(Authors' copy - - after peer-review & before publishing)

Leadership for sustainability: the importance of sustaining imaginative work

Birgit Helene Jevnaker* and Johan Olaisen

BI Norwegian Business School, Oslo, Norway

birgit.h.jevnaker@bi.no (*lead & corresponding author)
johan.olaisen@bi.no

Abstract: Sustainability thinking in enterprise strategies has emerged as a new concern for leaders in many industries and countries. It has spread like a virus in abstract corporate visions communication. We propose that more attention be devoted to leveraging the concrete developmental work from an action-based leadership for sustainability perspective. Our conceptual paper seeks to understand sustainability and change thinking in micro-practices, which can open for reusing resources, transforming core processes and offerings, and innovating in corporate missions. For this conceptual aim, we combine processual philosophy and sustainability-oriented design thinking with exemplary practices in one specialized business enterprise to help us understand how and why micro sustainability practices can be born, formed, and shaped and how they can evolve into something foundational for an entire value-creation. The focused enterprise in this paper, Flokk, has pioneered sustainability thinking in both its design and development and its entire philosophizing towards the users. In contrast to prevailing management beliefs towards unconstrained creativity, enduring imaginative design and development efforts and leading with some concrete constraining criteria can become beneficial for leveraging sustainable practices, as shown in this puzzling office chair-maker case.

Keywords: leadership, sustainability, change management, tinkering, design thinking, eco-effectiveness.

1. Introduction

Despite increasing attention on countries and companies' sustainability goals, we know less about leadership for sustainability as continuous practices in micro, at the layers of daily work activities. Sustainability thinking in enterprise strategies has emerged as a new concern for leaders in many industries. It has spread like a virus incorporate visions communications, which tend to be abstract (Jevnaker & Olaisen, 2022). We propose that more attention could beneficially be devoted to leveraging the concrete developmental work from leadership for sustainability.

This paper offers concepts from change management, process philosophy, and design for understanding leadership for sustainability as continuously creative practices. The paper provides in-depth insights into an exemplary enterprise that has pioneered leadership for sustainability.

This conceptual paper seeks to understand sustainability thinking in micro-practices, which we understand as part of the nitty-gritty of everyday work. In line with Ciborra (1992/2009), we argue the need to move from abstract thinking to explore more concrete "tinkering" with complex information and design. In short, the daily creative workings can open for ways to reuse and reduce resources, transform offerings and core systems, and thus enabling (or hindering) sustainability innovations. The combination of understanding the change and design processes as parallel or entangled processes for sustainability makes the paper unique.

However, to follow the pioneering examples of the office furniture-maker, Flokk, and their communities of practices who have worked with sustainable design for over 40 years, we need to attend to multifaceted practices over time. The current CEO emphasized both the people and the culture and the design guide criteria used in "tough" ways to assemble their long-lasting products (Flokk's Sustainability report, 2021). Flokk's strong position on sustainable design goes back to the early nineties, or before that (Jevnaker, 1991, 1995). It is founded on development practices including solid quality control to ensure that no harmful substances are used and that the furniture still achieves the adequate strength required.

Our research problem is (1) to shed light on how and why such micro sustainability practices can be born, formed, and shaped? Furthermore, (2) what the roles for leadership are in how sustainability design may evolve into

something foundational for an enterprise's purpose and value-creation? Finally, (3) how do parallel or entangled design and change processes contribute to understanding sustainability?

For this explorative conceptual aim, we combine processual philosophy and sustainability-oriented design thinking with exemplary practices in one specialized business enterprise to help us understand beyond the abstract sustainability goals layer. Specifically, we explore and discuss how design practices in this enterprise could take steps towards leading ecological sustainability development in triad ways, on both what might be and what might NOT be, and what could make sitting a joyful experience. The latter is highly relevant since many participate in a daily sitting marathon throughout their work and commuting hours and at home. Concurrently, tons of waste in office furniture harm the environment, which calls for organized changes and responsible leadership action.

2. Perspectives on organizational change

A common and essential categorization in organizational change-oriented research is the distinction between change as episodic, discontinuous, and intermittent at one side; and change as continuous, evolving, and incremental (Weick and Quinn, 1999). The first stream of contributions assumes that stability is the standard and desired situation for most organizations. Change efforts must be managed by extraordinary activities commonly represented as linear projects consisting of planned actions. Examples are the practical guidelines offered by Kanter et al. (1992), Kotter (1996), and Luecke (2003). Within the second stream, organizational life is assumed to consist of micro-changes that can aggregate into more macro and fundamental organizational changes over time. This category is often called organizational development (OD). It has the common presumption that change is emergent, meaning it is "*the realization of a new pattern of organizing in the absence of explicit a priori intentions*" (Orliowski, 1996, p. 65; Weick and Quinn, 1999, p. 375).

These two categories have also been combined in the same model. Portraying organizational growth as alternating stages of change and development, Greiner (1972) called such a trajectory "*evolutions and revolutions as organizations grow*". This sequential phasing of different change forms was later labeled the punctuated equilibrium paradigm (Gersick, 1991) or the punctuated equilibrium model (Miller and Friesen, 1980, Tushman and Romanelli, 1985). Duncan (1976) used contingency theory to provide a prescriptive model for two basic organizational processes innovation and implementation which requires different organizational design (p. 185). His contribution lies in the articulation of when and how to switch between the two processes. Duncan's argumentation is based on the premise that an organization just can handle one process at a time. More recently, we have seen contributions emphasizing that different change efforts and processes can coexist and take place in parallel (Stensaker et al, 2002; Langley and Denis, 2006; Meyer and Stensaker, 2006). Our research model is based on how these two processes coexist in a parallel or entangled understanding of design, change, and sustainability.

Almost everyone who writes about change bases their argumentation on a paradigmatic assumption that change adds to the complexity of an organization, which is the same as assuming that stability and equilibrium are the typical attributes of organizational life. We turn this dominant assumption around and work on the premise that both episodic and continuous organizational change is a standard and wanted the situation in most firms. Such changes occur primarily as persistent dynamic processes, and successive projects are present simultaneously either as separate actions, parallel, or intertwined processes. The dynamic processes contrast the punctuated equilibrium model, assuming that organizations experience relatively long periods of stability or equilibrium, punctuated by condense periods of revolutionary change (Miller and Frisen 1980; Gersick, 1991; Tushman and Romanelli, 1985; Romanelli and Tushman, 1994). Stability is not a wanted situation but rather parallel or intertwined continuous change processes, design, and sustainability improvements. Nevertheless, they may be difficult to leverage and realize in beneficial ways, and stabilizing aims and accomplishments are essential, too.

Viewing organizations as fundamental change-creating entities challenges many of our taken-for-granted interpretations and raise many essential questions. We think it is of utter importance to clarify the mechanisms that energize such organizations because these could significantly contribute to understanding why and how sustainability change activities and design processes occur.

3. Perspectives on sustainability: thinking and tinkering

Zooming in on leadership for sustainable design in real-world enterprises, we may distinguish between similarities and differences in perspectives, aspirations, practices, and premises. Indeed, numerous companies seem to follow some global trends in management, and leadership ideas may spread almost like a virus (Jevnaker and Olaisen, 2022). Our purpose here is not a literature review. Instead, we seek to orient this paper towards fruitful action-based views on leadership for sustainable design.

Inspired by Ciborra (2009), we distinguish between thinking and tinkering when enterprises engage in design (see Figure 1). Extending this perspective to leadership with and for sustainability design, we draw on our past research on complex design processes between enterprises and creative design specialists (see Jevnaker, 2000, 2012).

Table 1 Perspectives on leadership for sustainability action

Leadership for, with, and about sustainability design	Sustainability enterprise thinking	Sustainability enterprise tinkering*
Aspirations	Eliciting expanded goals for People, Planet, and Profit	Enacting aspirations for recurrent trials related to sustainability-oriented practices
Perspectives	From cradle-to-grave to cradle-to-cradle thinking towards Reduced negative value-creation and increased reuse & recycling	Iterative creative improvisation, co-design and design experiments for long-lived products, reuse, elimination of waste
Practices	Corporate communication Measure-oriented indicators Eco-philosophic practices	Parallel or intertwined processes are redesigning symbols, objects/services, organization, business models/strategies, partnerships.
Premises	Spans from principles of eco-efficiency and greenwashing to eco-effectiveness, including collaboration for the common good.	Discovering, recreating, and refining premises and making sense of design principles in action

 * Inspired by Ciborra (2009) and research in creative design-oriented enterprises by Jevnaker (2000, 2012).

McDonough and Braungart (2002) distinguish between eco-efficiency and eco-effectiveness. *Eco-efficiency* is a term that emerged from the business actors engaged in the 1992 Rio Earth Summit. Primarily, it means "doing more with less", including "being less bad", argue McDonough and Braungart (2002, pp. 51, 67). They point out that in a philosophical sense, "efficiency has no independent value; it depends on the value of the larger system of which it is a part" (p. 65). As a part, it may be beneficial, but "it is not a strategy for success over the long-term".

Being less harmful "is to accept things as they are", contend McDonough and Braungart (2002). On the other hand, *Eco-effectiveness* is about "doing the right things", as Peter Drucker (a critical leadership thinker) suggested. Most interesting is that these authors stress that we humans can do better than "to be less bad". What about an entirely different model? What would it mean to be 100 % good, they ask?

3.1 Sustainability as action-based practices

Ciborra (2009) distinguished between thinking and tinkering. He observed that enterprises tended to drift and fail in their planned ICT projects. Inspired by this information and knowledge management literature, we argue that merely abstract thinking for the People, Planet, and Profit is not enough for leveraging and accomplishing sustainable design. Interestingly, Ciborra noticed that successful companies tended to spend a lot of their time trying out or tinkering.

As explained by Ciborra (2009), bricolage can be the constant re-ordering of people and resources, the constant "trying out" in permanent dynamics of change.

3.2 The roles of leadership in sustainable design

Sustainable designing can be regarded as a kind of paradoxical collaborative action (Jevnaker, 2014). Firstly, working closely with independent-minded designers in strategically essential areas both in-house and out-of-house across several customers, suppliers, and knowledge networks may seem paradoxical to everyday thinking. Secondly, experimenting with uncommon, somewhat wild ideas may seem even more so.

However, as we shall explore, experiences from corporate innovations in office furniture-making suggest that it can be gratifying to adopt and foster uncommon design ideas and work persistently to make leaps in different and sustainable ways.

3.3 Reflections

Classifying theories of change, Van de Ven and Poole (1995) use the expression motor as a valuable metaphor for investigating organizational changes, "*we will call them* motors - *to explain how and why changes unfold*" (p. 511). They ended up with four organizational development and change theories – evolution, dialectic, life cycle, and teleology. These categories rely on ideal motors of change which can be recognized as a distinct action style (p. 524). A metaphor allows us to stretch our thinking and deepen our understanding, allowing us to see things in new ways and act in new ways (Morgan, 1980, 1986). The motor metaphor is good because it is associated with energy that propels organizational changes, but the type of changes they refer to lies mainly within the traditional paradigm of change as development or extraordinary activities for filling gaps.

Our focal firm Flokk tries to drive changes in the industry due to the often-changing business conditions that others must accept. In a situation like this, we think it is appropriate to swap the mechanical machine associations from the motor metaphor with some more dynamic and opens possibilities for multi-tasking. We suggest using the metaphors energy and processor for catching the kind of changes we have discussed. The metaphor of energy pays attention to what fuels or energizes the organization to bring about pro-active changes, and the metaphor of a processor – a central processing unit (CPU) but allowing for distributed programming and leadership – contains options for a variety of ways of executing changes, for example as parallel, simultaneous, or intertwined processing of activities. In the following, we will explain these two metaphors in more detail.

Nevertheless, before that, we dwell on the role of the mediating technology. March (1991) distinguished exploration and exploitation as two adaptive processes in organizations. The winning design is explored and understood to be able to exploit them in the production process. According to March, exploring and exploiting simultaneously is necessary to be competitive, requiring an everchanging competence – knowledge, experiences, and attitudes working together from what we know to what we do not know that we know as an imaginary mental process.

4. Puzzling example: A strategic design innovation-oriented case study

In the following, we draw on one company case and its brand, HÅG, a former separate company that today is a crucial part of the more significant concern, Flokk Ltd. Within the furniture industry, Flokk is a leader when it comes to sustainability, with a decades-long puzzling history of sustainable innovation dating back for example to 1990 when HÅG was the first company in Norway to hire a full-time sustainability officer. Even before, designing sustainable or long-life products was attended to in HÅG's designer collaborations. What is puzzling then is the transformative evolution of this local chairmaker and its working relations in the product design development, communication, distribution, and customer and end-user contacts – from a limited resource situation without any professional designer assistance towards a knowledge-based and dynamic sustainability design approach. Drawing on several decades of innovation-rich development history, this sustainability design evolution with Flokk is of interest to other companies, managers, and specialists.

The case material we draw on in the following is collected in research by Author1 and from the company's current open sources. The case research encompasses several rounds of extended interviews, multiple company visits, numerous conversations over time (1991-2021), as well as a collection of documentation and recurrent initiation and inspection of core products, including two visits to HÅG's factory and participation in internal and external events, seminars, and exhibitions. The method is a qualitative inquiry following this company and some of its designer relations (as an independent researcher) from the early 1990s onwards for an explorative, phenomenological purpose (Jevnaker, 1991, 1993, 1995, 2000, 2005, 2012, 2014).

We have used Eisenknecht and Graebner (2007) to build a theory from single cases that fit into the Flokk case. We have further used Yin (1984) for the understanding of case research. Our inductive methodology is based upon grounded theory, where we have tried to get theory and practice to meet (Glaser and Strauss, 1967, 1990). Finally, we have used Schwartz and Stensaker (2014) for phenomenon-driven research. These methodological approaches have formed the basis for our explorative research.

The Norwegian company HÅG was established in Oslo in 1943, but it was almost bankrupt in 1974. However, a new leader and novel design development approach collaborating with external design studios for the first time helped re-focus the company and leverage its office chairs. Production was already moved to another region (Røros), while the headquarter remained in Norway's capital (Oslo). Since 1974, HÅG has taken advantage of creative designer-enterprise relations and manifold expertise in design development, delivery, communication, and corporate culture. Developing high-quality, innovative products, the company eventually succeeded in international markets, combined with continued leverage of product designs and production and delivery systems. This innovative company HÅG was later sold and merged with several other furniture companies into Flokk, another story. Flokk in 2020 had a turnover beyond 3 billion NOK and is a current market leader in office chairs in Europe (2020 Annual report).

In 2011 Flokk published its first sustainability report in GRI Format (Global Reporting Initiative), a thorough examination of every aspect of the company, creating a picture of their overall impact on the environment. Total design principles were introduced back in 1993. They started to use consumer recycled materials in some chair models, and "we're progressed the journey since then", reflected Christian Lodgaard, Senior Vice-president (VP) of Products & Brands in Flokk.

One example of Flokk's sustainability work is the use of recycled plastics, which has increased from year to year, reaching 735 tonnes in 2020, an increase from 664 tonnes the previous year. In 2021 the company targets a further increase to 1,000 tonnes (Flokk, 2021).

Our case firm Flokk has characteristics that challenge the dominating categories of organizational change, including the assumption that change efforts are extraordinary. Here episodic change and continuous development are typical properties of daily life. Processes of change take place both in parallel and as intertwined activity streams, both as stepwise punctuated change and organizational development, both as planned and emergent development, and both in the domains of exploitation as well as exploration. All these dichotomies have their more or less separate ongoing academic conversations. Relating the case to these established streams of consciousness would imply cutting the empirical phenomenon into pieces and place them in á priori defined entities. In our view, this would not add much to the existing understanding and knowledge of design and change management. Instead, we try to conceptualize the phenomenon of parallel multi-tasked changes where sustainability and design are parallel to other multi-tasked changes.

5. Discussion: short-sighted or continuous sustainability design

5.1 Tinkering and thinking are intertwined

From the early 1990s, both sustainability thinking and active experimentation have been present in the product design development of HÅG. In visits to the company's product development department, Author1 interviewed the company's first sustainability officer Kjersti Kviseth, and the supportive Carl P. Aaser, VP, head of research and development (R&D), later became VP for Environment. Kviseth, the sustainability officer, an educated industrial designer, enacted the then emergent sustainability thinking inside HÅG while having an open eye on what happened in research institutes and other knowledge-based milieus. The head of the product development department, Aaser, a highly experienced and reflective engineer, paid attention to several concrete sustainability concerns, such as industrial materials and chemicals used in office chairs. As VP for R&D, he took initiatives for designing chairs from the outset in more sustainable ways, including experimenting with fewer parts and reducing any toxic ingredients or otherwise non-sustainable elements in HÅG's products. He was also engaged in raising the sustainability aspirations beyond the standard industry levels, together with Torgeir Mjør Grimsrud, HÅG's CEO and a later enthusiastic chairman. Grimsrud, Kviseth, and Aaser were instrumental in installing comprehensive thinking from the very start in exemplary development projects and, more generally, inside the company culture.

This broader sustainability thinking seems to have evolved and got a new surge, such as under the regime of the current VP for products & brands, Christian Lodgaard, rather than drifted away in Flokk's later design and developments. Furthermore, it might have helped that Flokk's key managers and teams have been working recurrently crossover with manifold highly qualified and reflexive industrial designers and engineering designers, as well as environmental and usability experts, in-house as well as out of the house. One of HÅG's lead designers historically since 1974 is Peter Opsvik. This thoughtful designer and his studio team have worked highly human-centered as well as nature and environmentally conscious when co-creating with HÅG's project design teams, leaders, and specialists. They have argued for "long-life products" and the importance of sitting dynamically in chairs adapted to man's work activities. One highly experienced project manager of HÅG, who was an educated physiotherapist, started to work at Opsvik's studio (leaving HÅG formally).

Designing beyond the standards of the field involved not only creative expertise in cross-disciplinary collaborations. It involved much tinkering and thinking imaginative "what if" and "so what", as well as "why" and "where" the existing or new ways could be changed to become essential for the active sitting and good everyday use aims.

One designer or one company could not have accomplished this alone, one of the innovators involved in this active sitting conception reflected (Jevnaker, 1995, 2012).

This enterprise has become dedicated to sustainable design thinking and argues they "will continue moving forward" and "have set a number of ambitious goals" to track their progress, according to its leaders actively. As argued by the current CEO, Lars Röiri (Flokk, 2021):

When designing new products, we follow long-standing circular design criteria intended to limit the environmental footprint of our products. These guide how we assemble products and the materials we use and even dictate our high quality and timeless design, making for long-lasting products.

Currently, every Flokk product is designed according to a concept they call 5III - 5 circular design principles on III Focus areas that come together to create one sustainable lifecycle.

Nevertheless, the tinkering and its thinking for the common good are complex. The tinkering and thinking suggest how creative design and design management can contribute to situations and diversely skilled people in and beyond enterprises.

5.2 The paradoxical roles of leadership in making sustainable design

Recycling is but one strategy in contemporary views on waste. Indeed, "blindly adopting superficial environmental approaches without fully understanding their effects can be no better – and perhaps even worse – than doing nothing", argue McDonough and Braungart (2002, p. 59). Overall, these authors argue for remaking the way we make things, which seldom is a straightforward process. Drawing on our past research, we reflect next on the paradoxical roles of leadership in remaking design approaches.

Flokk's company motto is 'different and better', a motto rooted in HÅG's entrepreneurial history and design leadership culture, which means they work with innovative new products inspired by sitting and seating artifacts in moving activity, health, and the environment.

Considering the leadership roles in how this company makes things, there is much to learn for all parties experiencing the dynamics enacted by particularly creative sustainable design endeavours. As the Scandinavian case illustrates, it has been possible to enact severe and playful work to achieve something more like long-lived products with no or trim toxic materials.

The efforts across time and several generations of chairs turned out to be essential, although design and development projects were organized ad hoc or, to some extent, project-by-project (Jevnaker, 2012). Sustainability also required longer-term design orientation after-sales and towards a variety of contemporary and future users. Continuous design became essential even when working with several quite different external designers. Moreover, the first environmental-responsible manager reflected that perhaps over 100 ways an office chair could be improved after being first developed and launched (Jevnaker, 1995, 2012).

Furthermore, the drive to leverage eco-effective design did not come mainly from the legislation in this field. Instead, the standard legislation in several advanced industrial countries could be experienced as "a barrier" to

market unique office-chairs beyond existing standards at the time, according to our informants (Jevnaker, 1995, 2012).

Behind the active sitting philosophy, we could identify recurring efforts of making sense of what was being designed and developed. Also, as identified in all these cases, reframing the new may need to be conceived, tested, and continually worked upon and refined (Jevnaker, 1993, 2014). Leveraging this kind of evolvement is essential because creative designing can change or shape the boundaries of many other business functions, from procurement, production, marketing, branding, logistics, and customer interactions (Jevnaker, 2012; Jevnaker and Bruce, 1999).

As happened at another furniture-making company STOKKE, which was also involved in this active sitting experimentation in a group of designers, innovators, and business parties, the whole traditional sales apparatus was at some point replaced, and new people were recruited (Jevnaker, 2012). New middle managers and many international links and intermediate entities have, however, learned to communicate and grasp the "what" and "why" of both STOKKE's and HÅG's as well as Flokk's new offerings. Also, verbal communication and visuals such as video recording for the sustainable design help do the signaling and "talking" over time. When constituting both a co-creating and a mediating (signaling and linking) technology, creative design may thus rightly be regarded as challenging to manage (Jevnaker, 2014). Difficult because creative design embraces many dynamic factors in human workplaces, health, and environmental concerns. As pinpointed by Atle This-Messel, Flokk's current Vice-President Environment:

As a company and a manufacturer of high-end office seating, we are acting now. Globally, perhaps the difference we are making today is modest. Nevertheless, our mission – as our products, name, and philosophy grow increasingly familiar in the market – will help seed other initiatives and inspire others to change their behaviour.

In other words, the mission of Flokk works like a vision for growth in their markets.

5.3 Requirements for successful pro-active change and design efforts

Change efforts tend to be reactive, discontinuous, and often triggered by a situation of organizational crisis (By, 2005, p. 370). It is to say that organizations need a clear impetus before they change. In our case, it is not imperfections that trigger the changes; they are pro-active and spontaneously design innovating based on established competence and with an articulated future in mind as a formative underlying context (Ciborra, 2009). Here, knowledge and competence are not entirely internal in the firm but the design cluster and co-creation of designer-enterprise partnerships (Jevnaker, 2012). Flokk today has enough internal knowledge, experience, and competence to discuss, evaluate and set a direction for potential subcontractors. They continue to experiment with manifold design groups, sustainability-in-action issues, and cross-disciplinary learning. The episodic changes represented with the building of new, contemporary design furniture have become strategically oriented guided by a clear vision about future needs in the market supported by in-company competence.

5.4 On Vision and Mission

In the literature on strategy, organizational change, and design, we find various meanings of the expression vision. Today many organizations have both a vision and a mission statement. Most of them are unclear, do not motivate people, focus attention, and do not mean something to the people in the organization. Hence, most of them are ineffective as a compiling guiding force. They are usually nothing more than a monotonous stream of words (Collins and Porras, 1991, p. 31).

Both mission and vision statements can be *"artifact concepts which are deliberately used to create purposeful, collective action. They do so by making gaps visible"* (Normann, 2001, p. 276). Vision is about an envisioned future (Collins and Porras, 1996) and implies a gap between an imagined future state and the present state. The mission of a company expresses its raison d`être; why does it exist? What is the role in contemporary society related to the value-creating domain in which it participates? So, the mission describes what difference the existence makes to the context where the firm functions. Normann (2001, p. 278) discusses interrelations between mission and vision. One of his conclusions is that remembered leaders are those who had a vision formulated in terms of a mission – *"vision as mission design entrepreneurs"*. In line with Normann's view, the leaders of Flokk and some of their long-term design thinkers will be remembered for having formulated a vision in terms of a mission.

For Selznick (1957), an organization can emerge if it stands for values, mission, or purpose, meaningful in a larger context. However, it is not enough with a fit between purpose and values, on the one hand, and the external

world, on the other. The mission is institutionalized when the fundamental values are embodied in the organization. Selznick (1957, p. 141) called "distinct competence" the ability to achieve a fit between the external world, the purpose and value, and the social organization that embodies them. We argue it is a systemic concept expressing dynamic fit between elements. It is such distinctive competence that energizes the pro-active changes in Flokk. Flokk has found a meeting point between effectiveness and efficiency based upon tinkering and thinking, including internal and external coordination.

6. Conclusions

This paper unpacks the critical twin aspects of design in enterprises and design for ecological sustainability regarding design tinkering and design thinking. Grounded in our research, we also identified the importance of sustaining imaginative mission work over considerable time realized through intertwined and parallel processes.

To contribute to the development of knowledge concerning organizational change, we set out to conceptualize the phenomenon of proactive design changes. We wanted answers to how contemporary change and design processes and their interplay can occur in a competitive economy. Focusing on the change-makers in Flokk, we wanted to identify, capture, produce documentary evidence of elements that energize and characterize change and design in such organizations. Primarily we wanted to conceptualize the phenomenon of interest, not test theories. We think we have reached a set of significant contributions to the topic:

First, in this enterprise study focusing on proactive changes, dynamic tinkering, and emergent thinking, we found that organizational technology was essential for understanding change and complex design processes. It is almost unbelievable that this issue has not been a central topic in organizational change and design research, especially in studies based on contingency theory.

Second, based on empirical observations, we established two metaphors with associations to how proactive change and dynamic design can take place and how different processes can be multi-tasked and sometimes seen as elements in one united change and holistic design mission. Energy comes from co-creating vision, mission, and values infused as meaning in the organization (i e., from distinctive competence), reinforced by consistent managerial decisions and shreds of evidence of success "that speaks to" the organization that mission and values create appropriate results. In addition, coherence between expressed wants and actual behaviour (walk the talk) infuses energy by creating a sense of trust and acknowledgment between employees. The processor metaphor opens creative thinking on how change and design processes can be managed, such as sequential (batch), parallel or intertwined activities.

Third, the partnerships as well as continuous collection and sharing of knowledge across entities through formal and informal channels are of crucial importance for selecting solutions and linking activities in the direction of the dynamic understanding of their motto and mission.

We see three potential fruitful areas for future research projects. First, organizational technology must be included in the research agenda. It seems naive to assume that models of change and design management processes are equally unfolding in long-linked, mediating, intensive, or ad-hoc organizational technologies (Thompson, 1967). Here it should be a solid empirical ground for creating knowledge through comparative case studies.

Second, in-depth activity-oriented research is fruitful to grasp managerial practice concerning intertwined change and design processes. Third, we have shown that the categories of continuous and episodic change and dynamic design can be intertwined in proactive change efforts. It should be interesting to explore to which extent this is due to the contextual situation or has broader relevance.

References

By, R. T. (2005) 'Organisational Change Management: A Critical Review', *Journal of Change Management,* 5(4), pp 369-380.
Ciborra, C. U. (2009) 'From Thinking to Tinkering: The grassroots of Strategic Information Systems', in Avgerou, C., Lanzara, G. F. and Willcocks, L. (2009) Bricolage, Care and Information, Houndsmill, Hampshire: Palgrave Macmillian, pp 206-220.

Collins, J. C. and Porras, J. I. (1991) 'Organizational Vision and Visionary Organizations', *California Management Review* (Fall), pp 30-52.

Collins, J. C. and Porras, J. I. (1996) 'Building Your Company's Vision', *Harvard Business Review* (September-October), pp 65-77.

Denzin, N. K. (1970) *The Research Act: A Theoretical Introduction to Sociological Methods*, Chicago: Aldine Publishing Company.

Denzin, N. K. (1989) *Interpretive Interactionism*, Newbury Park, CA: Sage Publications.

Duncan, R. (1976) 'The Ambidextrous Organization: Designing dual structures for innovation', in Kilman, R. H., Pondy, L. R. and Slevin D. P. (eds.) *The Management of Organization Design: Strategy and Implementation*, New York: North-Holland, pp 167-188.

Eisenhardt, K. M. and Graebner, M. E. (2007) 'Theory Building from Cases: Opportunities and Challenges', *Academy of Management Journal,* 50(1), pp 25–32.

Gersick, C. J. G. (1991) 'Revolutionary Change Theories: A Multilevel Exploration of The Punctuated Equilibrium Paradigm', *Academy of Management Review,* 16(1), pp 10-36.

Glaser, B. G. and Strauss, A. L. (1967) *The Discovery of Grounded Theory: Strategies for Qualitative Research*, Chicago: Aldine Publishing Company.

Greiner, L. E. (1972) 'Evolutions and revolutions as organizations grow', *Harvard Business Review,* (July-August), pp 37-46.

Jevnaker, B. H. (1991) 'Make the World a Better Place to Sit in!' *Design Management Journal*, 4(2), pp 48-54.

Jevnaker, B. H. (1993) 'Inaugurative learning: adapting a new design approach', *Design Studies,* 14(4), pp 379-401.

Jevnaker, B. H. (1995) 'Den skjulte formuen' (The Hidden Treasue), *SNF-Report* 36/1995 (in Norw.), Bergen: SNF Foundation for Research in Economics and Business.

Jevnaker, B. H. and Bruce, M. (1999) 'Design as a Strategic Alliance: Expanding the Creative Capability of the Firm', in Hitt, M. et al (eds.) *Dynamic Strategic Resources,* Chichester: Wiley, pp 267-298.

Jevnaker, B. H. (2000) 'Championing Design: Perspectives of Design Capabilities', *Design Management Journal Academic Review,* 2000(1), pp 25-39.

Jevnaker, B. H. (2005) 'Vita Activa: On Relationships between Design(ers) and Business', *Design Issues* 21(3), pp 25-48.

Jevnaker, B. H. (2012) 'Vestiges of Design-Creation: Inquiry into the advent of designer and enterprise relations', *BI dissertation series,* 6/2012, Oslo: BI Norwegian Business School.

Jevnaker, B. H. (2014) 'The Paradoxical Road to Innovation – The Role of Creative Design', in Junginger, S. and Christensen, P. R. (eds.) *The Highways and Byways to Radical Innovation – Design Perspectives. Research anthology,* Kolding: Kolding School of Design and University of Southern Denmark, pp 41-67.

Jevnaker, B.H. and Olaisen, J. (2022) 'Traveling leadership ideas as a business virus infection', in Enthoven, G., Rudnicki, S. and Sneller, R. (eds.) Towards a Science of Ideas, New York: Vernon U. Press (forthcoming).

Kanter, R. M., Stein, B. A. and Jick, T. D. (1992) *The Challenge of Organizational Change*, New York: The Free Press.

Kotter, J. P. (1996) *Leading Change*, Boston, MA: Harvard Business School Press.

Langley, A., and Denis, J. L. (2006) 'Neglected dimensions of organizational change: Towards a situated view', in Lines, R., Stensaker, I., and Langley, A. (eds.) *New Perspectives on Organizational Change and Learning,* Bergen: Fagbokforlaget, pp 136-159.

Luecke, R. (2003) *Managing Change and Transition*, Boston, MA: Harvard Business School Press.

McDonough, W. and Braungart, M. (2002) *Cradle to cradle: remaking the way we make things*, New York: Northpoint press.

Meyer, C. B. and Stensaker, I. G. (2006) 'Developing Capacity for Change', *Journal of Change Management,* 6(2), pp 217-231.

Miles, M. B. and Huberman, A. M. (1994) *Qualitative Data Analysis*, Thousand Oaks, CA.: Sage.

Miller, D. and Friesen, P. H. (1980) 'Archetypes of Organizational Transitions', *Administrative Science Quarterly,* 25, pp 268-299.

Morgan, G. (1980) 'Paradigms, metaphors, and puzzle solving in organization theory', *Administrative Science Quarterly*, pp 605-622.

Morgan, G. (1986) *Images of Organization*, Beverly Hills, CA.: Sage.

Normann, R. (2001) *Reframing Business - when the Map Changes the Landscape*, Chichester: John Wiley & Sons, Inc.

Orlikowski W. J. (1996) 'Improvising organizational transformation over time: a situated change perspective', *Inf. Syst. Res.* 7(1): pp 63–92.

Pettigrew, A. M., Woodman, R. W. and Cameron, K. S. (2001) 'Studying Organizational Change and Development: Challenges for Future Research', *Academy of Management Journal,* 44(4), pp 697-713.

Romanelli, E. and Tushman, M. L. (1994) 'Organizational Transformation as Punctuated Equilibrium: An Empirical Test', *Academy of Management Journal,* 37(5), pp 1141-1166.

Ryle, G. (1949) *The concept of mind*, Chicago: University of Chicago.

Sandelands, L. and Drazin, R. (1989) 'On the language of organization theory', *Organization Studies,* 10(4), pp 457-478.

Selznick, P. (1957) *Leadership in Administration - A Sociological Interpretation*, New York: Harper and Row.

Schwarz, G., and Stensaker, I. (2014) 'Time to Take Off the Theoretical Straightjacket and (Re-)Introduce Phenomenon-Driven Research', *Journal of Applied Behavioral Science,* 50(4), pp 478-501.

Stensaker, I., Meyer, C. B., Falkenberg, J., and Haueng, A. C. (2002) 'Excessive Change: Coping Mechanisms and Consequences', *Organizational Dynamics,* 31(3), pp 296-312.

Strauss, A. and Corbin, J. (1990) *Basics of qualitative research. Grounded theory procedures and techniques*, Newbury Park, CA.: SAGE Publications.

Thompson, J. D. (1967) *Organizations in Action*, New York: McGraw-Hill.

Tushman, M. L. and Romanelli, E. (1985) 'Organizational evolution: a metamorphosis model of convergence and reorientation', in Straw, B. M. and Cummings, L. L. (eds.), *Research in Organizational Behaviour*, Greenwich, CT.: JAI Press, pp 171-222.

Van de Ven, A. H. and Poole, M. S. (1995) 'Explaining Development and Change in Organizations', *Academy of Management Review,* 20(3), pp 510-540.

Weick, K. E. (1979) *The Social Psychology of Organizing* (2nd ed.), New York: Random House.

Weick, K. E. (1995) *Sensemaking in Organizations*, Thousand Oaks, CA.: Sage.

Weick, K. E. and Quinn, R. E. (1999) 'Organizational Change and Development', *Annual Review of Psychology,* 50, pp 361-386.

Yin, R. K. (1984) *Case Study Research - Design and Methods* (revisited ed. 1989), London: Sage Publications.