



Managing Base of the Pyramid as a Business Opportunity : A Longitudinal Field Study

Thomas André, Jean-Pierre Ponssard

► To cite this version:

Thomas André, Jean-Pierre Ponssard. Managing Base of the Pyramid as a Business Opportunity : A Longitudinal Field Study. 2015. hal-01221651

HAL Id: hal-01221651

<https://hal.science/hal-01221651>

Preprint submitted on 28 Oct 2015

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Managing Base of the Pyramid as a Business Opportunity : A Longitudinal Field Study

Thomas ANDRÉ & Jean-Pierre PONSSARD

October, 2015

Cahier n° 2015-15

DEPARTEMENT D'ECONOMIE

Route de Saclay
91128 PALAISEAU CEDEX
(33) 1 69333033
<http://www.economie.polytechnique.edu/>
mariame.seydi@polytechnique.edu

Managing Base of the Pyramid as a Business Opportunity: A Longitudinal Field Study¹

Thomas André^a and Jean Pierre Ponssard^b

^a Ecole Polytechnique

^b Ecole Polytechnique & CNRS

Thomas.andre@polytechnique.edu jean-pierre.ponssard@polytechnique.edu

Abstract:

In the last decade a growing articulation of the business strategy of the firms with some specific global societal challenge in line with its core activities has been observed. This change provides both a need and an opportunity for Base of the Pyramid (BoP) activities to migrate from their preserved status within the Corporate Social responsibility (CSR) department to business operations. We explore the successive steps associated with this change at Schneider Electric through a longitudinal case study. The newly adopted business strategy of the firm clearly facilitates the change in the mindsets all through the company. Still the need for adapting the management systems remains pending. A key finding that emerges from our analysis is to instill interactive processes through an organizational change and a strong commitment on the commercial purpose of the BoP activities. We also highlight that BoP activities cannot be directly transferred to operational entities without simultaneously identifying which of the functional department will be in charge of providing the corresponding management systems and support such longer-term investments.

Keywords: Corporate Social responsibility – Base of the Pyramid – Business Case – Strategy Implementation – Management Control Systems

JEL Classification: M14 – M21

¹ The authors gratefully acknowledge the financial support from the ANR/Investissements d'avenir (ANR -11-IDEX-0003-02), the chair Sustainable Finance and Responsible Investment (FDIR), and the chair Energy and Prosperity at the Fondation du Risque (ILB).

1. INTRODUCTION

The concept of “Base” or “Bottom of the Pyramid” (BoP) was coined by C.K. Prahalad and S. Hart in 1998 (Prahalad & Hart, 1999). Many companies launched initiatives towards poor population markets pursuing simultaneously profits and social outcomes. Procter & Gamble and Unilever are among the most cited companies for having followed that route. However, in the recent years, it appeared that the early expectations in terms of profit had not been realized: successes were quite limited and some companies that had enthusiastically engaged in BoP made a U-turn. A famous example is HP which finally retired from its e-Inclusion program (McFalls, 2007; Schwittay, 2011). External and internal barriers have been advocated for this failure (Olsen & Boxenbaum, 2009; Vachani & Smith, 2007). This paper pursues in this line of thought more specifically on the internal barriers.

As a matter of fact the BoP activities in companies are often driven by a large variety of purposes combining business ethics, license-to-operate and business opportunity purposes, which characterizes the so-called Corporate Social Responsibility (CSR) of the company. Various aspects of the BoP activities can be used to complement each other in that multi-purpose perspective. For instance many companies have launched foundations to attract Social Responsible Investors or developed social business joint ventures. This is a way to enlarge the access to capital for BoP projects while keeping the reputational benefits of their in-house BoP activities (Danone, Lafarge, Schneider Electric among others). These in-house BoP activities can be managed either within the existing local business operations as in the case of Unilever (Hart, 2007, p. 142) or directly through dedicated business lines as in the case of Essilor and Grundfos (André, 2014).

In parallel with the deployment of BoP activities in companies one has observed in the last decade a growing articulation of the core values of the companies with the global societal challenges (climate change, urbanization, food and poverty...). This articulation is mostly motivated with a reinforcement of the business opportunity approach of CSR. The win-win concept of creating societal and economic value was coined by a series of articles, such as Porter and Kramer (2006, 2011). A company such as DuPont has theorized the evolution of its core values through successive stages involving first compliance to sustainable growth with limited use of nonrenewable resources to now embrace issues related to food security for the planet². Danone has completed its value concept from “bringing health through food” to “bringing health through food to as many people as possible” (Faivre-Tavignot, Lehman-Ortega, & Moingeon, 2010). Through a cross case study over seven companies, André (2014) showed that the more BoP strategies are integrated into the firms’ CSR engagements

² <http://www.dupont.com/corporate-functions/our-approach/sustainability.html>

(i.e. are seen as aligned with the business ethics, license-to-operate and business opportunity approaches to CSR), the more the BoP strategies maintain. This paper pursues this idea one stage further: we investigate how BoP activities can scale-up as the firm decides to embed a particular societal challenge as an explicit business opportunity, as long as the BoP activities in the firm can be related to this specific challenge.

Two field papers are directly related to our research. Olsen and Boxenbaum (2009) identified internal barriers to implementation of BoP at Novozymes. This implementation strategy decided in 2006 followed a decentralized approach – BoP activities were directly put into the business operations of the company – and was rapidly abandoned. The authors analyze the reason for this failure. The identified barriers concerned: conflicting mindsets for Business Units managers (i.e. BoP was perceived more as a business ethics or license-to-operate than a business opportunity), and the difficulty to implement relevant management systems (i.e. change in routines, evaluation criteria and incentive schemes). Perrot (2011) analyzed the conflicting mindsets for corporate managers at Lafarge for engaging into BoP activities when it could only be considered at the time as a license to operate CSR approach with very low potential for creating financial value. The author investigates how a preliminary incubation stage can be instrumental to disentangle the corporate conflicting mindset. This preliminary stage allows for building experience and providing evidence of profitability. As a matter of fact Novozymes decided to engage into that preliminary stage through a preserved centrally managed BoP activity within the CSR department. Olsen and Boxenbaum (2009) argue that this has been possible because of the fact that there were no conflicting mindsets at the corporate level so that resources could be discretionary affected to the centralized BoP activities. What happened in Lafarge after the success of the preliminary stage is not discussed in Perrot (2011). Our case study can be seen as a continuation of these field researches. Schneider Electric had promoted BoP activities under the central management of its CSR department. In parallel Schneider Electric changed its approach to CSR to be more focused on business opportunity, so that BoP activities need to be more aligned with this perspective and the relative success of the preliminary stage opens the way to their decentralization within the company operations.

The conceptual interest to discuss the relationship between the core values of the firm and the implementation of a CSR activity had already been pointed out in the case of CO₂ emissions (Arjaliès, Goubet, & Ponssard, 2011). Firms have quite different approaches to face this societal challenge ranging from compliance to control their industrial emissions to changing their portfolio of activities as well as elaborating new products and solutions for their customers. The role of structural factors related to the sector of activity in which the company operated was identified through a detailed comparison of two sectors: cement and

chemicals. The analysis remained largely static and the question of how to manage a transition was left to an academic exercise along the two stage model formulated in Arjaliès and Ponssard (2010). This model built on Simons (1995) comprehensive framework to analyze both the role of mindsets and management systems in implementing change. It will provide a starting point to explicit how the implementation of BoP activities may depend on the nature of the core concept of the company. This starting point will be used to investigate the actual transition of the BoP activities from an initial preserved “start-up” position at the corporate level to become an integral part of the business as usual activities in operational divisions.

The paper is organized as follows. Section 2 introduces the conceptual framework in regards of the literature on strategy, CSR and BoP. Section 3 details the research context and the methodology. In section 4 the case study is explored at length. We successively discuss the overall change in Schneider Electric CSR strategy, how BoP activities remained aligned with this change over time facing this change as a necessity and an organizational challenge. Then we analyze how these questions were addressed in two other CSR activities that followed a similar change. Building on this learning we pursue further on our exploration of the transition for the BoP activities: discussing the difficulties encountered and suggesting a possible route to alleviate these difficulties. Section 5 discusses our findings based on our conceptual framework, and section 6 concludes and develops directions for further research.

2. RELATIONSHIP BETWEEN CSR AND STRATEGY, IMPLICATIONS FOR THE MANAGEMENT OF BoP

2.1. The relationship between strategy, CSR and BoP

The literature on CSR delineated three trends to justify the company's strategic choices in terms of sustainable development issues (Arjaliès et al., 2011; Capron & Petit, 2011).

- The “business ethics” trend highlights the firm's moral obligation towards the society rather than for economic reasons (Goodpaster, 1983). Such a responsible concern is based on the personal ethics of a business leader who will pursue unexpected philanthropic initiatives after ensuring its economic and legal responsibilities (Carroll, 1979).
- The “business and society” trend (Wood, 1991) positions the company as a social institution created by the society, towards which it must answer. It was characterized by Freeman's (1984) stakeholders theory which provided a more operational

guideline for managers to integrate stakeholders' interests within their business activities and meet their "license-to-operate". Meeting stakeholders' expectations permits to manage institutional risks and to preserve the firm's legitimacy.

- Lastly, the "business case" trend (Vogel, 2006) apprehends societal stakes as source of strategic innovation and competitive advantage that will nourish the company's economic performance.

Although those three trends do not contradict but rather complement, we might highlight that the strategy of firms has evolved from creating value for its shareholders to creating shared value for all stakeholders.

The "business case" trend has regained interest from the academic and practitioner literature. Authors have emphasized on the strategic intent of CSR, as a mean for companies to reconcile the interplay between adopting responsible behavior towards the society while improving its inner economic sustainability and competitive advantage (Capron & Petit, 2011; Kurucz, Colbert, & Wheeler, 2008, pp. 100-101; Porter & Kramer, 2006). More recently, Porter & Kramer (2011) coined the term "shared value" to describe the "policies and operating practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates" (Porter & Kramer, 2011, p. 6). The authors identify three ways for companies to create shared value: by enabling the development of new local business networks; by redefining their productivity drivers along the value chain; and by re-conceiving their products and markets. On the later, Porter and Kramer clearly specify the example of base of the pyramid strategies. They explain that "The societal benefits of providing appropriate products to lower-income and disadvantaged consumers can be profound, while the profits for companies can be substantial" (Porter & Kramer, 2011, p. 8).

The "bottom" or "base of the pyramid" (BoP) concept was first introduced by Prahalad and Hart (2002) as an opportunity for multinational enterprises (MNEs) to find growth or strategic opportunities by targeting low-income populations, while contributing to alleviate their poverty. A first set of the BoP literature describes such strategies as a mean to capture untapped markets by leveraging existing capabilities of the firm and by slightly modifying products and business models to target undeserved geographies (Prahalad & Fruehauf, 2004; Prahalad & Hammond, 2002). However, this type of approach has been criticized for its ability to actually target the poorest and include them in the models, or questioned for the actual market potential (Crabtree, 2007; Karnani, 2006, 2007; Warnholz, 2007). This led to a second set of the literature, referring to "BoP 2.0" strategies, which urges MNEs to rather create the market by integrating the poor populations in the design of radically innovative

ventures (Arora & Romijn, 2012; London, 2007; Simanis & Hart, 2008). While this second set of literature mobilizes arguments from the development world, some authors highlight the need to align such initiatives with the core strategy of the company. BoP initiative would thus serve the mainstream strategy rather than being solely a separate business or CSR entity (Simanis, 2012; Simanis & Milstein, 2012). However, other authors reassert the specificity of including sustainability as a cornerstone of BoP strategies, first in contrast to international strategies in emerging markets (Landrum, 2014), and second should they have any chance of success (Davidson, 2009).

It is however difficult to assess the reality of such a CSR strategic change without getting within the company and observe its actual formulation and implementation.

2.2. The managerial framework for BoP

In order to adapt to its environment, multinational enterprises must keep innovating and evolving. Once a strategy has been chosen, the management should control for its actual implementation. Firms should therefore encourage organizational learning (Argyris & Schön, 1978). It has been defined by Wang and Ahmed (2003) as “the process by which the organization constantly questions existing product, process and system, identifies strategic position, applies various modes of learning, to achieve sustained competitive advantage”. To do so, Argyris and Schön (1978) suggest organizations to implement feedback and adjustment processes that articulate between a “value system”, which integrated theories and representation about the world, a concrete “action” level and, finally, a “perceived outcomes” level. MNEs are urged to combine their exploitation and exploration capabilities (March, 1991). That is to say, to develop an organizational ambidexterity to manage their core competencies and existing resources while at the same time to search for innovative ideas and to discover new opportunities (Gupta, Smith, & Shalley, 2006; O'Reilly & Tushman, 2004, 2013).

A standard academic reference to analyze the strategy formulation and implementation in a company is to use Simons' framework (1995). This framework relies on three levels of interrelated performance systems that are relevant to our case study.

- *Beliefs systems* set the core values of the company to create a sense of commitment and belonging on part of the employees. These take the form of mission or vision statements or credos and statements of purpose.

- *Boundary systems* set the framing for strategic elaboration and analysis. They orientate managers' actions by showing what is permitted. These take the form of codes of conduct, operational guidelines or ex-ante strategic planning methods.
- *Management control systems* refer to the planning and control of the strategy through formal information system such as procedures, templates, key indicators in place in the review process of the company.

The first two systems may be seen as a formalization of “the mindsets” respectively at the corporate and operational levels that lead to the formulation of a strategy and the related behaviors that can or cannot be done. The third system refers to the actual conduct of the operations in the business through the framework designed by the functional support departments. The management control systems involve both vertical and horizontal relationships. First, *diagnostic control systems* monitor the alignment or deviation of managers' action with the firms' strategic goals through a control by exceptions in relation to the boundary systems. These take the form of explicit targets, business plans and budgets, key performance indicators (KPIs), or incentive and compensation systems. Second, *interactive control systems* stimulate managers for searching and learning a new positioning of the firm, allowing new strategies to emerge in relation to the beliefs systems. These take the form of high degree of interaction along the hierarchical line through face-to-face dialogue and debate on a selected set of goals, or assumptions and action plans of subordinates. In Simons' words, boundary systems and diagnostic control systems “create constraints and ensure compliance with orders”, while beliefs systems and interactive control systems “create positive and inspirational forces” (Simons, 1995, p. 7). Referring to organizational learning and Argyris and Schön (1978), Simons further differentiate a mechanism of “single-loop learning” through diagnostic control systems that “keeps a process within desired bounds”, and a mechanism of “double-loop learning” through interactive control systems that “leads to question about the very basis upon which strategies have been constructed” (Simons, 1995, p. 106).

We now come back to the presumed change in firms' CSR strategy as concerned by the integration of societal goals and discuss the potential role of BoP depending of the firm's strategy. Table 1 summarizes in a two stage model the interactions we expect from the firm corporate responsible position and its management of BoP activities. This model draws from the two stage model developed in Arjaliès and Ponssard (2010) and its application to the specific societal issue of green house gases emissions. Aligned with Perrot (2013), we adapt it to illustrate a firm's responsible engagement with BoP strategies.

For the sake of our analysis the first two motivations described earlier (i.e. business ethics and business and society) are taken as a whole, to put the emphasis on the distinction between the indirect or direct alignment of CSR with the pursuit of profit. One observation needs to be made about this characterization. The actual CSR position of a company is likely to draw from all three types of motivation. Still we think it makes sense to use our typology to characterize the aspect of CSR to which the BoP activities are the most likely to be connected as depicted in Table 1.

Table 1: Conceptual framework of BoP activities following a the two stage model for CSR in firm's strategy

Typology for CSR in firm's strategy	Stage 1	Stage 2
	CSR as awareness/risk	CSR as a business opportunity
Belief systems	Two possible approaches of CSR: <ul style="list-style-type: none"> - Business ethics - License to operate BoP as a philanthropic or public-relation issue	Shared value creation building on the core activities of the firm in line with a specific societal goal BoP is considered as a possible business
Boundary systems	CSR activities induce constraints on business in terms of tradeoffs with short term profitability BoP is not part of business as usual (no support)	CSR activities induce a reassessment of the perimeter of activities of the company (R&D, marketing, financing, supply chain, sales...) BoP is managed within the business and becomes a value proposition
Management control systems	Mostly diagnostic through KPIs leading to adaptive processes (i.e. single-loop learning) External reporting is based on information collected in business The management of BoP projects is mostly in the hands of a corporate department (i.e. the CSR department)	Embeds interactive components leading to cognitive change (i.e. double-loop learning) Control involves all departments (corporate, Finance and Control, R&D, business, possibly external stakeholders...) The management of BoP business is within the general review processes of the company

To structure our analysis of the transition from stage 1 to stage 2 the following questions will be discussed:

- How does the company strategy embed a specific societal goal
- How the BoP activities remain aligned with the change in the company strategy
- How the interactions between BoP activities and the operational businesses are designed (organizational design, review process, KPIs, incentives)

- How are the feedback and adjustments leading to organizational learning.

3. RESEARCH CONTEXT AND METHODOLOGY

The case is a longitudinal field study of Schneider Electric, a French multinational enterprise leader in energy management. The company evolved to position as a solution provider for utilities and infrastructures, industries and machine manufacturers, non-residential buildings, data centers and networks and the Residential sector. The company employs more than 150 000 people worldwide, reaching a turnover of 24 billion Euros in 2013, for which developing economies represented 43%. The study covers a period of four years (2012-2015). During that period the authors were engaged in an “action research” which aims “to contribute *both* to the practical concerns of people in an immediate problematic situation and to the goals of science by joint collaboration within a mutually acceptable framework” (Rapoport, 1970, p. 499). The Sustainable Development department expected first that this action research would contribute to the creation of an enlarged cost benefit analysis of the BoP activities – the Access to Energy program – as a mean to valorize towards the management the financial and non-financial benefits. To this end, access to the current BoP activities was provided, and propositions were regularly discussed in a steering committee.

As part of the action research, and due to the continuous progress of the BoP program, it was decided that the research collaboration would then focus on the research question of this paper. In order to provide insight on how the BoP program could scale-up and be managed as an explicit business opportunity, it was decided that other similar CSR programs within or outside the Sustainable Development department would be studied. Go Green in the City and Solar Decathlon student competitions were finally selected among eight potential programs due to their similarities with the BoP program. First, the two other selected programs were initially launched to target a societal stake and based on a strategic philanthropy approach. Second, both initiatives faced a rapid growth and turned out to be major CSR initiatives supported by the top management. Third, the programs were mostly targeting indirect business returns for the company. Finally, past and present managers could be interviewed for their analysis. The organizational chart of the company related to the three CSR programs studied in the paper is given in Figure 1 as for 2012-2015.

The research collaboration permitted the two authors to share their time with the BoP team and thus develop an “insider” position (Brannick & Coghlan, 2007). In that sense, the authors benefited from an “active member” status and assumed “a functional role in addition to the observational role” (Adler & Adler, 1987). Their position facilitated to build “trust and acceptance of the researcher” (Adler & Adler, 1987) and gave them the ability to get into the

Managing BoP as a business opportunity

organizational system, to take part in the meetings, and to influence decisions related to the research partnership.

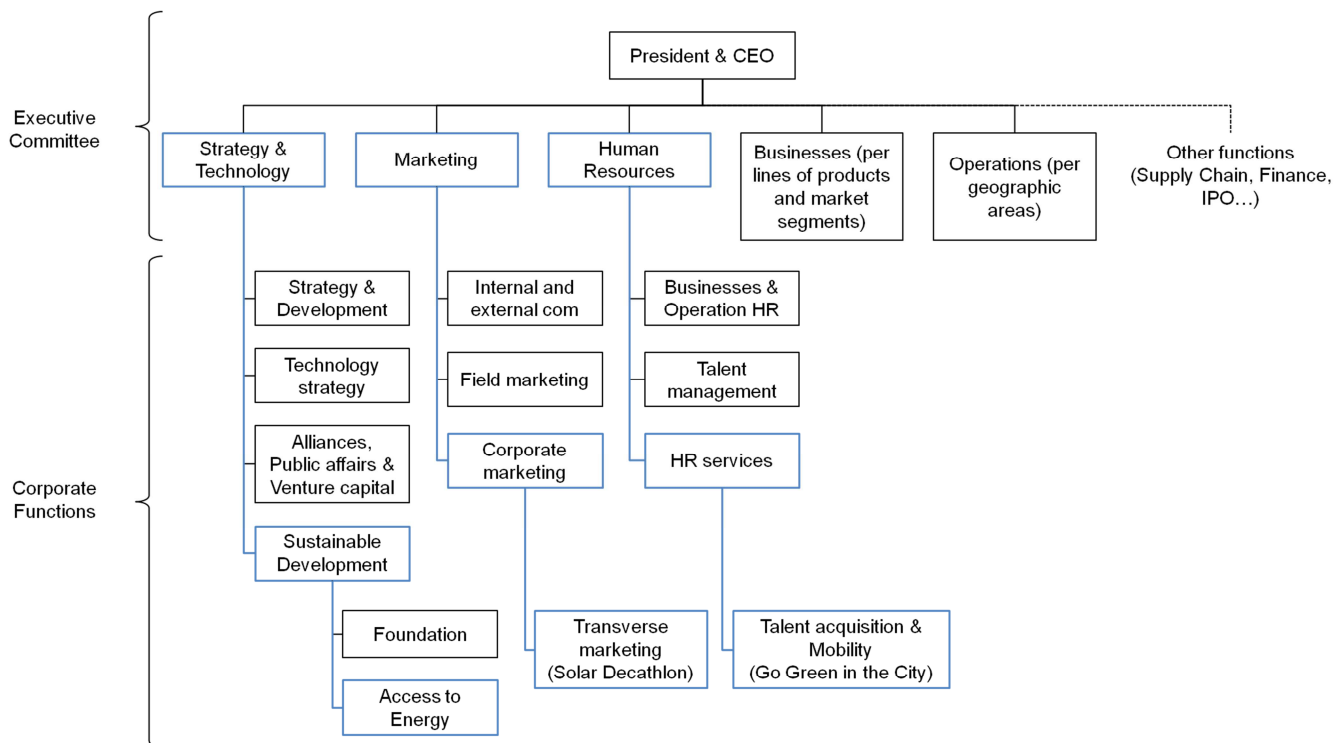


Figure 1: Schneider Electric's organization chart (2012-2015)

The research collaboration permitted the two authors to share their time with the BoP team and thus develop an “insider” position (Brannick & Coghlan, 2007). In that sense, the authors benefited from an “active member” status and assumed “a functional role in addition to the observational role” (Adler & Adler, 1987). Their position facilitated to build “trust and acceptance of the researcher” (Adler & Adler, 1987) and gave them the ability to get into the organizational system, to take part in the meetings, and to influence decisions related to the research partnership.

The field study data was primarily collected through numerous meetings over the entire research period. The researchers were able to collect data from a variety of organizational participants, including employees across all the functional areas of marketing, human resources, research and development (R&D), logistics and finance and control, as well as business and operational departments. The method of data collection was primarily informal which allowed the views of the respondents to emerge. Detailed notes were written up after each meeting. More formal interviews based upon semi-structured questionnaires were conducted during the second half of the research period to focus on the research question

and the cases selected for this paper. A detailed transcription of the recorded interviews permitted a consistent use of the data.

Data collection was triangulated throughout the research period thanks to the access from the researcher to internal company documents accessible on the intranet, or working documents shared by the employees. Secondary sources as institutional documents, communication-oriented documents and press releases from the company, as well as previous cases from articles in academic journals completed the triangulation.

Therefore the field study is exploratory (Yin, 1994). Firstly, it illustrates an example of the formulation of a company's strategy that embeds CSR concerns as a business opportunity. Secondly and importantly, it focuses on the different modes of organizational and management systems implementation.

4. FIELD STUDY

4.1. How Schneider Electric changed its CSR approach to embed the global energy challenge as a business opportunity

Schneider Electric historical concern about CSR had been primarily motivated by business ethics. This had been materialized in 1998 with the creation of the company's Foundation. The mission of the Foundation essentially consists in promoting youth integration through vocational training and employee's sponsorship as well as providing emergency assistance to victims of natural disasters.

The corporate responsible strategy evolved in 2002 with the creation of a dedicated Sustainable Development department (SD) affiliated to the Strategy executive division. The company's wanted to communicate its awareness of the increasing scarcity and costs of natural resources (Schneider Electric, 2006). As an illustration, the company started to certify its production sites following the ISO 14001 norm or to eco-design its products. In order to track for the progressive integration of societal concerns, the SD department introduced in 2005 a specific reporting tool called the Planet & Society Barometer. The SD department was in charge of the tool and communicated the associated indicators externally on a quarterly basis.

In 2009 a significant shift occurred. The "global energy challenge" had become a major societal trend directly formulated in meaningful terms for Schneider Electric: "we need to drastically reduce CO2 emissions to limit global warming. Meanwhile, electricity demand will

double by 2030" (Schneider Electric, 2009, p. 4). Schneider Electric top management decided to view this challenge as "a real area of growth and resilience" for the company (Schneider Electric, 2009, p. 4). The win-win concept of creating societal and economic value was coined in 2012 by the title "Creating Shared Value" of the strategy and sustainability report. The company explicitly referred to the term that Porter & Kramer (2011) had used to describe the "policies and operating practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates." Green business became a clear value proposition thus aligning CSR concerns with the boundaries of the core business of the company. Figure 2 illustrates the strategic embeddedness of the global energy challenge at Schneider Electric.

In 2013 the company engaged into a systematic revision of its belief systems. It conducted a "materiality analysis", to identify the societal topics that would be the most aligned with its core competencies³. The analysis involved its external stakeholders (customers, media, distributors, international organizations, experts, etc.), as well as managers and executives from different departments of the Group (Environment, Supply Chain, Finance, Human Resources, Business, etc.). The identified topics included the energy transition, energy efficiency in industry and buildings, sustainable cities, smart grids, sustainable innovation, access to energy, eco-design, sustainable purchases, employee engagement and talent attraction, resource scarcity, and digital economy. Access to energy remained central to the materiality analysis of the company.

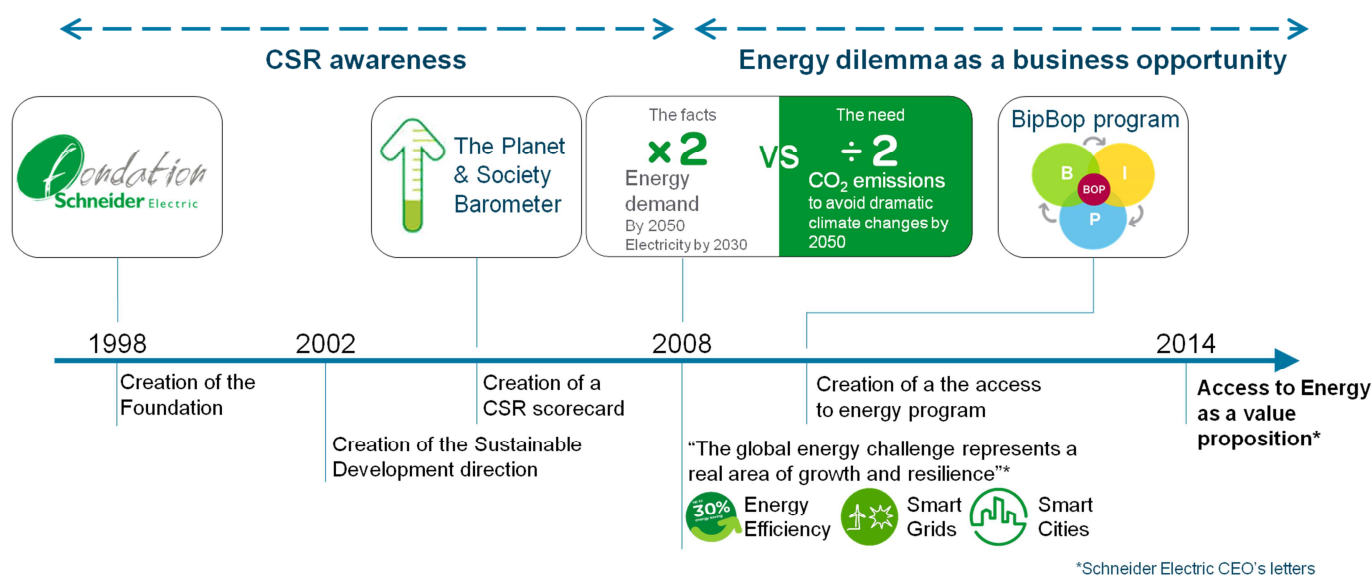


Figure 2: Strategic embeddedness of the "global energy challenge" at Schneider Electric

³ <http://www2.schneider-electric.com/sites/corporate/en/group/sustainable-development-and-foundation/sustainable-governance/materiality-matrix.page>

4.2. How BoP activities remained aligned with this change

Schneider Electric's BoP program had been initiated in 2009 to promote access to energy for low-income populations in Africa, India, and South-East Asia (Vermot Desroches & André, 2012) aligned with a "shared value" perspective. At that time, 1.5 billion people around the world lacked access to electricity, mostly in rural areas (International Energy Agency, 2009, p. 128). Access to modern energy was already internationally recognized to be a basic need and mean for development of worldwide populations (DfID, 2002). To cite just a few positive societal impacts, energy enables enterprise development, modern lighting allows evening classes and home study, energy services free girls' and women's time from survival activities, indoor air pollution is reduced leading to less respiratory infections, cold generation improves medical facilities, irrigation through electric water pumps reduces pressure on the ecosystem, and cleaner fuels reduce greenhouse gas emissions. Alongside such a demand for energy, market studies revealed the potential for the private sector to profitably target an estimated annual spending of 433 billion dollars at the base of the pyramid (Hammond, Karmer, Katz, Tran, & Walker, 2007).

Managed by the Sustainable Development department, the first objectives of the access to energy program were mostly philanthropic, aligned with the objectives of the Foundation. A target in the number of low income households that had obtained access to energy thanks to Schneider Electric program was added to the Planet & Society Barometer. Following a series of pilot projects, the access to energy program took a stronger commercial path. Turnover and costs associated with the program were also reported. The program reached the break-even in 2013 thanks to an increased number of low-income consumers willing to pay for adapted modern energy products through specific business models. However, no objective of profitability was put forward. In 2014 the top management decided that it was time for BoP to be a business opportunity and be managed as such. Responsibility for the program extended from the Sustainable Development department to the businesses and field operations, trying to adopt a thorough business opportunity strategy.

At this point we simply want to check that the BoP activities remained aligned with the change in the CSR positioning of the company. To do so we have identified the large increase of terms related to BoP activities in letters from Chairman or President and CEO of Schneider Electric as the company CSR position changed over time.

Table 2 firstly translates this change as a change of terms describing the general vision of the company: new terms emerge and these new terms are repeated to convey the message related to the integration of the global energy challenge in the company vision. Secondly the implementation of this change is captured by the associated change in operational terms.

The capability of Schneider Electric to embed the global energy challenge as a business opportunity is greatly facilitated by its Business-to-Business (B2B) positioning at the second stage of the value added chain so that it can easily focus on designing products and solutions to help its customers to address the corresponding societal challenges (i.e. the reference to green business). For instance if one consider that untapped energy efficiency remain significantly large in buildings and data centers (two major lines of business that represents 34% and 14% respectively of its turnover in 2013), this translates directly into market business opportunities for Schneider Electric.

Table 2: Occurrences of some CSR-related terms in letters from Chairman or President and CEO of Schneider Electric

Topics	CSR as awareness / risk (2004-2008)	CSR as a Business Opportunity (2009-2014)
General vision	Responsible behavior (2) GHG emissions (1) Safeguarding the environment (1)	Sustainable strategy (16) and Shared value (4) Global warming (7) and Global energy challenge (3)
Terms related to the global energy challenge	Compliance with environmental regulations (2) Cleaner operations (3) Energy savings/efficiency (8)	Green Business as a value proposition (12) or a market opportunity (5)
Terms related to BoP activities	Community support (1) Access to energy for deprived communities (2)	Community support (1) Access to energy for deprived communities (9) and as a value proposition (2)*

*first reference in 2014

(source: Chairman or President and CEO's letters and interviews in the Strategy and Sustainability reports)

As far as the BoP activities are concerned, they are naturally associated to two items: “community support” and “access to energy for deprived communities”. Note the significant increase to the second term, and the appearance in 2014 of an associated value proposition.

4.3. How the strategy change had been integrated by two other CSR activities

As part of the action research it was decided that other CSR programs that could have integrated the strategic change in Schneider Electric would be analyzed. The following two case studies present examples of student competitions in the fields of energy-efficient solar-powered houses (Solar Decathlon) and diversity recruitment (Go Green in the City). As such both initiatives lie in a shared value perspective for the company. Indeed, they aim to contribute to societal stakes (i.e. respectively climate change and gender equality) while benefiting the company's business activities as described in the following sections. Their

analysis is intended to provide insights for the revised BoP program, and more precisely for the design of its management control systems. Two first observations emerge from both analyses: On the one hand, the repositioning of initiatives limited in scope within the new vision of CSR as a business opportunity, and on the other hand, the integration of these initiatives at the corporate organizational level and their integration into the general review process of the company for initiatives similar in nature.

Solar Decathlon

Solar Decathlon refers to a series of worldwide competitions organized by national public agencies with the sponsorship of the private sector. It was initiated in the USA in 2002 by the U.S. Department of Energy, and had occurred biennially since 2005. Since 2010 a European competition has taken place also biennially. In 2013 a first Asian competition took place in China. In 2015 it will be the turn of Latin America and the Caribbean to join.

Teams of students coming from leading international universities compete over a two year period to design, build and operate energy-efficient solar-powered houses. The selected projects are displayed in a solar village open to the public for two weeks. Houses are assembled and feature energy efficiency and renewable energy exhibits with strategies to reduce consumption of fossil fuels and lower utility bills. Every project teams is rated over ten criteria focusing on architecture, energy, comfort, socio-economic, and strategy aspects.

The sponsorship from Schneider Electric takes two forms. On the one hand, local business operations may sponsor a national team of students throughout the whole competition. On the other hand, the solar village provides an opportunity for the company to showcase in real conditions demonstration units of some of the firm's latest energy management solutions.

Since its inception the Solar Decathlon has reached more than 500 universities through the participation of more than 17 000 students and gathered more than a million visitors.

(i) Solar Decathlon as a reputation building device in the US Business Unit

Schneider Electric first participated as a sponsor in 2009 in the USA. The Solar Decathlon sponsorship was coordinated by a local manager working in the "Partner Business Unit" (formerly Power BU), one of the vertical business units of the company. While Solar Decathlon is clearly an opportunity to hire talented engineers, the involvement of the local business also appears as an indirect motivation for bringing together and aligning several entities. After the recent acquisitions of the American companies APC and Square D, Schneider Electric wanted to consolidate its organization in North America and promote its new worldwide strategic positioning as a solution provider. The former manager of the Solar

Decathlon sponsorship states: “Honestly in 2009 and 2011, that was an important opportunity to grow our business when we were trying to migrate from a product manufacturer to a solution provider. This event was very instrumental in showcasing our solutions and capabilities to our customers.”

What was considered as a simple sponsorship into a student competition in 2009 turned into a stronger and much broader involvement for the company. Thanks to post project reviews the following editions improved both the actions undertaken by the different entities of the company, and the ways to track the results. A former marketing manager responsible for the coordination of the first sponsorship in the USA explains: “We organized feedbacks after each competition also in order to make adjustments for the next events. We have learned a lot in the first edition and we were much prepared for the second edition in 2011, especially regarding the hardware and equipments used for the smart grid that we reused.” Such single-loop learning is illustrated in Figure 3 for years 2009 and 2011. In that sense, the technical partnership was much well prepared in the 2011 and 2013 editions in the USA in terms of both technical assistance to the competition site organizing team and consultation for the competing students teams.

2009 & 2011 in the US : Power BU

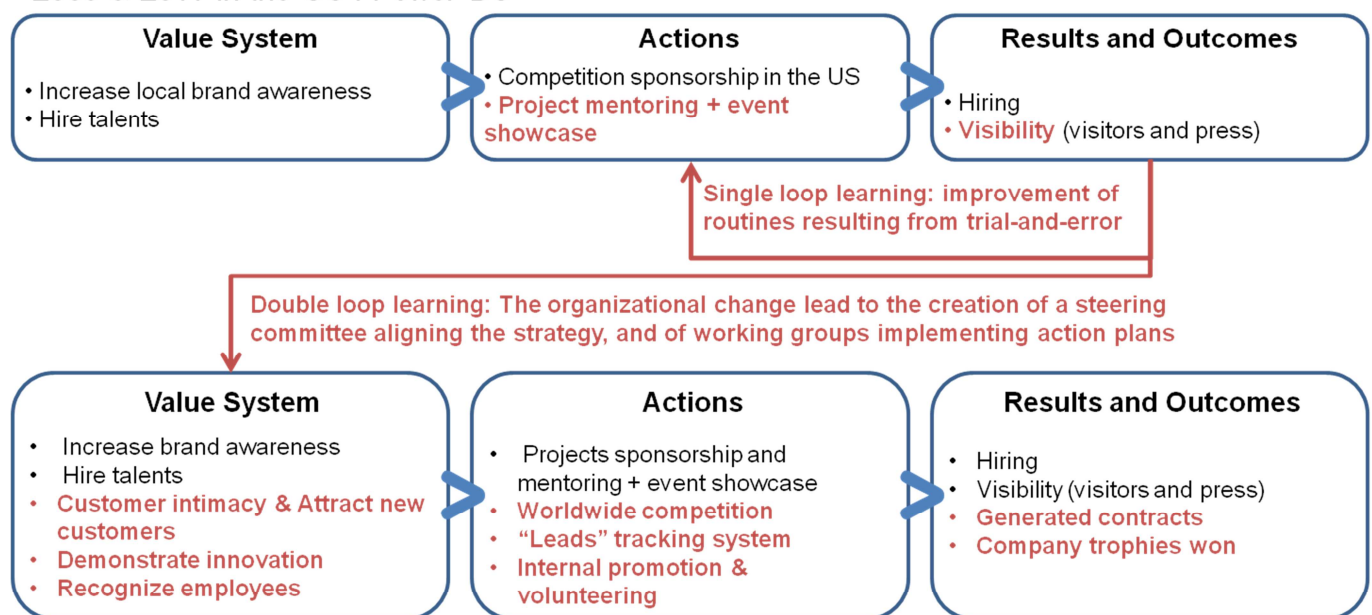


Figure 3: Organizational learning for Solar Decathlon competition

(ii) Solar Decathlon as a business opportunity

In 2014, Solar Decathlon took place in France. At that time Schneider Electric had totally revisited its involvement. The sponsorship of Solar Decathlon is now perceived not only as an opportunity to increase the brand awareness of the company in the country where the competition takes place and to recognize and increase employees' involvement at the company level, but more importantly as a way to generate indirect business and sales. This strategic shift occurred following a reorganization of the company in 2011, when the corporate transversal division "Global Marketing" was created. This reorganization aimed at centralizing all the marketing teams in every business units under one Executive division. As a consequence, a new director for the Solar Decathlon sponsorship, responsible for "transverse marketing" activities, was appointed under the "strategic marketing" department of Global Marketing. The sponsorship to the general competition event would be borne by the corporate entity, while the students' teams would be directly supported by the national branches of the company that are willing to participate.

Taking advantage of the learning from the first editions, the new Solar Decathlon sponsorship director implemented a thorough project management approach based on interactivity between the internal stakeholders. The Solar Decathlon competitions were now managed around a steering committee and working groups. This led the company to revalorize the business benefits of the sponsorships through a double-loop learning as illustrated in Figure 3 for years 2010, and 2012 to 2014. The steering committee gathers directors of the different departments involved: the corporate functions "Global Marketing", "Global Human Resources", "Sustainable Development", and the country manager of the company's subsidiary where the competition takes place. The steering committee is a way to involve the executive levels of every entities benefiting from the business value generated by the sponsorship. It allows for an alignment of the global strategy of the Solar Decathlon sponsorship based on the objectives of each department, and to agree on the financial resources granted by each of them. In that sense, the present program director explains: "Securing the budget is not an issue. The main issue is rather upstream. It lies in the capacity of the company to find a political agreement to undertake this kind of sponsorship."

Once the business values have been shared and an agreement has been found at the political level, the working groups are coordinating the involvement of every corporate department and business units. This horizontal – or transversal – coordination is divided into four groups in order to ensure consistency between interrelated action plans: marketing and communication, technical task force, human resources and sustainable development. These groups focus on implementing the related actions. A diagnostic control system is put in place

to track the results through new measures and KPIs related to the domain of competencies of each department involved. For instance, communication events at the solar village are diversified in order to attract as much customers, partners, and institutions as possible, through dedicated visits of the competing houses and the company's stand, with technical and CSR-related conferences, or ad-hoc side competitions and shows. In order to leverage their presence on the event site, a “leads” system permits to track the potential business that could be generated. A “lead” consists in identifying every contact during the event and in qualifying the related business engagements. A database helps to track those potential customers and valorize ex-post the amount of sales related to the Solar Decathlon. The Human Resources recruit volunteers within the general employees, who become ambassadors of the company during the event, contributing to their feeling of pride as being part of such an engagement. A strong internal communication plan regularly reviews the company support to the projects sponsored by the company. Similarly, the visibility of the sponsorship is monitored by the “press relation” team which organizes several press conferences and tracks for outcomes in terms of press coverage. The Human resources department tracks the outcomes in terms of employees' engagement through the traffic statistics on the internal social media platform, the number of volunteering missions and through satisfaction surveys.

Go Green in the City

Go Green in the City (GGitC) is an annual international student case competition launched in 2011 and directly run by Schneider Electric. In order to build the annual competition, the program is subcontracted into target universities through in situ events and advertisement, website construction and social media promotion. After the selection of the eligible cases, the top 100 teams receive training with a company mentor – part of the pool of high potential employees – and create a synopsis and a video to present their case. The 12 to 25 finalist teams, depending on the edition year, are invited at the headquarters in France where they will attend to workshops and presentations about the company businesses as well as present their cases in front of judges selected among the higher levels of management. Finally, the winning team has the opportunity to visit two Schneider Electric's sites they will choose around the world and are offered an employment at the company.

To take part in this competition, the students, working in pairs comprising at least one woman, have to devise innovative, viable and marketable energy management solutions for a more sustainable city, through a case study. Their proposals must combine increased energy demand, protection of resources and social progress, while remaining economically and socially viable.

Since its inception the Go Green in the City competitions have received a total of over 14 000 participants in the last four years and expanded its scope from 8 countries in 2011 to 159 countries in 2014.

(i) Go Green in the City as diversity recruiting device for the HR department

The competition was initially launched by the “Talent Development” department. The main objectives of the program were twofold: attract women talents and increase the employer brand among students. In that sense, the present director of the program explains that “One of the initial goals was to increase attractiveness among female candidates in strategic markets for the Group with targets of hires.” Linked to the corporate strategy, those geographies represented areas of strong growth for the Group in eight countries. Another secondary objective, highlighted by a former program manager responsible for the “Talent Development” activities, was to “continue to develop the competencies of high potentials employees through mentorship of the students’ teams.”

Corrections have been made during the first two years of the challenge to improve the initial results of the program. Those were primarily identified through a close follow-up of the implementation of the first editions of the GGitC challenges. Some errors were detected and related corrective actions were taken, however, the assumptions and the values of the program were not questioned. Such single-loop learning is illustrated in Figure 4 for years 2011-2012. For instance, the profile matching of the participants appeared not to fit with the competencies required to Schneider Electric branches in growing countries. Therefore, the participation rules have been fine-tuned through guidelines for applications focusing on second or third year engineers, and business students. Another example is about the lack of information on the satisfaction of the students with the competition and the mentorship, on the knowledge of the company, or on the attractiveness of the company as an employer of choice. The GGitC team, therefore, enriched the satisfaction surveys that were sent to participants in order to get their feedbacks early after the beginning of each competition and after the final.

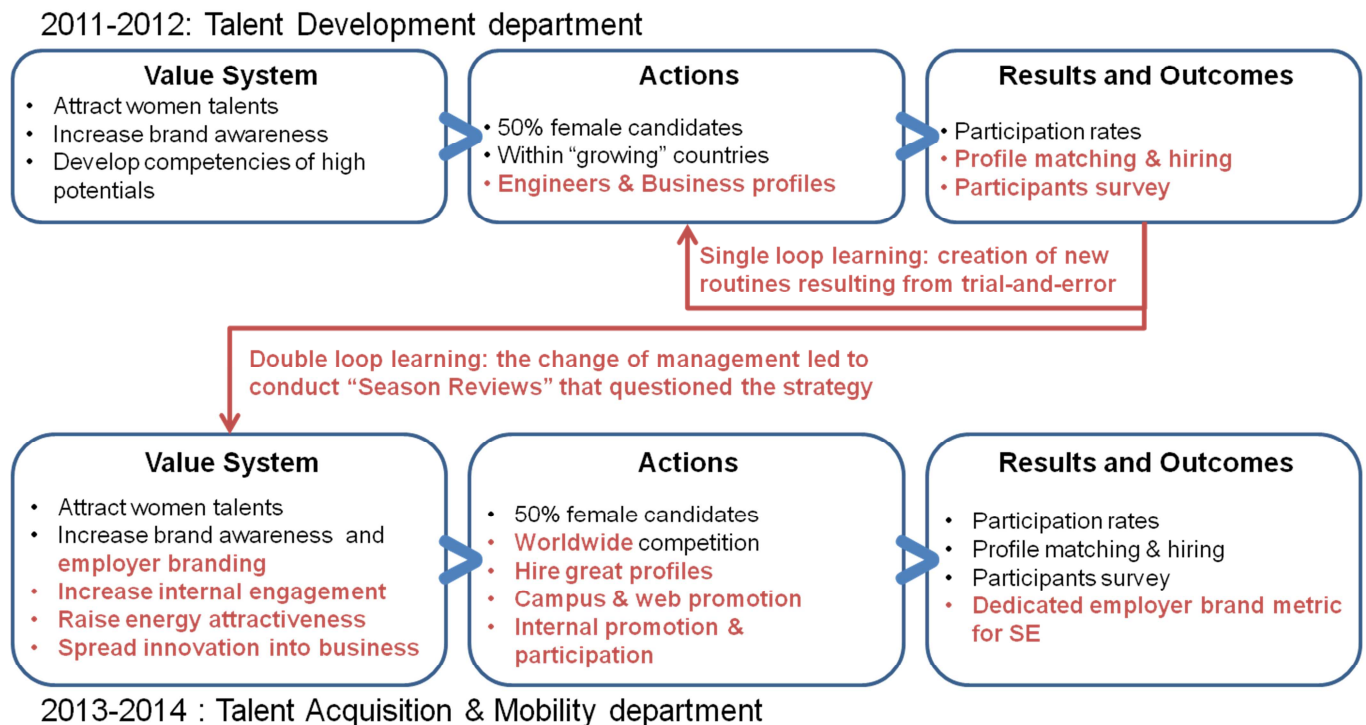


Figure 4: Organizational learning for Go Green in the City competition

(ii) Go Green in the City as a business opportunity

In 2013, the GGitC program took an international shift and opened the competition worldwide in 159 countries (Schneider Electric, 2013). While the diversity recruitment objective remained central, the management reconsidered the competitions as a strong promotional lever for the general brand not only towards students and universities but also towards the future community of business partners. The success of the first two competitions is now perceived as a way to increase the internal engagement among employees, and spread innovation from finalists' cases into Schneider Electric Businesses.

For the third edition in 2013, the management of the program changed from the “Talent Development” department to the “Talent Acquisition and Mobility” department. The executive division of Global HR considered that it would be more relevant to align the competitions' objectives with the topic identified in the materiality matrix under the terminology “employee engagement and talent attraction” in order to clearly fit into the new business opportunity vision. The present program director explains: “As an organization, our objectives and priorities change and with any program, we need to make sure that in the end there is value to the business. We are not doing things just because that sounds like a good idea but because there's actually value.”

The organizational change implied a change of the program director who applied its own interactive methods of collaboration to control the action plans as well as question the overall strategy of the program. The whole team conducts “season reviews”, which consist of preparing an analysis of a program from one of its manager, having an interactive discussion with the whole Talent Acquisition team, and discussing collegially. Season reviews typically enable a double-loop learning as illustrated in Figure 4 for years 2013-2014. In that sense, the present program director explains that “After three years we felt we needed to revamp the program. It was the opportunity to revisit questions like: Where did we start? Why did we even start this program? Where are we today and where are we looking to go with it?” External stakeholders to the management team are also involved. In the case of the GGitC review, feedbacks from mentors, judges, and students contribute to the discussion. The program director further highlights the search for a business rationale during such discussions: “my team is responsible to bring talents within the company that will support business objectives. When we reviewed the program, we really wanted to make sure that it is still true with Go Green. We analyzed it and try to pinpoint what was its Return on Investment.” Four new objectives emerged: promote the general Schneider Electric brand among students, influence the perception of young talents regarding the energy stakes, increase the internal engagement among employees, and spread innovation from finalists’ cases into Schneider Electric Businesses.

As a consequence of this new business-oriented strategy, specific action plans were implemented still mobilizing diagnostic control systems. The season reviews also helped to create the new employer brand metric, which is a specific internal metric built by a program manager formerly affiliated to the marketing department. This new scorecard is meant to aggregate and weight the results of actions related to website traffic, social media statistics, exposure of the challenge, or press coverage. Building the awareness of both Schneider Electric and global energy stakes among the participants was made possible through the diversification of the presentations during the final competitions. The presentations now focus on the major trends in the energy industry and on the company’s positions in related businesses. The survey, before and after each competition, has been enriched to track students’ appreciations and comments. On the internal engagement side, an employee-voting system has been implemented through the internal social network platform as a mean to embark the general employees in the competition. Finally, the GGitC team now makes sure that the different business units have the opportunity to consider the students proposals into their own value proposition.

Learning from the two CSR activities

The sponsorships to both students' competitions present similar conclusions. On the one hand, Go Green in the City faced a change of management, combining an organizational change within the Global Human Resources division and the implementation of a new process through "season reviews". Such interactive processes permitted a double-loop learning that led to the strategic redefinition of the program, in line with the recent vision of CSR as a business opportunity. The case of Go Green in the City highlights the capacity of its management team to integrate the indirect business benefits as an integral part of its value system while its initial purpose was focusing on hiring women talents in emerging and growing economies. New actions were taken to broaden the audience of the program towards worldwide universities and the general employees of the company. Specific indicators and metrics were designed to report for the new impacts in terms of reputation, by applying the methods and competencies of another corporate function traditionally used to track such extra-financial returns.

On the other hand, the Solar Decathlon program also faced the reorganization of the company with the creation of the transversal department "Global Marketing". Interactive discussions within a steering committee aligned several executive divisions' managers to adopt a business opportunity approach for this CSR sponsorship. Such a double-loop learning process contributed to the rapid growth of the company's worldwide sponsorship in the Solar Decathlon competitions. Cross functional agreement at the management level also permitted to embark different entities within the company and across the world to contribute to its implementation. New actions and more specifically new measurement methods contributed to the generation of, and control for, indirect business returns coming from a CSR-related sponsorship alongside the original intent to attract engineers' students.

Coming back to our conceptual framework depicted in Section 2, we might highlight a common four-step trajectory pattern in the transition of these CSR activities from an awareness perspective towards a business opportunity approach. Figure 5 illustrates the transition of Go Green in the City and Solar Decathlon competition from stage 1 (CSR as awareness) to stage 2 (CSR as a business opportunity):

1. Both CSR sponsorships adopted first an awareness perspective. First editions of the competitions were primarily controlled through diagnostic systems composed of specific KPIs to track initial objectives and adopt corrective actions.
2. An organizational change constituted the starting point to create the conditions for an interactive control system to emerge, while both sponsorships remained in an

awareness perspective for the company. Cross-functional discussions in both CSR programs permitted to question their inner strategies.

3. The conclusion of the interactive discussions led to reconsider the value that could be generated from both programs and therefore to align them with the broader strategy of the company. Such a double-loop learning process finalized the transition towards a business opportunity approach and permitted to further embark different divisions of the company into the CSR programs, and therefore increased their embeddedness into the company.
4. Finally, the different divisions embarked in the newly defined strategy of both programs led to the redefinition of their action plans. As a consequence, new diagnostic control systems within this business opportunity approach were put in place through specific new KPIs pertaining to the competencies of each division involved.

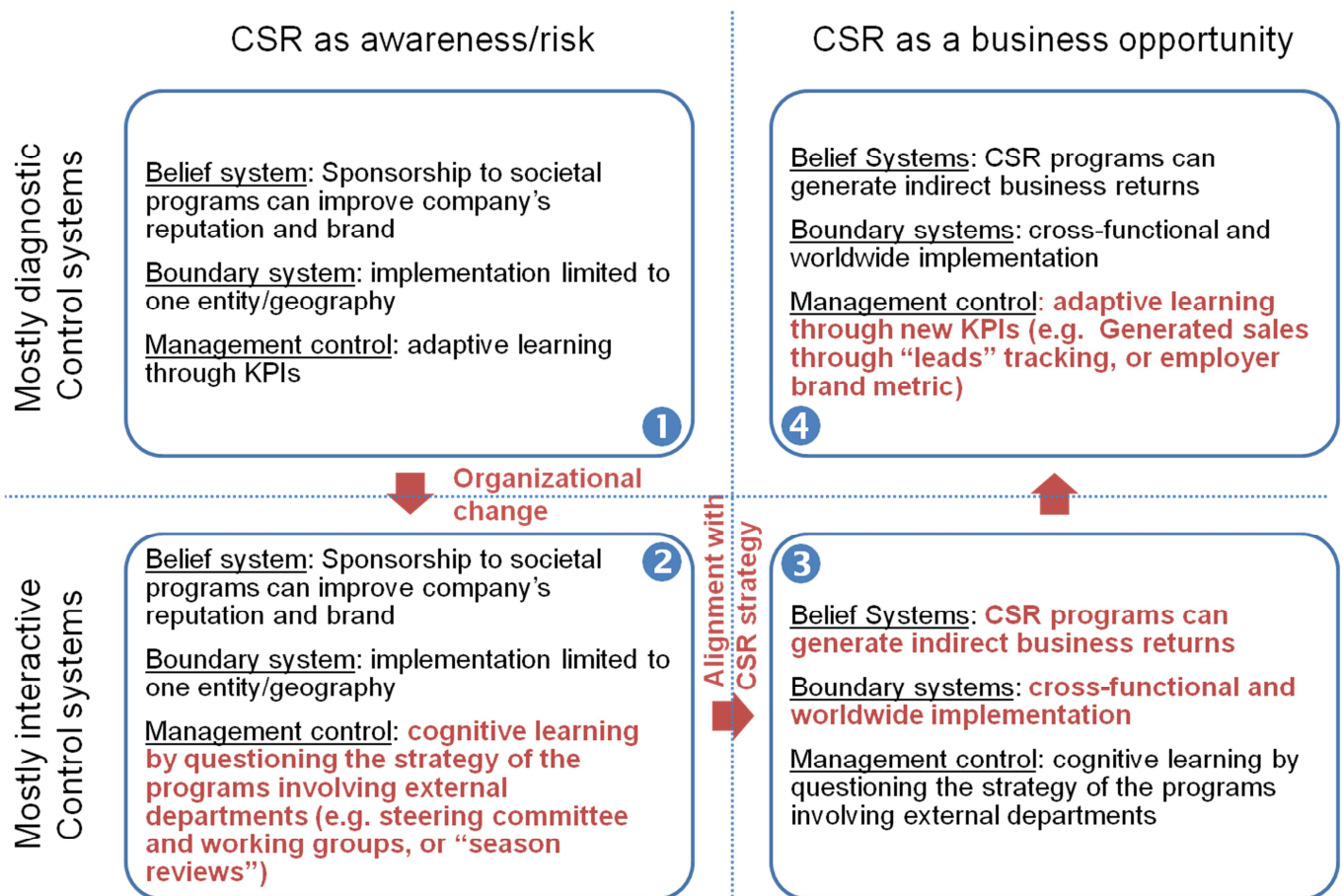


Figure 5: Transition of Go Green in the City and Solar Decathlon sponsorships towards a business opportunity approach

Based on this first analysis of a succeeded transition of two CSR-related activities from an awareness approach towards a business opportunity strategy, we might further study the BoP program that initiated recently this transition in the light of these four steps.

4.4. Managing BoP as a business opportunity

Schneider Electric's concern about the worldwide lack of access to energy was formalized in 2009 with the launch of the BipBop program managed within the Sustainable Development department. BipBop stands for "Business, Innovation, and People at the Base of the Pyramid". The aim of the program is to promote an affordable, reliable, and clean access to energy for low-income populations living in sub-Saharan Africa, India, and South-East Asia. The BipBop program was initiated on behalf of the CEO, Jean-Pascal Tricoire, to highlight the capacity of the company to innovate and to improve its commitment towards communities (Schneider-Electric, 2009). To tackle this global issue, the program combines business and philanthropic approaches (Vermot Desroches & André, 2012):

- The Business pillar is an impact investing fund that supports financially the development of SMEs in the field of access to energy and job integration;
- The Innovation pillar develops a specific portfolio of products and solutions that are deployed commercially to meet the means and needs of BoP populations;
- The People pillar sponsors vocational trainings, through the Foundation, that help to develop long-term regional competencies.

By early 2014, the BipBop program invested in seven SMEs; provided access to energy to 1.5 million households; and created almost 40 training in energy management reaching almost 23,000 people (WBCSD, 2013). For the purpose of our research question, the paper focuses on the Innovation pillar aimed at commercializing energy access products and solutions to the greatest number of people living mainly in rural areas. For simplicity we shall refer to the associated activities as the Access to Energy Program. This is in line with the alignment of these activities with the increasing role of this topic in the company vision, as illustrated in section 2.

Since its inception, the Access to Energy program adopted a shared value creation approach. In that sense, two different objectives (i.e. societal and economic) coexist when it comes to marketing specific access to energy offers in rural areas of developing countries. On the one hand, products and solutions are meant to improve the lives of the end-customers and contribute to their economic development. On the other hand their commercialization aims at being profitable for the company. The business perspective of the

Innovation pillar has been constantly reinforced to be now placed at the forefront of its performance evaluation. In that sense, the business development director of the access to energy program explains: “When I took my position in mid-2010 I had to report to my hierarchy and to the CEO the number of LED lamps that we sold. Then the quarterly business reviews focused on the total turnover of the Access to Energy offer. Today we are also evaluated on the EBITA.”

Step 1: the initial awareness approach of the Access to Energy program

In the early phase of the program, engineers from Research and Development (R&D) teams of the company's business entities are delegated to design two complementary offers. The first pilot projects consist in trying out the technologies. High energy-efficient LED-based Solar Lighting Systems, called In-Diya, as well as solar micro off-grid power plants, called Villasol, were donated and installed respectively in two villages of India and Madagascar. Building on their successes, the top management granted the Access to Energy program an internal “start-up” status in order to validate its commercial viability. The Innovation pillar was then formally created in mid-2010: the R&D was internalized to the program with the constitution of an “Offer Creation” team, while the marketing of products and solutions was under the responsibility of a dedicated “Business Development” team.

The newly established Business Development team acted as a protected entity within the company. The major milestones and challenges for establishing the Access to Energy program in six targeted countries was consistently and periodically examined by the Sustainable Development department, and then up to the CEO. The team was encouraged either to bypass the established processes of the MNC in order to remain agile, or to take advantage of specific capabilities from several internal business units and support functions all along the value-chain (Vermot Desroches & André, 2012): cost reduction through high volumes of procurements; manufacturing standards of quality thanks to assembly lines; a global supply of products and solutions based on the internal logistic management. When it comes at marketing the offer, the Business Development team relies on a decentralized team of sales force managers in the local operations. Operational members of the team remained functionally attached to the country branches but hierarchically dependent from the corporate team. As a matter of fact the Sustainable Development department directly supported their wages. Figure 6 depicts the organizational chart for the Innovation pillar between 2010 and 2013.

Managing BoP as a business opportunity

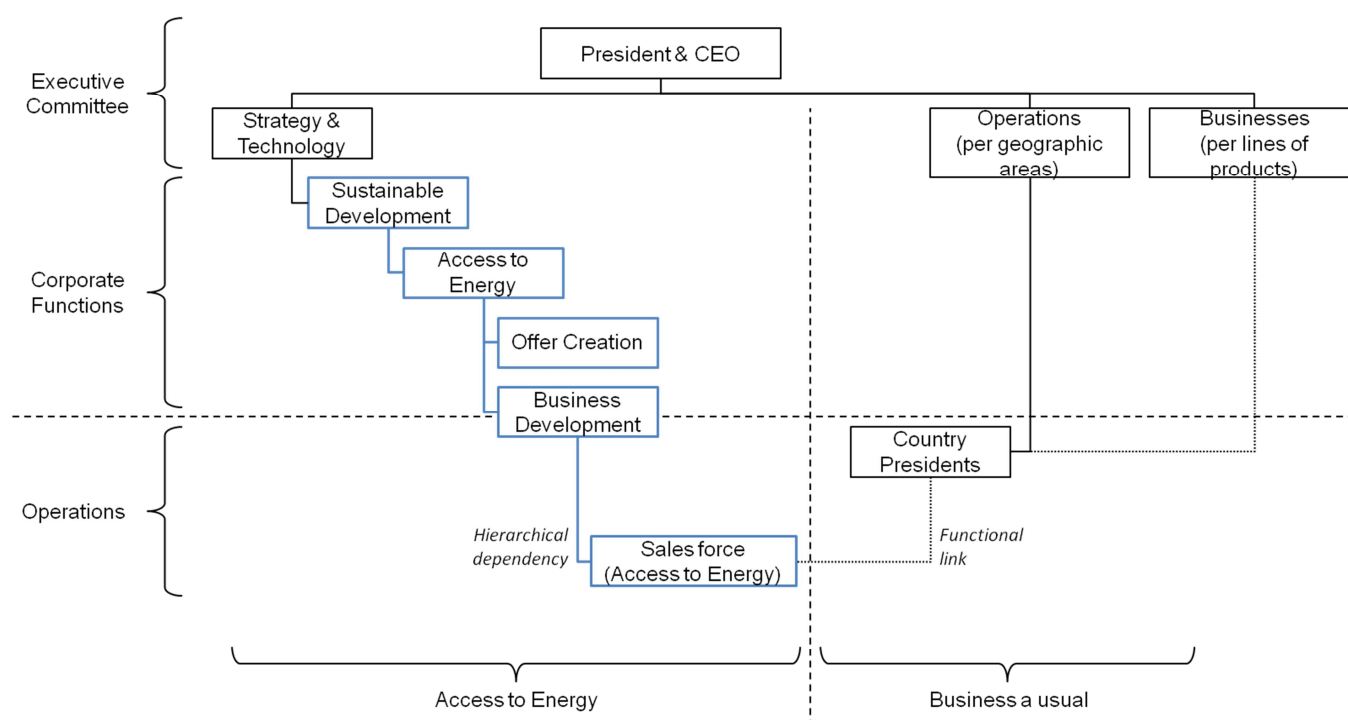


Figure 6: Organizational chart for the Access to Energy Program (2010-2013)

The development of specific partnerships with non-traditional local actors permitted to respond to rural end-customers' demand. This demonstrated the potential to create adequate market access channels at the BoP. However at that time, the Access to Energy program was not assessed on its sales or even profits. Aligned with the adoption of an awareness approach, the management control for the Access to Energy program rather focused on its societal value creation. The company communicated externally on the number of households that gained access to energy thanks to the company's products and solutions. A specific indicator was added to the Planet and Society barometer – the CSR dashboard of the company – to track the progress of the Access to Energy program. The objective to grant access to energy to one million households at the BoP during the period 2009-2011 was then renewed for the period 2012-2014, following the change of the company program.

Beside the direct financial and societal values created by the program, local managers started to acknowledge for the potential to capture indirect business returns. Some local business operations generated "business as usual" contracts following energy access projects thanks to the intimacy developed with local decision makers, business partners, and customers. As an example, the current operational director of French speaking countries in Africa explains that "There is a huge potential in Africa. Our commitment to Access to Energy brings value to our customers. It's a driver to increase our business. We have to highlight this competitive advantage to sell our offers every day." In parallel, the awareness of extra-

financial benefits in terms of brand building, employees' engagement and talent attraction, or business innovation increased among the management team of the program. In order to test those assumptions, the Sustainable Development department invited the action research to perform in mid-2012 two enlarged Cost-Benefit Analyses in Vietnam and Nigeria after that two decentralized village electrification projects were inaugurated. Those two surveys validated the quantitative and qualitative positive impacts for the company. The public relations and the communication events improved the relationship with national authorities and business partners. The relative high press coverage of the two projects permitted to attract new customers translating into traditional business contracts. In Vietnam, the country branch developed new competencies in renewable energy and off-grid electrification, which permitted to extend its value proposition. In both countries, the employees testified for an increased engagement during the next campaign of the internal employees' satisfaction surveys.

Time was ripe at the operational level for the Innovation pillar to contribute to the general repositioning of CSR as a business opportunity for the company.

Step 2: Starting the transition with an organizational change

A successive increase of yearly sales for the access to energy offer led the corporate team to achieve in 2013 a €20 million turnover and to reach the breakeven point. In early 2014 a number of moves were made to better capture the growing opportunities represented by the BoP market segment. The Executive Committee decided to extend sales targets to every operational businesses concerned by the Access to Energy program. Executive Vice Presidents and Country Managers now have incentives based on their achievements in the Access to Energy business. The fact that operational business directors at the local level had to be accountable for access to energy sales induced a shift of conceded investments into human resources from the corporate to the operational levels. The organizational chart of the Innovation pillar was reconsidered. First, the local sales forces responsible for Access to Energy are now directly under the supervision of the operational business managers. Second, the corporate team of the Access to Energy program would have now a supporting role in managing the business activities. Figure 7 illustrates this organizational change.

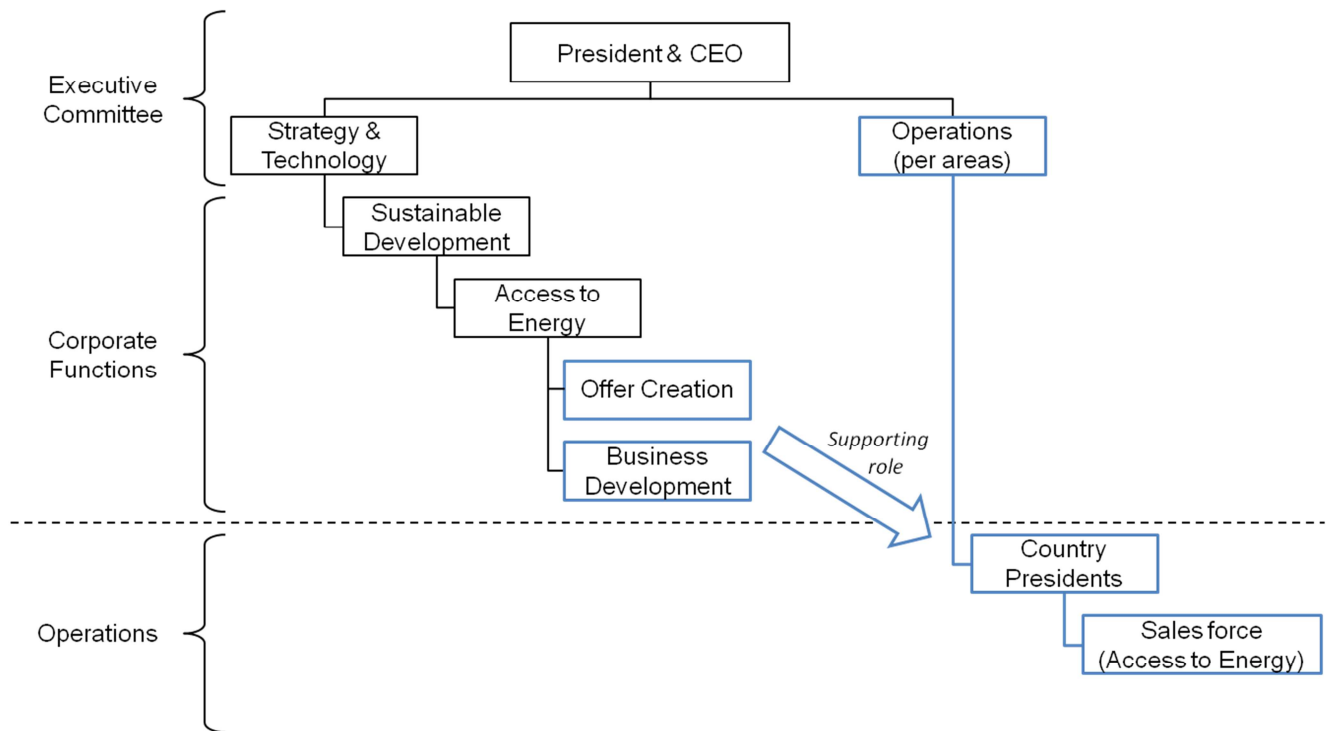


Figure 7: Organizational chart for the Access to Energy Program (2014-present)

The Sustainable Development department suggested an “extended P&L” as the new template to monitor the Innovation pillar in this new setting. This extended P&L was intended to demonstrate the indirect and extra-financial benefits to the company, and thus put the so far limited profitability of the program in a larger perspective. Savings on communication expenses from highly visible events such as the RIO+20 conference as well as sales from indirect business-as-usual contracts derived from BoP activities in countries were added to the revenues and increased the margin. This attempt to create a new diagnostic control system was strongly fought by the Finance and Control department. First, the domains of impacts covered were very different in nature and required to track numerous new indicators. Many of those indicators could not be monetized while some others simply could not be measured through existing processes. Second, it appeared to be difficult to isolate or justify the contribution of the BoP activities towards the global indirect benefits compared to, for instance, other public relation or communication activities. This type of adaptive learning in creating an extended P&L appeared to be a dead-end. Such single-loop learning is illustrated in Figure 8 for years 2009 to 2013.

2009-2013: Sustainable Development department



Figure 8: Organizational learning for the Access to Energy program

Step 3: top-down validation of a business opportunity strategy

In mid-2014 the Sustainable Development department initiated discussions with the top management to review what would be the next Planet and Society barometer for the period 2015-2017. Regarding the Access to Energy program, the SD director agreed with his hierarchy that the new indicator would now track growth of sales as a mean to communicate externally on the business ambition of their responsible BoP program. It was time for the Access to Energy program – created five years ago – to demonstrate its capacity to scale-up, and for the company to testify for its leading position in the industry. This shift from a societal to a commercial indicator testifies for the inclusion of the Access to Energy program into the overall CSR strategy as a business opportunity approach.

Discussions between the SD director and the Access to Energy program managers lasted until late 2014 to fix a target related to the sales indicator. At that time, the initial business plan for the program was to multiply by five its annual sales within a period of five years. In order to align it with the period of three years of the company program and the new Planet and Society Barometer, the top management agreed with the SD director to keep the business plan objective. The new target to reach would be to multiply annual sales by five at the end of 2017 compared to 2014. Facing such a demanding objective, both the Business

Development team of the Access to Energy program at the corporate level and the Country Presidents at the local levels considered that their present activities would not permit to grow accordingly and reach the new target.

The Access to Energy program therefore faced a double pressure. First, the organizational change that occurred one year before enlarged the governance of the program to new entities, namely the business operations. Second, the top-down pressure to achieve the expected sales target for the Access to Energy program appeared completely unrealistic. These pressures, however, created the conditions to start an interactive process between the stakeholders of the program in order to question its inner strategy. A series of working groups were established, led by the corporate team of the Access to Energy program, and involving interested country presidents and their local sales force managers. The intended outcome was to provide credible and priority action plans in every geography where the program was implemented. In late 2014, the working group delivered a “starter-kit”, which consists in a managerial guide to define and roll-out new go-to-market strategies for the access to energy business in every country. Responsibilities and capacities were clearly identified: local operations in countries would bring business insights, mobilization of local support functions, and their knowledge of the local socio-economic context to define the action plans, while the corporate team would support them thanks to their extensive knowledge of energy access products and global market, and their direct access to C-level business partners and international institutions. Such a double-loop learning is illustrated in Figure 8 for years 2014 to 2015

Step 4: securing the Access to Energy program within a business opportunity approach

Another outcome of the working group was the settlement of dedicated quarterly business reviews for the Access to Energy business. Geographic operation directors, country presidents and Access to Energy program directors meet periodically to control for the implementation of the pre-defined action plans. Corrective actions are decided when results – particularly financial targets – are not met. However, such a diagnostic control system presents some limits. A critical point concerns the organizational design. Whereas the positioning of the Access to Energy Program within the SD department was perfectly adapted to its early position as a protected start-up, this positioning appears as a handicap for its broader deployment within the operational businesses as part of business as usual. The SD department does not have the authority neither to ensure the credibility over time of the sales targets put in place by the top management nor to define the associated management system.

As suggested by the experience of the two CSR programs detailed in section 4.3, it seems that a repositioning of the Access to Energy Program into a set of similar programs would be beneficial. Two possibilities may be considered: either within the Strategy & Technology Division or directly into one of the Business Divisions. Since the Strategy & Technology Division is more focused on long term and prospective issues the second possibility seems preferable. Indeed the Business Divisions display a matrix organizational structure: Business Units are in charge of product lines and general market segments, while Operations are in charge of their marketing deployment across the geographical segments. Central product lines have their own Innovation and Marketing departments. It would then be sensible to associate the Access to Energy Program to the Business Units in which the corresponding products and solutions would appear as natural extensions of existing activities. In that sense, the Access to Energy program could merge with the “Solar BU”, for which products and solutions are already mobilized by the former into decentralized rural electrification contracts. Some members of the Access to Energy Program currently within the SD department would then move to the corresponding functional team in the selected Business Unit.

Pursuing on a similar line of thought the extension of the current management and control system would have to be defined through a group directly involving representatives from the finance and control department, along with members of the Access to Energy Program. This would ensure that the sales targets, along with relevant KPIs would be integrated into the general management system of the company. As a consequence of such organizational change, the monitoring of Access to Energy business activities would be integrated into traditional quarterly business reviews as any other business units. Operations managers would have to explain why and how these specific targets would have to be updated, given that they were accepted as part of the overall objectives, with the associated budgets (i.e. technical and marketing support from central departments, HR resources allocated to achieve these targets, etc.).

Keeping in mind that the Access to Energy program has been initiated as a BoP strategy – i.e adopting a shared value creation approach – and communicated to that effect, the management and control system would have to be also defined together with the Sustainable Development department. This reorganization would greatly simplify the management of the Access to Energy Program. On the one hand, it would be integrated into the business as usual activities, to ensure its scale-up. On the other hand, the SD department would remain in charge to externally report the activities of the program and to ensure societal accountability, building on indicators deeply rooted into the operations.

5. DISCUSSION OF THE FINDINGS

In the light of the analysis of the two other CSR activities, we might identify a similar four-step trajectory for the BoP program that switched from an awareness approach towards a business opportunity strategy. Figure 9 illustrates the transition of the Access to Energy program based on our conceptual framework:

1. The Access to Energy program was initially philanthropic, aligned with an awareness perspective. First achievements were primarily controlled through diagnostic systems composed of a specific KPI included in the CSR dashboard of the company (i.e. the Planet & Society Barometer). As such, accountability is mostly external through a societal objective to provide access to energy to two million households at the BoP.
2. First proofs of a business approach at the BoP lead the top management to initiate an organizational change and to further involve local operations. The governance of the program is now cross-functional between the Sustainable development direction and the business operations. This constituted the starting point to create an interactive control system, while the BoP program remained in an awareness perspective for the company.
3. Based on an increase of yearly sales, the top management reconsidered the Access to Energy program as a business opportunity. A new proactive commercial objective was set to multiply annual revenues by five within a period of three years. Such a pressure led the different managers involved in the program to reconsider its overall strategy and embed it further within operational and support functions. This phase changed the mindsets of the middle managers and finalized the transition of the Access to Energy as a business opportunity. The newly interactive control system took the form of a working group. Its conclusions were to develop specific action plans and priorities for every country that would be discussed periodically through dedicated quarterly business reviews.
4. Finally, a line of conduct was suggested to further install the program within the general business routines of the company by merging the Access to Energy program with a Business Unit. This would finalize the embeddedness of the program within the traditional diagnostic control system of the company, for instance by being included into general business reviews rather than being addressed separately.

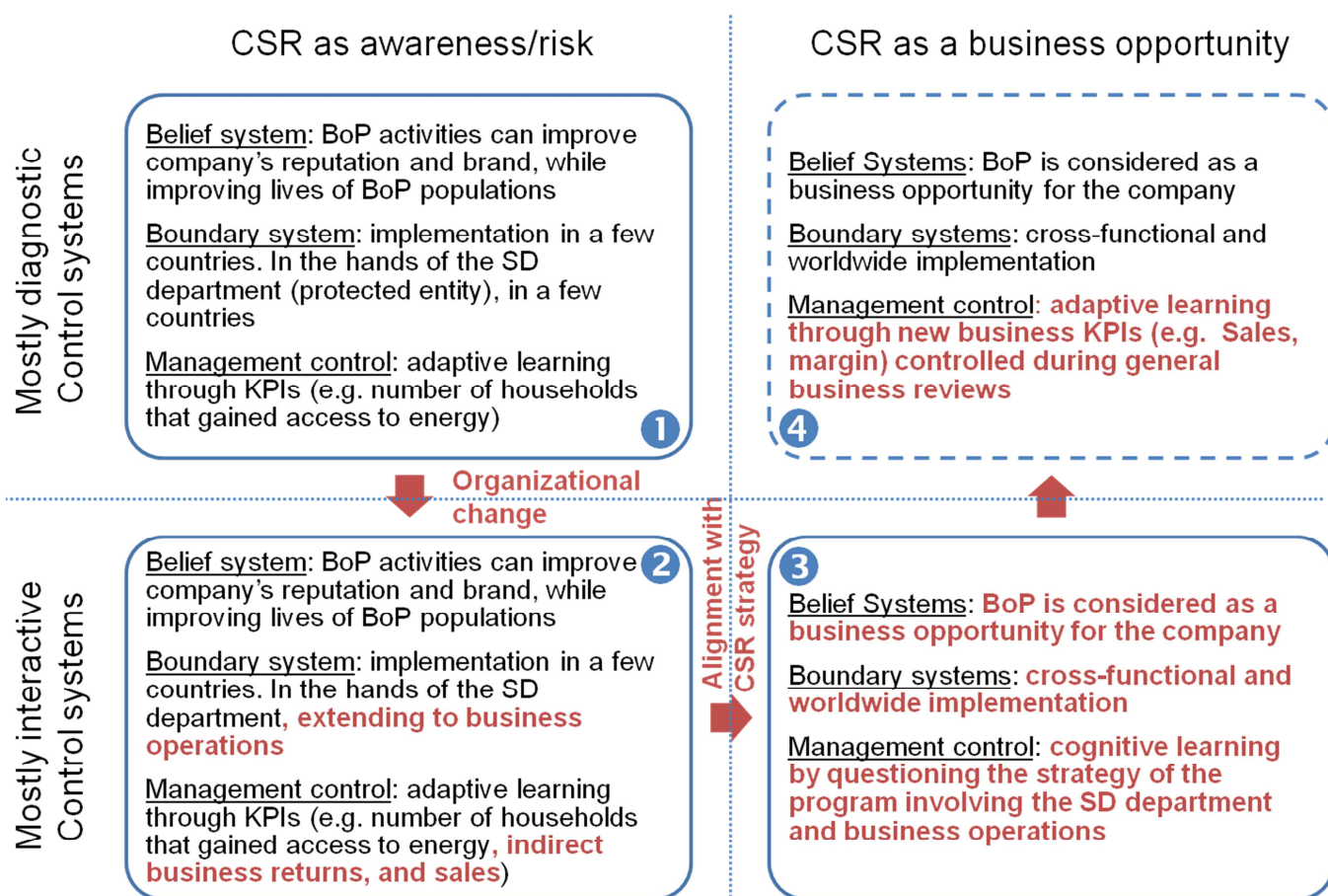


Figure 9: Transition of the Access to Energy program towards a business opportunity approach

The three CSR activities studied in the paper present a similar transition from an awareness perspective towards a business opportunity strategy. The implementation of interactive control systems permitted this transition by questioning the inner strategy of each activity in accordance with the recent shift of the overall company's strategy. We may however notice a few differences between the two other CSR activities (Go Green in the City and Solar Decathlon competitions) and the BoP activities (Access to Energy program). One of the major differences for the two other CSR cases lies in the fact that the business opportunity shift started right after a general reorganization of the company. Their alignment with the recent CSR strategic change of the company appeared as a bottom-up consequence of the interactive process across involved departments. On the contrary, the Access to Energy program faced a rather top-down pressure through the combination of a broader governance of the program and a demanding renewed business objective. Still, an interactive process permitted as well to finalize the transition towards a business opportunity approach. Another difference – which might explain the first one – concerns the expected creation of an economic value from the three CSR activities, alongside their societal purpose. Most of the

benefits of Go Green in the City and Solar Decathlon competitions are indirect sales or extra-financial. As a BoP strategy, the access to Energy program is first and foremost a business approach. In that sense, direct business returns in terms of sales and profitability is better inscribed in the core activities of the firm and remained aligned with the change in the CSR positioning of the company.

6. CONCLUSION AND SUGGESTION FOR FUTURE RESEARCH

Internal organizational barriers explain the difficulties to implement BoP as a win-win strategy relative to early expectations. This led a number of companies to adopt a preliminary stage in which these activities were centrally managed directly by the CSR department under preserved and discretionary rules. This stage was intended to build experience and provide evidence of the profitability of BoP activities. Further on the question of the transition of these activities to business as usual remained largely unexplored.

This paper investigates this transition process. The main finding concerns the benefit that BoP activities can build on the parallel change in the CSR strategy of the firm. Indeed one has observed in the last decade a growing articulation of the business strategy of the firms with some specific global societal challenge in line with its core activities. This change provides both a need and an opportunity for BoP activities installed in their preserved status. We explore the successive steps associated with this change for BoP activities at Schneider Electric through a longitudinal case study, and identify the possible difficulties.

Every BoP program aimed at reaching an untapped market of low-income consumers might not be able to reach a business opportunity perspective. Some cases like DuPont's subsidiary Solae and its soy-based protein sachets or P&G and its PUR water purification sachets illustrate such a failure. The first and foremost reason lies in the fact that such new business activities could not answer a market demand and reach significant sales that could support the investments. In our case, the BoP program at Schneider Electric testified for an increase of its turnover during the first four years and succeeded to reach the break-even in 2013. Generating sufficient revenues during an incubating phase appears therefore as a first criterion for the top-management to consider any new activities as a potential business opportunity. That was a necessary but not sufficient condition. Another BoP program failure at HP highlights the need to protect from a change in the management of the company or the BoP program itself. Our longitudinal field study of Schneider Electric highlights two key milestones. First, the BoP program had to further embed into the firm's organization and more precisely into traditional business operations as a mean to embrace general routines of the company. Second, a clear ambition from the top management on volumes of sales

reinforced the perception of the middle management to pursue BoP activities as a new type of business. As a consequence of these combined conditions, the stakeholders of the program adopted an interactive process. Indeed, the managers involved in the program both at the corporate and operational levels had to further cooperate and mobilize every capability should they want to have any chance to reach such demanding results. In turn, the inner strategy of the program was questioned, inscribing it further into the overall CSR strategy of the firm, and confirming its transition towards a business opportunity approach.

Finally, we suggest a possible line of conduct that would involve a clear migration of the BoP activities away from the CSR department. Presumably the firm has conducted a reassessment of its strategy to address the specific global challenge that now appears as underlying its vision. This may be in terms of innovation, marketing, supply chain... which redefines the role of corresponding functional entities. An important conjecture that emerged from our analysis is that BoP activities cannot be directly transferred to operational entities without simultaneously identifying which of the functional department will be in charge of providing the corresponding management systems. It cannot be expected that the functional entities in charge of the general review process (typically strategy, finance and control) be able to provide these systems. The limited turnover and profitability of BoP activities will require a somewhat long term perspective which can only be endorsed by a department that has clearly adopted the new CSR approach as a core value of the company.

This conjecture is indirectly supported by the analysis of two other major CSR activities within the company for which similar transitions have been observed. Based on our conjecture we made some proposals for this migration in Schneider Electric. Further research is clearly needed to confirm the validity of our specific proposals, and more generally of our conjecture. It would be of particular interest to complete the earlier case studies carried on in Novozymes and Lafarge. A transition did actually take place at Lafarge. There has been a reformulation of the vision of the company now expressed as "Building better cities" to tackle global challenges such as urbanization and climate change as potential business opportunities. The reformulation has induced a number of internal programs conducted by the Innovation department. BoP activities migrated from the CSR department to this new corporate department along its deployment into operations. These very preliminary findings are encouraging for further research.

7. REFERENCES

- Adler, P. A., & Adler, P. (1987). Membership roles in field research. *Newbury Park, CA: Sage Publications*, 4(1), 7-24.
- André, T. (2014). *Corporate Social Responsibility Boosts Value Creation at the Base of the Pyramid*. Cahier de recherche 2014-11. Ecole Polytechnique. Palaiseau, France. Retrieved from <https://hal.archives-ouvertes.fr/hal-00989791>
- Argyris, C., & Schön, D. A. (1978). *Organizational learning: A theory of action perspective* (Vol. 173): Addison-Wesley Reading, MA.
- Arjaliès, D.-L., Goubet, C., & Ponssard, J. P. (2011). Approches stratégiques des émissions CO2: Les cas de l'industrie cimentière et de l'industrie chimique (Strategic Approaches to CO2 Emissions: The Case of the Cement Industry and of the Chemical Industry). *Revue française de gestion*(215), 123-146.
- Arjaliès, D.-L., & Ponssard, J.-P. (2010). A Managerial Perspective on the Porter Hypothesis. The Case of CO² Emissions. In P. Crifo & J.-P. Ponssard (Eds.), *Corporate Social Responsibility: From Compliance to opportunity?* (pp. 151-168): Les Editions de l'Ecole Polytechnique.
- Arora, S., & Romijn, H. (2012). The empty rhetoric of poverty reduction at the base of the pyramid. *Organization*, 19(4), 481-505.
- Brannick, T., & Coghlan, D. (2007). In Defense of Being "Native": The Case for Insider Academic Research. *Organizational Research Methods*, 10(1), 59-74.
- Capron, M., & Petit, P. (2011). Responsabilité sociale des entreprises et diversité des capitalismes. *Revue de la régulation*, 9(1er semestre / Spring 2011), 23.
- Carroll, A. B. (1979). A Three-Dimensional Conceptual Model of Corporate Performance. *The Academy of Management Review*, 4(4), 497-505.
- Crabtree, A. (2007). *Evaluating "The Bottom of the Pyramid" from a Fundamental Capabilities Perspective*. Working Paper. Copenhagen Business School Centre for Business and Development Studies.
- Davidson, K. (2009). Ethical concerns at the bottom of the pyramid: where CSR meets BOP. *Journal of International Business Ethics*, 2(1).
- DfID. (2002). *Energy for the Poor. Underpinning the Millennium Development Goals* (pp. 32). London: Department for International Development.
- Faivre-Tavignot, B., Lehman-Ortega, L., & Moingeon, B. (2010). Le social business, laboratoire d'apprentissage des stratégies de rupture. *Revue française de gestion*(9), 175-189.
- Freeman, R. E. (1984). *Strategic management : a stakeholder approach / R. Edward Freeman*. Boston :: Pitman.
- Goodpaster, K. E. (1983). The concept of corporate responsibility. *Journal of Business Ethics*, 2(1), 1-22.
- Gupta, A. K., Smith, K. G., & Shalley, C. E. (2006). The interplay between exploration and exploitation. *Academy of Management Journal*, 49(4), 693-706.
- Hammond, A. L., Karmer, W. J., Katz, R. S., Tran, J. T., & Walker, C. (2007). The Next 4 Billion. Market Size and Business Strategy at the Base of the Pyramid (pp. 164). Washington: World Resources Institute, International Finance Corporation.
- Hart, S. (2007). *Capitalism at the Crossroads. Aligning Business, Earth, and Humanity* (2nd ed.). New Jersey: Wharton School Publishing.
- International Energy Agency. (2009). *World Energy Outlook 2009*. Paris, France: OECD.
- Karnani, A. (2006). Misfortune at the Bottom of the Pyramid. *Greener Management International*(51), 99-110.
- Karnani, A. (2007). Fortune at the Bottom of the Pyramid: A Mirage. *Ross School of Business Paper*, 1035, 42.

- Kurucz, E. C., Colbert, B. A., & Wheeler, D. (2008). The Business Case for Corporate Social Responsibility. In A. Crane, A. McWilliams, D. Matten, J. Moon & D. Seigel (Eds.), *The Oxford Handbook on Corporate Social Responsibility* (pp. 83-112). Oxford: Oxford University Press.
- Landrum, N. (2014). Defining a base of the pyramid strategy. *Journal of Business and Emerging Markets*, 6(4), 286-297.
- London, T. (2007). A base-of-the-pyramid perspective on poverty alleviation. *Ann Arbor: The William Davidson Institute-University of Michigan-, Working Paper*.
- March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization science*, 2(1), 71-87.
- McFalls, R. (2007). Testing the Limits of Inclusive Capitalism. *Journal of Corporate Citizenship*, 2007(28), 85-98.
- O'Reilly, C., & Tushman, M. (2004). The ambidextrous organization. *Harvard Business Review*, 82(4), 74-83.
- O'Reilly, C., & Tushman, M. (2013). Organizational ambidexterity: Past, present and future. *The academy of management perspectives*, amp. 2013.0025.
- Olsen, M., & Boxenbaum, E. (2009). Bottom-of-the-Pyramid: Organizational Barriers to Implementation. *California Management Review*, 51(4), 100-125.
- Perrot, F. (2011). *Multinational Corporations at the base of the Economic Pyramid: A Strategic Analysis Framework*. Ecole Polytechnique, Palaiseau. Retrieved from <http://ssrn.com/abstract=2078500>
- Perrot, F. (2013). *Organizational Challenges of Multinational Corporations at the Base of the Pyramid: An Action-research Inquiry*. Cahier de recherche 2013-01. Ecole polytechnique. Palaiseau, France. Retrieved from <https://hal.archives-ouvertes.fr/hal-00771299>
- Porter, M., & Kramer, M. (2006). The link between competitive advantage and corporate social responsibility. *Harvard Business Review*, 84(12), 78-92.
- Porter, M., & Kramer, M. (2011). Creating Shared value. How to reinvent capitalism and unleash a wave of innovation and growth. *Harvard Business Review*, 17.
- Prahalad, C. K., & Fruehauf, H. (2004). *The Fortune at the Bottom of the Pyramid: Eradicating Poverty Through Profit*: Wharton School Publishing.
- Prahalad, C. K., & Hammond, A. L. (2002). Serving the World's Poor, Profitably. *Harvard Business Review*, 80(9), 10.
- Prahalad, C. K., & Hart, S. (1999). *Strategies for the Bottom of the Pyramid: Creating Sustainable Development*. Ann Arbor and Chapel Hill.
- Prahalad, C. K., & Hart, S. (2002). The Fortune at the Bottom of the Pyramid. *Strategy+Business*(26), 15.
- Rapoport, R. N. (1970). Three Dilemmas in Action Research: With Special Reference to the Tavistock Experience. *Human Relations*, 23(6), 499-513.
- Schneider-Electric. (2009). Rapport d'activité et de développement durable 2008-2009 (pp. 44): Schneider Electric.
- Schneider Electric. (2006). 2005 | 2006 The Year in Review (pp. 66).
- Schneider Electric. (2009). Business and Sustainable Development Report 2008-09 (pp. 44).
- Schneider Electric. (2013). Schneider Electric Announces the Winners of Go Green in the City 2014, its Fourth International Case Study Competition [Press release]
- Schwittay, A. (2011). The Marketization of Poverty: with CA comment by Krista Badiane and David Berdish. *Current Anthropology*, 52(S3), S71-S82.
- Simanis, E. (2012). Reality check at the bottom of the pyramid. *Harvard Business Review*, 90(6), 120-125.
- Simanis, E., & Hart, S. (2008). The Base of the Pyramid Protocol: Toward Next Generation BoP Strategy Second Edition (pp. 57). Ithaca: Cornell University.
- Simanis, E., & Milstein, M. (2012). Back to Business Fundamentals: Making BoP Relevant to Core Business. *Field Actions Science Report*(Special Issue 4), 8.

- Simons, R. (1995). *Levers of control: How Managers use Innovative Control Systems to Drive Strategic Renewal*. Boston: Harvard Business School Press.
- Vachani, S., & Smith, N. C. (2007). Socially responsible distribution: distribution strategies for reaching the bottom of the pyramid. *INSEAD Business School Research Paper*(2008/21).
- Vermot Desroches, G., & André, T. (2012). The BipBop programme: Providing access to reliable, affordable and clean energy with a combined approach of investment, offers and training. *Field Actions Science Reports [online]*, (Special Issue 6). <http://factsreports.revues.org/1997>
- Vogel, D. (2006). *The market for virtue: The potential and limits of corporate social responsibility*: Brookings Institution Press.
- Wang, C. L., & Ahmed, P. K. (2003). Organisational learning: a critical review. *Learning Organization, The*, 10(1), 8-17.
- Warnholz, J.-L. (2007). Poverty Reduction for Profit? A Critical Examination of Business Opportunities at the Bottom of the Pyramid *Working Paper*: Queen Elizabeth House, University of Oxford.
- WBCSD. (2013, 05/02). Energy access for all: providing electricity to low-income populations. *The Guardian*. Retrieved from http://www.guardian.co.uk/sustainable-business/energy-access-electricity-low-income-populations?CMP=tw_t_gu
- Wood, D. J. (1991). Corporate Social Performance Revisited. *The Academy of Management Review*, 16(4), 691-718.
- Yin, R. (1994). *Case study research: Design and methods* (2nd ed.): SAGE Publications, Inc.