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Small Businesses and Sustainability Innovation: Confronting the Gap between Motivation and Capacity

Sarah Burch

Key Points

- Smaller firms tend to perceive sustainability to be more important, both personally and to their company, than do larger firms.
- Actions that address social issues, such as employee well-being and inclusivity, appear to be more important, and more likely to be implemented, than do actions addressing environmental issues.
- Community reputation is the most frequently cited motivator of progress on sustainability, while increased profits comes in a close second.
- More effective policies to accelerate sustainability transitions in small businesses must be tailored to the capacity constraints specific to small and medium-sized enterprises (SMEs) and their perceptions of sustainability benefits. In addition, sharing lessons learned from transformative small businesses around the world will assist in this transition.

Introduction

Designing and implementing coordinated solutions to sustainability challenges, including climate change, has traditionally been the territory of national governments through mechanisms fundamentally shaped by international negotiations. This effort has often been paired with a patchwork of subnational, but nonetheless government-led, efforts to regulate, tax and otherwise control greenhouse gas emissions. Increasingly, even in the context of these international state-to-state negotiations, calls have been made to more effectively harness (and theorize) the governance capacity of non-state actors, including civil society groups and private sector organizations. While it is clear that the authority and legitimacy to govern sustainability do not rest solely in the government's hands, but rather are contested and constructed as the process of responding to sustainability challenges unfolds (Bulkeley and Schroeder 2012), we are faced with important questions about the capacity of other groups to deliver solutions that may offer a greater likelihood of meeting ambitious targets. This is especially true when the breadth of sustainability challenges is considered, including water quality, biodiversity, waste production and social justice. The private sector is one such group that can offer solutions to these challenges, shape consumer preferences and even influence policy (with all the contentious ethical implications this entails).

Incremental approaches to pursuing sustainability in the private sector, however, such as corporate social

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responsibility (CSR) and life-cycle assessments,¹ are insufficient to deliver change at the pace and scale necessary to solve the pressing sustainability problems defined by the United Nations' Sustainable Development Goals (Griggs et al. 2013). Reducing greenhouse gas emissions by 80 percent by 2050, for instance, which offers up a reasonable chance of limiting average warming to less than 2°C, requires actions that are significantly more ambitious than those proposed under the Intended Nationally Determined Contributions to the Paris Agreement (Rogelj et al. 2016). CSR, in contrast, represents voluntary efforts to self-regulate, subject to market-based incentives for such efforts (and, thus, can be severely limited by shifting market trends) (Doane 2005). Calls are being made to explore pathways to more transformative responses by firms: radically different models for profit distribution; “net positive” operations (i.e., not just reducing greenhouse gas emissions or lowering water consumption, but becoming a net provider of carbon-neutral energy, closed-loop water systems, and so on); and privileging social benefit over profit (Burch et al. 2016; Schaltegger, Lüdeke-Freund and Hansen 2016). Examples of transformative sustainability in the private sector remain relatively rare, suggesting the need for a more careful investigation of the drivers of these radical shifts, barriers that might be faced and the role that policy can play in triggering them. Small firms, in particular, may possess the agility and creativity to pursue these shifts.

SMEs (small firms in Canada are typically defined as having fewer than 99 employees, and medium-sized firms as having between 100 and 499 employees) employ most individuals in the private sector and cause the majority of private sector pollution (Burch et al. 2016; Klewitz and Hansen 2014). Yet, only a few studies address the potential of SMEs to play a significant role in sustainability transitions, the policy and governance challenges that these present and the unique characteristics of the local scale that support this role, such as connectivity between producers and consumers, entrepreneurship culture and community-oriented politics (Loorbach et al. 2010; Loorbach and Wijsman 2013). Research with transformational SMEs exists, often in the form of experiments

¹ CSR typically refers to actions taken by a private entity that contribute to social welfare, beyond those that simply deliver greater profit (McWilliams 2000), while life-cycle assessments consider the environmental impacts of a product throughout its entire life (from raw material extraction through to use and waste disposal) (Finnveden et al. 2009).

(Voytenko et al. 2016), but lessons, such as the importance of innovative stakeholder engagement, the value of creative visions of the future and the challenges that arise from taking a longer term, more holistic approach (Wiek et al. 2012) are rarely shared among SMEs outside the experiments, throughout a region or among countries.

The first step in sharing these lessons is to learn more about SMEs themselves: what might motivate them to make progress on sustainability, what barriers they face, how important individual values of owners and managers are to the firm's organizational structure and core mission and how steps taken within SMEs might ripple through the broader socio-technical system, of which SMEs are just one part (see, for example, Berkhout, Smith and Stirling 2004; Markard, Raven and Truffer 2012). Answering these questions has been stymied by the sheer number and diversity of SMEs and the predominant interest in the activities of large firms.

A New Survey of Sustainability in Canadian SMEs

To advance the empirical understanding of what factors influence the sustainability-oriented actions of SMEs, the University of Waterloo-based Governing and Accelerating Transformative Entrepreneurship (GATE) project conducted one of the largest web-based surveys of SMEs based in two of Canada's largest cities and hubs of economic activity: the Greater Toronto Area and Metropolitan Vancouver. Businesses were identified in government-hosted open data catalogues and databases, as well as through a panel managed by the consultancy company Asking Canadians. In total, the questionnaire was sent out to 46,300 companies during July and August 2017, and there were 1,695 responses. The survey title ("Business Survey on Entrepreneurship and Innovation") and invitation letter focused on innovation, rather than sustainability, in order to reduce possible bias — but it is, nonetheless, possible that only participants who are interested in sustainability would take the time to complete the survey.

The formulation of questions for the survey was guided by aspects seen as important for triggering

sustainability action in SMEs, as identified in the literatures on sustainable entrepreneurship, sustainability innovation and sustainability transitions. The initial questionnaire was pretested by convening a focus group of 10 small firms in Waterloo, Canada. The questions were revised according to feedback from the firms and related to comprehension, inaccuracies in relation to business context and time needed to complete the questionnaire (Lenzner, Neuert and Otto 2016).

The sample of survey respondents displays a broad diversity of small firms, including companies of different sizes, ownership structure, sector and years in operation. In terms of size, 18 percent had one employee, 27 percent had two to four employees, 18 percent had five to nine employees, 30 percent had between 10 and 99 employees, and seven percent reported 100 to 500 employees. Most of the companies in the sample operated in the sectors of manufacturing (12 percent), trade (seven percent), professional or technical activities (13 percent) or "other" (19 percent). The most common ownership type in the sample was corporation (54 percent), while 23 percent were sole proprietors. The sample includes relatively few start-ups, as 40 percent of the companies have been in operation over 20 years and only two percent for less than a year.

The Importance of Sustainability to SMEs

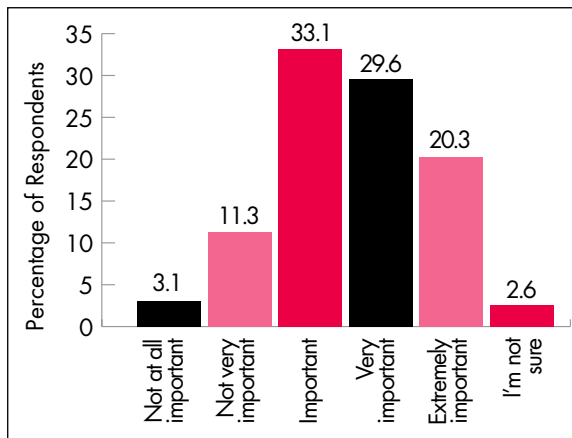
It is clear that, with potentially slim profit margins and limited human or technical capacity, small businesses seek evidence of the business case behind sustainability. This business case, however, might consist of more than a simple financial return on investment.

The data clearly suggests that although environmental and social sustainability are rarely at the core of SMEs' business model (16 percent and 18 percent, respectively), more than half (52 percent) of SMEs are nonetheless attempting to make business operations more sustainable. The management, human health and social work sectors were the most likely to report integrating sustainability into the core of their business model, while trade and service sectors were the least likely.

Even so, and in contrast with previous research, the survey found that eight out of 10 SMEs value sustainability as important, very important or extremely important (see Figure 1) to their company. Interestingly, there was also a statistically significant relationship between firm size and the importance of sustainability — sustainability issues were much less important to businesses with more than 30 employees, but more important to businesses

with fewer than 29 employees. This raises many questions about how larger businesses perceive the benefits of making progress on sustainability, as well as about how smaller businesses view issues such as the link between the owner/manager’s values and business operations, the role that the private sector could or should play in solving sustainability problems and the ways that SMEs perceive or define return on investment.

Figure 1: How Important Are Social and Environmental Issues to Your Company?

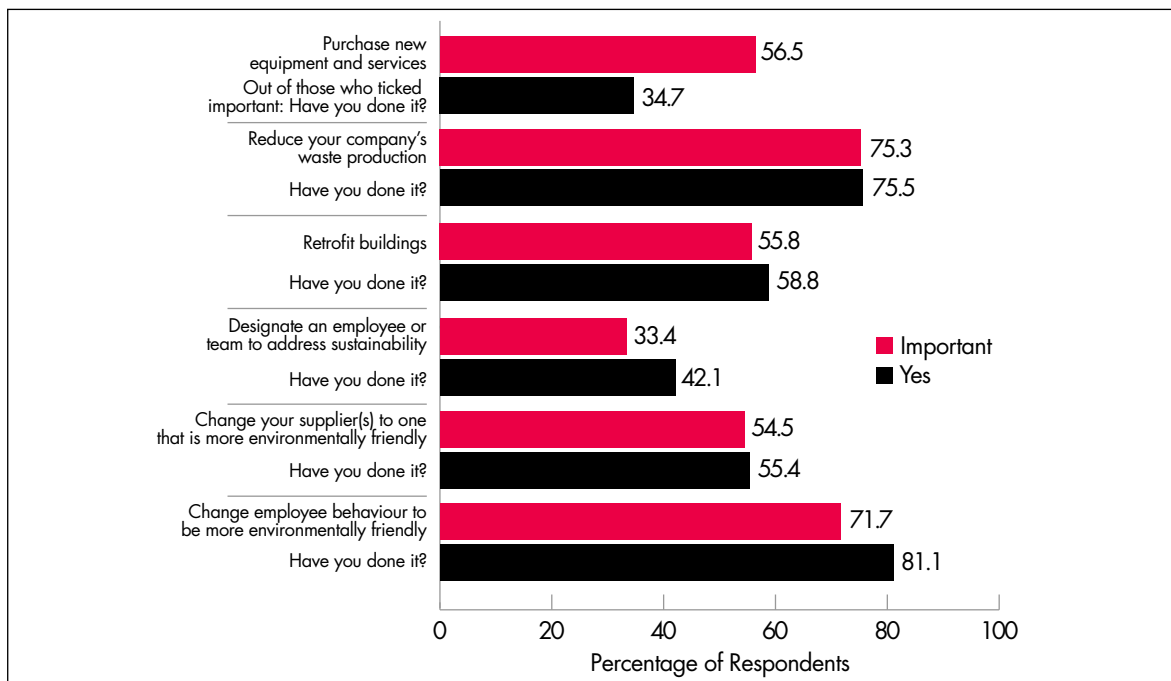


Data source: Business Survey on Entrepreneurship and Innovation, GATE project.

Reported Progress on Environmental and Social Issues

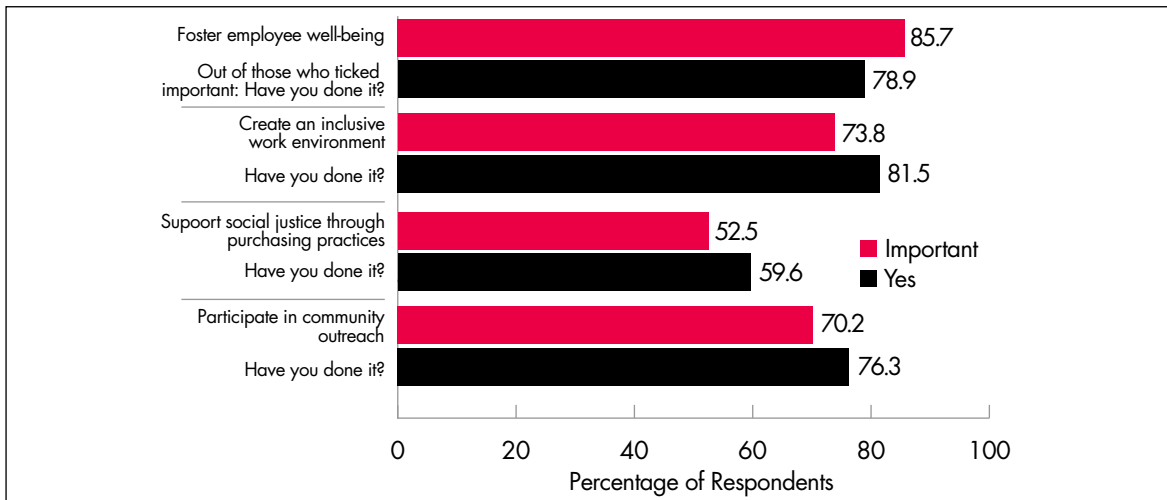
For many, the term sustainability typically brings to mind measures that are focused on the environment — reducing waste, conserving water and preserving ecosystems. Survey respondents felt that reducing their company’s waste production (75 percent) and changing employee behaviour to be more environmentally friendly (72 percent) were the more important steps they could take, with around half of respondents also indicating that the purchase

Figure 2: Indicate Which Environmental Measures Are Important to Your Company



Data source: Business Survey on Entrepreneurship and Innovation, GATE project.

Figure 3: Which of the Following Social Measures Are Important to Your Company?



Data source: Business Survey on Entrepreneurship and Innovation, GATE project.

of new equipment or services (57 percent) and changing suppliers (55 percent) were important as well (see Figure 2). Interestingly, respondents also reported high levels of success in actually reducing waste and changing employee behaviour, while (despite its importance) only 35 percent of those who considered the purchase of new equipment and services to be important had taken this step. This suggests that, for some sustainability actions, there is a gap between the desire to take an action (or its perceived importance) and the capacity to do so. It is possible that the potential benefits of some actions (such as designating an employee or a team to address sustainability) are not clear to small businesses. Here there are opportunities for learning from the successes of transformative small businesses both in Canada and around the world. Sharing lessons learned, including effective organizational structures and tools for shifting business culture, will be an important ingredient in the acceleration of sustainability transitions.

The social dimensions of sustainability (justice, fairness, inclusivity and affordability) are a crucial part of this holistic concept and might be pursued by firms regardless of whether the label of sustainability is applied to them.

Indeed, a surprisingly large proportion of respondents said that fostering employee well-being (86 percent), creating an inclusive work environment (74 percent) and participating in community outreach (70 percent) were important to their business. Furthermore, in the majority

of cases, those businesses who felt that these measures were important also reported taking the action (see Figure 3). Without deeper qualitative work such as interviews, however, it is difficult to determine exactly how much progress SMEs have made on these issues and how they might define success. Nonetheless, it is important to recognize that actions with social benefit (whether labelled sustainable or not) are important to the vast majority of SMEs. In fact, and perhaps unsurprisingly, social actions appeared significantly more important to our respondents than did environmental actions.

What Motivates Small Businesses to Make Progress on Sustainability?

SMEs might be motivated to make progress on sustainability for a variety of reasons, including social responsibility (Masurel 2007), government policy, social pressure (Williams and Schaefer 2013) and the values of the owner/manager (Bos-Brouwers 2010). Even so, previous research most often identifies cost savings as the key motivation for SMEs to pursue sustainability. The new survey conducted by the GATE project offers data that stands in stark contrast to this. Findings show

the most important reason for an SME to become more sustainable is to improve community reputation (see Figure 4). Reducing costs was the second most important factor, suggesting that local, bottom-up dynamics and local values are more important than market factors to small firms. Aligning business with personal values is the third most important driver (40 percent), while government regulation is a comparatively weak driver (only 31 percent of SMEs cite this as a benefit). This latter finding suggests that there is considerable room for government policy to improve its influence on the way SMEs assess the costs and benefits of sustainability, including the creation of stronger regulations (or removing cumbersome and outdated regulations that slow sustainability transitions), more compelling incentives and supporting sustainability entrepreneurship incubators or networks.

Interestingly, very few respondents (17 percent) were motivated by the prospect of becoming a leader in their field, and few viewed progress on sustainability as a way to attract or retain employees (21 percent). Responding to customer demands and increasing sales were likewise relatively weak motivators, suggesting that respondents may not feel that sustainability is directly relevant to the specific product or service that they offer. So, while progress on sustainability might enhance these businesses' reputation in the broader community, many of them do not see this as directly tied to their own company's sales.

What Barriers Do SMEs Encounter?

As expected, lack of time is the most significant barrier to making progress on sustainability reported by SMEs (a challenge for 62 percent), followed by funding (a challenge for 59 percent) and availability of staff (a challenge for 54 percent).

Interestingly, knowledge about which action to take and business culture is not much of a challenge to most SMEs — a result that would likely change if respondents were specifically considering more transformative sustainability actions rather than the incremental steps that come most readily to mind.

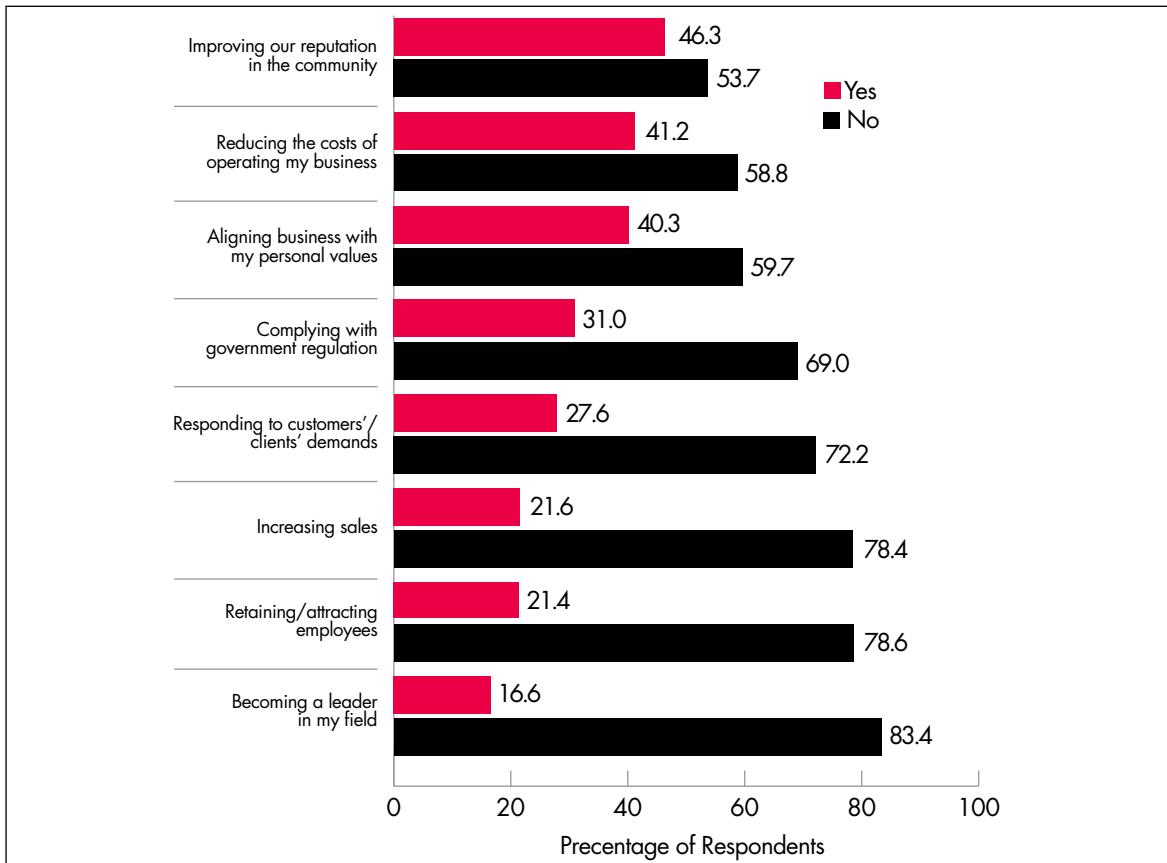
Shifting Policy to Support Sustainability in SMEs: Policy Recommendations

SMEs may be able to achieve advantages over larger firms through their closer control of entrepreneurial innovations and organizational change (Moore and Manring 2009). Even so, SMEs face significant barriers as they attempt to integrate the sustainability measures recommended by various tool kits and management systems (Johnson and Schaltegger 2016; Witjes, Vermeulen and Cramer 2017). The GATE project's data clearly demonstrates that, while SMEs generally feel that sustainability is important, they face significant capacity barriers. Even so, many SMEs are motivated by social factors, such as reputation and a sense of personal responsibility, even more powerfully than they are motivated by increasing sales or improving profits. SMEs are deeply integrated into their communities, providing opportunities to influence the public discourse on sustainability and responsibility for acting on climate change. They may be organizationally and culturally agile, offering fertile ground for experiments in transformative sustainability. Out of these insights emerge several policy recommendations for policy. These will be further explored through deep qualitative research that is currently under way.

Management and policy approaches should explicitly consider the community-based motivations of businesses, rather than relying simply on economic incentives. Traditionally, it is assumed that SMEs pursue sustainability to maximize profits (for example, by reducing production costs). Results suggest that while economic benefits are one important motivation, social and environmental considerations may be equally important to SMEs. Sustainability is important to SMEs for reasons other than simple cost-benefit calculations.

Support for SMEs, through management approaches or policy incentives, should be tailored to suit these different needs and objectives. There is a need for a deeper understanding of the heterogeneity of the SME sector. The survey found varying degrees of interest in sustainability in firms of different sizes and in different sectors (such as food services, construction or manufacturing),

Figure 4: What Benefits Do You Think Will Result If You Make Progress on Sustainability?



Data source: Business Survey on Entrepreneurship and Innovation, GATE project.

as well as a multitude of strategies for advancing environmental and social objectives. The results point to an enormous untapped potential of SMEs to contribute to the environmental health and social well-being of our communities.

The idea of the purely reactive SME should be abandoned in order to find practical approaches to use SMEs' transformative potential for sustainability-oriented change.

SMEs both shape and are shaped by their context. The results of the survey suggest the existence of synergistic relationships between the wider community context and the internal operations of SMEs. Sustainability efforts of SMEs can have a significant impact on society, in particular, by making customers' practices more environmentally friendly and improving the well-being of employees and local residents. Moreover, three out of 10 businesses that participated in this study also aimed to influence or change policy, markets and their local community.

Works Cited

- Berkhout, F., A. Smith and A. Stirling. 2004. "Socio-technical regimes and transition contexts." In *System Innovation and the Transition to Sustainability: Theory, Evidence, and Policy*, edited by B. Elzen, F. W. Geels and K. Green, 48-75. Camberley, UK: Edward Elgar Publishing.
- Bos-Brouwers, H. E. J. 2010. "Corporate sustainability and innovation in SMEs: evidence of themes and activities in practice." *Business Strategy and the Environment* 19 (7): 417-35.
- Bulkeley, H. and H. Schroeder. 2012. "Beyond State and Non-state Divides: Global Cities and the Governance of Climate Change." *European Journal of International Relations* 18 (4): 741-64.
- Burch, S., M. Andrachuck, D. Carey, N. Frantzeskaki, H. Schroeder and N. Mischkowski. 2016. "Governing and accelerating transformative entrepreneurship: exploring the potential for small business innovation on sustainability for urban transitions." *Current Opinion in Environmental Sustainability* 22: 26-32.
- Doane, D. 2005. "Beyond corporate social responsibility: minnows, mammoths and markets." *Futures* 37 (2-3): 215-29.
- Finnveden, G., M. Hauschild, T. Ekvall, J. Guinée, R. Heijungs, S. Hellwege, A. Koehler, D. Pennington and S. Sangwon. 2009. "Recent Developments in Life Cycle Assessment." *Journal of Environmental Management* 91 (1): 1-21.
- Griggs, D., M. Stafford-Smith, O. Gaffney, J. Rockström, M. C. Öhman, P. Shyamsundar, W. Steffen, G. Glaser, N. Kanie and I. Noble. 2013. "Policy: Sustainable development goals for people and planet." *Nature* 495 (7441): 305-307.
- Johnson, M. P. and S. Schaltegger. 2016. "Two decades of sustainability management tools for SMEs: how far have we come?" *Journal of Small Business Management* 54 (2): 481-505. [dx.doi.org/10.1111/jsbm.12154](https://doi.org/10.1111/jsbm.12154).
- Klewitz, J. and E. G. Hansen. 2014. "Sustainability-oriented innovation of SMEs: a systematic review." *Journal of Cleaner Production* 65: 57-75.
- Lenzner, T., C. Neuert and W. Otto. 2016. "Cognitive pre-testing, GESIS Survey Guidelines." Mannheim, Germany: GESIS — Leibniz Institute for the Social Sciences.
- Loorbach, D., J. C. van Bakel, G. Whiteman and J. Rotmans. 2010. Business strategies for transitions towards sustainable systems." *Business Strategy and the Environment* 19 (2): 133-46.
- Loorbach, D. and K. Wijsman. 2013. "Business transition management: exploring a new role for business in sustainability transitions." *Journal of Cleaner Production* 45: 20-28.
- Markard, J., R. Raven and B. Truffer. 2012. "Sustainability transitions: An emerging field of research and its prospects." *Research Policy* 41 (6): 955-67.
- Masurel, E. 2007. "Why SMEs invest in environmental measures: sustainability evidence from small and medium-sized printing firms." *Business Strategy and the Environment* 16 (3): 190-201.
- McWilliams, A. 2000. "Corporate Social Responsibility." In *Wiley Encyclopedia of Management: Volume 12: Strategic Management*, edited by C. L. Cooper, John McGee and Tanya Sammut-Bonnici, 1-4. London, UK: Wiley and Sons Inc.
- Moore, S. B. and S. L. Manring. 2009. "Strategy development in small and medium sized enterprises for sustainability and increased value creation." *Journal of Cleaner Production* 17 (2): 276-82.
- Rogelj, J., M. den Elzen, N. Höhne, T. Fransen, H. Fekete, H. Winkler, R. Schaeffer, F. Sha, K. Riahi and M. Meinshausen. 2016. "Paris Agreement climate proposals need a boost to keep warming well below 2°C." *Nature* 534: 631-39.

- Schaltegger, S., F. Lüdeke-Freund and E. G. Hansen. 2016. "Business Models for Sustainability: A Co-Evolutionary Analysis of Sustainable Entrepreneurship, Innovation, and Transformation." *Organization & Environment* 29 (3): 264-89.
- Voytenko, Y., K. McCormick, J. Evans and G. Schliwa. 2016. "Urban Living Labs for Sustainability and Low Carbon Cities in Europe: Towards a Research Agenda." *Journal of Cleaner Production* 123 (1) 45-54.
- Wiek, A., B. Ness, P. Schweizer-Ries, F. S. Brand and F. Farioli. 2012. "From complex systems analysis to transformational change: a comparative appraisal of sustainability science projects." *Sustainability Science* 7 (Suppl. 1): 5-24.
- Williams, S. and A. Schaefer. 2013. "Small and medium-sized enterprises and sustainability: Managers' values and engagement with environmental and climate change issues." *Business Strategy and the Environment* 22 (3): 173-86.
- Witjes, S., W. J. V. Vermeulen and J. M. Cramer. 2017. "Exploring corporate sustainability integration into business activities. Experiences from 18 small and medium sized enterprises in the Netherlands." *Journal of Cleaner Production* 153 (1): 528-38.

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