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## Bold ambition, blunted agency? Examining top management perspectives on a circular economy transition in Finland

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### ABSTRACT

The circular economy is proposed as a company-driven means to further sustainability transitions. Top managers have a critical role in fostering the circular economy as they are responsible for shaping and implementing a company's sustainability strategy and performance. In this paper, we adopt a microfoundations perspective to enhance our understanding of the influence of top managers as agents of the sustainability transition to the circular economy. In a qualitative research study, we interviewed 34 top managers of Finnish companies that are actively pursuing the circular economy. The main implication of our study is in exploring the role of top managers, as they engage in actively structuring a new, circular regime. To this end, our paper provides salient insights into the prevailing debate on the structure-agency question in the sustainability transitions literature. We find that power is a key characteristic of how top managers exercise their agency. Our findings imply that while top managers are perceived as the most powerful members of a company, their agency is often limited by structural constraints on multiple levels within their companies, in the industry, and in the broader regime. Furthermore, we find that top managers' power and agency towards the transition is heavily dependent on their abilities to secure business profitability.

### 1. Introduction

Unless imminent, drastic action is taken to address climate and biodiversity crises, the medium- to long-term feasibility of sustaining human life is questionable. As the global system and humankind seek solutions to growing sustainability challenges, the circular economy (CE) is suggested as a promising means to achieve sustainability transitions and, thus, sustainable development [1–3]. The circular economy has several possible definitions—and no consensus has been reached [4]—but in general, the circular economy should replace end-of-life thinking and eradicate waste. For example, Geissdoerfer et al. [5] defined a circular economy as a regenerative system in which resource inputs, waste, emissions and energy leakage are minimised by slowing, closing and narrowing material and energy loops. The circular economy shifts the paradigm of human interactions with nature while facilitating sustainable development [6]. As the name suggests, the core concept of

the circular economy is circulation: the long-term use of products, components and materials [2], and a focus on cyclical and regenerative environmental innovations [6]. The circular economy is attracting growing attention on the international political agenda (e.g., [7,8]) and among academics, for example, in Europe and China (e.g. [9,10]).

The increasing interest in the circular economy is explained by its potential for businesses to operationalise sustainable development while simultaneously creating economic value [1,11]. The circular economy can enable sustainability transitions through implementation at the micro-, meso- and macro-levels [6]. In this study, we appreciate the circular economy on a micro-level by evaluating company-driven means to further sustainability transitions and foster sustainable futures. More specifically, we focus on the role of company executives in sustainability transitions.

The transition literature supports the idea that companies, especially well-established incumbents, have the resources and power to influence

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sustainability transitions [12]. Looking more closely, however, this literature often views companies as rather homogenous actors [13]; the research on sustainability transitions historically has paid little attention to the internal processes occurring within companies [14,15]. The assumption of homogeneity is challenged by recent research on sustainable business models [1,16–18], firms' responses to policy mixes (e.g. [19]) and companies' institutional work [20,21] as a means to bridge this knowledge gap.

Yet, individual-level behavioural aspects, such as those relating to corporate executives and their influence on corporate strategy and, consequently, on sustainability transitions, remains a sparsely studied area. This might be explained by the fact that the discipline remains embroiled in debate over agency and its significance [22–26]. Thus, actors' behavioural aspects have remained under researched in this discipline [27–30] and the study of business sustainability on a holistic level [31]. To this end, Upham et al. [29] and Huttunen et al. [30] recently reviewed the use of behavioural theories in the transition literature while arguing that the transition research would benefit from a broader application of behavioural perspectives. A micro-level perspective enables the study of actors' behaviours and can offer an individual-level understanding of the social processes underlying transitions [32,33]. Further, we argue that it is critical to understand the role of top managers because they play a central role in shaping their company's sustainability strategy and performance [34].

In this paper, we start addressing these parallel gaps in understanding by treating corporate executives as individual-level agents and examining the bidirectional movement between their agency and structure amidst a sustainability transition to the circular economy. By thus exploring executives' agency in circular economy transitions, we connect the afore-identified two analytical foci: (1) internal processes within companies and (2) actors' behaviours amidst sustainability transitions. Given their central role in executing the strategic direction [34] set by the company's board, we focus on top managers in circular economy-active companies. In particular, we view power as an integral part of agency characterising actors and social groups with conflicting goals and interests in the structuration process. We aim to elucidate *why and how do top managers engage in the circular economy transition* by interviewing 34 top managers of leading circular economy-intensive companies in Finland across sectors.

The paper proceeds as follows. In the literature review, we consider how power and agency are conceptualised in the transition literature, and we build on the microfoundations research to appreciate the role of executives as agents of the circular economy transition. Thereafter, we discuss the research methods and research setting, followed by our findings. Lastly, we discuss the paper's research implications, limitations and avenues for future research.

## 2. Literature

We apply a microfoundations perspective to theorizing on sustainability transitions. The two fields draw on different ontologies to evaluate the relationship between agency and structure [35,36]. Theories of sustainability transitions emphasise a systemic perspective, co-evolutionary complexity and build on path-dependency, emergence and non-linear dynamics [37]. The emphasis on systems overshadows the roles of agency and power amid transitions. Meanwhile, the microfoundations approach is grounded in management studies and aims to reducing organisations into individual-level components [33,38]. While such a reduction can be helpful, it cannot capture the emergent and complex nature of organisational and societal change entirely. We integrate the two approaches to appreciate the role of individual executives in the transition towards circularity. While the transition literature adopts a complex systems perspective, for the purposes of this paper, we need to combine this with a theoretical lens that also caters to individual-level analysis as well as the cross-overs between levels of analyses.

### 2.1. Sustainability transitions as struggles between agency, power and structure

The field of sustainability transitions emerged to address various and complex sustainability challenges with the underlying objective of transitioning societies towards increased sustainability [37]. Typically, this literature analyses changes in societal subsystems, such as the food system [39]. The research on sustainability transitions originated at the turn of the millennium building on four dominating frameworks: transition management, strategic niche management, technological innovation systems and the multilevel perspective on socio-technical transitions [40]. Sustainability transitions are often considered to emerge via interactions across three societal levels: (1) niches, which are protective spaces and places for innovations; (2) regimes, which comprise dominant institutions and practices; and (3) exogenous socio-technical landscape developments [37].

The transition literature considers actors and their interactions to be integral to the transition literature. Indeed, transitions are considered to unfold via the interactions of various actors [41]. Yet, the discipline is embroiled in a heated debate over the (in)adequacy of the representations and implementations of actors and agency (e.g. [23,24,42,43]). A closer look reveals that the role of actors in sustainability transitions is garnering increasing interest (e.g., [18,44–46]). Despite this growing interest, the literature in this area can be critiqued for its seeming disconnect from the study of actors' behaviours and behavioural change, the traditional foci of the social sciences [27]. Therefore, scholars are calling for increased attention to actors' psychosocial processes [29,30,44,47].

We approach agency through the lens of structuration theory [48–50], which both is prominent in sociology and underpins the sustainability transition literature. Giddens [49] considers agency as the human capacity to make free choices and impact one's environment. Structuration theory emphasises that agency and structures are ultimately inseparable [49]. In other words, agency determines structure, which consequently determines opportunities for the expression of agency [49]. In other words, agency is perceived as the bidirectional movement between individuals and their external surroundings. This view was elaborated upon by Archer [50], who argued that structure and agency do not exist as a dichotomy but as two separate functions that are in constant movement: agency constantly affects structure, yet agency is also constantly affected by structure [50]. Therefore, structures are not predetermined but evolve through social interaction [50].

According to structuration theory, power and agency are connected, as power is embodied in human action. Moreover, power is viewed as situated in actors' *transformative capacity* and the logical connection between human actions [51]. Furthermore, structuration theory embeds power in actors' rules and resources. In other words, all social actors have some degree of power, and the outcome of power relations is understood as the result of a balance of power among all social agents [52]. In this sense, power is tied to domination and relations of autonomy and dependence [51]. According to this view, agency and power are intertwined and continuously produced and reproduced.

In contrast, in its early stages, the transition literature did not provide detailed explanations of power [35]. Instead, the concept of *power* was understood implicitly via the notion of *regime*. Drawing on institutional theory and rules as a sociological phenomenon, Geels [53] defines socio-technical regimes as “*semi-coherent sets of rules, which are linked together*” [p. 904]. Therefore, the transition literature concurs with structuration theory in the sense that the notion of regime is embedded in power, dominance and vested interests. Similarly, power can be viewed as embedded in the regulatory rules of socio-technical regimes and the power struggles between incumbent regimes and emerging niches [54]. According to this view, power is perceived as a specific perspective on agency emphasising actors and social groups with conflicting goals and interests [55]. Moreover, as the transition research emphasises societal shifts, the literature views power and change as

inseparable. Therefore, change can be understood as emerging from the power struggles, contestations, lobbying, coalition building and bargaining among actors [55]. Furthermore, Geels [53] stresses that different actors do not have equal power. Actors are considered as having uneven resources, such as knowledge, assets, and opportunities to realise their purposes and interests and thereby affecting social rules.

Avelino [56] notes that the recent transition research has broadened its stance on power to include neoGramscian political economy notions on hegemonic power [57] and resistance stemming from the regime [58]. Indeed, from the perspective of power, the transition literature conceptualises regime stability as the outcome of active resistance by incumbent actors [12]; For example, powerful incumbent actors may use their power and resources to suppress innovations through market control or political lobbying [53]. This notion resonates with Giddens' view on the asymmetries in power relations stemming from inequalities in actors' influences [52]. Contemporary writings on power consider, for example, the power of incumbents in the politics of energy transitions [59] and the typologies of power in environmental politics [60]. In addition, Avelino [56] critically evaluated the essence of power and power typologies in the transition literature and proposed a comprehensive framework through which to analyse power in transitions. Despite these advances, recent research is more concerned with political governance than business actors. This paper attempts to address this gap, in this paper, we seek by providing insights into the power relations and struggles of top managers amid the sustainability transition.

## 2.2. Top managers as the microfoundation of the circular economy transition

We adopt a micro-level approach to appreciate corporate executives in the sustainability transition. The essence of microfoundations research is to recognise that understanding collective phenomena relies on developing an understanding of the constituent parts that comprise the phenomena; that is, individuals and their social interactions [61]. A micro-level approach helps us focus on individual-level psychological and behavioural aspects [32] and enhances our understanding of managers' critical role in the transition. Top managers direct the business strategy and are responsible for its implementation. In this respect, they have a powerful and central role in their company. Given their position of power, we argue that top managers have the most important role in introducing the circular economy via business strategies.

In the realm of academic research, several streams explore a managerial perspective to sustainable development, including research on corporate social responsibility (CSR) [62–64] and sustainable leadership [65]. This paper builds on existing microfoundations research in management and organisation research [66,67]. This choice reflects the fact that this field emphasises the question of how the individual-level behavioural aspects of corporate executives affect firm-level outcomes [33,68].

In the management literature, microfoundations research is used, for example, in the study of institutional logics (e.g. [69]), dynamic capabilities (e.g. [70]), and organisational routines (e.g. [71]). The purpose of microfoundations research is to explain theoretical and empirical causalities at a level of analysis lower than the level of the phenomenon itself [33]. This lower level is often reduced to consider actors – be it individuals or non-human actors – while it may also feasibly result from social interaction [33]. Microfoundations research is intended to serve as a bridge for empirical studies and, therefore, connect more abstract macro concepts into strategy and organisational theory [61]. Felin and colleagues explain that microfoundations research seeks to “unpack collective concepts to understand how individual-level factors impact organisations, how the interaction of individuals leads to emergent, collective and organisation-level outcomes and performance, and how relations between macro variables are mediated by micro actions and interactions” [33, p. 4].

According to the microfoundations perspective, companies consist of individuals whose behaviours influence strategy planning and

implementation. Building on this line of reasoning, we explore top managers' actions and social interactions as the microfoundations in the sustainability transition to the circular economy. In other words, we treat circular economy executives as the microfoundations for sustainability transitions in the business environment. Therefore, we explore top managers' power and individual-level factors to understand their role in companies' sustainability work. Against this theoretical framing, we now move on to presenting our methods.

## 3. Research methods

This paper explores the perspectives of top managers who are leading circular economy active companies in Finland across sectors. Finland provides an interesting case context, as the country has set ambitious national targets towards building the circular economy and aims to become the world's leader in this development [72]. Finland's government-led national strategy to promote this circularity includes key targets, such as the shift to a carbon-neutral and circular economy by 2035 [8]. In parallel, a roadmap has been developed to support the transition to the circular economy across Finnish society. The roadmap provides concrete steps towards this transition [73]. The roadmap informs strategic goals for the implementation of the circular economy. These goals include the renewal of the foundations of competitiveness and vitality, shifting to low-carbon energy, view natural resources as scarcities and treating everyday decisions as the driving forces of change [73]. The strategic goals are to be evaluated with clear indicators to circularity. Indicators involve value, resource productivity and energy-related metrics such as the share of renewable and low-carbon energy of final use [73].

Despite these recent developments, the societal transition to the circular economy remains in its early phase. In parallel, the traditional, linear economy defends its position as the dominant regime. As the country has set ambitious targets towards the realization of a circular economy and begun implementing circularity, the linear economy regime can be considered as being exposed to a structuration process. Within this process, via the bidirectional movement of agency and structure, the emerging circular economy regime is gradually challenging, or even replacing, the old regime. We conceptualise the regime as an external structure in that the top managers constantly affect the structure while also being affected by it.

In the light of the relative paucity of prior research on both companies' internal processes and actors' behavioural aspects in the transition literature, we adopted a qualitative research approach. Such an approach is relevant in finding a flow of causal connections to explain the phenomenon under observation [74].

Specifically, we interviewed 34 top managers of Finnish companies. We sought to interview top managers who play an active role in the advancement of a circular economy. The companies were selected first based on a list called “The most interesting companies in the circular economy in Finland, Sitra 100”, created by the Finnish Innovation Fund, which is directly accountable to the Finnish Parliament [75]. We chose to select companies from this list based on the Fund's powerful national role in supporting the transition towards the circular economy. Second, our interview sample was complemented with professional recommendations via a snowballing approach by asking for further interviewee recommendations from the interviewed top managers.

All the companies represented by the interviewees are active vis-à-vis the circular economy. In this paper, we categorise the companies' relation to the regime via their circular economy business model. We supplemented our interviews with secondary data from the companies' webpages and a financial information database to understand their business models within the context of the circular economy. Taking a closer look, we categorised our company sample into two types of companies.

Most ( $n = 30$ ) are well-established, large or medium-sized firms. As such, these companies have been conducting business according to the

old linear economy regime. We refer to them as incumbent companies. According to our conceptualisation, incumbent regime actors are long-standing with existing ties with the regime. Their business model heavily leans on the logic of the regime. These companies generally have sufficient material resources and power to restrict changes in the regime, though they might apply novel technologies to support an incremental change to the regime from within. For example, an incumbent company may introduce a small share of recycled materials into their production line, while the bulk of their business remains dependant on the use of novel raw materials. These incumbent companies have an established position in society and industry. Typically, they have the material resources and power required to restrict changes in the regime. The position of the represented incumbent companies is complex because they have a vested interest in the linear regime but also are engaged in a sustainability transition towards the circular economy from within the regime.

Taking a closer look, we observed that not all of the incumbent companies' were oriented towards incremental innovation. We noted that some of the companies were prone to radical innovation. To this end, according to our categorisation, 20 incumbent companies were oriented towards incremental circular economy innovation. All these companies were large- or medium-sized businesses. The remaining 10 incumbent companies were leaning towards radical change to the circular economy. In these cases, inclination towards more radical innovation was evident; for example, when the company had transformed its old linear business model to one grounded on circularity. For instance,

one company had recently transformed its business model to use only side flows of other industries as inputs in the production of new products.

The remaining four companies are start-ups that built their original business model according to the circular economy (i.e. they are born-circular companies). All the interviewees filled the dual roles of CEO and owner of the company. We consider these companies as niche actors that are more aggressively challenging the existing regime via radical innovation. We refer to them as niche companies as they have built their companies to function according to the logic of the emerging circular economy regime. The niche companies' business models were all service rather than material based. Thus, all niche companies had a business model directed towards a radical circular economy change.

We conducted the interviews between May 2019 and March 2020. All interviews were recorded and transcribed. We interviewed one top managerial representative per company. The interviewee details are presented in Table 1. During the interviews, we followed a semi-structured interview approach. While some questions varied, the central themes and questions, as detailed next, were covered across the interviews. Our interview questions were concerned with top managers' views on the circular economy in their companies and the industry at large. We sought to learn about the companies' strategies as regards the circular economy while also exploring how they had shifted towards circularity. We also inquired about the influence of stakeholders in this regard. Moreover, we investigated the top managers' personal interests and actions regarding sustainability and the circular economy. Finally,

**Table 1**  
Interviews.

Code	Date	Duration	Sector	Company size	CE BM leaning towards incremental vs. radical innovation	Position	Gender
I1	22.5.2019	62 min	Waste management	Large	Incremental	Business Director	M
I2	12.6.2019	49 min	IT	Large	Radical	Sales Director	M
I3	29.10.2019	28 min	Furniture industry	SME	Radical	CEO	M
I4	29.10.2019	42 min	Forest industry	Large	Incremental	Director of Sustainability	F
I5	29.10.2019	35 min	Energy industry	Large	Incremental	Sales Director	M
I6	5.11.2019	61 min	Energy industry	Large	Incremental	Director, Biofuels	M
I7	7.11.2019	71 min	Forest industry	Large	Incremental	VP Sustainability and Communications	F
I8	11.11.2019	60 min	Plastic industry	SME	Incremental	Chief Marketing Officer	M
I9	12.11.2019	49 min	Vehicle leasing industry	Start-up	Radical	CEO	M
I10	19.11.2019	86 min	Forest industry	Large	Incremental	VP Sustainability	M
I11	27.11.2019	65 min	Energy industry	SME	Incremental	CEO	M
I12	10.12.2019	62 min	Waste management	Large	Incremental	CEO	M
I13	9.1.2020	54 min	Wealth management	SME	Incremental	Chief Investment Officer, Partner	M
I14	17.1.2020	68 min	Energy industry	Start-up	Radical	CEO	M
I15	4.2.2020	52 min	Chemical industry	SME	Radical	CEO	M
I16	7.2.2020	100 min	Recycling industry	SME	Radical	CEO	M
I17	19.2.2020	54 min	Energy industry	SME	Incremental	CEO	M
I18	24.2.2020	35 min	Waste management	SME	Incremental	CEO	F
I19	25.2.2020	57 min	Property maintenance	Large	Incremental	SVP Corporate relations	M
I20	28.2.2020	37 min	Parking industry	Start-up	Radical	CEO	M
I21	28.2.2020	37 min	Waste management	SME	Incremental	CEO	M
I22	3.3.2020	53 min	Ecommerce	SME	Radical	CEO	M
I23	3.3.2020	65 min	Textile industry	Large	Radical	SVP Business Concept Development	F
I24	4.3.2020	48 min	Clothing industry	SME	Incremental	CEO	M
I25	5.3.2020	50 min	Wellbeing industry	SME	Radical	Head of Strategy	M
I26	9.3.2020	27 min	Textile industry	SME	Radical	CEO	F
I27	11.3.2020	40 min	Construction industry	SME	Incremental	Chairman of the board	M
I28	12.3.2020	68 min	Energy industry	SME	Radical	CEO	F
I29	12.3.2020	40 min	Industrial equipment industry	SME	Incremental	CEO	M
I30	17.3.2020	55 min	Ecommerce	SME	Radical	CEO	M
I31	19.3.2020	69 min	Industrial equipment industry	SME	Incremental	CEO	M
I32	26.3.2020	42 min	Industrial equipment industry	SME	Incremental	CEO	M
I33	26.3.2020	47 min	Design industry	SME	Incremental	CEO	M
I34	31.3.2020	37 min	Waste management	Start-up	Radical	CEO	M
Total: 34							

Note: CE = circular economy, BM = business model, SME = small and medium-sized enterprises.

our interview questions probed the top managers' perceptions on the transition towards circularity in Finland in general. More detailed interview themes are provided in the [Appendix A](#).

There are several ways of conducting data analysis inspired by a grounded, inductive approach underpinned by the aim to develop theory-based empirical, qualitative data [74,76,77]. We carried out the data analysis via a bottom-up, iterative process based on the constant comparison of data and data reduction to generate categories from the interviews and move towards a higher-level conceptualisation of the findings [77–79]. In other words, we were particularly inspired by Gioia, Corley and Hamilton's [79] approach.

Our data analysis took place across four broad phases based on an iterative approach to inductive category development. We triangulated our data throughout the process to ensure the reliability and validity of the research. In the first phase, we proceeded to open coding the interview transcripts [77]. In this phase, our interview transcripts were manually analysed and evaluated. The first phase enabled us to identify a set of recurring themes—especially regarding agency, power and behavioural aspects—that described top managers' engagement in the circular economy transition. These themes formed our first-order concepts (Table 2) [79].

In the second phase, we continued our analysis by further comparing the coded sections for each first-order concept, and noticed that in these sections, there were clear differences in top management engagement with the circular economy transition. Based on these, we were able to identify our second-order concepts, i.e. conceptual categories, in relation to our research questions. These could explain how and why top managers engage in the circular economy: (1) career path, (2) leveraging the managerial role and (3) personal-level competencies. Taking a closer look, we ascertained that the themes described how top managers' power and agency manifest in their attempts to influence structure to enable circularity, and vice versa. Each category captures different rationales or practices for top management engagement into the circular economy transition.

The aim of the third analysis phase, was to create a “data structure” (Fig. 1 & Table 2) representing our findings [78,79]. In the fourth phase, we developed the data structure into a dynamic model (see Fig. 2, Chapter 4.4) mapping the findings onto extant theory. As suggested by Gioia et al. [79], we present our findings in two phases: a static data structure that represents the findings in the three conceptual categories, and a dynamic model that maps top managers in the structuring of a transition towards the circular economy.

#### 4. Findings

The conceptual categories that emerged from our data—career path, leveraging the managerial role and personal-level competencies—explained either the question of ‘why’, the question of ‘how’, or both questions simultaneously, as detailed in this section. All three conceptual categories build on the recurring themes in the data. First, *career path* consists of the concepts of “deliberate change to the circular economy”, “meaningfulness”, and “drifting towards the circular economy”. Second, *leveraging the managerial role* reflects the concepts of “communicating about the circular economy”, be it inside or outside the company boundaries; “profitable business”; and the tension between “cooperation vs. and competition”. Third, *personal-level competencies* builds on the concepts of “pioneering”, “problem-solving”, “competitive”, and “resilient”. The reader is encouraged to refer Fig. 1, which depicts the data structure, based on which this section is structured. In addition, as a means to answer our research question, Fig. 1 depicts why, and how, top managers engage in the circular economy. Table 2 provides representative quotes for each first-order concept within each conceptual category.

**Table 2**

The data structure with first-order concepts, second-order concepts and representative quotes.

Conceptual category	First-order concepts	Illustrative quote
<i>Career path</i>	Deliberate change to the circular economy	“Well, I came to [the circular economy company] when I was asked, and this concept was presented, and I was interested right away. Because throughout my whole career, I've done things that I want to do, and I want it to have some other meaning besides the salary. So for ideological reasons as well.” (19)
	Drifting towards the circular economy	“It [starting to work with circular economy] was just a coincidence, so to say. So headhunters just wanted a general manager here; this is an equity investors' company, so for this company. That's how I ended up here, through recruitment.” (118)
	Meaningfulness	“Being at the head of a technology company like this is such a time- and energy-consuming job that it's been focused on this thing ...I feel like a change agent. So it's the input I give, which practically means all my time and energy to build this company. That's one of the major factors why I wanted to leave a big company where I was set for an extremely good future and extremely good compensations and incentives and everything. It was this whole deal that was the main motivator why I got involved in this and then of course as a feeling it has proven to be the right decision in the sense that if when you understand the state of the world, where this is headed if nothing happens, then you yourself want to be making that, as a driver of that change or an agent in it.” (131)
<i>Leveraging the managerial role</i>	Communicating about the circular economy	<u>In the company:</u> “Probably the most challenging thing is to start the conversations on the right level in the company in a way that things really start to happen there. Having some sustainability manager or sustainability director agree with me is not enough on its own, but the business management has to understand how to get things going fast.” (12)
	Profitable business	<u>Beyond the company:</u> “We do have many forums where we're involved. There's this YTP, there's the producer community, and we also do certain communicative things. ... I'm on Twitter and so forth and something, but these operative challenges sometimes seem to take up time, and this general promotion is less common, but we still do that.” (121)
	Cooperation vs. competition	“And there's the economic benefit in the background. ... Because finance will also steer us in that direction [the circular economy] sooner or later.” (11)
		<u>Cooperation:</u> “We built this coalition, 2010 Towards the Circular Economy. We invited Finnish universities, research institutions, public agencies, organisations to take part in a common debate where we built, together with Gaia, this recipe book Towards the Circular Economy what it takes from Finnish society. ... We got it in the government platform of Sipilä's

(continued on next page)

Table 2 (continued)

Conceptual category	First-order concepts	Illustrative quote
Personal-level competencies		Government and. Now it's strongly on the agenda of this current government." (I19)
	Pioneering	<u>Competition</u> : "Yeah, and that's it, something that has just recently come up is this waste competition. That they [state-owned Company X] have made a deal with state-owned Company Y that all of Y's waste will go to them. This obviously affects all operators now, the smallest operators so that the waste is taken away from them. They've been getting income from the gate fees, waste processing, so in a way, the state-owned enterprise is acting in a somewhat questionable manner by doing this." (I28)
	Problem-solving	"Of course, if I look back several years, I guess we've been some kind of pioneers." (I29)
	Competitive	"The most rewarding thing has been the impact that you make and that you see you've managed to solve a problem like that, so that it's been resolved too, a solution has been found in terms of how to do it and still make it profitable." (I30)
	Resilient	"But in a way, perhaps that's characterised by someone from the outside coming, an investigator probing into us and then saying that you're [taps the table or wall] in a hundred in the circular economy, you're here in the top three according to this or that set of criteria. At least for a competitive person like this, that's a driver, these goals are set, and then they're reached. ... As a business director, I'm used to getting, when you set goals, you usually reach them. And then they, you can look at that change afterwards to see if there's progress." (I12)
		"It's not easy. So I'd say we're a kind of trailblazer in the field in Finland. I'd argue that in the Finnish investor market, and you could even say on a European level—it's probably not wrong to say that on a global level, too—the fact that we were the world's first circular economy fund, there's certainly been some kind of a trailblazing role there. Then there's also the various recognitions we've received in various competitions and such, so in that sense, we've been doing pioneering work. What it has required has perhaps been difficult in that it's involved having to explain the concept a lot and the way of thinking and making it known, a new thing to various parties. So, that's always the pioneer's role. But then on the other hand, what's sped it up has been that people and above all investors have had a positive attitude towards the topic, and there's been a will to do these things that's been bubbling under, so to say, and then when we've been able to offer that solution, there's been a clear demand for it." (I13)

#### 4.1. Career path

We observed that top managers' career paths are formed via three pathways: (a) deliberate change to the circular economy, (b) drifting towards the circular economy, or (c) through meaningfulness. Moreover, we found that top managers' career paths explain why they engage in the circular economy.

##### 4.1.1. Deliberate change to the circular economy

We found that some interviewees had taken career turns to actively and deliberately promote the circular economy in their companies. This can be considered a manifestation of agency affecting structure. Most of these interviewees reported that they pondered a career shift to the circular economy carefully before deciding to pursue it. Often, such shifts opened pathways to more senior and powerful company positions, such as CEO or VP. Interviewees who took this deliberate step represented both incremental and radical business models, but some reported dissatisfaction with their previous work at an incumbent company that favoured incremental innovation, where the path dependence created by the linear system prevented them from taking action towards circularity. For example, one start-up CEO described how his growing motivation and ambitions towards circularity compelled him to start a small circular economy business:

"It started from me being in a state-owned big company before. For the last couple of years there, I started developing a recycling business. I recognised that there are a lot of potential and opportunities for what could be done in Finland to make this work and make this industry develop." (I34).

##### 4.1.2. Drifting towards the circular economy

For another, some interviewees described that their involvement with the circular economy began by drifting rather than as the result of serious consideration. These top managers represented companies that were pursuing incremental rather than radical circular economy innovations. Some of the interviewees mentioned that they chose their company partly for its connection to the circular economy, even though they had opportunities to take similarly powerful positions in other companies. Thus, although these interviewees had not deliberately altered their career paths towards the circular economy, they viewed the opportunity to promote sustainability and the circular economy as an additional incentive for attaining their position.

The growing importance of the circular economy shows that the structuration process has led to the emergence of a new circular regime alongside the old linear regime. As the new circular regime becomes structural, it affects the top managers and their careers. In the quote below, the interviewee explains that the CEO position in a circular-economy-active incumbent company felt personally important, though the original decision to change jobs was unrelated to the circular economy:

"Well, if I'm totally honest, a headhunter called and asked me here. But the reason I got involved was influenced especially by this, well, my personal background, of course in a certain way in that I believe I've got something to give here, but the other reason was this growth of relevance." (I21).

##### 4.1.3. Meaningfulness

A sense of purpose appears to be an important driver for top managers to engage in the circular economy. Often, the interviewees critiqued the existing linear economy paradigm. They hoped to move the world towards greater sustainability through their profession and stated that meaningfulness was an important part of this aspiration. Typically, top managers were able to embody this sense of meaningfulness in their current careers, and therefore, they did not engage in career changes.

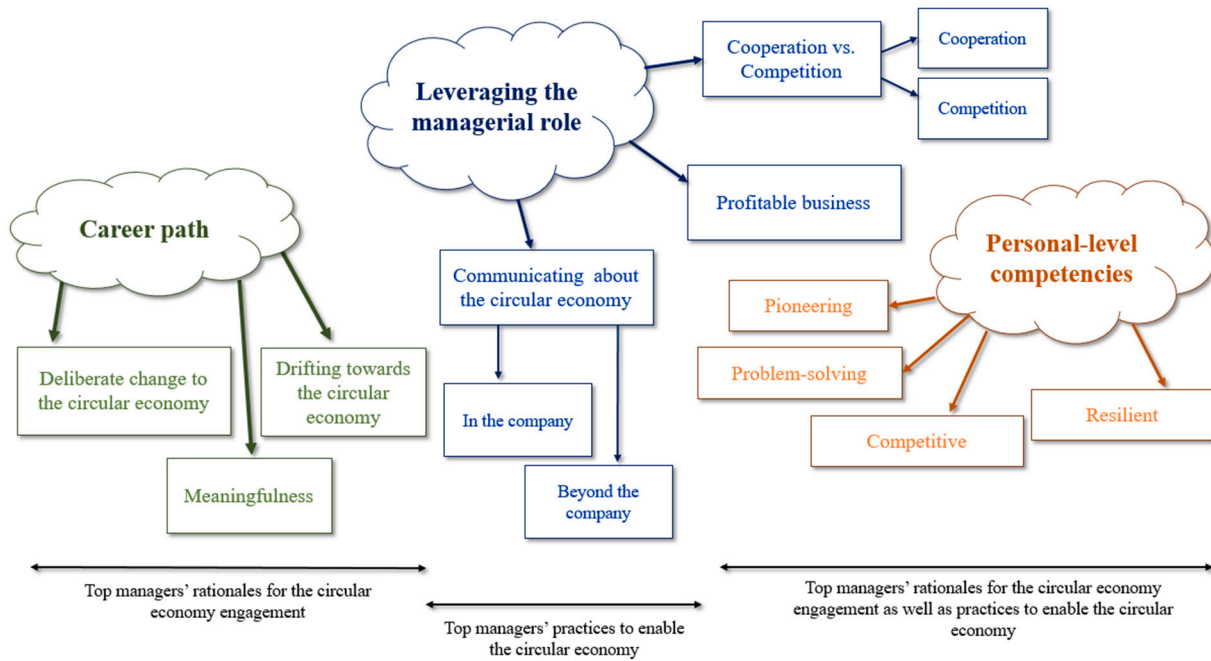


Fig. 1. Graphic representation of the data structure of the categories and recurring themes.

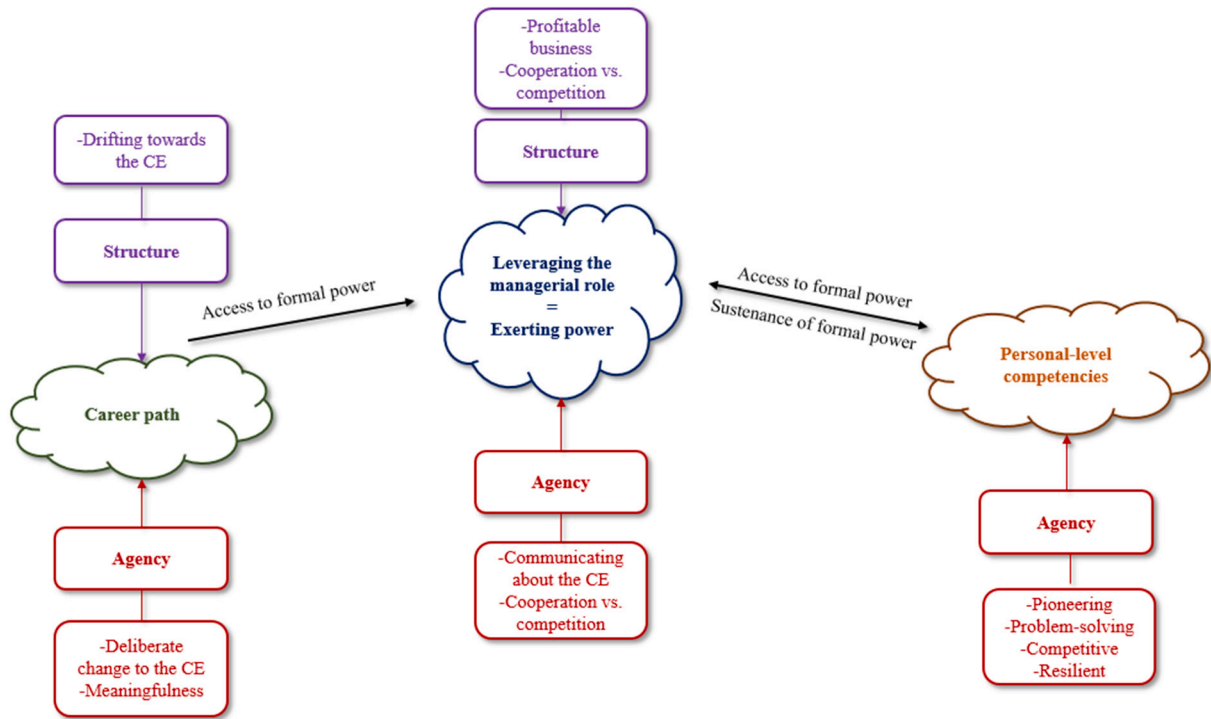


Fig. 2. The interplay between structure and top managers' power and agency in the structuration of the circular economy regime.

Rather, they embarked the circular economy in their current professions. Interviewees represented both incremental and radical business models; yet, the latter group stated that meaningfulness had helped them shift their company's business model from incremental innovation to radical innovation.

Meaningfulness is a driver for top managers to express their agency and challenge the prevailing linear regime. While top managers often felt that the linear regime was still restricting their agency, they were motivated to act differently and create rules for the emerging linear

system. As an example, one SVP who worked in the textile industry pointed out how the existing cost structure in the linear economy drove her to embark towards the circular economy and actively aim to radically alter the business model:

*"A big reason was that if a club sandwich costs more than a t-shirt, there's something wrong with this system."*  
(I23).

## 4.2. Leveraging the managerial role

Second, our findings imply that top managers strive towards the circular economy through their professional role. The position as top manager embodies formal power that managers use in their attempts to influence the external structure in companies and broader in the society. Specifically, our interviewees used their roles to enable the transition by (a) communicating about the circular economy, (b) ensuring a profitable business and (c) balancing cooperation and competition.

### 4.2.1. Communicating about the circular economy

We observed top managers' communication in this respect as twofold. They use their position of power to communicate about the circular economy in two domains: within the company and outside of the company. Top managers of large incumbent companies were especially likely to feel the need to promote the circular economy within the company; they acted as change agents instead of supporting the company's shift to circularity as an unambiguous, top-down management initiative. In this endeavour, the top managers often encountered resistance, for example, from business directors or board members. This resistance reflects the interplay of agency and structure, where top managers are the agents and the company is the structure. In this interplay, agents aim at reproducing the structure, but the structure resists the change. A CEO working in an incumbent company pointed out that his work towards the circular economy required many discussions within the corporation alongside efforts to meet their operational targets:

*"[How to promote the circular economy] By speaking to us internally and the group and, by developing allocating resources in the direction that these goals can be driven forward parallel to business goals."*  
(122).

Outside of the company, interviewees sought collaboration with various stakeholders and even engaged in lobbying to promote the circular economy. The top managers discussed that they needed to communicate their success stories and ideas with a broader audience for the circular economy to succeed. Some also were motivated to share successes for the sake of maintaining and possibly increasing their power position in the rising circular economy regime. This motivation was especially common among interviewees from niche companies and those from incumbent companies that were pursuing radical innovations. For example, one CEO whose company has adopted radical innovation to the circular economy described how he searched for circular economy partners by participating in various events and bilateral discussions across Finland:

*"Of course then I took part in various events and obviously one-on-one discussions with companies as well, but then also bigger events. Preferably so that a little later we describe our successes in bigger events and in that way then, people are very interested in that and, I've noticed that in these types of issues as well, usually also in these companies that make these decisions of whether they'll become our partners, customers or investors, or something else."*  
(115).

### 4.2.2. Profitable business

The top managers took their responsibility to conduct economically viable businesses seriously. They recognised that they could not maintain their powerful executive positions unless they did so. They tended to perceive that their main managerial responsibility was to guarantee business profits. Thus, competitors from the existing linear regime and from the rising circular regime represented threat, unless they are financially viable. Within this remit, we observed two key stances.

For one, many of the interviewed top managers viewed that shifting towards the circular economy was necessary for the future survival of

their business. Indeed, they viewed that the economic paradigm in society is shifting towards circularity. This shows how these CEOs actively strived to change the prevailing structure; i.e., structuring the regime.

For another, other interviewees considered the circular economy as a remarkable business opportunity, subordinating its sustainability benefits to its economic opportunities. In other words, top managers noticed the emerging structuration process towards the circular economy regime. Therefore, the arising circular structure drove top managers to remodel their existing business models. Typically, these remodelling efforts were incremental changes to their current business models. For example, one interviewee from an incumbent company explained that they started providing circular economy solutions for their customers due to increasing demand represented a business opportunity:

*"Businesses don't do these responsibility things, well usually they don't do them for their own pleasure, but they do them because they believe their customers, whether it be another business or a consumer, want responsibility. We offer them the chance that they can say they're responsible and thereby grow their business. That then also makes our business possible."*  
(15).

### 4.2.3. Cooperation vs. competition

Top managers must contend with a trade-off between cooperation and competition. Indeed, interviewees were often conflicted by their desire to cooperate with other circular economy active stakeholders while simultaneously experiencing harsh competition from other emerging circular economy niches, as well as from the existing linear regime. Niche companies seemed especially challenged by the surrounding competition, though incumbent companies were cautious as regards whom they cooperated with. Despite these challenges, many managers sought collaboration and belonging to a broader circular economy movement. This portrays how the emerging structure can be created via a collaborative process. For example, one interviewee discussed how he was actively encouraging others within the company to seek cooperation:

*"I've publicly said to our staff here that in my time 'company XYZ' can be a subcontractor, a supercontractor, or a sidecontractor. Our role in that project or task can be whatever. I believe that one plus one is greater than two."*  
(112).

In turn, top managers also expressed concerns that their competitors would gain a competitive advantage by continuing to conduct business according to the rules set by the linear regime. The pressure imposed by competitors demonstrates how the prevailing linear regime can constrain the abilities of top managers to exercise their agency and power, regardless of the company's size and business model orientation. They collaborate with others to further the structuring of the new circular regime while competing both with new and old regime players. An interviewee from an incumbent company explained how lower prices from competitors in the linear regime were making it difficult to implement the circular economy and survive as a business:

*"Well, I mean it's obviously the case that if you sell a better product in a way than your competitor and you need to show it in the price too, that's always challenging, of course. After all, it doesn't take much of a salesperson to sell the cheapest product. That's very easy, but if you try to sell a bit more premium, get the customer to become aware."*  
(113).

## 4.3. Personal-level competencies

Third, we observed top managers' personality traits also helped explain their circular economy engagement and practices. The four



prevailing traits—pioneering, problem-solving, competitive, and resilient—also provide insights into how top managers gain access to and maintain positions vested with formal power.

#### 4.3.1. Pioneering

To begin with, top managers who are active in the circular economy transition act as pioneers. While the term “circular economy” might be relatively new, many of the interviewees had been conducting circular business for decades, functioning as trailblazers of circularity when the linear economy regime was more powerful and the dominant structure. Some of our interviewees were the initiators of the current circular economy transition, and they also helped shift the business model orientation of several incumbent companies towards radical innovation. Despite this, a pioneering attitude was also evident in many of the managers whose business models were oriented towards incremental innovation. These top managers were directly influencing their company’s structure and initiating the structuration process towards the circular economy regime. As an example, one top manager from an incumbent company described the importance of having a trailblazing vision:

“Well, it’s largely the fact that our vision requires a pioneering approach so that we can show that we’re a pioneer in something or at least helping to drive the change forward. It’s rewarding, at least for me.” (I24).

#### 4.3.2. Problem-solving

Our findings also revealed that top managers are adept at problem solving. Many interviewees discussed at length the challenges they faced in implementing the circular economy. Challenges are rooted, for example, in legislative processes and the difficulties of finding funder. The challenges in implementing circularity emanate from the linear regime acting as a structure that defends its position. Interviewees were undeterred, however, and their agency was characterised by a strong will to find solutions. They displayed a problem-solving mindset and perceived that their companies were capable of overcoming different challenges. The problem-solving mindset was evident in representatives of both the incremental and radical business models. One interviewee stated that his path as a start-up CEO is largely formed by solving one challenge after another, to the point where his company is now undergoing a major breakthrough:

“Although the circular economy is talked about a lot and solutions are demanded from every corner, it doesn’t really show much in the business of a new company like this it hasn’t shown yet. We’ve built, spent a lot of our money last year on creating our own concepts, and we’ve tried to apply for assistance and get financial institutions involved. But despite all the talk, it still doesn’t show there in the sense that there would be a lot of concrete support. So realising our strategy and vision for 2021 to be the most valued regional developer in Finland, we’ll have to rush; there are nine months until the year 2021. But now it feels like we’re breaking through in Finland and even internationally in that we have many partner companies in the Netherlands and, just last week, I was in Japan talking with [innovation funder] about producing infra elements there for [customer X]. Things are now starting to progress.” (I27).

#### 4.3.3. Competitive

Based on our interviews, the circular economy top managers have a competitive mindset. Many of the top managers described themselves as competitive and ambitious. In fact, rivalry seemed to spark their ambition. Many interviewees were eager to compete at being the best circular economy manager or company in Finland, if not in the world. Indeed, the top managers often expressed their frustration that, hitherto, there have been no properly measurable metrics for circular economy

implementation and success. They stressed that developing metrics for circular economy success would support the transition to circularity, as it would be easier to manage the circular strategy and promote the idea of the circular economy to internal and external stakeholders. In other words, the competitive mindset fosters top managers’ agency and enables agent-led structuration towards the new circular regime. Interestingly, the competitive mindset was more visible in the large incumbent companies. For example, one SVP from an incumbent company emphasised that Finland, along with his company, should pursue being the world leader for the circular economy vis-à-vis technological development:

“It’s no use trying to focus on anything else here [in Finland] except that we in Finland could sort of, if we wanted to be a leading country in the world, we need to choose the sport. So we can’t be the world’s leading country in athletics but are we in javelin throwing or manufacturing javelins or... Where are we, what’s our focus? And that should be in technologies as much as possible. Because that’s what we have the best capabilities here for. In bio-based materials and their processing.” (I19).

#### 4.3.4. Resilient

Finally, interviewees demonstrated continuous perseverance in their aspirations towards circularity, in the face of an old regime that still defends its position as the dominant system. Interviewees described various setbacks in the implementation of circular business. Despite these delays and obstacles, they were not paralysed. Instead, they recovered from the setbacks, came up with new solutions and strategies, and thus continued their work in promoting circular business. Resilience can be considered an attribute of top managers as agents in the structuration of a new, circular regime. As an example, one CEO in the process of steering her company towards radical innovation described how she had persistently created a market for the company in China:

“Well, it shows in those exports too. I mean, like I’ve been to China six times now and, I’m the first person there who describes something big. I haven’t met with any actual listed companies yet, but that’ll probably happen eventually. They haven’t even heard of this field, of course. So, I’m the first one telling them about it and its opportunities. I’m taking all these great new ideas to China so that someone there might seize upon them.” (I28).

### 4.4. Why and how do top managers engage in the circular economy?

While the previous section described our static data structure, in this section, our focus shifts to appreciating how the identified categories

**Table 3**

Themes categorised as leaning more towards agency or structure in the structuration process.

Category	Theme	Dominating structuration dynamic
Career path	Deliberate change to the CE	Agency affecting structure
	Drifting towards the CE	Structure affecting on agency
Leveraging the managerial role	Meaningfulness	Agency affecting structure
	Communicating about the CE	Agency affecting structure
	Profitable business	Structure affecting on agency
Personal-level competencies	Cooperation vs. competition	Tie between structure and agency
	Pioneering	Agency affecting structure
	Problem-solving	Agency affecting structure
	Competitive	Agency affecting structure
	Resilient	Agency affecting structure

and themes are connected. Table 3 presents an overview of how the emerging categories relate to the debate over agency and structure in enabling a new circular regime. Based on this categorisation and our data, Fig. 2 depicts the resulting dynamic model, which shows how top managers, vested amid agency and structure, engage in structuring the circular economy transition. In doing so, we connect our dynamic model to the literature reviewed at the front end of the paper.

As means to summarise our findings, we return to answering the research question guiding the inquiry: *Why and how do top managers engage in the circular economy transition?* For one, our findings imply that the category *career path* explains why top managers become involved with the circular economy transition in business. We find that meaningfulness and deliberate career changes towards the circular economy are strong drivers to implement the transition to circularity. Taking a closer look, we also observe that the category *career path* explains on the micro-level how top managers gain access to positions with formal power.

For another, the category *personal-level competencies*, we found that four personality traits offer micro-level insight into both why (i.e. rationale) and how (i.e. practices) top managers engage in the circular economy. To this end, we observe that top managers' personality traits explain their rationales for engaging in the circular economy and their practices to enable the circular economy transition. It seems that, the category *personal-level competencies* describes some top managers' traits, which provide tentative insights into how they exert power, which provide tentative insights into how they exert power. Our findings imply that top managers' pioneering, problem solving, and resilient traits help them access and maintain executive positions vested with formal power. Particularly, we note that top managers' competitive mindset explains their ambition for power and willingness to use it in the circular economy transition. In addition, the setting of competition drives top managers to advance the circular economy and exert their power while driving the transition.

Yet another, based on our findings, the category *leveraging the managerial role* explains how top managers, for their part, enable the transition towards the circular economy. As top managers have attained executive positions in their companies, they exert power through their professional roles. Therefore, the category *leveraging the managerial role* describes how they use their power.

Upon a closer look, our three identified categories detailing how and why top managers engage in the circular economy transition can be interpreted as part of the dynamic tension between structure and agency. Indeed, this dyadic tension operates as an interplay that affects top managers' activity while they are themselves acting upon the prevailing structure. We observe that *personal-level competencies* underline top managers' active agency in the structuration process towards the circular economy in line with their traits. Furthermore, we note that *career path* and *leveraging the managerial role* categories capture the interplay between top managers' agency and structure amidst a sustainability transition to the circular economy. Our findings imply that top managers' deliberate career changes to the circular economy and sensed meaningfulness are means to act as agents of the emerging circular economy regime. At the same time, the circular economy is a rising structure that influences other top managers who have drifted to the circular economy. Consequently, we find that top managers, their agency and their positions of power are affected by the structure when they struggle with business profitability and experience broad competition. These are manifestations of the old linear economy regime, which influences the top managers' agency. In turn, we observe that creating cooperation and communicating about the circular economy offer means for top managers to exert their power and agency, while creating liaisons that make them more powerful than acting in isolation. Top managers often feel challenged by the transition dynamics and restrictions imposed by the old regime—and yet, even as they must operate by some of the old rules to survive, top managers seek to act differently and create the rules for an emerging circular system.

## 5. Discussion

### 5.1. Top managers structuring a circular economy regime

We adopted the microfoundations approach and applied it to a sustainability transition to the circular economy, and our analysis enriches the transition literature with new insight into top managers' agency and power. To the best of our knowledge, despite increasing interest in the CSR and management literatures [70,80], the microfoundations perspective has not been applied in the transition literature. Also, agency has recently received growing attention in a variety of contexts [23,24,28] such as cultural change [81], institutional work [26] and religious agency [82]. Yet, transition scholars have not looked executives as agents of transitions thus far. As such, this study contributes to existing transition literature by elucidating on the role top managers play as they engage in actively structuring a new, circular regime. Our paper offers a fresh and nuanced perspective on the ongoing debate over the structure-agency question in the sustainability transitions literature. We show how the notion of power is critical in the agency-structure debate in the context of top managers. Echoing the theory presented earlier, in transition studies, the notion of power is proposed as an integral part of agency [55], and top managers rank among the most powerful members of their organisations. This view resonates with structuration theory, as Giddens [48] emphasises power as dependent on resources. To this end, top managers control the most resources; they thus have the most power in companies. Yet, our study implies that, in reality, the power of top managers is limited by numerous factors on multiple levels, such as within their companies, in the industry, and, more broadly, in the regime. In other words, the existing structure curbs top managers' agency.

Top managers' professional lives, in particular, underline the interplay of agency and structure, as well as the power asymmetries in the Finnish circular economy scene. Indeed, top managers' professional lives unveil a complex setting, in which exerting power becomes challenging. For one, we note that on the micro-level, top managers exert power by communicating, and they typically use their power and resources to enable the circular economy through communicating. The importance of this communicating is explained by two factors. First, top managers have a mandate to communicate on behalf of their companies. Taking a closer look, they typically execute this mandate to communicate both within and beyond their company borders. For example, they seek different routes, such as internal meetings or social media, to communicate and mobilise around the circular economy. Second, top managers often have broad formal and non-formal networks within which they communicate. Therefore, they are able to reach a wide audience to promote the circular economy. In short, our findings imply that communicating is an essential way for top managers leverage their power to move towards the circular economy.

For another, we observe that the responsibility of top managers to conduct economically viable business translates into a position that is vested with limited power in relation to the circular economy transition. In other words, the necessity of ensuring a profitable business can be both a hindering and a fostering element for the circular economy transition. Zooming closer, if a company does not succeed according to the parameters of the existing linear economy paradigm, it will not survive in the market. For the top manager to possess any power, their company must survive in the market. Therefore, the ensuring profitability can provide a window of opportunity for top managers to consolidate their power positions in enabling the circular economy transition. In a broader context, the world is suffering from severe sustainability threats, and the long-term viability of all companies depends on their ability to respond to these threats. The circular economy is proposed as a means of both conducting business and contributing to sustainability (e.g. [3]). Therefore, top managers who can conduct economically viable businesses in the present while shifting to the young circular economy are more likely to secure positions of power in the new

regime. Top managers who enable an early transition may be more likely to access positions with even more power than they currently possess, as they evolve into the new, incumbent regime actors of the soon-to-be-established circular economy paradigm.

Our findings indicate that, in the circular economy transition, the structure limits top managers' agency on multiple levels. They do not have complete autonomy [51] but rather are heavily dependent on other members of the company and developments in the regime. As top managers use various practices to shape their companies and the regime more broadly, they aim at reproducing their power while simultaneously building momentum towards the circular economy transition. The literature on sustainability transitions suggests that change can be understood as emerging from power struggles, contestations, lobbying, coalition building and bargaining among actors [55]. We observe that top managers use these practices to exert their power and implement circularity changes. On a holistic level, our findings imply that ensuring a profitable business is a crucial element for top managers' power and agency around promoting and enabling the circular economy.

Furthermore, our findings reveal how top managers' power is limited by the trade-off between competition and cooperation. Top managers must be strategic in choosing collaborators and competitors. While fruitful cooperation may translate into a stronger, unified power position and eventually lead to a thriving circular economy transition, poorly chosen collaborators may cause serious damage to top managers' companies and careers. For example, powerful incumbent companies may use their power and resources to shut down or aggressively acquire rising circular economy companies. Therefore, top managers must be careful in exposing information, as unscrupulous competitors can exploit this knowledge for their own purposes. The risks posed by competitors are manifestations of the conflicts in power that exist among actors [52]. Moreover, in the Finnish circular economy setting, competition involves both the emerging circular economy regime and the existing linear economy regime, so top managers have to be aware of the broadness of the competition. The endless onslaught of competition and varying motives across Finnish industries limits the power of top managers. (For practical examples, see Chapter 5.3 on managerial implications.)

Finally, this paper offers an empirical link between the fields of sustainability transitions and microfoundations. Hitherto, the transition literature has paid rather scant attention to company-level analyses [14,15], viewing companies as homogenous entities rather than complex systems composed of individuals with ambiguous and competing motivations. Therefore, our paper has adopted perspectives from the microfoundations literature [33] to appreciate how individual-level factors influence companies, and, consequently, the broader regime and society.

## 5.2. The question of incumbency and the structure

We observed that the size and maturity of the company affect the top manager's power, reflecting the distinction between incumbent and niche companies. Traditionally, sustainability transition studies depict company strategies through a dichotomy of niche and incumbent companies, in which niche companies stand for forerunners arising from particular niches and incumbent companies at the regime-level as reluctant to change [18]. The discipline is slowly shifting from this simple dichotomy to the complex reality, in which multiple niches interact with one another as well as with multiple regimes [18,83,84], though. Despite this shift, we observed power asymmetries between the so-called niche companies and incumbent companies. We noticed that the question of existence is the most crucial for the smaller start-up companies, i.e. the niche companies. These companies are typically small, born as circular, and their business models are formed according to the circular economy principles. As these companies are challenging the existing linear regime, top managers of the niche companies are concerned about the maturity of their circular business model.

Consequently, they have concerns about how to conduct an economically viable business and challenge businesses that are operating according to the linear economy, in parallel. Arguably, this finding implies that the niche companies possess limited power. When the companies have limited power, the top managers' power becomes limited as well. Yet, we noted that the niche companies do not seem to have internal power struggles between the CEO and other company members. In general, niche companies come across as relatively homogenous. Therefore, the power struggles that top managers undergo in niche companies arise beyond their company borders. In other words, they are constantly competing with the existing linear regime. Another concern for niche companies is the development of the external environment. For example, how legislative processes and regulations develop and how small companies respond to these changing demands with their limited power and resources appear as constant concerns for the top managers.

In contrast to niche companies, incumbent companies do not face constant threats to their existence. Rather, they are affected by longer-term concerns, such as, securing their establishing their position in the emerging circular regime. In other words, incumbent companies currently occupy an established and powerful position in the linear regime. Yet, they acknowledge that a new, circular regime is emerging, and they wish to remain powerful in the emerging regime.

Most incumbent companies operate according to the linear economic paradigm, and their business models are dependent on the linear regime. Incumbent companies that choose to pursue the circular economy transition tend to do so incrementally, adapting select principles of the circular economy to their current business operations, such that a relatively small share of the business is part of the circular economy. This does not mean that the top managers are resistant to a more radical circular business model—often, the contrary—but for incumbent companies, the timing of engagement in the circular economy is critical. Therefore, top managers encounter internal power struggles, perhaps involving competition among departments or directors with differing motivations. As they pursue the circular economy incrementally, larger companies must also compete against various niche companies as well as other incumbent companies that are defending the linear regime. Despite the growing competition, incumbent companies have secured their position in the regime and therefore are not at imminent threat. Yet, the competition at multiple levels depicts a situation that hinders a systemic transition to circularity by preventing top managers from implementing circularity at will.

The challenges are similar for the incumbent companies with business models oriented towards radical innovation. While the top managers and board may be willing to implement circularity, internal power struggles arise with other directors and departments. Radically-oriented incumbent companies also face the same competition as incrementally-oriented incumbent companies. Typically, the incumbent companies prone to the circular business models are interested in maintaining their powerful positions in the emerging circular regime. Arguably, they are more likely to secure their position of power in the emerging circular regime as they have a more established circular business model than the incumbent companies prone to incremental innovation.

Our observations of conflicting goals and interests are consistent with transition studies [55,56] and business and management studies [67]. We argue that the competition between niche companies and powerful incumbent companies hinders the Finnish economy as a whole from making a systemic sustainability transition to the circular economy.

The management literature has noted that top managers do not exist in isolation [33,61,67,70]. Rather, they act and make decisions through numerous social interactions. Therefore, they are informed and affected by other members of the company and various stakeholders. Yet, to the best of our knowledge, no research has evaluated how competition and power asymmetries translate to the sustainability of the industry and regime. We argue that obstacles recurring at several societal levels may explain companies' difficulties in moving towards the circular economy.

Therefore, we call for future studies that delve into the various tensions arising from the industry and regime. Furthermore, we suggest that scholars explore the various company-level motivations that hinder sustainability transitions to better understand the slow pace of many such transitions. Finally, we call for more appreciation of the managers' roles amidst sustainability transitions. In particular, we argue that managers' private and professional roles should be treated as individual-level factors in sustainability transitions.

### 5.3. Managerial implications

Building on our study, we show that the responsibilities of managing a company and ensuring a profitable business lead top managers to have tension or outright competition with other members of their own companies, other companies and numerous actors throughout the regime. Our findings imply that this situation puts top managers amid several power asymmetries (especially within the company) that can limit top managers' power, even though they are perceived as among the most powerful members of an organisation. In reality, they can encounter conflicts within their own company and may be forced to find allies who support their strategy around the circular economy. For example, a CEO may be willing to implement the circular economy broadly within the company, but the board sets itself against the CEO. Thus, we recommend that practitioners acknowledge these power asymmetries before implementing radical business model changes to circularity. As top managers' power might be more limited than assumed, we encourage company executives to gradually educate employees on the importance and manifestation of the circular economy. Arguably, resistance may decrease as employees feel more included in the sustainability developments that emerge in the company.

We also observed that top managers can encourage like-minded employees to gain power within the company. We advise practitioners to build collaborative relationships with actors in the company as a means of generating bottom-up change. Then, we recommend that top managers create networking possibilities for the sustainability-oriented employees to form a group that can advance the planning and implementation of circular economy strategies. Typically, top managers must convince business directors and board members that the circular economy is, or is about to be, a profitable business. In this pursuit, they also must consider stakeholder pressure, as neither they nor their companies exist in isolation. A profitable business requires support from various stakeholders, including consumer and legislative demands outside the top managers' company borders. Therefore, we advise practitioners to apply different stakeholder engagement frameworks to foster fruitful cooperation with other actors.

Furthermore, top managers must be aware of ongoing regime developments on an industry-level. For example, the managers are often competing for same resources. For instance, circular economy companies can use biomass both for food and for energy. Arguably, top managers' power to influence regime developments around resources is quite limited. As another example, since the circular economy is an emerging trend, legislation around it is still lacking on both the national and EU-level. As this legislation is still emerging, new regulations can have a drastic impact on companies' profitability and their ability to conduct business in the near future. While top managers do engage in lobbying activities, their power to influence legislative processes is limited. Despite this, we still encourage practitioners to advocate for the circular economy.

### 5.4. Limitations

We identify several limitations that represent opportunities for future research. First, our paper set out to explore top managers situated in circular economy active companies. However, while active companies are important in achieving thriving sustainability transitions, to understand the entire transition to circularity, more passive and even

resistant actors deserve attention. Future studies should consider the sustainability strategies and top managers' perspectives in companies that are not actively engaging in the circular economy. In addition, in this paper, we focused on company executives. While top managers have a crucial role in strategy building and implementation, also, middle managers and employees bear distinct or latent power to influence on the company and its operations. Furthermore, our research focused on top managers as individuals. As such, we did not consider the power dynamics and relationships between multiple actors in detail. Arguably, profoundly understanding business changes to sustainability requires understanding various actor-relationships. For example, how a relationship between two top managers with contradicting motivations influences the transition.

Our empirical findings of this paper are drawn from a qualitative data collection process, which took the form of interviews accompanied with supplemental data from companies' webpages and a financial information database. Qualitative research has many advantages and was an appropriate method for exploring the present phenomenon. Now, future research may strengthen the robustness of the findings by supplementing with additional data sources, such as, reports and news articles. In addition, while qualitative research has its advantages and is a well-justified method for exploring phenomena, the empirical findings of this paper deserve to be further elaborated in other settings via qualitative methods or tested via quantitative or mixed methods.

By focusing on one country's transition to the circular economy, this study necessarily neglected the complexity of sustainability transitions globally. We believe that an informed understanding of a single transition is a useful starting point. As the world continues to suffer from severe and interconnected sustainability challenges, we urge future research to enrich our comprehension of various sustainability transitions and their relations. Finally, as our results come from Finland, readers should exercise caution when attempting to apply the findings to other settings. We suspect that our results offer insights and implications for similar countries, but we call for more research on companies in the circular economy transition in various socio-cultural and economic contexts.

## 6. Conclusions

Our study offers insights into the roles, power and power asymmetries of top managers who are actively engaged in the sustainability transition to the circular economy. With a microfoundations perspective, we provide individual-level insights into how corporate executives can influence strategy building and implementation within the contexts of their companies and industry.

We find that top managers' power often is constrained by tension, resistance and outright competition among individuals, companies, the industry, the political landscape and society. We also observe notable power asymmetries between incumbent and niche companies. Overall, we show that top managers' power, and their ability to exert power, is more limited than often is assumed given their position in their company. In practice, top managers cannot always exercise power in their own companies, let alone in the industry and society. Rather, the existing structure of the old, linear regime limits top managers' agency and power. Ultimately, top managers must find economically viable ways to pursue circular developments; otherwise, their companies risk losing their vital roles in the circular economy movement. We call for additional studies to build on our findings by considering the behaviours of other company members and of companies that are passive or resistant to sustainability transitions.

### Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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## Appendix A

### Interview themes:

- Interviewee's background.
- Interviewee's views on the circular economy in their company.
- Interviewee's views on the circular economy in the industry in which they operate.
- Circular economy strategies and practices in the interviewee's company.
- How the interviewee's company has shifted towards the circular economy.
- Interviewee's views on stakeholders' influence on their business as well as more broadly in Finland.
- Interviewee's views on the circular economy in Finland.
- Interviewee's views on the future of the circular economy.
- Interviewee's personal interests and actions considering sustainability and the circular economy.

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