



# Companies' future visions for circularity: A frame analysis based on Finnish front-runner CE companies

Mikael Nurminen<sup>\*</sup>, Malla Mattila, Elina Närvänen

Tampere University, Faculty of Management and Business, FI-33014, Finland

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## ABSTRACT

Despite increasing calls for circularity in business, the trending Circular Economy (CE) is not converting into action and the global usage of secondary material is declining. Addressing this gap is vital for our future well-being. Hence, more research is needed on whether and how companies translate broader CE discourses into their future visions. This study employed frame analysis to investigate how the CE's meaning and goals are being envisioned and shaped in companies' external communication to advance their future goals. Drawing empirical insights from documents focused on 41 Finnish self-declared front-runner CE companies from various industries, the paper contributes to current CE literature in two ways. First, five distinct future vision frames were identified – technological utopia, outsourcing circularity, business-as-usual, market leader, and systemic change – that demonstrate how self-described front-runner companies communicated circularity to their stakeholders. Second, the study demonstrates how company-level future visions align with or differ from macro-level CE visions. The study found that even self-described frontrunner CE companies were reluctant to align with strong sustainability in their framing, limiting the transformative potential of CE in business context. The findings have implications for managers regarding how they can assess their future visions from the perspective of weak or strong sustainability.

## 1. Introduction

Circular Economy (CE) is the goal of a new economic model that is usually pursued by maximising the life cycle value of the used resources by, for instance, recycling, redesigning, reducing, and repairing (Kirchherr et al., 2017; Korhonen et al., 2018). Aiming to replace the traditional take-make-waste economic model, Circular Transition (CT) attempts to bring about a world less harmful to the environment and the biosphere.

CT occurs at many levels, ranging from the macro level policymaking to individual actors in the economy. This study focused on company-level CT. From a corporate perspective, CT can refer to a variety of approaches, including adopting new kinds of business models and innovations (Bocken et al., 2016; Leder et al., 2023), redesigning product-life cycles (Bressanelli et al., 2019), or adjusting organisational operations to adhere to the new stricter laws of pro-circularity regulators (Zhu et al., 2019). Despite its popularity, the CE is not translating into action and the global secondary material usage is declining (Circle Economy Foundation, 2024).

Besides the operative side, even communicating CT can prove difficult, as there are various conflicting interests concerning what is being communicated, to whom, by whom, and why (Giurca, 2022). As Niskanen et al. (2020) pointed out, there are various conflicting ideas competing around the concept of CE and there it is a matter of great significance which form of the concept prevails at any given time. For example, how companies should report their circularity progress in their sustainability reporting remains unclear and involves several trade-offs (Opferkuch et al., 2021). Conflicting ideas impact not only the present but also the future visions formulated to achieve one's goals.

Past research has outlined CE visions at a largely macro level (Blomsma, 2018; Corvellec et al., 2020; Calisto Friant et al., 2020; Leipold et al., 2023). Calisto Friant et al. (2020) stated that the contested CE visions are manifested in a wide variety of discourses, ranging from sceptical to optimistic, and from holistic to segmented perspectives of the CT (p. 11). More research is, however, needed on whether and how meso-level actors such as companies respond and relate to broader CE discourses in their future visions. Beyond understanding CE discourses at the policy level or through the views of researchers, it is important to

<sup>\*</sup> Corresponding author.

E-mail addresses: [mikael.nurminen@tuni.fi](mailto:mikael.nurminen@tuni.fi) (M. Nurminen), [malla.mattila@tuni.fi](mailto:malla.mattila@tuni.fi) (M. Mattila), [elina.narvanen@tuni.fi](mailto:elina.narvanen@tuni.fi) (E. Närvänen).

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understand if and in what ways various CE discourses are translated into company visions and goals that direct their daily operations and are used in external communication to stakeholders.

Future visions – or “imaginaries”, as Kovacic et al. (2020) put it – do not merely involve daydreaming about how an ideal world would look like – instead, they are chiefly about managing the available resources that have “(potentially severe) consequences for the future present” (Kovacic et al., 2020, p. 98). Future visions guide the strategy and policy choices of companies and policymakers, respectively. In that sense, communicating future visions are shaping the present futures – the current representations of what could be. In this study, the future visions were formulated by analysing the external communication of circularity-oriented companies (cf. Marjamaa and Mäkelä, 2022). The authors of this article did not take corporate future visions at their face value; instead, they were constructed from how CE was differently framed in corporate communication. Doing so ensured that the separate punchlines, possibly coined by external consultants, did not overly distract a communication’s bigger story. Instead, the future visions were retrieved by reading between the lines of statements, arguments, moral evaluations, and appeals.

This study analysed companies’ external communication using a framing approach. Framing is a linguistic tool that helps an actor to influence and manipulate others’ perception of a given matter (Entman, 1993; Kahneman and Tversky, 1984; Snihur et al., 2018). In this study, framing was considered a tool to guide future visions towards actors’ own interests. It was used as a method theory (Jaakkola, 2020) to understand how communication efforts may be used to change actors’ perceptions and shared assumptions about reality (Berger and Luckmann, 1966).

The following two research questions were set for the research.

RQ1: What kinds of competing future visions do Finnish front-runner CE companies frame through their communication efforts?

RQ2: How do these future visions align with broader CE discourses?

The documents created by 41 Finnish companies that consider themselves front-runners in the CE constituted the empirical data. By investigating a wide variety of companies operating in various industries, the research aimed to identify future visions that cross industry boundaries and are targeted at various stakeholders – from the public to customers, supply chain partners, and collaborators or even competitors.

The study offers a substantial contribution to the CE literature by identifying five vision frames related to CT that companies use in their communication efforts. These frames provide insights into how meso-level actors such as companies interpret and translate wider CE discourses (Blomsma, 2018; Corvellec et al., 2020; Calisto Friant et al., 2020; Leipold et al., 2023) in their communication. The findings have implications for understanding why the circularity gap is not narrowing at company level despite the amount of talk about it, and the kind of CE (e.g. whether its holistic or narrow, whether it is systemic or compartmentalised in nature) that companies envision through their framing efforts.

## 2. Communicating visions through framing

### 2.1. CE as a contested concept

CE is an umbrella term created to reframe the process of prolonging the productivity of resources (Blomsma and Brennan, 2017). However, a rising number of studies have recognised its contested meanings, such as the optimistic, sceptical, and reformist CE science policy narratives (Leipold et al., 2023). While optimists have considered CE a driver of sustainability transition, sceptics have doubted it, and reformists have acknowledged its sustainability potential only if it is carefully managed. The main points of potential conflicts and barriers are that the

incumbent regime picks only some of the practices and policies suggested by its challenger (Blomsma and Brennan, 2017; Blomsma et al., 2023), the CE transition causes rebound effects (Zink and Geyer, 2017), and the organisational sustainability initiatives tend to align with weak sustainability (Demastus and Landrum, 2023).

To explore the conflicts and compromises related to the CT, the sociocultural perspective is especially relevant. This is because the meanings of the CE concept in communication are not fixed, and the literature has identified it as a “floating signifier” (Corvellec et al., 2020; Niskanen et al., 2020) that contains constant negotiations of its meaning (Kirchherr et al., 2017). Calisto Friant et al. (2020) argued that narratives compete regarding their approaches to the social, economic, environmental, and political considerations of the CE. Thus, beyond understanding the practices of companies that pursue CT, it is equally important to study how the CE is understood, envisioned, and made meaningful. As the CE is currently heavily promoted by policymakers and businesses alike, several positive meanings are attached to it. Considering this, contesting about its meanings is not necessary the case, but different meanings are allowed to co-exist, leading the CE concept to remain intentionally vague (Rödl et al., 2022).

The ambiguity concerning CE means that all actors would not pursue a common goal: future visions and narratives coordinate present actions towards a desirable future usually not agreed upon by different actors (Sexton et al., 2019). However, due to the ambiguity, the act of defining the CE can be used as a tool to find common denominators and bring actors together (Leipold et al., 2023; Rödl et al., 2022), “explore the limits and boundary conditions of circularity within business” (Dzhengiz et al., 2023, p. 283), or to rebrand the old idea of prolonging resource productivity (Blomsma and Brennan, 2017).

While ambiguity could be useful to enhance the transition to CE in the short term, if the CE becomes too vague of a concept, it may be harmful in the long run, as it could lose its power to drive structural changes in the production and consumption patterns.

### 2.2. Framing as a method theory

Framing has its conceptual origins in psychology and sociology (Borah, 2011). Owing to these diverse disciplinary roots, it has been conceptualised in diverse ways (e.g., Cornelissen and Werner, 2014; Lahtinen and Yrjölä, 2019). This study followed the sociological tradition of framing (Entman, 1993; Gamson and Lasch, 1983; Gamson and Modigliani, 1989), according to which people constantly employ frames to interpret and decode everyday situations (Goffman, 1974). The sociological tradition, since it pays special attention to language and meaning making, is aligned with social constructionism. For instance, a previous study employed framing to explore how different CE-related frameworks use different types of language to discuss waste and resources, thereby impacting the nature of change that is driven (Blomsma, 2018).

The sociological framing tradition also emphasises that the units of interest in framing—frames—are to be understood as abstractions that contain bits of information and trigger idea packages that contain properties associated with the frame in question (Gamson and Lasch, 1983; Gamson and Modigliani, 1989). For instance, in the context of food waste, a study that used the framing approach discovered that, when solutions to a problem are framed as innovation, it triggers a plethora of metaphors, statements, depictions, and visual images that denote technological optimism (Närvänen et al., 2022). These idea packages can support technology’s role in CT or highlight its limitations (Calisto Friant et al., 2020); nevertheless, the reflections are of the same frame: frames are ambivalent, and not pro or con (Gamson and Modigliani, 1989).

This study aligned with entrepreneurial framing (Garud et al., 2023). Research on entrepreneurial framing (e.g., Snihur et al., 2022; Tauscher and Rothe, 2024) suggests that businesses are mobilising support and minimising the resistance towards their ventures by

communication. Drawing interest toward their unique offerings or innovative business models, businesses bring their best parts to the spotlight (Garud et al., 2023). This is in line with Entman's (1993) approach on framing in which framing involves both inclusion and exclusion: framing renders the preferred viewpoints salient, noticeable, and memorable to an audience, while other aspects of the issue are intentionally left in the shadows.

Framing can also eliminate the options or alternatives not considered viable and leave the preferred ones on the table. Fiss and Zajac (2006) worked with a somewhat more cynical conceptualisation of framing, using it in symbolic terms to only imply a possibility of a strategic change and not even intending to implement it in the first place.

Firms' use of framing as a strategic device can be empirically observed through their external communication to stakeholders (Närvänen et al., 2022; Snihur et al., 2018). Company-produced materials, which contain carefully prepared information of how companies want to be (and how they do not want to be) portrayed, are essential for framing analysis. Snihur et al. (2018), for example, analysed corporate press releases to retrospectively track how a large US company framed itself and its business model.

The companies investigated in this paper all shared some level of strategic intent to become listed as "circular frontrunners". However, the focus in the current research is not to ascertain whether they used framing in a cynical way or whether the companies really aimed for CT. Still, the findings provide interesting insights on the role of language in companies' communication related to CT.

### 3. Methodological approach

#### 3.1. Data generation

The Finnish Innovation Fund Sitra's (2021) listing of "The most interesting companies in the field of Circular Economy in Finland 2.1" was used. A well-established research organisation in Finland, Sitra is directly accountable to the Finnish Parliament and thus has the authority on agenda setting in the Finnish economic and policy discussions. Moreover, Finland is a fruitful research context, as the Finnish government has established a strategic programme to promote CE and wants Finland to be a leader in this transition (Ministry of the Environment, n.d.). Sitra's list itself contained 41 Finnish companies who considered themselves front-runners in the CE and purposely reported their interest to be on the list. These companies belonged to a wide variety of industrial fields, of which retailing, rental, and food and agriculture were the most prevalent. Most of the listed companies, following Eurostat's (n.d.) classification of firms, were small and medium-sized, while 10 out of 41 were large (see appendix A for more detailed characteristics of the companies).

The official open-access documents of these companies, gathered between March 2022 and March 2023, were used as the main data source. The documents included corporate reports, company websites, and other relevant online sources (such as company blogs or small pieces written by, for example, CEOs) produced by the companies themselves. Introductions of companies' CE efforts (one to two pages per company, written by the companies themselves) published by Sitra were also included. A total of 457 pages of raw data were manually generated, ranging from five to 23 pages per company. The data were generated and analysed in its original language (Finnish or English). Finnish-language quotes presented in the paper were carefully translated into English by the authors. Since the researchers utilized naturally existing documentary data, it enabled the researchers to gather the words and sentences created without their intervention and capture communication as it was meant to be communicated to stakeholders (Bowen, 2009). The portrayal of a company's vision in its materials revealed a great deal about the perceived status of the future CE as it was envisioned by the company. By using such data, the authors of this article expected to understand what changes and business strategies were portrayed as

feasible in the future.

#### 3.2. Data analysis

The data analysis and interpretation process comprised four main phases, during which the generated data were iteratively, both individually and jointly, processed in accordance with the principles adopted from frame analysis literature (Creed et al., 2002; Entman, 1993; Gamson and Lasch, 1983) and qualitative analysis (Spiggle, 1994; Taylor et al., 2015). First, the authors looked for recurring idea elements—metaphors, storylines, catchphrases, and depictions—that shape how a topic is being brought into the communication. Second, the authors examined the kinds of underlying assumptions holding the different idea elements together. Third, the authors sought differences, conflicts, and tensions between these preliminary frames to create five stand-alone frames that clearly differ from each other. Finally, the authors connected their findings with the existing literature. A computer-assisted qualitative data analysis software ATLAS.ti was used to organise and code the data during the early descriptive level of analysis. Table 1 presents the details of the analysis and interpretations.

The next section discusses the identified frames in detail.

### 4. Findings

The empirical analysis resulted in the identification of five distinct vision frames: technological utopia, outsourcing circularity, business-as-usual, market leader, and systemic change. Table 2 provides an overview of the identified frames (for data examples, see appendix B). It is important to note that any company could fall into one or more categories; this research, however, did not focus on categorising companies, but on the frames they used in their external communication.

#### 4.1. Technological utopia

"Minimising", "maximising", and "optimising" were some of the keywords of the first frame, *technological utopia*. Its key characteristics were named as the use of novel technologies—artificial intelligence (AI), big data, and robotics—that were presented in same sentences with beneficial outcomes such as the productivity and efficiency of companies' processes. As a precondition for using automation and robotics, data should be measured as numerical variables. The data related to this frame emphasized calculation through numerical figures such as lowered carbon dioxide emissions or as kilogrammes of waste salvaged from incineration. Calculations also justified making changes to the current habits and norms, such as in the case of Company #32, which stated the benefits from a rental-based solution in percentages compared to ownership-based solutions.

Helping customers optimise their processes for increased productivity and minimum waste of resources formed the core of this frame. The overconsumption of natural resources and the need to turn the tide was presented as a business opportunity instead of as an existential threat for the planet. The actors using this frame were not overly pessimistic about the future; the textual data revealed that a strong belief in technological advances was an integral part of their future vision in which new solutions make the world a better place for everyone, including the planet. Company #3 described robotics as the optimal solution for sorting waste and recycling. It defined the CE as optimising the use of raw materials to maximise their utilisation and minimise surplus and waste. Whereas manual labour was presented as prone to errors, biases, and inefficiency, robotics and AI were depicted as accurate, incorruptible, and indefatigable.

The positive outcomes of the CE were portrayed as long-term savings that could be calculated in monetary terms. Expressions such as maximising productivity, minimising maintenance time, optimising supply-chain processes, and eliminating leftover materials were connected through language with positive environmental consequences and

**Table 1**  
Data analysis and interpretation process of the vision frames.

Analysis phase	Purpose of the phase	Key procedures	Analysis techniques
1. Identifying the key elements underlying future vision frames	To identify the discursive basis of the future visions	Reading the selected documents multiple times; Coding the data inductively and linking the codes to idea elements. 146 codes consisting of 1380 quotations of the data.	Identifying the idea elements (e.g. metaphors, catch-phrases, depictions, and exemplars) that constitute different frames (Creed et al., 2002; Gamson and Lasch, 1983)
2. Identifying distinct categories to outline the preliminary vision frames	To shift the focus from individual elements to frames	Categorising language use by colliding and distancing different idea elements identified in the first phase; Constructing rough typologies from the different themes, tones, and worldviews arising from the data. Six typologies consisting of 146 codes.	Constructing of typologies (Taylor et al., 2015); Asking what holds the idea elements together (Creed et al., 2002; Gamson and Lasch, 1983)
3. Identifying future vision frames	To identify frames and separate them from each other; To identify the inclusion and exclusion aspects involved in the frames	Refining the preliminary frames and producing their descriptions; Differentiating the frames by paying attention to what is being pinpointed and what is left unsaid; Distinguishing the categories from each other by focusing on the tensions and contradictions visible in the data. This resulted in five frames.	Dimensionalisation to define and explore the relationships between categories (Spiggle, 1994); Frame analysis on inclusion and exclusion (according to Entman, 1993)
4. Interpretation	To reflect the frames with macro-level CE visions	Interpreting the frames' relationship with environmental sustainability, then comparing and contrasting them with the macro-level CE visions identified by previous studies.	Problematisation of the current framings in light of studies on environmental sustainability (Howarth, 1997; Roper, 2012) and macro-level CE visions (Blomsma, 2018; Calisto Friant et al., 2020; Leipold et al., 2023). Disaggregating broad issues into smaller parts to tackle the grand challenge (Wickert et al., 2021)

economic growth. The CE was thus used as a catalyst to increase or accelerate economic growth by increasing the efficiency of their processes.

#### 4.2. Outsourcing circularity

The second frame, *outsourcing circularity*, was tied to a company's own business model. It refers to any kind of financial arrangement between the respective company and its customers to deliver a service, such as an all-inclusive contract for an elevator that may also include maintenance and repairs for a fixed period (Company #4). The benefits of the contract were portrayed not only as receiving a service but also as progressing customer's own sustainability goals. In this sense, the company was offering "circularity-as-a-service" to its customers, and the frame thus relied on the assumption that outsourcing activities that are not part of the core business model of the customer company helps them save costs and thus has economic benefits. However, at the same time, the customer was presented to gain additional sustainability benefits, such as savings in energy use (Company #19). Better sustainability performance was being framed as a bonus, and the responsibility of executing the sustainability measures would remain with the service provider.

According to Company #9, which rents various IT-equipment to other companies, low capital expenditure and convenience were portrayed as the main benefits of a service contract. Services including maintenance, updates, or sustainability could be easily unsubscribed from after the fixed contract expires, or the contract may be extended. In the meantime, the customer could focus on growing its core business and let the service provider take care of everything included in the service contract. This frame was characterised by expressions that denoted the helpfulness of the circular company vis-a-vis its (potential) customers: how they "solve problems", "empower", and "take away hassles and headaches" for the customer.

The language used separated sustainability from the core business activities to something that could be outsourced. However, the cost-cutting benefits from outsourcing were presented to improve the financial performance of the customer company. Moreover, the service provider was seen to achieve a balance between assuming control to provide customers "a hassle-free" experience and communicating the multiple possibilities for customers to supervise and track the process (Company #4, company website).

As a future vision, this frame was tied to shifting the ownership of tangible products to, for instance, access-based use and consumption of goods and materials. In contrast to the technological utopia frame, the outsourcing circularity frame had its discursive roots in collaborative consumption and the sharing economy. Whereas the former was tied to technological determinism, industrial ecology, and productivism, the latter takes for granted that outsourcing decreases the resource consumption of manufacturing new products. As a result, instead of locking capital in ownership, free capital would flow to other ventures, which may indicate that the potential sustainability gains would be offset by new resource use elsewhere.

From this frame's perspective, environmental degradation or climate change were presented as challenges that already have solutions if we only were to use them. The imperative mood was utilized to mobilize and encourage the customers to leave the actual work to the professionals who offer customers novel, ready-to-use solutions. Case studies were particularly utilized to highlight the convenience offered. For example, Company #37, providing LED-lighting solutions, showcased how they have already impacted their customers' businesses without interrupting their "busy daily operations". A representative of their customer, Company #35, highlighted how swift and subtle their transformation to more sustainable lighting had been. Similarly, a waste management company (Company #20) used a case study of its customer to convince that, with the focal company taking care of the waste management, its customer could focus on its core task: homebuilding. This was done by verbally emphasizing how demanding and busy their customer company's daily operations were and how much the solution has helped. As a consequence of the frame, the pressure to change was shifted from the customer company to the circular company offering

**Table 2**  
Summary of the identified vision frames.

	Technological utopia	Outsourcing circularity	Business-as-usual	Market leader	Systemic change
<b>Characteristics of the future vision</b>	Maximise, minimise, optimise, digitalise. Future is determined by technology	Service models that make customers and consumption more circular	The company is already heading towards a better future	Dominance of own concept that is portrayed as the only viable solution	Proposing a systemic change in ways to produce and consume
<b>The role of Circular Economy</b>	Using CE as a catalyst for (economic) growth	Accommodating customers to the chosen CE concept	Selecting a CE definition to fit own business case	Shaping the CE concept to fit one's vision	Shaping the business environment to fit CE
<b>Relation to sustainability</b>	Efficiency and eliminating resource waste is sustainable	Circular business model is sustainable by design	Sustainability is already taken care of	Own vision as the most sustainable and the only choice	Sustainability must be at the core of conducting business
<b>Role of innovation</b>	Strong reliance on tech innovations	Tech innovations foster social innovation (e.g. peer-to-peer platforms)	Predetermined technological innovation	Tech innovations foster eco-innovations	Strong reliance on social innovations
<b>Relation to use of natural resources</b>	Seen as both challenge and opportunity	Seen as a business opportunity	Under control with the current means	Seen as both challenge and opportunity	Overconsumption threatens existence
<b>Example company types that use the vision frame</b>	Companies that rely on and invest in high tech instead of labour intensity	Mostly B2B companies that focus on providing services	Big industry players trying to adapt to trends; Subsidiaries of big industry players	Market leaders that compete against multiple fields	New startups that are born sustainable

outsourcing.

#### 4.3. Business-as-usual

While the first two frames were tied to companies' transformative business models, the third frame, *business-as-usual*, aimed to keep changes at bay. In the communication, temporal expressions were often used to address how the journey to the better had already begun (the past), is going according to plans (the present) and is going to achieve great results (the future). This kind of communication aimed to reassure that there is no need for a bigger structural change to achieve sustainability or circularity goals. For example, a garden substrate company (Company #16) claimed to have been a "Circular Economy front-runner even before the term Circular Economy was brought up" (company website), while a plastics manufacturing company (Company #10) highlighted that they had already "been using recycled plastic in production since the 1990s" (company website). These companies' future vision was not radically different from their present but articulated as a consistent and logical continuum from their past to the distant future.

Evidently, the change towards more sustainable operations was seen to be deeply rooted in the companies' history. However, these companies undermined the need for more ambitious actions towards the CE, having selected a CE definition tailored to their own business goals and sticking with it. For example, a farming nutrient company (Company #15) criticised efforts to tighten the terms of the carbon compensation certificates it used. The certification provider's ambitious climate efforts were presented as undermining the company's business model to sell carbon sinks created in the Finnish agriculture (Company #15, company website).

Regarding biodiversity loss and resource scarcity, companies using the business-as-usual frame played the blame game against actors outside their own sphere of influence. Verbally this was expressed by stating their own point of view as a factual statement. For instance, a plastic container manufacturer was certain that "using plastics responsibly does not mean giving up plastics", and that the real plastic waste problem was due to discarded fishing nets (Company #10, company blog). On the other hand, Company #8, a processor of animal by-products and thus an advocate of the environmentally burdensome meat industry, argued that "the discussion of the Green Transition is way too often centered around carbon emissions" (Company #8, company website) when it tried to instead address the issue of phosphorus as a scarce natural resource.

The actors using this frame in their communication were not trying to make dramatic structural changes; instead, they were addressing a change in their current processes to better fit their vision of the CE. The contradiction between change and status quo was visible in the way the

changes were anticipated – they should be easy and convenient. A producer of cardboard products (Company #29) stated that supporting the convenient, fast-paced lifestyle of their consumers is a "future-fit answer" that the CE can provide (company website).

The perceived sluggishness of the CT was considered a complex multi-actor issue, as one cannot drive changes if there is no demand or incentive to do so. Rather, companies were portrayed as playing a supportive role for the current industry players in different sectors. For example, Company #8 and Company #16 were established by slaughterhouses to find a way to recycle animal by-products. The supportive role was also evident in the lenient ways companies addressed their current production habits. Company #12, an online marketplace for used goods, was selling advertising space for marketers, stating that buying used goods "does not make the consumer a lost cause for the seller of new goods" (company website). Interestingly, a peer-to-peer marketplace could be simultaneously framed as a sustainable, resource-wise solution and a good opportunity to sell additional new goods and, thus, maintain the structures of the linear economy.

The status quo, however, is not static. It can move towards a new position. This moving of goalposts shows that stability was the preferred status, even if the new stability is different from the old one. A well-managed and gradual change was seen to be the way to operate, as it maintains the control of the industry. Moderate changes allow old industry players to slowly adapt to new circumstances.

#### 4.4. Market leader frame

In contrast to the previous frames, the fourth frame, *market leader*, recognised the current problems related to resource scarcity. However, it presented an exclusive, clear-cut future vision as a solution. A future vision defined a company's viewpoint of the CE, reflected the company's competitive advantage over its competitors, and, by using assertive language, was portrayed as the only way forward for the CT. For instance, Company #5, a biofuel refinery, promoted its own version of CE – the circular bioeconomy – which was presented as "not an option – it is a must" (a corporate blog). Coincidentally, renewable biofuel, stated as the core of the circular bioeconomy, was also the main driver of this company's competitive advantage. As renewable biofuel captures the market share from fossil fuels, the company would increase its market share in the process. In that sense, the CE's very definition was adjusted to fit companies' own goals and needs.

Similar approaches could be seen among other companies utilising this frame. A manufacturer of forestry machines, Company #22, advocated a "cut-to-length-method" as the most sustainable wood cutting method – the company's forestry machines are built based on this method (company website). A renewable textiles' manufacturer,



Company #35, highlighted the lack of alternatives, by implying that there is only one possible future envisioned by the company, consisting of “recycled and regenerated textiles replacing those made with new resources” (company website). This future vision was seemingly mobilising stakeholders, such as “people and brands”, to be part of the change and locking the chosen path and undermining other alternatives. This renewable textiles’ manufacturer (Company #35) and the biofuel refinery (Company #5) had a lot of competitors within their respective fields, and it was important to highlight one’s concept being superior to others through comparative language. Whereas, for instance, the technological utopia frame considered any CE-driven improvement to the supply chain desirable, firms utilising the market leader frame were more specific about which improvements are wanted (namely those that support the market leader’s ecosystem).

A resource-based view of the environment was, according to the analysis, typical for this frame. For a clothing recycling and rental company, CE was about using resources effectively to benefit both people and the environment – the company promoted recyclable fibres to free natural resources for future needs, which was considered “a win for both people and the planet!” (Company #18, company website). This choice of words captured the essence of a resource-based view that natural resources were supposed to be used now or in the future to fulfil human needs. From this frame’s perspective, economic growth by utilising natural resources was an unquestionable truth – the outcome of future-proofing the industry.

#### 4.5. Systemic change frame

The fifth frame, *systemic change*, sidelined the relevance of economic growth. This frame was less prominent in the data, probably because, from its point of view, radical changes to the current use of natural resources were required. As the for-profit businesses examined work in an economic system based on linear growth, radical changes could require new kinds of revenue and business models. Furthermore, it may have been thus difficult to appeal to stakeholders by using this frame, as there were only a few established elements, such as catchphrases or metaphors, for it.

In this frame, the communicated motivation for taking action was not monetary savings or improved performance but changes in production and consumption patterns. For example, Company #21, which has innovated a patch for fixing clothes, described textile waste and fast fashion as problems it wishes to tackle through textile maintenance and repair. A pessimistic vision of the future with massive piles of waste and overconsumption that has, by far, surpassed the planetary boundaries was presented as the main driver of action. As such, this contrasted with the frames of business-as-usual (everything is going in the right direction), technological utopia (technological advances will save the planet), and market leader (fulfilling one’s vision will save the world). Another company, a circular packaging system provider Company #6, described wanting to “act as catalyst” and “carry out our real mission, that is, to be a novel way for the masses to consume sustainably” (corporate website). Using the systemic change frame, it portrayed that its primary mission did not end with the transformation of one’s own industry but the whole system. This was further highlighted by the company stating how it “is a future kind of company where single-use products and consumption culture are history” (Company #6, company website). The culprit, according to the frame, was overconsumption, and the definition of the problem was clear: fast fashion and single-use products were named as concrete examples of things to be eliminated. The scope of the problem widened from local to global, from one field to the whole culture of overconsumption. Even though all the investigated companies were for-profit companies, their economic reasoning was not apparent when mobilising stakeholders through this frame.

## 5. Discussion

The findings presented above have many similarities with the findings of earlier research on CE visions from a macro perspective (Blomsma, 2018; Calisto Friant et al., 2020; Corvellec et al., 2020; Leipold et al., 2023; Rödl et al., 2022). The study found that the most dominant forms of CE framing by frontrunner companies were those of techno modernism and eco-efficiency that were present in most of the future visions – namely, technological utopia, outsourcing circularity, business-as-usual, and market leader. Key arguments stated that technological advancements, new business models, and increased efficiency would translate to well-being and environmental sustainability. This is in line with notions of circular modernism (Bauwens et al., 2020), technocentric circular economy (Calisto Friant et al., 2020), and ecological modernism (Leipold, 2021).

The strong future optimism fuelled by private sector innovation and wise resource use was questioned in only one of the identified frames (systemic change). All the other future vision frames disregarded the idea of a systemic change and presented that the status quo or making minor changes within the current economic paradigm would yield the best results for the people and the planet. In the light of prior literature and knowledge, this finding was anticipated: as Calisto Friant et al. (2020, pp. 13–14) put it, techno modernist and (minor) reformist ideas are appealing as they are easily applicable and do not demand structural reconfigurations. However, the strong belief in technological innovation as a source for a better future dismisses social innovation (Berardi and Brito, 2021) – such as peer-to-peer platforms and sharing – that are also at the core of the CE. Partly, the prevalence of this finding can be attributed to the nature of the companies on Sitra’s list, many of which were industrial companies of relatively large size. Start-up companies that focus on innovative solutions addressing consumers were in the minority in the data sample, which may have also influenced the findings. Many of the firms in our data sample were counting on the fact that the linear take-make-waste economy would provide them with necessary material and fuel their business models. This connects circular initiatives to the industrial symbiosis tradition (Baldassarre et al., 2019) where surplus material of one company is utilized by another. Symbiosis needs both parties to be strong and healthy and, thus, many CE initiatives end up in reproducing or future-proofing the linear economy not only in their operations but also in communication.

Communicating future visions demands balancing between a company’s economic goals and sustainability. Our findings revealed the possible tensions and contradictions related to the infinite growth paradigm (Fressoz and Bonneuil, 2017) that were present in the framing efforts of companies. The so-called weak sustainability frames environmental sustainability as a matter of technological fixes and adjustments within the current economic paradigm (Howarth, 1997; Roper, 2012). Furthermore, in weak sustainability, environmental value is a tool for unlocking economic value (Manninen et al., 2018). On the contrary, strong sustainability refers to recognising and accepting planetary boundaries as the origin and constraint to the economy and aiming for wider systemic changes (Demastus and Landrum, 2023). In this way, society and environment would not be sacrificed for economic growth.

The findings of the current study, moreover, revealed that weak sustainability was prominent in external corporate communication. Strong sustainability was only observed in one of the identified frames (systemic change). For instance, efficiency, continuous economic growth, a resource-based view of the planet, and the call to conduct business-as-usual were found to be the properties that hamper the stronger environmental sustainability of the four other frames. The CE was addressed as a vehicle for economic growth, for sustained competitive advantage, or for coating one’s own business case with a sustainability-topping that makes it look superimposed.

The findings also suggested that the CE concepts and the vocabulary of strong sustainability scholars did not translate to strong sustainability

business even though the companies investigated in this study have signed themselves up as front-runners of CE in Finland. The circular futures envisioned in the business sphere appear to be somewhat different from the circular futures brought up by policymakers, experts, or sustainability scholars (see e.g. [Bauwens et al., 2020](#); [Marjamaa and Mäkelä, 2022](#)). Because framing in itself can be considered as a strategic effort (e.g., [Fiss and Zajac, 2006](#)), the studied companies may have been strategically jumping on the bandwagon of CE through their use of framing. This would mean that they would benefit without actually even aiming at unlocking the transformative potential of CT. Furthermore, it is evident that the decision to opt in for the Sitra's listing is a strategic endeavour in itself.

The "lack of social" in the circularity discourse, well-recognised by the earlier literature (e.g., [Calisto Friant et al., 2020](#); [Valencia et al., 2023](#)), was notable. This is best highlighted when companies were envisioning the innovations needed for the CT. Progress was guided by technological innovations (such as AI and robotics) and innovations for increased environmental sustainability – the so-called eco-innovations (such as bio-based fuels and bioplastics) – but the need for low-tech social innovations was not commonly referred to in the recognised future visions.

Our findings suggest that the current CE companies may have either been too limited by their linear business models and the need to defend the status quo, or lack the necessary concepts and terminology to envision their role in profound versions of circular futures that would be powered by, for example, refusing consumption ([Bauwens et al., 2020](#)), shifting to low-scale regional production and consumption ([Calisto Friant et al., 2023](#)), or rejecting an anthropocentric worldview ([Calisto Friant et al., 2020](#)). Instead, their visions relied on technology, eco-efficiency, and global scalability as the main drivers of a better future. This dominant view reduces the CE to merely a discussion of something being more circular or less circular ([Strand, 2023](#)) without addressing the need for more holistic systemic changes. These findings thus provide explanations for why the circularity gap still exists and is not narrowing despite the issue gaining more and more traction in policy and business talk.

The existing CE literature has highlighted collaboration as one of the key success factors in the CE adoption ([Berardi and de Brito, 2021](#); [Leder et al., 2023](#)). Collaboration is vital for garnering support for circular business models, aligning stakeholders' interests, and coordinating the circular supply chain. Interestingly, collaboration other than that of the buyer–seller dyad was not found to be prominent in the data. For instance, a horizontal collaboration of competing companies was absent. Only "market leaders" were found to be keen to create larger circular networks, though seemingly under their own leadership. The visions did not describe any other kinds of collaboration beyond the exchange of resources that also involve monetary compensation.

As past studies focused on the macro and policy levels ([Calisto Friant et al., 2020](#); [Leipold et al., 2023](#)), considerations about regulation and governance were represented in the discourses they identified. In these discourses, policies and regulation were considered especially crucial means for enabling the CT ([Leipold et al., 2023](#)) and becoming a holistic circular society ([Calisto Friant et al., 2020](#)). In contrast, in the vision frames identified in the current study, only a minor discussion on the role of regulation was found, with the market leader frame being the one largely involved in the discussion, though with a narrow view: if any policy intervention was to be tolerated, it should only take place to incentivise and lower barriers for the CE companies.

Furthermore, the notion of "CE as an empty signifier" ([Corvellec et al., 2020](#); [Niskanen et al., 2020](#); [Rödl et al., 2022](#)), could be applied to the vast majority of the investigated companies, as their external communication aimed to create a consensus and a state of depoliticisation of the CT issue. The earlier studies on entrepreneurial framing have suggested that a company's business model guides and limits the framing efforts, which can lead to a gap between framing and actual implementation ([Garud et al., 2023](#)). This aim for consensus and

vagueness might then have been a strategic choice by the companies to leave versatility concerning their future approach to the CT. According to the current study's findings, the CE concept can have many functions, ranging from selecting a CE definition that fits with companies' goals to accommodating customers to the CE consumption patterns. Only the systemic change vision frame was found to acknowledge reconfigurations drawn by the CE itself. However, it is important to note that the meanings and goals attached to the CE are also a matter of definition, not of a fixed value. The concept lacks a unanimous definition or shared understanding, even within a strong sustainability paradigm.

## 6. Conclusions

This study examined the competing future visions of 41 self-declared Finnish front-runner companies and their alignment with broader CE discourses. By adopting the framing approach, it analysed the external corporate communication of these circularity-oriented companies. The study contributed to the CE literature by identifying five distinct future vision frames – technological utopia, outsourcing circularity, business-as-usual, market leader, and systemic change – that not only set the vision for the CE's role in a company's future but also guided and limited its present choices and opportunities. The study also demonstrated that company-level future visions shared certain similarities but also differed from macro-level CE visions, especially in how they allowed communicating strong sustainable CE.

Consequently, this study illustrated the communicative power of framing in companies' external communication. Communicating about the CE is performing it: defining rules, boundaries, and inclusions/exclusions of actors. The shared meanings, terminology, and measurements are crucial for formulating and negotiating the CE and evaluating its progress. For practitioners, the findings especially offered insights about how companies could address the CT for stronger sustainability through external corporate communication. If there are only a few future paths that are considered viable and the others are marginalised or being held "unrealistic", this ends up in a situation where the future visions are being created within the boundaries of the viable paths. In other words, by framing, companies are shaping the present futures - the current visions of what the world could be in the future. If a company wishes to engage in stronger sustainability, it should identify the potential of language to reproduce or challenge the weak sustainability structures. Talking about CT as a technological endeavour, a shift from ownership to use-value, or a radical alteration to capitalist business logic - all guide the transition to a very different direction. The aim of this study was not to encourage companies to conceal their weak sustainability actions with a strong sustainability vocabulary but to better understand the performative nature of framing.

This study, as all studies, was not without limitations. First, the dataset was generated from a single European country, which means that the findings could be further validated by investigating companies from various geographical locations. Second, the dataset has finite explanatory power. Open-access business communication does not explain how things really are, but how the company wants them to be, or even more precisely, the ideal image the company wishes to convey. Hence, the generated dataset is insufficient for making assumptions on whether framing activities achieve their goals. Further research on company communication is thus needed, especially using in-depth interviews and/or longitudinal research to capture trends and changes in the framings.

With this study, the authors hope to contribute towards better aligning scholarly CE discourses with the business sphere, especially in a strong sustainability paradigm. During this study, it became increasingly evident that companies were reluctant to verbalise alternative futures without the dominance of current consumption and production patterns or a weak sustainability paradigm. One of the underlying aims of this study was to offer more tools for this process – not only to envision the future but also to analyse and comprehend the present. The authors

invite other researchers to continue this important and fruitful path.

### CRedit authorship contribution statement

**Mikael Nurminen:** Writing – review & editing, Writing – original draft, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Malla Mattila:** Writing – review & editing, Writing – original draft, Supervision, Conceptualization. **Elina Närvänen:** Writing – review & editing, Writing – original draft, Supervision, Conceptualization.

### 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.

### Data availability

Data will be made available on request.

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## Appendices.

### A. Summary of target companies as informed by the target companies themselves

Company's name	Sector	City	Revenue, millions	Amount of CE of Revenue %	Employees
#1 Varusteleva	retailing	Helsinki	1–50 m€	<1%	10–250
#2 Lindström	clothes rental	Helsinki	over 50 m€	98%	250+
#3 ZenRobotics	waste management	Helsinki	1–50 m€	100%	10–250
#4 Konecranes	machinery	Hyvinkää	over 50 m€	35%	250+
#5 Neste	renewal fuels	Espoo	over 50 m€	36.8%	250+
#6 Kamupak	packaging	Helsinki	under 1 m€	100%	1–10
#7 Touchpoint	textiles	Helsinki	11–50 m€	35%	10–250
#8 Honkajoki oy	agriculture	Honkajoki	1–50 m€	100%	10–250
#9 3stepIT	technology rental	Helsinki	over 50m€	100%	10–250
#10 Orthex	plastics	Espoo	over 75 m€	100%	250+
#11 Durat	retailing	Naantali	1–50 m€	98%	10–250
#12 Tori.fi	P2P-retailing	Helsinki	1–50 m€	100%	10–250
#13 Pure Waste	clothing	Helsinki	1–50 m€	100%	10–250
#14 Gasum	energy	Espoo	over 660 m€	10%	380
#15 Soilfood	fertilizers	Tampere	1–50 m€	100%	10–250
#16 Biolan	fertilizers	Eura	1–50 m€	90%	10–250
#17 Valtra	machinery	Suolahti	over 50 m€	8–10%	250+
#18 Rester	textiles	Paimio	1–50 m€	100%	1–10
#19 Tamturbo	machinery	Tampere	1–50 m€	100%	10–250
#20 Remeo	waste management	Vantaa	over 50 m€	100%	250+
#21 Vaatelaastari	clothing	Oulu	under 1 m€	100%	1–10
#22 Ponsse	machinery	Vieremä	over 50 m€	16%	250+
#23 Spinnova	textiles	Jyväskylä	under 1 m€	100%	10–250
#24 Woodly	plastics	Helsinki	under 1 m€	<1%	1–10
#25 Betolar	construction	Kannonkoski	under 1 m€	80 + %	10–250
#26 Fortum Battery Solutions	waste management	Riihimäki	not public	100%	~40
#27 Globe Hope	textiles	Nummela	1–50 m€	100%	1–10
#28 Paptic	packaging	Espoo	under 1 m€	100%	10–50
#29 Kotkamills	packaging	Helsinki	over 50 m€	90+ %	250+
#30 Emmy	retailing	Lohja	1–50 m€	100%	10–250
#31 ResQ Club	food technology	Helsinki	1–50 m€	100%	10–250
#32 MaaS Global	mobility	Helsinki	1–50 m€	100%	10–250
#33 Beanit	food industry	Kauhava	7,8 m€	100%	~30
#34 Fiksuruoka	retailing	Espoo	1–50 m€	100%	10–25
#35 Infinited Fibre	textiles	n/a	n/a	n/a	n/a
#36 EcoUp	construction	Oulu	1–50 m€	75–80%	10–250
#37 Valtavalo	lighting	Kajaani	1–50 m€	100%	10–250
#38 Skipperi	P2P rental	Helsinki	1–10 m€	100%	10–250
#39 Vaatepuu	clothes rental	Järvenpää	under 1m€	100%	1–10
#40 Ecolan	fertilizers	Viitasaari	1–50 m€	78%	10–250
#41 Combi Works	manufacturing	Helsinki	1–50 m€	50%	10–250

### B. Identified vision frames with illustrative quotations

Vision frame	Illustrative data quotations
Technological utopia	It is a cold fact that the value of your car starts to decrease when it is put into service. There are many ways to calculate the depreciation. One of the most common models calculates that the depreciation amounts 15% in the first year alone. After 5 years the value has reduced to 50%. It is completely justified to start thinking about whether owning a car is really necessary. (Company #32 – MaaS Global, company website)

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Vision frame	Illustrative data quotations
Outsourcing circularity	ZenRobotics is the leading supplier of intelligent sorting robots for the waste industry and the first company to apply AI-based sorting robots to a complex waste-sorting environment. Our intelligent robots, powered by our very own advanced AI software, make recycling more efficient, accurate, and profitable. Our ambition is to make the circular economy a reality by turning global waste into clean raw materials. (Company #3 – ZenRobotics, company website) As a very energy intensive business, the demands on energy efficiency are highly valued when considering new technologies. The energy-efficient Tamturbo® Touch-Free™ technology saves energy and nature and does not need oil changes or produce oily waste. This helps companies reach their responsible and sustainable targets. (Company #19 – Tamturbo, company website)
Business-as-usual	Solving your biggest IT headaches. We're proud to empower our clients to do business better. And to offer a paradigm shift in how they acquire, manage, and refresh IT assets. We call this Technology Lifecycle Management, and it's positively changing the way we all do business. It's brilliantly simple and is designed to take away your hassles and headaches, whilst also doing right by the planet too. (Company #9 – 3StepIT, company website) Sustainability of garden soil is a more and more significant parameter of competition and it already affects purchasing decisions. One of the biggest questions considering the garden soil industry is the use of peat. By 2040, Biolan aims to replace peat by completely recycled and quickly regenerating raw materials. (Company #16 – Biolan, company website)
Market leader	The change we are accelerating today combines convenience and responsible choices in people's fast-paced lives. When people are able to choose clearly sustainable options daily without compromising their lifestyles, we have made an impact (Company #29 – Kotkamills, company website) Future-proof your business. It's coming – a future where recycled and regenerated textiles replace those made with new resources. Why? Because it's what people and brands want, and it's what the planet needs. That means it's also the future of your business. And we'll help you get there. (Company #35 – Infinited Fibre, company website) The more recyclable fibers are used in the textile production, the less demand for virgin materials. This frees up natural resources, like land and water, for future needs, offering a lighter environmental footprint. It's a win for both people and the planet! (Company #18 – Rester, company website)
Systemic change	We want to act as a catalyst for new Circular Economy solutions, both in Finland and abroad. And finally, we want to carry out our real mission, that is, to be a novel way for the masses to consume sustainably. (Company #6 – Kamupak, corporate website)

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