, a circular economy must operate within planetary boundaries.[81] To achieve this, the actual social costs

[75] Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups; Article 19a, and Recital 6: 'The non-financial statement should also include information on the due diligence processes implemented by the undertaking, also regarding, where relevant and proportionate, its supply and subcontracting chains, in order to identify, prevent and mitigate existing and potential adverse impacts.'
[76] Sjåfjell, 'Bridge Over Troubled Water: Corporate Law Reform for Life-Cycle Based Governance and Reporting'
[77] United Nations General Assembly resolution 70/1, *Transforming Our World: The 2030 Agenda for Sustainable Development*, A/RES/70/1, (25 September 2015) (available at www.undocs.org/A/RES/70/1).
[78] Article 3(1) of the Treaty of the European Union (TEU).
[79] Art. 3(3) TEU.
[80] See also C. Dalhammer, 'The application of "life cycle thinking" in European environmental law: theory and Practice'.
[81] In line with the goal of Environment Action Programme to 2020, Decision No 1386/2013/EU of the European Parliament and of the Council of 20 November 2013 on a General Union Environment Action Programme to 2020, *Living well, within the limits of our planet,* OJ L 354, (28 December 2013), pp. 171–200.

of products must be internalized into business. The traditional economic approach to internalization, through taxes and charges that 'bite', may be politically impossible to achieve consensus on. A way forward may then instead be to tap into the sustainability drive of thought-leaders in business and finance, through smart regulation that promotes a change of corporate culture from within by integrating product life-cycle thinking and life-cycle management in lead European corporations. Instead of top-down regulation, integrating product life-cycle thinking into the role and duties of the corporate board can realise the potential of each corporation to, in its own innovative and creative way, find out how to design, produce, market, sell, repair, and recycle products in an environmentally sustainable way. It is sowing the seed for the transformation of corporate business models from the unsustainable and linear to the sustainable and circular.

This chapter presents tentative ideas on how to redefine agency theory for corporate law, broadening the scope so that the real decision-makers and the product-related environmental and social costs of the decisions are included. Although this is just a first step in the analysis, with much work left to be done, it is my hope that this new analytical basis may facilitate a different and more comprehensive approach to one of the most pervasive issues in modern corporate law.