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Sustainability change agents in business transformation - empowerment through training

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1 Introduction

Many companies and their employees are increasingly committed to driving sustainable business transformation (Comin et al., 2019), aiming to operate within Earth's safe and just system boundaries (Rockström et al., 2023). In this paper, we explore the roles of employees engaged in sustainability efforts, positioning them as potential change agents within their organisations.

Sustainability issues in today's complex business environment are considered wicked problems because they are complex, interconnected, and often contradictory challenges that resist simple, straightforward solutions (Pryshlakivsky and Searcy, 2013). Thus, to cope with these problems, a system perspective and considering multiple levels to enable sustainability transformation are vital (Buhr et al., 2023).

Implementing and deploying sustainable business strategies is a complex and challenging process, and it relies heavily on employees' engagement and commitment (Glavas, 2012; Kotter, 1996; Pekaar et al., 2024).

Individual "change agents for sustainability" (CAS) influence how and to what extent sustainability is prioritised within an organisation (Buhr et al., 2023). Previous research has proposed various typologies of change agents (Buhr et al., 2023; Schaltegger et al., 2024; Van Poeck et al., 2017)), suggesting that sustainability transformation can be promoted through different roles, each requiring distinct competencies.

In this paper, we explore the roles of the identified change agents at Scania, a global company in the automotive industry, and their learning needs. Specifically, we address the following questions:

RQ 1: How do Individual change agents for sustainability (CAS) in a company perceive their roles in sustainable business transformation?

RQ 2: How do CAS describe their learning needs within sustainability?

Through this research, we seek to gain an understanding that can help the organisation better empower its change agents through learning interventions. Furthermore, we hope this study will inspire other global organisations to transform sustainably in a participatory way.

2 Theory of change agents, competencies, and learning for promoting sustainability transformation

We start by explaining change agency and learning for sustainability. Then, we present two frameworks focused on the roles of change agents.

2.1 Change agency and competence in sustainability transformation

Change agency is a key term in the change literature, and this paper uses an inclusive definition of its tasks as willingness, ability, and permission or encouragement to act (Pregmark et al., 2023). We also use a broad and descriptive definition of change agents to name those employees initiating, leading, directing or taking direct responsibility for making change happen (Caldwell, 2003). Individual change agents for sustainability (CAS) determine whether and how far-reaching a company considers sustainability (Buhr et al., 2023). Considering the rapidly evolving and complex nature of sustainability requirements and the challenges companies encounter, research emphasises the importance of lifelong learning for sustainable development and the cultivation of sustainability competencies (Wiek et al., 2011).

Learning, defined as a process in which individuals learn from and with one another to better understand a problem, is considered a critical component of achieving the sustainable transformation of societal systems (Stam et al., 2023). Companies transform existing business models through organisational learning and establish new standards and processes to address increasingly sustainability-driven demands (Schaltegger et al., 2016). CAS are important contributors to sustainable development by enabling different forms of learning, and most of them probably do not think of themselves as facilitators of a learning process.

In their literature review about individual change agents for corporate sustainability transformation, Buhr et al. identify three key dimensions of individual change agency for sustainability: beliefs, actions, and competencies (Buhr et al., 2023). Beliefs and actions are crucial as they explain the worldview upon which individuals base their behaviours, actions, and communication. Competencies are comprised of knowledge, skills, and attitudes. The concepts of skills and competencies are often used interchangeably. However, the European Commission, Joint Research Centre (n.d.) describes competence as a broader concept as it is a combination of skills, knowledge, experience, attitude, and behaviour that enables a person to perform effectively in a specific role or situation (European Commission, Joint Research Centre, n.d.). Efforts to identify essential competencies for driving sustainability transformations have resulted in the concept of “key sustainability competencies.” Wiek, Withycombe, and Redman (2011) conducted an extensive literature review and propose five key competencies: systems-thinking, anticipatory, normative, strategic, and interpersonal competencies. These competencies serve as a foundational framework for sustainability education and practice.

2.2 Typologies of change agents

In this work, we use Schaltegger et al.’s key archetypes of CAS described in the article “Corporate change agents for sustainability: Transforming organisations from the inside out” (Schaltegger et al., 2024). This work is helpful in this context, exploring business transformation. It includes five archetypes of change agents for sustainability and examples of key competencies..

Table 1: Archetypes of change agents for sustainability and examples of key competences

The archetype of change agents for sustainability	Examples of key competencies
1. Strategic	Interpersonal, communication, organisational and leadership skills, commercial and strategic orientation, etc.
2. Part of an internal support structure (in a specialised sustainability function in the company)	Interpersonal, communication, internal boundary-spanning transdisciplinary skills, etc.
3. Sustainability manager (in an operational line function)	Role-specific disciplinary knowledge, leadership and team skills, etc.
4. Functional with dedicated sustainability responsibility, e.g. carbon data analyst	Role-specific disciplinary knowledge combined with sustainability knowledge, etc.
5. Informal sustainability “contributor/leader/expert/sales manager”	Boundary-spanning transdisciplinary skills, reframing skills, etc.

Van Poeck et al. (2017) describe sustainability transitions and identify two fields of tension – instrumental vs. open-ended approaches to change and learning, and between personal detachment vs. involvement. A matrix with four types of CAS emerges by combining the two tensions, as shown in Figure 1.

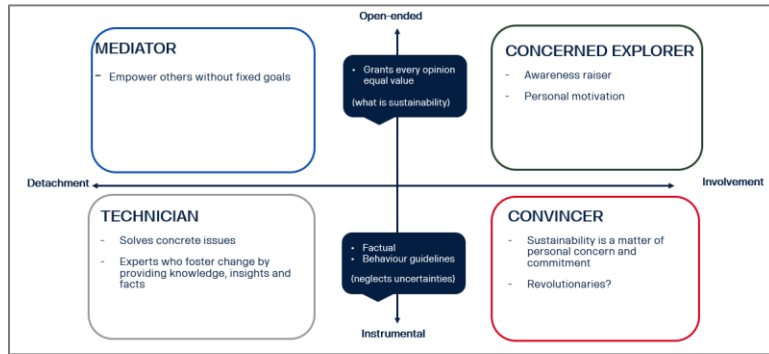


Figure 1: Ideal typology of change agents (inspired by Van Poeck et al., 2017)

3 Methods

We conducted a case study, exploring one company as a case undergoing sustainable business transformation. The first author is employed at the company and supports the organisation with sustainability training.

Our study applied a pragmatic action research methodology, i.e. action research that can directly contribute to transformative action (Kemmins, 2010). By action research, we mean research that is integrated with development, which we deploy here to better understand CAS and, by doing so, implement practices to support these employees.

3.1 Data Collection

We developed and distributed a survey using a semi-structured questionnaire to 320 employees in various parts, covering all of the company's central organisational units as well as some 50 different countries all around the globe and all geographic regions. All informants had “sustainability” as part of their department/unit or individual title or belonged to a unit responsible for sustainable solution sales. The focus was on understanding how these individuals perceive their roles in the company and their needs for learning within sustainability.

The questionnaire consisted of the following questions:

1. Starting with you, how would you best describe your work with sustainability? (providing the archetypes by Schaltegger et al (2023) as possible answers)
2. Choose four of the 16 words below that you think best describe your role as the driver of sustainability (the words were inspired by the matrix of Van Poeck (2017), see Section 2.2)
3. What would you LIKE and/or NEED to learn more about within the sustainability area? Why? (open-ended text answer)

3.2 Data analysis

A simple quantitative analysis was conducted on the results of questions 1 and 2, aiming to determine the extent to which different roles of change agents exist in the company. Further, we conducted an inductive thematic analysis (Braun & Clarke, 2006) on the data responding to survey question 3 to identify, analyse and report patterns within the data about learning. Here we did not try to fit the data into an existing theoretical framework, but instead wanted to let the learning needs emerge from the data. This work started by familiarising ourselves with the data, reading and re-reading, and thereafter generating initial codes, which then turned into nine different themes describing learning needs.

4 Result

The questionnaire, distributed to the 320 employees identified as sustainability change agents, received 107 responses, resulting in a response rate of 33.4%. Due to the self-selection nature of participation, the findings should be interpreted with an awareness of possible bias toward more engaged or interested individuals.

4.1 Change agent roles (RQ 1)

The first mapping, illustrated in Figure 2, shows that the five different roles identified by CAS among the surveyed participants are spread across hierarchical levels in the company: strategic, parts of an internal support structure, sustainability manager, functional role, and informal sustainability roles.

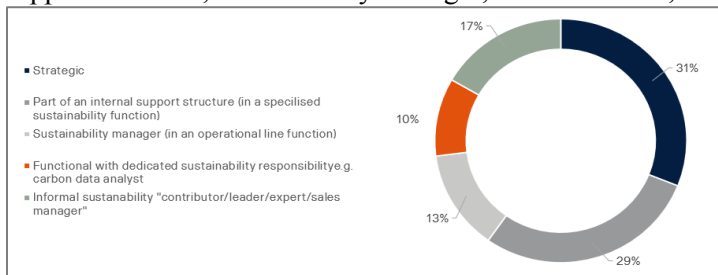


Figure 2: How do the CAS in this company describe their work within sustainability (multiple answers possible)?

For the second mapping, we used the result from question 2 in which the informants chose four of the 16 words. As depicted in Figure 3, the informants described themselves in all different areas with a stronger focus on the “Mediator” as well as “Concerned Explorer”, and the role of “Convincer” being the least frequent role.

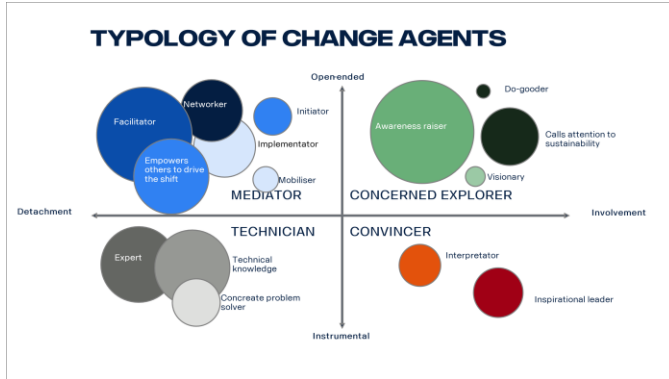


Figure 3: Mapping of different typologies of change agents.

4.2 Change Agents' Learning Needs (RQ 2)

When analysing the informants' answers to question 3, “What would you LIKE and/or NEED to learn more about within the sustainability area? Why?” we identified nine themes, each describing learning needs (Brief supporting quote, participant #):

1. General Sustainability Knowledge and Awareness (“Deeper understanding of the company’s ambitions”, p 23)
2. Technical Knowledge and Tools (“Learn more about tools like LCA, p 30)
3. Circular Economy and Business Models (“Circular business models”, p 17)
4. Legislation and Compliance (“GRI Reportability”, p 56)
5. Product and Production Impact (“Is BEV the ultimate solution for Automotive?”, p 10)
6. Sustainability Communication and Strategy (“Sustainability communications, to inspire leaders within “the company” to include sustainability in their strategic thinking”, p 82)
7. Emerging Topics and Future Trends (“Biodiversity and related issues”, p 13)
8. Social and People-Centric Sustainability (“Focusing on people/social sustainability is crucial for addressing the people-related impacts and responsibilities, p 36)
9. Practical Applications & Case Studies (“Use cases from markets, customers' customers“, p 39)

As shown in Figure 4, the most common answers are in the “General sustainability knowledge and awareness” theme and the lowest number of answers are in “Sustainability Communication and Strategy”.

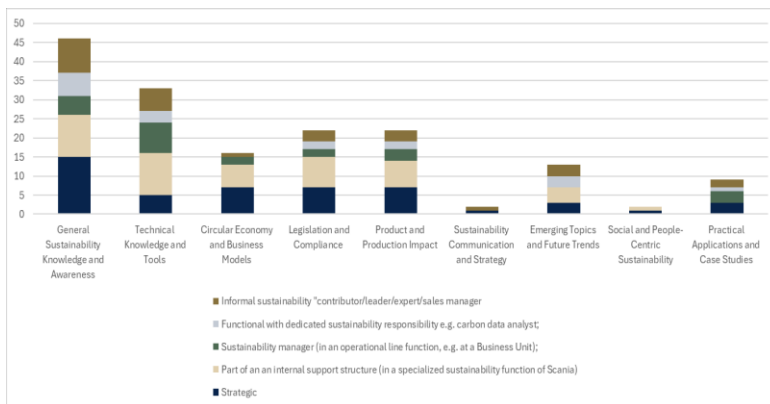


Figure 4: Mapping different typologies of change agents and their learning needs.

5 Discussion

This study has explored change agents' roles and learning needs at a large global automotive company. We used two typologies (Schaltegger and Van Poeck) and asked survey respondents to self-identify with one or several of the roles described in those frameworks. This resulted in a mapping of change agents at the company (Section 3.1). Then, we analysed the participants' views on their learning needs, which resulted in nine themes capturing learning needs (Section 3.2).

5.1 Contribution to the field

To our knowledge, the study reported here is unique as it gives empirical insights into how different archetypes of CAS perceive their roles in a company and how they describe their learning needs within sustainability. The two different mappings served to get some order and allowed us to reflect on the different types of roles and how the company can empower them through various learning interventions.

In an optimal scenario, all members of an organisation would contribute to its sustainability transformation. However, it is unrealistic to expect everyone to contribute to the same extent or in the same manner. The ability of CAS to effectively initiate, drive, and implement the necessary changes for achieving sustainability depends on their role and position within the organisation. Our analysis identified that the perceived roles in the company are spread across all different hierarchical levels. These different roles show that the company has many actors across the organisation that can contribute to sustainable transformation consistent with Schaltegger et al.'s definition of change agents for sustainability to any employee who contributes to the necessary sustainable transformation in line with Earth's safe and just system boundaries (Schaltegger et al., 2024).

To understand the roles of CAS as change agents in the company, we categorised them based on their selections of different descriptions of their roles into four groups structured around two fields of tension. The mapping showed that most informants favoured words related to an open-ended approach to change and learning, implying that the learning should not have an instrumental perspective based on factual and behaviour guidelines but a pluralistic approach. The matrix's second axis, the tension between personal detachment vs. involvement, showed a majority being rather detached, implicating that the CAS are not driven mainly by idealism. None used the word "revolutionary" to describe their role. The most frequently used word was "Awareness raiser", indicating that even though sustainability is to be an integrated part of the company's strategy and processes, much attention is still needed to raise awareness for the need of a sustainable business transformation to happen.

In today's complex business environment, sustainability issues are considered wicked problems because they are complex, interconnected, and often contradictory challenges that resist simple, straightforward solutions (Pryshlakivsky & Searcy, 2013). Therefore, we hypothesised that system thinking would be common in individuals' perceived training needs. However, the informants' reported training needs using the free text questionnaire showed that the main themes were general sustainability knowledge, technical knowledge and tools, legislation and compliance, and product and production impact. No informants even mentioned system thinking.

Organisational learning, on the other hand, especially in the automotive industry, needs to focus on key sustainability competencies, including system thinking, to transform existing business models to sustainable ones. Our research, hence, identifies a difference in the individual's versus the organisation's learning needs. One possible explanation is that wicked problems are not, by definition, easy to grasp, whereas when asked about training needs, different hands-on tools, like Life Cycle Assessment and regulations, like Corporate Sustainability Reporting, are easier to scope and hence mentioned when being asked. Future work is in progress to better understand this gap in the company.

The identified needs are different to the learning needs presented in the literature (see Section 2.1), which shows that the skills and competencies for CAS are systems-thinking, anticipatory, normative, strategic, and interpersonal competencies. Besides systems thinking, which is not mentioned, one could also reflect on anticipatory competencies, as the respondents seem to be mostly interested in learning about given future trends but not in anticipating, imagining, and reimagining futures.

5.2 Implications for intervention and development at the company and beyond

Our findings suggest that the company could design interventions in which change agents are invited to reflect on and learn about learning needs. The present study could inform such reflection.

This study shows an unawareness of systems thinking, which can also inform university and school education. Many of the company's employees have a strong educational background in science, technology, engineering, and mathematics (STEM) education, where systems thinking seems to need attention.

5.3 Limitations and Future Work

This work has been conducted at one company. Further research in other companies could help generalise the results and learn about the role of different contextual specificities. For example, in our case of a large company, employees may be used to having a rather well-defined and limited task to focus on, while employees in smaller companies may have tasks of greater scope, which may allow them to see systems and the need for system thinking more easily.

This work turned out to be interesting, and we are planning qualitative interviews to gain a deeper understanding of their perceived roles and learning needs. Here, we will interrogate our finding that individual CASs in the company do not perceive training needs within the domain of the multi-dynamic complexity of wicked problems.

We also plan to extend our work by asking about competencies that change agents perceive they have that are important for their role as change agents.

6 Conclusion

Our data suggest that CAS (Change Agents for Sustainability) are distributed in various roles, indicating that this company in the automotive industry has many employees who can contribute to the necessary sustainable transformation. In this study, we have used Schaltegger et al.'s key archetypes of CAS (2024) and the Ideal typology of change agents, inspired by Van Poeck et al. (2017), as theoretical frameworks to map identified CAS. The data suggest that typical CAS profiles are characterised by a detached and open-ended nature, often taking the form of mediators or concerned explorers. The most frequently used term to describe their role was "awareness raiser", highlighting that sustainability is still not fully embedded in the company and needs further integration. When analysing perceived training needs, we concluded that the literature shows a competence need to handle the wicked sustainability issues. In contrast, the individuals report training needs in specific sustainability areas, tools, and regulations. We are researching this further to understand this difference and how to address it in practical training initiatives.

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