Sustainable strategy formation at a Swedish industrial company: Bridging the strategy-as-practice and sustainability gap

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Abstract

Scholars stress that firms need to integrate sustainability into their strategies, calling for more research into how sustainable strategies are formed in practice. This has led to convergence of the fields of sustainability and strategic management, though sustainability scholars have so far neglected the influential strategy-as-practice (s-as-p) movement that has shaped the strategic management field over the last decade. Based on a detailed longitudinal case study of a Swedish industrial company, we are starting to rectify this neglect. In doing so, we are contributing to the s-as-p literature by challenging its top-management bias and identifying previously overlooked strategic activities and practitioners. We are also contributing to the sustainability literature by outlining a novel theoretical framework for studying sustainable strategy formation and demonstrating that certain activities, and their associated practitioners, are particularly likely to shape sustainable (versus "regular") strategies. Finally, the paper outlines the managerial implications of these findings.

Keywords: Emergent strategy; Strategy-as-practice; Strategic activity; Sustainability; Sweden

Word count: 8913

1. Introduction

Sustainability concerns have increasingly moved up the corporate agenda, and scholars stress that firms need to integrate these concerns into their strategies, i.e. to create sustainable strategies (Galbreath, 2009). This has led to a convergence of the fields of sustainability and strategic management (Elms et al., 2010), and several well-known papers have leveraged strategic management theories to generate key findings regarding sustainable strategies (e.g. Christmann, 2000; Hart, 1995; Porter and Van der Linde, 1995).

Given the potential of leveraging strategic management theories to enrich the sustainability field, it is surprising that sustainability scholars have neglected the influential strategy-as-practice (s-as-p) movement that has shaped the strategic management field over the last decade (Jarzabkowski and Spee, 2009; Whittington, 2006). A review of publications in over fifteen sustainability journals reveals that only a handful of papers refer to the s-as-p literature (Behnam and Rasche, 2009; Elms et al., 2010; Sharp and Zaidman, 2009).¹ At the same time, s-as-p scholars have called for more s-as-p research into the so far largely neglected issue of sustainability (Carter et al., 2008; Jarzabkowski and Spee, 2009).

S-as-p challenges the tendency of strategic management research to trap "itself into a cul-de-sac of high abstraction, broad categories and lifeless concepts" (Johnson et al., 2003, p. 6), leaving managers "bereft of insights, let alone guidelines for action" (Johnson et al., 2003, p. 5). The s-as-p focus is instead on "go[ing] inside the process to examine intimately the kind of work that is actually being done" (Whittington and Cailluet, 2008, p. 244). Strategy is seen as something practitioners *do* as opposed to something that an organization *has*.

¹ The following journals were reviewed: Journal of Cleaner Production, Business Strategy and the Environment, Corporate Social Responsibility and Environmental Management, Sustainable Development, Organization and Environment, Journal of Industrial Ecology, International Journal of Life Cycle Assessment, Clean Technologies and Environmental Policy, International Journal of Sustainable Development & World Ecology, Journal of Environmental Management, Journal of Business Ethics, Business Ethics Quarterly, Business Ethics A European Review, Business & Society, Business and Society Review, Social Responsibility Journal, and Corporate Governance.

S-as-p's emphasis on empirically based detailed studies of how strategies are formed in practice has great potential to enrich research into sustainable strategy formation. This is because existing sustainability and strategy research has tended to be conceptual (e.g. Hart, 1995), focusing on how a sustainable strategy *should* be, rather than *is*, formed (e.g. Galbreath, 2009). Scholars have consequently called for more research into how sustainable strategies are formed in practice (e.g. Banerjee, 2001; Behnam and Rasche, 2009; Winn and Angell, 2000), and s-as-p offers a useful theoretical framework for such studies.

This paper seeks to start bridging the gap between sustainability and s-as-p studies by attempting to answer the research question: How does a sustainable strategy form in practice? It does so based on a detailed longitudinal case study of how a sustainable strategy was formed in a Swedish industrial multinational corporation. The paper contributes to the s-as-p literature by challenging its prevalent top-management bias and illustrating how the activities of practitioners at various hierarchical levels in the organization shape strategy formation. The paper contributes to the sustainability literature by outlining a complementary theoretical framework for studying sustainable strategy formation, and arguing that certain activities and practitioners are particularly likely to shape sustainable (versus "regular") strategies. Finally, the paper presents managerial implications for how to successfully form sustainable strategies.

2. Strategic activity: beyond intentionality

Strategy-as-practice aims to direct more attention to the micro-processes that constitute organizations' day-to-day strategy work. The argument is that strategy formation is always ongoing and never completed (Jarzabkowski, 2005). In particular, s-as-p scholars have paid attention to the detailed role of practitioners, activities, and practices in the strategy formation process (Whittington, 2006). Given that strategy formation is a complex process, it is likely to involve activities distributed among multiple practitioners (Jarzabkowski, 2005).

Even though strategy formation is described as involving multiple practitioners, s-as-p scholars often reduce this complexity in empirical studies by focusing on top management (e.g. Jarzabkowski, 2005; Jarzabkowski and Spee, 2009; Johnson et al.,

2003). Hence, the s-as-p literature mirrors the general emphasis in the strategic management literature on senior executives in the upper hierarchical levels of organizations (Carter et al., 2008). A similar top-management bias is readily observable in research into sustainability and strategy as well (Winn and Angell, 2000). This top-management bias in previous research is understandable given the methodological challenges of studying *all* relevant practitioners. However, this bias is problematic, since it leads to an incomplete picture of how strategies are formed by limiting the possible answers to the question of what practitioners are relevant to strategy formation (Carter et al., 2008).

To allow non-top management practitioners to influence strategy formation, it is useful to challenge the prevailing definition of "strategic activity." As others have noted, it is not easy to define "strategic activity" (e.g. Jarzabkowski, 2005). Johnson et al. (2003, p. 3) propose that strategic activity relates to strategic outcomes, which in turn are described as outcomes that "can have significant consequences for the organizations and those who work in them." Similarly, Jarzabkowski (2005, p. 11) discusses activity that is "strategically important," and Mantere (2005, p. 157) suggests that "strategically important issues" can be defined as "both issues an individual agent calls strategic and issues the agent reports as crucial for the organization's success, survival or completion of its mission."

These definitions, in principle, permit a broad range of activities to be considered strategic activities. However, empirical s-as-p research is often based on a narrower definition of strategic activity that favors the activities carried out by top management (Carter et al., 2008). For example, Jarzabkowski (2005) adds the concept of intentionality and defines strategic activity as activity that "is intended to have an outcome which will be consequential for the organization as a whole—its profitability or survival." This resonates with Whittington's (2006, p. 619) reference to strategic activity as "all the various activities involved in the deliberate formulation and implementation of strategy." In other words, s-as-p research in reality often narrowly defines strategic activity as *activity that is intended to have strategic outcomes*.

Since it is impossible to know *a priori* whether certain activities will have strategic outcomes, the requirement of intentionality limits the scope of activities that need to

be considered when studying strategy formation. This practical way to deal with a complex research design issue, however, entails serious drawbacks. First, we will not know until after the fact whether or not the intended outcome was realized. In other words, activities intended to have strategic outcomes might in reality turn out to not have them. Second, and more importantly, previous studies have demonstrated that strategy formation is a process in which deliberate and emergent strategies converge (e.g. Mintzberg and Waters, 1985; Mirabeau and Maguire, 2014). In other words, there are likely activities that are not intended to have, but that in reality turn out to have, strategic outcomes, and s-as-p scholars have so far been limited to uncovering these activities through retrospective reconstruction by top management (or other practitioners). Many of the dynamics and details that the s-as-p perspective seeks to explore will then have been lost and will consequently not be sufficiently studied.

Figure 1 illustrates the tension between strategic intention and strategic outcomes. We argue that, to capture emergent strategy and move beyond the top-management bias in s-as-p and sustainability research, it is important to broaden the definition of strategic activity to include, not only in theory but also in reality, activity that is not intended to have, but that in reality does have, strategic outcomes.

Insert Figure 1 about here

By defining strategic activity in this way, we can challenge the prevalent topmanagement bias and advance recent attempts to integrate s-as-p research with insights into emergent strategy (Mirabeau and Maguire, 2014). Such integration is vital since s-as-p "is clearly linked to Mintzberg's work on emergent strategy," but such links are surprisingly unexplored in s-as-p research (Carter et al., 2008, p. 87). As will be demonstrated in this paper, this is also a useful integration, since it allows for important insights into the formation of sustainable strategies.

3. Method

Expanding the definition of strategic activity to include all activities that have strategic outcomes has numerous methodological implications. Notably, it requires the

gathering of empirical material about a large range of activities that *potentially* have strategic outcomes (preferably in real time). To allow for this, it is necessary "to go inside the process to examine intimately the kind of work that is actually being done" (Whittington and Cailluet, 2008, p. 244) and "get closer to strategy practices by an indepth ethnographic approach" (Rasche and Chia, 2009, p. 714).

Like many other s-as-p studies, this study achieves closeness by examining a specific company. The studied company is the Swedish multinational corporation "MECH" and our focus is on its "Positive Impact" strategy, which aims to integrate a concern for the natural environment into its business strategy. MECH is generally perceived as successful in many respects: its high-precision mechanical products have set the quality standard in the industry; it is a market leader in many areas, in product performance and market share; it is profitable; and it is recognized by numerous international rankings as a sustainability leader. Positive Impact is MECH's sustainability strategy most closely integrated with its core business and the sustainability strategy, according to the respondents, most likely to have strategic outcomes for the company. In addition, and beyond the scope of this paper, MECH has, as do most sustainability leaders, sustainability strategies in relation to, for example, supply chains, manufacturing, and community involvement.

Our study of the formation of MECH's Positive Impact strategy sought to build an indepth understanding of the activity-level details of a strategy formation process in real time, based on the assumption that, in principle, any activity can turn out to have strategic outcomes. In practice, this meant that extensive empirical material was collected, some of which in the end was of little or no use to this study.

To capture the formation of MECH's Positive Impact strategy, a combination of observations, interviews, and documents was used. Most of the material was collected in real time, as matters unfolded, from September 2006 through the first half of 2009. Our preference for real-time material was related to respondents' poor memory for detail, as retrospective accounts risk providing material that is insufficiently accurate (e.g. Golden, 1992). The observational material was gathered by writing field notes, attempting to capture as much detail as possible, including what was said, by whom, and in what context; when possible and appropriate, audio-recording was used. The

interviews were unstructured or semi-structured, and the open-ended questions allowed for in-depth inquiries into ongoing matters. General questions were prepared in advance (e.g., "Please describe how Positive Impact relates to other MECH strategies and objectives?"), but most questions about why, how, and by whom the new strategy was formed were developed during the interviews. All of the formal interviews were audio-recorded. Notes were taken during informal discussions.

Table 1 summarizes the formal observations and interviews. In addition to the formal observations, numerous day-to-day activities were attended. In addition to the formal interviews, many informal talks were conducted in various settings, including three discussions with the CEO, multiple discussions with the Senior Vice President Corporate Sustainability and other members of this department, and many conversations with the project managers and team members of the Next Generation and E-line Alpha projects (projects that became relevant to the Positive Impact strategy). Documents were also collected and analyzed, partly as background information for the study and partly as research material. These documents included meeting minutes, e-mails, PowerPoint presentations, Intranet pages, Internet pages, annual reports, and press releases. Almost unlimited access to material was provided; for example, notes from executive meetings and various kinds of business intelligence material were made available.

Insert Table 1 about here

The initial analysis of the empirical material entailed constructing a chronological account of the formation of the Positive Impact strategy. There were few inconsistencies between the data obtained from the verbal, observational, and written sources. Identified inconsistencies were discussed with the relevant actors and, if still unresolved, were included in the case description to transparently present divergences of opinion. An earlier version of the empirical section of this paper was also sent to key representatives so they could validate the project description. The suggested changes were incorporated into the final empirical description.

In parallel, the material was coded, using the Atlas.ti software, to identify themes for analysis. Open coding (Sharmaz, 2006) was initially conducted. Examples of typical codes included *CEO involvement, formulation of the strategy, implementation of the strategy, external ideas linked to the new strategy, top–down activities*, and *bottom–up activities*. Later, more specific coding (Sharmaz, 2006) was conducted. Codes inspired by existing literature were also introduced, such as *intended strategy, emergent strategy, realized strategy* (e.g. Mintzberg and Waters, 1985), and *praxis, practitioners*, and *practices* (e.g. Whittington, 2006).

4. The formation of MECH's Positive Impact strategy

After a brief presentation of MECH in section 4.1, the formation of MECH's Positive Impact strategy is presented in sections 4.2–4.7. This strategy formation process is illustrated in Figure 2.

Insert Figure 2 about here

4.1. MECH: background information

MECH is a well-recognized international industrial company represented in more than 100 countries. It controls the design, development, manufacturing, sales, distribution, and after-market service of various components, subassemblies, and subsystems used in a variety of applications in many industrial sectors. One of the key characteristics of MECH's core high-tech mechanical product is its ability to reduce energy consumption in the industrial applications in which it is used. MECH also has a long history of addressing sustainability, and has consistently being ranked as a sustainability leader in the Dow Jones Sustainability Index and the FTSE4Good Index.

Like most large multinational corporations, MECH has a formal strategic planning process. Most of the interviewed MECH representatives assign responsibility for this process to people in managerial positions and perceive strategic planning as a craft that involves the mastering of strategy tools such as organizational capability assessments, competitive positioning schemes, SWOT analyses, and vision

statements. The strategic planning process involves both top–down activities in which senior management set the strategic direction and overall objectives, and bottom–up activities to challenge these directions and objectives.

The strategic planning process is generally taken seriously, possibly because MECH is, as claimed by its representatives, "a typical engineering firm." This status entails, in the words of an interviewed MECH manager, an "obsession" with formal processes, procedures, and guidelines, and a strong emphasis on rational decision making in terms of checklists, quantitative evaluations, input–output analysis, etc. As one senior manager put it, "if you cannot measure it, it does not exist."

4.2. Initiating and launching the Positive Impact strategy (2004-2005)

In 2004, the CEO of MECH attended a presentation about the link between global warming and the expected global increase in energy consumption given by a professor at a Swedish university. The CEO returned to the office with the PowerPoint presentation. As he put it, "[I] sat with our guys there at the table and I said: 'That cannot be right; if you look at all the statistics, it is impossible. We have to do something fundamental for the environment'" (interview, CEO). Since MECH's products were primarily based on steel material and energy-intensive manufacturing, improved environmental performance also had the potential to reduce operating costs.

Another consideration also prompted the initiation of the new strategy. MECH's products had the potential to reduce energy consumption in the machinery with which they were used, and this feature had just started to be emphasized more explicitly in marketing. In addition, the CEO had observed that companies in other industries (e.g. Toyota with its target of "zero emissions") had started integrating environmental issues into their business strategies.

To move forward, MECH's senior management team assembled a "Tiger team" of younger employees to develop the company's new environmental vision. The team was instructed to come up with an approach to significantly reduce the energy consumption of both MECH and its customers. The CEO did not offer specific directions, saying to the team, "I do not know what to do or how to do it." In their first meeting, in January 2005, the Tiger team, comprising 30–35-year-old representatives

from all over the world with limited sustainability knowledge, coined the term "Positive Impact" as a way to move beyond merely reducing negative impact, to make positive contributions as well. The Tiger team and the CEO then worked to develop the term into a strategy.

The focus of Positive Impact was "to reduce negative impacts within MECH as well as outside and increase positive impacts, so that the balance is positive—Positive Impact" (Tiger team PowerPoint slide). The scope of work included both environmental (e.g. global warming, acidification, eutrophication, and toxicity) and social (e.g. human rights, worker rights, and work ethics) impacts. The senior management team responded positively to the Positive Impact idea, which represented "exactly the out-of-the-box thinking" that they had hoped for (email, Senior Vice President HR). They also stressed the need for the strategy to make sense in both ethical and business terms, since the senior management team, in their day-to-day work, pressured MECH managers to deliver quarter-by-quarter financial results.

In March 2005, the Positive Impact strategy was launched at a MECH management conference attended by a few hundred managers. Most were taken by surprise, since the strategy formulation had not followed the official strategic planning process. Questions were raised about, for example, how Positive Impact related to existing targets, what the strategy meant in practice, whether it was even possible to run a manufacturing company with a positive impact, and whether the strategy made business sense. Some managers stressed that "green" businesses were already being developed, others that existing customer demand for green products was low but would probably soon increase, and still others strongly questioned whether any business opportunity existed at all.

4.3. Struggling with implementation (2005–2006)

After the launch, the Positive Impact strategy was disseminated down through the company's hierarchical levels. While this led to numerous discussions of what the strategy meant, few activities were started to support and drive it. As a member of the Tiger team put it, people "are aware of the additional corporate target, but very few people can actually explain what it entails" (email, Tiger team member). In mid 2005, an implementation plan was developed based on input from the Tiger team,

employees, managers, and external organizations. This plan included, among other things, concrete projects, an official definition of Positive Impact, budgets to develop the Intranet, and newsletters.

A few of the proposed projects (e.g. a sustainability training program for all employees) were started, while others were either started but not followed through or not started at all due to limited resources allocated to realize the implementation plan. Eventually, the Tiger team lost momentum, mainly because the team members did not get approval from their immediate managers to continue working on Positive Impact in addition to their normal jobs, since those middle managers did not see this work as supporting the day-to-day business agenda.

Senior management had to take over the implementation of the strategy. In line with standard procedure at MECH, the plan was to develop key performance indicators to be included in the corporate scorecard. Realizing that it would be nearly impossible to quantify social impacts, senior management decided to exclude social issues from the scope of the strategy. The Tiger team never intended to quantify the strategy, but the emphasis on clear measurements in MECH turned the new strategy into a calculation exercise. Still, by the end of 2005, few concrete activities had been launched, and middle, and even senior, managers had difficulties understanding the strategy and questioned the business case. As one senior manager acknowledged, discussing the business case was like "fumbling in the dark," and Positive Impact was "parked as a statement" with little real activity. While senior management perceived that real business case examples of the Positive Impact strategy would be highly valuable to move implementation forward, they were struggling to find such concrete examples.

In the autumn of 2006, MECH's senior managers allocated resources to form a sustainability staff function. Over time, the members of this function became increasingly involved in driving sustainability initiatives top–down throughout the firm. They were also central in sharing information top–down, bottom–up, and horizontally in the organization. Their work, as a senior engineer put it,

This brought a level of recognition and coordination to what we're doing ... More and more people are finding each other, and comparing what they're doing, and how they can overlap, and where things really come together.

4.4. The Green Products Project, E-line, and Positive Impact (2003–2006)

Parallel to the emergence of Positive Impact, which occurred mostly at the headquarters, two projects were running in the R&D center: one conceptual technology development project aimed at calculating the energy consumption of products (initiated in 2003), and one customer-driven project aimed at significantly reducing the energy consumed by the customer's application (initiated in 2005). Partial funding for these projects came from EU grants aimed at reducing environmental impacts. Thanks to promising initial project results, yet another project was initiated—the Green Products Project. By using newly developed technologies as input to new designs, the aim of the project was to demonstrate innovative technologies that could significantly improve the environmental performance of MECH products. The Green Products Project had been defined on paper, but the R&D center was still looking for resources with which to realize it.

In the summer of 2005, such resources were the unexpected result of a meeting between the CEO, the Senior Vice President R&D, the manager of the R&D center, and the manager of the sustainability department. Among other things, these managers discussed what to present at MECH's anniversary (in 2007). As part of a brainstorming process, the manager of the R&D center showed PowerPoint slides with the conclusions from the above projects and the recently initiated Green Products Project. As the manager of the R&D center put it,

I made a presentation of the projects ... The CEO liked that quite a lot ... And then the ideas took off, we started talking and looking at the possibilities.

In addition to being something to be unveiled at the anniversary, the Green Products Project was seen as an opportunity to develop a concrete example of the Positive Impact strategy. In 2005 and 2006, the idea was scaled up: a top–down-initiated temporary project team, with a senior management sponsor from the Business Development Department, was assigned the task of reviewing the existing range of products and services related to reducing energy consumption. The team held numerous meetings with representatives of various parts of MECH, and identified over 140 energy-reducing products and solutions, 16 of which showed particular promise. Based on these 16 "E-line solutions," the Corporate Communication Department launched an official press release for the anniversary that included claims such as "the saving potential of these products ... is equivalent to the energy consumption of 500,000 European households for one month."

Some of the E-line solutions stemmed from the Green Product Project. The initial R&D scope of these solutions had been broadened in 2006 to involve developing and launching actual products in time for the 2007 anniversary. As the manager of the R&D center put it,

There was a very tight deadline. The idea was to launch new products at the press conference for the anniversary ... So there was quite a lot of pressure in the organization to deliver the products and look for customers and so on.

The timeline was also shortened, confronting the product development team with the daunting task of developing new technologies and launching the products before the anniversary. As one of the engineers in the product development team put it,

We did not really understand the magnitude of the request from senior management at first ... Oops! We do not have the real products, no promotion, no price, you know.

The product development team, however, managed to develop a product that "had sufficiently improved energy consumption [i.e. 30% reduced consumption] to enable one to stand up and say here is something new" (interview, engineering manager).

4.5. Launching the first E-line products on the anniversary (2007)

At the anniversary, the CEO introduced the E-line products, which were described as "helping us achieve our Positive Impact target." Positive Impact was then described in these terms: "The energy savings from the products and solutions that MECH supplies to its customers will be greater than the firm's own energy consumption." The CEO also stated that the launched E-line products were the first of a range of energy-efficient products to be developed in the future.

At the time of the launch, very few MECH managers and employees had heard about the E-line products, since the product development had been driven through a small, centrally coordinated group of people. As the CEO put it,

> I think in initiatives like this you cannot have a democratic process, and I could not spend the time waiting for people to buy into it, because if you did that then it would be far too slow. We would still be discussing the exact definition of "Positive Impact."

Many operational middle managers were critical of this "management push" approach, which "was not in line with the MECH way of doing things" in terms of checklists, business gates, and defined steps to be taken (interview, marketing manager). The normal practice was to get a broad commitment, so the E-line development and launch had bypassed, and irritated, many managers who thought they should have been involved in the decision making. Some of them, for example, questioned whether customers would buy the E-line products and considered them only "nice things that the CEO wanted to present on the anniversary" (interview, marketing manager).

4.6. Scaling up through integration with the Next Generation Project" (2007)

Parallel to the development of the E-line products and the convergence of these products and the Positive Impact strategy, a new Next Generation Project was launched. This project sought to identify important performance parameters for future products. Specifically, the project was to match customer needs with product performance to avoid "pushing the product to the market" (interview, project manager Next Generation Project). The project manager reported directly to senior management, which was unusual for a project manager and indicated that the project had top priority. A more operational steering committee was put in place; comprising middle managers, it was supposed to help steer the project so that it would both fulfill senior management requirements and take operational-level needs into account. The manager of the R&D center chaired the steering committee (and also the senior management project sponsor).

The future development of the E-line products was central to the Next Generation Project. However, since the E-line products had been based on technology push rather than market pull, it was difficult to move things forward. To overcome internal debates and better understand customer requirements, market surveys were conducted in May 2007. The survey results were debated. Some sales and marketing managers argued that the results supported their view that there was no clear market demand for the E-line products, and that it would be better to reallocate the development resources. Others argued that the results indicated that there was a market, and still others that the information allowed room for various interpretations. At the same time, everyone knew that the CEO had externally communicated that further E-line products were to be developed, and this did not seem to be open for discussion. These conflicts were managed through numerous discussions between middle managers, between middle managers and the project manager, and between the project manager, the steering committee, and senior management. In the end, the Next Generation Project not only retained its E-line focus, but made it the key focus of the project. The Next Generation Project had, as one manager put it, become "a home in the corporation for the E-line idea."

While the market demand was being investigated, the product development teams were working on the engineering issues related to the target of reducing the energy consumption of the products by 30%. To reach the target, nontraditional decisions about design characteristics had to be made. This included the need to reduce the historically important performance parameter called "AB value" (the "golden rule" of MECH product development). As one product development engineer put it, "Reducing AB value? Over my dead body!" Some middle managers similarly resisted such reductions, arguing that the upside of E-line did not justify taking such risks and that the 30% energy reduction should be reconsidered to retain the AB value. To handle these conflicting views, numerous discussions were held in the product development teams, between the product development engineers and the project manager, and between the project manager, the steering committee, and senior management. In the end, it was concluded that it would be unsuitable to alter the already externally communicated energy reduction target.

There were also some concerns about how the E-line products were connected to the Positive Impact strategy. Still as of 2007, few Positive Impact activities had been launched and people were confused about how to define the strategy. The E-line products were, however, increasingly featured in Positive Impact presentations and discussions. This raised the question of whether Positive Impact was solely about energy consumption (as the E-line products were) or about total environmental impact. At this time, few people in the Next Generation Project, if any, knew the answer to this question.

4.7. The E-line Alpha project: developing and launching new products (2008–2009)

As the Next Generation Project developed, it split into several E-line product development projects. One of those was the E-line Alpha project, for which the team members, again, struggled to identify the customer demand for the product they were assigned to develop. In an attempt to solve this problem, an email was sent to a number of marketing managers asking whether any customers in their market segments would be interested in the E-line Alpha product. One marketing manager responded somewhat positively, and the product development team decided to focus on his market segment, so as to have at least some form of business case for the project.

The E-line Alpha project was proceeding as planned and the Next Generation Project manager appreciated the fact that the project had moved into developing real products, "even though there is no real customer yet." The lack of a clear customer also meant that middle managers were reluctant to assign resources to the E-line Alpha project team, since there was "a tremendous number of customer requests for other things" (interview, product manager). Except for the top–down requirements regarding the energy reduction target and the launch date (October 2008), little direct information from senior management reached the E-line Alpha project team and there was little discussion in the team about the link between their developed product and the Positive Impact strategy.

At the end of 2008, the E-line Alpha products were officially launched by the CEO, who stressed that they reduced energy consumption by 30% and were the next step in MECH's Positive Impact strategy. The connection between the E-line products and

the Positive Impact strategy grew progressively stronger and, by 2009, the E-line products had become almost synonymous with the Positive Impact strategy. This connection was strengthened by the successful offering of E-line products (including the E-line Alpha products) to some customers. It was also strengthened by the awarding of an external Innovation Prize to the E-line products; the jury explained that the E-line products had "set a new standard for how innovation and commercialization go hand in hand" and established a clear link to the "vision for the whole company—Positive Impact." In 2010–2013, MECH continued to scale up investments in the Positive Impact strategy and the E-line products. In 2013, the work moved beyond individual products into work on an environmental portfolio of products and services.

5. Discussion

5.1. Four types of strategic activities forming sustainable strategies

The MECH case illustrates the importance and potential of moving beyond the topmanagement bias that has shaped s-as-p (Jarzabkowski, 2005), strategy (Carter et al., 2008), and sustainability (Winn and Angell, 2000) research. To fully understand the formation of MECH's Positive Impact strategy, it is insufficient to focus solely on top-management activities intended to have strategic outcomes. For example, MECH's Green Products Project (not intended to have strategic outcomes) was essential to the realization of the Positive Impact strategy, to the extent that the two became intertwined over time. In other words, the formulation and implementation of the Positive Impact strategy were not sequentially separate activities, as normally assumed in the traditional strategy literature, but rather parallel processes that converged over time.

The MECH case lends further empirical support to recent calls to integrate the existing s-as-p focus on top-down deliberate strategies (with the accompanying insights) with a focus on emergent strategies in order to understand how strategies are formed (Mirabeau and Maguire, 2014). To spell out the nuances of how deliberate and emergent strategies combine to form sustainable strategies, it is useful to distinguish between four types of strategic activities that together formed MECH's Positive Impact strategy.

5.1.1. Visionary activities

Visionary activities are activities that inform the strategy intentions. The activity direction is top-top, i.e. the activities reside at the top of the organizational hierarchy. In the MECH case, they took place mainly at the start of the strategy formation process with, for example, the CEO and the Tiger team envisioning a new way (Positive Impact) to adapt to a new situation (climate change) (cf. Humphreys et al., 2011). Thereafter, there were only sporadic visionary moments, such as the decisions to exclude social issues from Positive Impact and to restrict the environmental focus to energy efficiency. The visionary activities originated in top management, or in temporary strategic task forces created by top management (e.g. the Tiger team). These practitioners had limited previous experience of formulating a strategy that was "sound for the environment and business," and therefore had to rely on techniques such as brainstorming and "out of the box" thinking in strategy workshops (cf. Johnson et al., 2003, 2010).

5.1.2. Prescribed activities

Prescribed activities are activities intended to implement the strategy intentions. The activity direction is top-down, i.e. activities are initiated from the top and propagate downward (cf. Regnér, 2003). Prescribed activities thus recall the notion of deliberate strategy (Mintzberg and Waters, 1985) and what Burgelman (1991) calls the "induced strategic process." Typical prescribed activities included developing plans, communicating the strategy, and "signaling." Signaling refers to activities undertaken to show lower-level managers and employees that the new strategy is important and must be taken into account, directing their sensemaking process toward the preferred understanding of the abstract strategy (cf. Humphreys et al., 2011). The most notable signaling activity in the MECH case was the top-down decision to develop E-line products even though clear business cases had not yet been developed. By bypassing established product-development procedures, barely involving customers, and engaging in what several respondents referred to as "management push/technology push", top management signaled the strategic importance of Positive Impact. The prescribed activities were carried out by top management and corporate staff members.

5.1.3. Autonomous activities

Autonomous activities are activities that are neither informed by the strategy intention nor intended to have strategic outcomes. The activity direction is bottom–bottom, meaning that these activities reside at the bottom of the organizational hierarchy (e.g. in the product development departments) (cf. Regnér, 2003). Autonomous activities recall the concept of emergent strategy (Mintzberg and Waters, 1985) and what Burgelman (1991) calls the "autonomous strategic process." In the MECH case, this included hands-on activities, such as design reviews, calculation and simulation exercises, and verifying product performance through real tests. The autonomous activities were mainly carried out by operational-level employees (e.g. the engineers in the Next Generation and E-line projects) and led to, for example, the emergence of the E-line projects. These practitioners focused on day-to-day work in line with predefined operational targets, were rarely involved in strategy discussions, and were often only unconsciously involved in the strategy formation process. In other words, these activities often followed the existing system and leveraged known approaches when developing new solutions to predefined problems.

5.1.4. Evaluative activities

Evaluative activities are activities that are informed by *and* that inform the strategy intentions: in other words, activities follow intentions and intentions follow activities (cf. Burgelman, 1983) in a reciprocal cause-and-effect relationship. The activity directions are intermediate–up–down, intermediate–down–up, and intermediate– intermediate, i.e. the evaluative activities take place between the top and bottom of the organizational hierarchy, propagating upward, downward, and horizontally.

In the MECH case, three types of practitioners were involved in the evaluative activities: corporate staff management (e.g. the Sustainability Department), temporary governance (e.g. steering committee members, project sponsors, and project managers), and operational middle management (e.g. product managers, engineering managers, marketing managers, and sales managers). These practitioners were both receivers and implementers of a new strategy in which they had not been actively involved up front (cf. Balogun and Johnson, 2004), and they occupied structural positions between top management and operational-level employees. From these positions, they were able to act as change intermediaries (Balogun, 2003).

Typical evaluative activities included the reciprocal process of redefining day-to-day work and reformulating strategy intentions. These activities involved screening the opportunities (e.g. the E-line project) in ongoing autonomous activities that could be aligned with, and referred to as part of, the strategic intentions (cf. Ren and Guo, 2011). They also involved presenting and interpreting ongoing autonomous activities to top management to allow for the reformulation of the strategy intentions (e.g. restricting the environmental focus of Positive Impact to energy efficiency). In addition, these activities involved translating abstract strategic intentions to fit day-to-day business concerns further down in the organizational hierarchy. For example, the limited customer involvement in the top–down-mandated E-line projects resulted in practitioners and activities that identified potential customer demand central to the strategy formation. Finally, they involved broadening political support for the new strategy, a process that required some interests to be traded off against others.

These functions of evaluative activities were often executed via face-to-face interaction (cf. Jarzabkowski, 2005), meetings, and casual conversations to share information and air concerns (cf. Beck and Plowman, 2009). Through these channels, evaluative activities provide integrating mechanisms that, in the MECH case, were instrumental in connecting the visionary and prescribed activities at the top with the autonomous activities at the bottom of the organizational hierarchy. In other words, the evaluative activities were central to driving the convergence of deliberate and emergent strategies.

5.2. Contributing to strategy-as-practice

The identification of four types of strategic activities and their associated wide range of practitioners contributes to the s-as-p literature in several ways. First, the focus on strategic activities provides a way to combine the firm-level concepts of deliberate and emergent strategy (Mintzberg and Waters, 1985) with s-as-p's focus on the micro-processes that constitute the day-to-day strategy work (Johnson et al., 2003), i.e. it provides a conceptual language and methodological lens making it possible to respond to the recent call to combine these research streams (Mirabeau and Maguire, 2014). This allows for discussions of, for example, what practitioners engage in what types of strategic activities and what practices they use when engaging in these activities.

Second, while visionary, prescribed, and autonomous activities are very similar to the types of activities identified in existing literature, evaluative activities have not been recognized in previous research. This is surprising given their importance in bringing about the convergence of deliberate and emergent strategies.

Third, the wide range of practitioners who were integral to the formation of MECH's sustainable strategy similarly indicates that more practitioners are involved in strategy formation than previously assumed. While previous research has taken an interest mainly in top management (e.g. Jarzabkowski, 2005), partly in operational middle management (e.g. Ren and Guo, 2011), and to some extent in operational-level employees (e.g. Mintzberg and Waters, 1985), the roles of strategic task forces (in visionary activities), corporate staff members (in visionary and prescribed activities), and temporary governance members (in evaluative activities) have rarely been discussed in previous research. Most notably, the MECH case illustrates the importance of temporary governance members (e.g. steering committee members, project sponsors, and project managers) for the convergence of deliberate and emergent strategies.

5.3. Adding sustainability to the strategy formation picture

While the MECH case allows for contributions to the s-as-p literature in general, it also speaks to recent calls for more s-as-p research focused on sustainability issues (Carter et al., 2008; Jarzabkowski and Spee, 2009). A first observation is that the MECH case illustrates the difficulties of relying solely on prescribed activities in relation to sustainability issues. Despite sincere top management support, MECH struggled to implement the Positive Impact strategy through prescribed activities. This struggle was partly related to MECH managers' and employees' not understanding the business motives for launching the strategy. This doubt was amplified because the strategy was not customer driven and focused on long-term, rather than short-term, competitiveness. The multiplicity of motives (i.e. ethics, legitimacy, and competitiveness) that drive sustainability activities (Bansal and Roth, 2000) made people uncertain as to whether the strategy was intended to be implemented or to be used merely for window dressing (cf. Hallett, 2010).

Furthermore, the Positive Impact strategy lacked conceptual clarity, which, although not unusual for most new strategies (Regnér, 2003), is characteristic of strategies attempting to address the complex field of sustainability. This ambiguity was amplified by the fact that the strategy, like most sustainable strategies, was more in line with the demands of external stakeholders (e.g. socially responsible investors, nongovernmental organizations, regulators, and the general public) than current customer demands and/or internal technological developments. Given these peculiarities of sustainable strategies, it is likely more difficult to form sustainable strategies (versus "regular" strategies) based solely on prescribed activities.

On the other hand, there are good reasons to believe that autonomous activities are enabled by a sustainability (versus "regular") focus. For example, external stakeholders are more likely to engage in sustainable strategies through, for example, NGO–firm collaboration (cf. Kourula and Laasonen, 2010) or, as in the MECH case, EU funding for energy efficiency R&D. The ethical component of sustainable strategies also has the potential to lead to the creation of individual champions in the organization, and the subsequent rise of autonomous activities with a sustainability focus (cf. Gattiker and Carter, 2010). Companies are likely to have more untapped autonomous activities related to sustainability than to "regular" issues.

The combination of difficulties with prescribed activities and untapped autonomous activities implies that evaluative activities are more critical for strategy formation in relation to sustainability (versus "regular") issues. Evaluative activities are also enabled by most large companies, such as MECH, having a dedicated sustainability staff function that could support such activities. In other words, evaluative activities are both more important and probable in relation to sustainability issues. All in all, sustainable strategies have several peculiarities that distinguish them from "regular" strategies, and these peculiarities should be explored in future research.

5.4. Managerial implications

These findings raise important matters that managers need to consider when trying to form a sustainable strategy. First, managers need to treat strategy formation as an iterative process. It is not the linear sequence of events often referred to in corporate strategic planning guidelines, in which strategy formulation (visionary activity) is

followed by top–down implementation (prescribed activity). Instead, the strategy is formed through reshaping and (re)combining intended strategies (visionary activities), deliberate strategies (prescribed activities), and emergent strategies (autonomous activities). The evaluative activities and the practitioners who carry them out are central to this dynamic process. By recognizing and legitimating the iterative, rather than linear, strategy formation process, managers will be better equipped to create a sustainable strategy.

Second, to identify needs for strategic changes and to induce visionary activities, the scope of the company's scanning system must be broadened. We can recommend two domains, outside the traditional ones, in which to seek early signs: i) external arenas, such as universities, NGOs, industry associations, and other external organizations, which can provide new strategy input; and ii) internal arenas, such as local product development departments, which can provide access to ongoing autonomous activities that, if scaled up and connected to visionary and prescribed activities, might have the potential to shape the firm's future sustainable strategy.

Third, the creation of new autonomous activities, and of opportunities for these activities to become connected to visionary and prescribed activities through evaluative activities, needs to be fostered. For example, firms need to have resource buffers and slack time available (cf. Nohria and Gulati, 1996). Moreover, opportunities to interact across hierarchical levels need to be *actively* created so that any existing gaps between strategy intentions and actual implementation can be narrowed and closed. The forming of special projects and temporary governance organizations that cut across traditional decision lines would likely help drive the convergence between deliberate and emergent strategies.

Fourth, there needs to be a gradual crystallizing of the strategic intentions as organizational awareness increases. Clear formulations will need to be developed over time in a process in which practitioners are allowed to make sense of the new strategy (cf. Humphreys et al., 2011). Managers should develop a series of partial solutions that could eventually be synthesized at a later stage, rather than attempting to develop a full-fledged strategy and implementation plan at the start.

6. Conclusions

This paper has introduced strategy-as-practice (s-as-p) to the field of sustainability in response to calls for more research into how sustainable strategies are formed in practice (e.g. Behnam and Rasche, 2009; Winn and Angell, 2000). Based on a detailed longitudinal case study of "MECH", the paper has contributed to the s-as-p literature by challenging its top-management bias, and identifying so far largely neglected strategic activities (i.e. evaluative activities) and practitioners (e.g. strategic task forces, corporate staff members, and temporary governance members). The paper has also contributed to the sustainability literature by outlining a novel theoretical framework for studying sustainable strategy formation and demonstrating that certain activities (i.e. autonomous and evaluative activities), and their associated practitioners, are particularly likely to shape sustainable (versus "regular") strategies. Finally, the paper has outlined the managerial implications of these findings.

The MECH study is limited in that it is a study of a single case. The case is in fact unique in some ways (Yin, 2003, p. 40), as MECH is recognized as a world sustainability leader, so one cannot naively generalize the findings to other contexts. At the same time, when the MECH case has been presented to academics and corporate managers, their reactions indicate that it is indeed largely "typical" (Yin, 2003, p. 41). Managers seem to recognize the need to combine prescribed and autonomous activities and the importance of evaluative activities in achieving this. Furthermore, if autonomous and evaluative activities are central to the formation of a sustainable strategy closely related to the core business of a large multinational enterprise (e.g., MECH's Positive Impact), they are likely to be central to sustainable strategy formation in small- and medium-sized enterprises (SMEs) that have "less formal systems", "less strategic planning", and "more intuitive and ad hoc strategy formation" (Egels-Zandén, 2014) as well as more functional sustainable strategies (e.g., sustainable supply chain, manufacturing, and community involvement strategies). In more functional sustainable strategies, non-top managers (e.g., middle managers and sustainability staff functions), for example, are more likely to play a key role, and we might also expect more regulatory and external influence (cf. Bartley, 2007). Still, future research is needed to identify the details of how

sustainable strategies are formed, and to evaluate the generalizability of the findings presented here.

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Figures



Fig. 1. Definition of strategic activity (the shaded area).



Fig. 2. The forming of MECH's Positive Impact strategy.

Tables

Table 1

Summary of the formal observations and interviews.

	Five corporate sustainability department meetings (2006–2009)
	Four strategy meetings regarding sustainability and Positive Impact
	(2006–2008)
Formal	Thirteen meetings related to the Next Generation and E-line projects
observations	(2007–2008)
	Nine observations of other events, including a management
	conference (2007–2009)
	Total: 31
	Twelve interviews with senior management (2007–2008)
	Eighteen interviews with representatives of key management
	processes (2008)
Formal	Twenty-nine interviews related to the Next Generation and E-line
interviews	projects (2007–2009)
interviews	projects (2007–2009) Eight interviews with others, such as corporate sustainability team
interviews	projects (2007–2009) Eight interviews with others, such as corporate sustainability team members (2007–2009)