Transitioning to Social, Economic, and Environmental Sustainability

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For presentation at conference on “Change and Sustainability”
at Harvard Business School, May 9-10, 2013

April 24, 2013 draft

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Abstract

During the transition towards greater social, economic, and environmental sustainability the leaders of organizations undertake many projects that vary in terms of how clear or ambiguous they are, how much conflict or consensus they engender, and how much control they have over stakeholders. We focus on projects where despite efforts to work together with stakeholders, organizations and their stakeholders are not able to cohere around a common vision and agenda. The case examples we provide show that the movement toward greater sustainability is not necessarily going to be a smooth one. The projects that organizations undertake can shift from harmony to conflict. They can return to harmony or fall into a pattern of more and more tension. Because the transition to sustainability is not necessarily going to be smooth, we argue that an organization’s leaders must adopt a long term perspective. As supportforsustainability projects rises and falls, leaders must switch their strategies between managing consensus and conflict over time. For most managers, this requires expanding their repertoire of hierarchical leadership and planned change to include pluralistic leadership and dialectical change.

Introduction

Most leaders of organizations and scholars agree that transitioning to a sustainable enterprise requires balancing economic growth with environmental protection and social equality (Marcus, et al., 2011a; Barbier, 2010; Hall, Daneke, & Lenox, 2010; Daily & Walker, 2000; Roome, 1998). Sustainable enterprise is an evolving concept that many organizational leaders are adopting because they also believe that it makes good business sense (Orsato, 2009; Laszlo,
Reducing waste and inefficiency within an organization can save money and protect the environment. Minimizing pollution with sound environmental management and minimizing human exploitation and abuses with sound human resources management are also good for employees, customers, and society. However, transitioning to a sustainable enterprise is not simple. It entails an on-going challenge of balancing performance among a diverse portfolio of projects to generate profits and save costs while at the same time contributing to the well-being of the planet and its people.

Like other organizational transformation initiatives, a sustainable enterprise may start with a long term overarching strategy that moves an organization towards sustainability (Eccles, Ioannou, & Serafeim, 2011). However it also may begin from the bottom up with employee-initiated projects that are not strategically driven, decentralized, and perhaps experimental in nature (Burgelman & Sayles, 1986). Even when an overall corporate mission and strategy toward a sustainable enterprise is set, the details of such a strategy may be unspecified and assigned to sub-unit managers who develop the operational plans, projects, and generate the new ideas for achieving this strategy. No central strategic unit – no matter how synoptic – could possibly anticipate and coordinate all the operational activities that are entailed in any large-scale organizational transformation (Lindblom, 1965). Strategies must therefore be both deliberate and emergent (Mintzberg, 2007). The operational activities, in turn, must be used to adapt and redirect the implementation of the overall transformation effort over time. As the chapter by Edmondson and Zuzul discuss, enterprise sustainability is a journey that is learned across organizational units and levels as the process unfolds (Maxwell et al., 1997). Learning is a central process for coping with bounded rationality in pursuing ambiguous goals, adapting to
unforeseen issues, creating new opportunities, and allocating to lower levels the numerous decisions required to implement an overall organizational sustainability strategy.

Multiple Parallel Projects. This journey is likely to involve multiple parallel projects that unfold in different organizational units and with other organizations over time (Prakash, 2000; Willums & Golluke, 1992). These multiple parallel projects will vary in levels of ambiguity and consensus. Not all projects in this portfolio will be alike; they will change over time; a single managerial approach does not fit all. Management must be adept at cultural and organizational adaptation. It must understand the process of organizational change, establish new competencies, and reach out to the “court of public opinion” in its efforts to integrate environmental concerns into corporate decisions (Sexton, et al., 1999).

Thompson and Tuden’s (1959) well-known typology of decision strategies (see Figure 1) is useful for distinguishing projects in an organization’s sustainability portfolio by levels of consensus and ambiguity at particular points in time, and for adopting different managerial strategies for each type. The computational and judgmental strategies of consensus decision making on the left of Figure 1 are generally embraced and well known to managers and scholars. However, they tend to not involve the same degree of bargaining and partisan mutual adjustment strategies among conflicting parties as the other types of decision making depicted in the Figure. The other types of decision making involve higher degrees of conflict.

Conflict. Conflict is uncomfortable to most organizational participants and their stakeholders. Management scholars have emphasized unity of command and cooperation (Barnard, 1938), and they have tended not to pay sufficient attention to systematic treatments of
conflict in strategic organizational change. In particular, in this paper we examine three sustainability cases, which illustrate recurrent periods of conflict and consensus. The cases indicate that managers will be more effective in managing sustainability projects when there is consensus and that they will do poorly when there is conflict. These observations lead us to propose that managers of sustainability projects need to expand their repertoire of leadership from hierarchical leadership and planned change to include pluralistic leadership and dialectical change (Van de Ven & Poole, 1995), and to learn how to shift between these strategies as support for their projects rises and falls over time. This is the key takeaway from our paper.

Clearly, this argument is not new. Indeed, as our citations show, core ideas in our current knowledge of managing large scale organizational change involve conflict and have been around for many years (Van de Ven et al., 2008). These core ideas have withstood the test of time, but we are concerned that they tend to be overlooked or forgotten by new generations of organizational leaders and scholars. Hopefully our review of these core ideas will stimulate managers and scholars to further adopt and extend them for managing and studying sustainable enterprises.

A Typology of Decision Strategies

The Thompson and Tuden (1959) typology in Figure 1 outlines four different strategies of decision making that are appropriate for different levels of agreement or disagreement on goals and uncertainty of means to achieve ends. As we now discuss, this typology is useful in selecting and applying different kinds of decision strategies for projects that vary in consensus
and ambiguity. It is also useful in switching strategies over the life span of sustainability projects as degrees of consensus and ambiguity change and unfold over time.

**Consensus Decision Strategies.** When the means to achieve given project ends are generally known and there is agreement about project goals, then, decisions and activities can be specified in advance of their execution using a computational strategy that Thompson and Tuden (1959) indicate is most efficiently performed in a technical way through organizational routines. For example, most people agree about the importance of energy conservation programs (Marcus, 1992) and that these programs can be implemented in a fairly routine way (Henn, 2010). Maintenance personnel or technological sensors turn off the lights, water, and heaters when they are not needed. Organizational systems, rules and regulations typically are used to implement programmed decisions that may be optimized by means of computational algorithms.

When the means to a desired project end are ambiguous, however, non-programmed decisions are required. When there is ambiguity, projects cannot be reduced to a series of programmed decisions, as in Simon’s (1973) structured versus ill-structured problems. Alternatively, Thompson and Tuden (1959) propose that decisions should be made through a process that emphasizes discretionary collegial decision making among experts and/or professionals. For example, many projects that affect firm sustainability, such as building construction and reconstruction, capital acquisitions, and distribution channel contracting require careful study and professional judgment often from teams of experts who deal with the uncertainties.¹ This judgmental decision process typically follows a teleological model of

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¹ See chapters 10 and 11 in Marcus et. al., 2011a.
planned change where people search, screen, and select and then implement a solution that best achieves an agreed-upon objective based on their experience and judgment (Van de Ven & Poole, 1995; Maxwell et al., 1997).

When organizational decision makers and participants agree on the desired goals or ends of projects these variations from computational to judgmental consensus decision strategies apply, and how they are used is quite well known in most management theories. The chapter by Henderson focuses on consensus-driven strategies by exploring ways to develop “shared purpose” among stakeholders that may provide the commitment mechanism for high level transformational change. But not all the projects in a typical sustainability portfolio fit easily into the consensus mold (Yaziji & Doh, 2009; Boutilier, 2009; Sexton, et al., 2001). A deeper look is needed at situations where parties do not agree on sustainability project goals nor understand how to achieve these goals (Marcus, et al., 2002).

Conflicting Decision Strategies. When there is little or no agreement on project domain or goals, then Thompson and Tuden (1959) abandoned consensus-based models of decision making and learning (the left of Figure 1) with strategies for bargaining and/or what Lindblom (1965) called “partisan mutual adjustment” (found in the right of the Figure). Central to understanding what happens when there is disagreement among decision makers is the process of dialectical change (Van de Ven & Poole, 1995) where the resolution of conflict or contradiction involves power among opposing parties each attempting to achieve its own ends. Because the opposing parties do not agree, the conflict between them may not be resolved to the satisfaction of the stakeholders involved. If there is resolution, it may be highly unstable. When the outcomes of preferences among conflicting parties are reasonably well known then a bargaining strategy
may be employed, but when the goals of conflicting parties are highly ambiguous or rapidly changing (Marcus et al., 2000), then decisions are made through partisan mutual adjustment.

As noted before, most people feel uncomfortable with conflict, and for good reasons. When the disagreements among the parties about the domain or goals of a project are substantial, coalitions regularly shift as they engage in a constant contest for power to implement their preferences (Pfeffer, 1978). Long struggles over each decision is too time consuming. Consequently, precedent is very important (Pfeffer, 1978:14). Inertia may set in with lack of movement. The transition to sustainability may be blocked temporarily or permanently. If a reasonable compromise is accepted, it establishes a precedent for future decisions that is hard to undo. A reasonable compromise avoids reopening negotiations which may be very painful. Reopening old conflicts may not necessarily be productive. As long as the existing balance of power remains relatively stable, precedent is likely to prevail. When, however, this balance shifts dramatically, it is possible that those who have gained influence will attempt to re-open the negotiation, seeking to remove precedent and to establish a new basis for future organizational actions. But if the burden on time and organizational energy is too great, this shift may not take place.

Many organizations begin journeys that they do not complete. They become hemmed in by premature closure buttressed by precedent and blocked from making further progress. For example, in the 1990s, EPA (the U.S. government’s Environmental Protection Agency) and many companies made substantial progress toward making environmental regulation both more cost effective and more protective of the environment, but got locked into unproductive power struggles that prevented them from achieving much real progress (Marcus et al., 2002).
As Hargrave and Van de Ven (2006) discuss, central to a dialectical theory of change are the concepts of conflict, power, and politics. Conflict can generate change, but not necessarily as it might result in stalemate. Power is a necessary condition for bringing about change, but it may be resented by the parties involved and might result in unstable outcomes that are eventually overturned. Political strategies and tactics are the means by which parties engage in conflict, but these strategies and tactics may have no underlying foundation in producing “rational” or “win-win” solutions (Marcus & Fremeth, 2011b). These strategies and tactics may not produce solutions that are good for everyone. They may not produce solutions that are necessary in order to simultaneously achieve the economic, environmental, and social goals of sustainability.

Conflict entails direct confrontation and struggle among opposing parties within institutional constraints. However, it does not necessarily yield the best results for society or for the parties involved. This takeaway is a highlight of the 1990s effort to reform environmental regulation that Marcus et al. (2002) detail in their book *Reinventing Environmental Regulation*. Clearly well-run societies permit parties to engage in social and economic conflict within reasonable means. However, the conflict they permit does not always produce good results. Conflict is the means by which dialectical tensions get played out, but dialectical tensions are rarely harmonious. Their legacy often is continued resentment, lingering grievances, and ongoing efforts to overturn the temporary compromises that have been reached.

In the short term, conflict tends to remain latent or to be squelched by dominant actors until challengers can mobilize sufficient power. They mobilize this power by engaging in political strategies and collective action tactics in order to again gain support for their demands
A necessary condition for conflict to re-emerge is that the opposing parties again have sufficient power to confront each other and engage in struggle.

The relationships among conflict, power, and political behaviors are recursive; institutions shape the forms that conflict, power, and politics take, and conflict, power, and politics are central to the process of institutional change (Hargrave & Van de Ven, 2006). Conflict and power relations are institutionalized. They are reproduced through taken-for-granted arrangements and routine behaviors unless opposing parties again generate sufficient power to re-open and re-engage in their struggle.

**Case Examples of Consensus and Conflict**

Let’s apply a few good examples/cases that illustrate how consensus and conflicting decision situations alternate in managing transformations toward sustainability that corporations experience. By now, there are many excellent collections of cases that can be drawn on to analyze this transition (e.g., see Hamschmidt & Pirson, 2011; Russo, 2008; Rowledge et al., 1999; Reinhardt & Vietor, 1996). One of the first was by Post et al. (1992). One of the most recent and best of these collections is by Hoffman (2013). The pattern one observes in these case studies – alterations between consensus and conflict – often is very similar. Here we choose to analyze two cases found in the Hoffman collection and then introduce a third case presented at the Green Economy conference that was held at the University of Minnesota in April 2010.²

The first case we present from the Hoffman collection is Google, demonstrates the alternation between consensus and conflict. The consensus among Google’s top management

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² See [http://www.leadership.umn.edu/news/annual_conference_agenda.html](http://www.leadership.umn.edu/news/annual_conference_agenda.html). This case was developed by Rolf Wuestenhagen.
team and employees was about the need to be sustainable on its campuses in terms of carbon emissions. Google was forced into a conflict mode when challenged by a magazine article about its actual energy consumption and actual emissions. Subsequently, it entered a new consensus mode as it was endorsed by and entered into partnership with environmental organizations and invested in a series of clean energy startups and clean energy projects.

A second case from the Hoffman collection is BP (British Petroleum). It too, started like Google in a consensus mode (Augustine, 2008). The consensus was driven by the firm’s top leadership, CEO John Browne, as a result of contacts he had with environmental organizations and the scientific community. The company hired new managers who were knowledgeable and committed to the environment. The company broke ranks with organizations that opposed actions to reduce greenhouse gas emissions and joined an organization which supported the Kyoto Accord. It was the first petroleum company to voluntarily certify its greenhouse emissions with the California Climate Action Registry, and like Google, it invested in renewable energy, not as much as environmentalists would like, but nonetheless it made a significant commitment to this domain.

But BP then stumbled into a series of conflicts. The first of the conflicts concerned its decision to expand capacity to process oil derived from Canadian tar sands at its Whiting, Indiana plant. Many actors became involved -- the Indiana governor, Indiana’s Department of Environmental Management, the U.S. EPA, the media, protestors, representatives from the U.S. House of Representatives, Argonne National Laboratory, and Purdue University. The company was forced to relent to these diverse stakeholders despite reservations about the technical feasibility of the agreements it makes.
The Whiting, Indiana conflict was followed by three much more serious negative events, an explosion at its Texas City facility, leaks in its Alaska pipelines, and the massive Deepwater Horizon oil rig spill in the Gulf of Mexico (Huyn et al., 2012). Outside investigators were brought in, both John Browne and his successor as CEO were forced to resign, and BP and its partners in the Deepwater Horizon project, Transocean and Halliburton, blamed each other for the disaster.

The dialectic that played out in the Google and BP cases was one where a company took the initiative. It appeared to start down the road toward sustainability with good intentions but in each instance the company suffered a setback. In Google’s case, the setback was managed fairly well. Of course, it was a less serious setback. Nonetheless, Google achieved a relatively rapid recovery and restoration of the kind of equilibrium that prevailed prior to the crisis. The management of the setback amounted to a positive synthesis with stakeholder groups. In BP’s case, one setback was followed by another that is even worse and more serious with no recovery or restoration of the pre-crisis equilibrium either likely or possible. The company, subject to greater and greater stress, came close to breakdown.

The third case is the German Feed-In Tariff (Wustenhagen & Bilharz, 2006). Like the other cases it started with substantial consensus among environmental organizations, business trade associations, political parties, and the German public. Opposition to the passage of the Feed-in Law in 1990 was muted, but this consensus, as in the Google and BP cases, broke down. German utilities, government agencies, industry groups, and even citizens concerned that wind and solar power developments would hurt their property values, called for the law to be amended, watered down, and eventually eliminated. This attack on the Feed-In Tariff generated
an equally strong reaction from the law’s original supporters. They included environmental
groups, the German solar and wind power industries, local governments, activists, and the steel
industry which was a major supplier to the wind power developers. They defeated any attempt to
water down the law. Instead, they helped get the Bundestag to pass a new and stronger
Renewable Energy Sources Act, which entailed an even firmer commitment to the tariff. In this
case, the synthesis of consensus and conflict yielded a stronger and more profound commitment
to sustainability on the part of German society.

We discuss these cases in more detail, breaking down each case into Acts 1, 2, and 3. Act 1 was
the initial consensus, Act 2 was the challenge to that consensus, and Act 3 was a
resolution to that challenge. As other cases in the Hoffman (2013) collection show, these three
sustainability cases are not unique; they reflect a typical dialectical pattern that is also evident in
the unfolding of major organizational transformations (Burke, Lake & Paine, 2009; Greenwood,
Oliver, Sahlin & Suddaby, 2008; Zarzabkowski, Le & Van de Ven, 2013)

Google

Act 1 -- Internal Consensus

Google’s founding principles included sustainability -- from the very start it had
employee initiated projects organized under the title of “Google Green” (Bunker et al., 2012).
Many of the projects affect the operations of its campuses. They encompass commuting (high
tech low impact employee shuttles, electric corporate car sharing, and bicycles), eating (sourcing
food locally, supporting sustainable seafood, and reducing waste), and buildings (eliminating
toxic materials, smart design, and performance measurement including LEED certifying its
buildings). Employees also tried to accelerate the adoption of plug-in hybrid vehicles by means
of a project called RechargeIT. The company goal is to be “carbon neutral.” It measures how much of its energy comes from renewable sources. The aim has been to achieve a 35% reduction by 2012. Google buys carbon offsets and the Mountain View campus in California has a 1.6-megawatt photovoltaic solar array that produces 3 million kWh of energy annually.

Act 2 -- External Challenge

Nonetheless, environmental groups such as Greenpeace criticized Google for keeping the actual details of its energy consumption and greenhouse gas emissions secret. Google’s claim was that this information is a trade secret that can be used by its competitors and therefore, it should not be forced to release this information. In 2009, however, Harper’s Magazine ran an article that asserted that the real reason for Google’s secrecy was the extent of its emissions. Each search on its engine releases 7 grams of carbon dioxide into the atmosphere (Bunker et al., 2012). Google’s retort was that it was not responsible for all of the releases. The computer user had to share in the responsibility. Google was only responsible for .2 grams of carbon dioxide per search. However, with the growth in use of its data centers, the company could not stem the tide of increased environmental group criticism and media scrutiny.

Finally, in September 2011, Google relented and made public how much carbon it emitted and how much electricity it consumed. Google argued that compared to other sectors in society it was not a major carbon emitter (Bunker et al., 2012). Google reported that its servers were among the most efficient in the world and that they used half the energy of a typical center. Even so, it could not refute arguments that its emissions were high, in fact as large as the entire country of Laos (Bunker et al., 2012), and that while each search was low in emission, use of Gmail and watching videos on YouTube had very high footprints. For its transparency, Google
received praise from environmentalists including Greenpeace which urged others to follow Google’s lead. Partnering with organizations like the Climate Savers Foundation and the Green Grid, Google aimed to establish a set of best practices and make improvements in its data centers by such means as controlling airflow, adjusting thermostats, and relying on free cooling such as that provided by the Columbia River in Oregon.

Act 3 – Escalating the Commitment to Sustainability

While this conflict was raging, the charitable arm of the company supported projects aimed at generating renewable energy at prices lower than coal. It provided more than $100 million to non-profits and companies that were touting their breakthrough utility-scale solar and wind power projects (Bunker et al., 2012). The motivation was not simply charitable. The company took advantage of federal tax credits and subsidies. It experimented with projects to reduce its own energy use and its for-profit arm invested in renewable energy projects of its own.

Google proper and not its charitable foundation invested in alternative energy in order to realize a financial return (Bunker et al., 2012). Among its most prominent investments was the one it made in 2008 in Brightsource, a developer of solar thermal power towers ($10 million) and in Brightsource’s inaugural utility-scale solar project ($168 million). Other investments were made in Makani Power (high altitude wind) and Potter Drilling, geothermal (drilling). In 2010, Google acquired a 35% stake in the transmission infrastructure company Atlantic Wind Connection, and it invested $38.8 million into North Dakota utility-scale wind scale projects of Next Era’s, from whom it agreed to buy wind energy to offset its carbon emissions. In 2011, Google invested in a Clean Power Finance fund that would assist homeowners in placing solar
panels on their roofs and in a SolarCity fund that would provide lease financing for residential solar projects. It also invested in Southern California wind projects.

The BP Case

Act 1 - Internal Consensus

In some ways, the BP case started in a very similar way to the Google case, with what appeared to be very best of intentions (Augustine, 2008; Huyn et al., 2012). The difference was that the initiative is driven from the top down and not from the bottom up. Interested in the environmental movement, then CEO John Browne spent time learning about climate change and his company was the first in the oil business to acknowledge the risks of global warming. In 1996, BP left the Global Climate Coalition, an organization that opposed actions to reduce greenhouse gas emissions and joined the Business Environmental Leadership Council which supported the Kyoto Accord. When BP took this action, the American Petroleum Institute treated it as a traitor and said that the company had “left the church.” At this point in time under CEO Browne, BP tried to foster a new culture. It attempted to hire management with strong environmental beliefs and endeavored to be a cleaner and more progressive oil company, one with extensive pollution prevention efforts.

In 1998, BP purchased Amoco, and in 2000 created a new brand “better people, better products, beyond petroleum.” At this time, it invested in wind, solar, biofuels, gas-fired power generation, and hydrogen. It aimed to expand its solar subsidiary fourfold by 2007 and spend billions to develop renewable energy. Its advertisements acknowledged oil’s harmful environmental effects. In 2006, BP became the first energy company to voluntarily certify its greenhouse gasses inventory with the California Climate Action Registry. By investing so
heavily in the environment, it hoped to be in a better position to influence and take advantage of the new laws that would cover climate change that it considered to be inevitable.

Despite these efforts, by 2008 only about 7% of its capital spending was in renewables, and the company’s interest in opening Arctic National Wildlife Refuge to drilling aroused the suspicion of some environmental groups, who considered BP guilty of “green washing.” Fearful of a campaign that would question its use of the phrase, “Beyond Petroleum,” BP, in an apparently honest attempt to appease its critics, backed away and said what it was doing was just “a start.”

*Act 2 - External Conflict*

Six years after the rebranding effort began BP decided to expand capacity to process Canadian tar sands at its Whiting, Indiana plant (Augustine, 2008). BP’s plan was to invest $3.8 billion to expand the facility, including $1.4 billion for environmental improvements. At first, Indiana Governor Mitch Daniels welcomed the initiative because of the positive economic impact on the state. Indiana’s Department of Environmental Management (IDEM) and the EPA were on board to approve a water permit for the facility after BP notified county and city officials, received comments, and subjected its permit to multiple peer and other reviews. But the *Chicago Tribune* published an article called “BP Gets Break on Dumping in Lake,” which led to protests, organized boycotts, more investigative news articles, and a petition campaign opposing the permit. The advocacy group Alliance for the Great Lakes, the *New York Times* and The U.S. House of Representatives led by Illinois Rahm Emmanuel and Vernon Ehlers joined the effort to stop the permit. BP countered with meetings with other members of the House of Representatives and with officials of the Indiana environmental agency. It agreed to a proposal
involving cooperation among Argonne National Laboratory and Purdue University to explore
emerging technologies for water pollution prevention. However, the EPA was not satisfied and
it organized a summit in Chicago with government and environmental leaders. The boycotts and
public uproar were having an impact. They were tarnishing the green image the company was
trying to foster, so BP eventually agreed to limit its discharges. It warned if it had to cancel the
project, jobs might be lost. The concession it made on its water discharges, however, did not
deter environmentalists from asking for additional air-quality permit changes. No matter what
BP did, it did not seem to be enough.

_Act 3 -- Defeat and Humiliation_

At the same time that the controversy was taking place in Indiana, BP was receiving bad
press from a 2005 explosion at its Texas City facility, which claimed the lives of 15 workers and
injured more than 170 people (Huyn et al., 2012). This was the worst industrial accident in the
United States in a decade. The explosion raised the scrutiny of investigators because of the
many possible legal violations that were suspected. Investigators did find that the firm’s
refineries in Texas, which it had inherited from Amoco, were seriously mismanaged. Employees
were not openly reporting accidents or safety concerns because of a company culture that relied
on fear and intimidation to keep sensitive matters quiet.

In 2006, BP’s image suffered another setback. The public became aware of a large oil
leak in its Alaska pipeline. Up to 267,000 gallons of oil had been allowed to escape into Alaska’s
North Slope tundra (Huyn et al., 2012). Clearly, there was a mismatch between the image BP
was trying to convey and its actual operational record. The steelworkers union stated that, for
years it had been warning the company, but its voice had been systematically ignored.
In 2007, BP announced plea bargains over the tragedy in Texas City and the Alaska pipeline leak and admitted to legal violations. CEO John Browne was forced to resign. Tony Hayward, head of exploration and production, replaced him, but not long thereafter, another disaster struck -- the Macondo 252 well site in the middle of the Gulf of Mexico ruptured. BP contracted with Transocean to drill this well below 5,000 feet of sea water and down into 13,000 feet of seabed. BP licensed the Deepwater Horizon rig from Halliburton. This partnership did not work to the benefit of any these companies. They blamed each other for what took place --the rig went up in flames killing 11 crew members and seriously injuring 17. The causes soon became well-known -- technical and procedural failures and poor management oversight. BP, Transocean, and Halliburton all were held responsible. Many technical barriers had been breached including the cement at the bottom of the well, the mud in the well and in the riser, and the blowout preventer (Huyn et al., 2012). With this final blow, BP’s image as an oil company at the forefront of the transition to sustainability had fallen apart. The vaunted image it was trying to establish now seemed empty.

The German Feed-In Tariff Case

Act 1 -- Consensus Decisions

Rather than the push for sustainability coming from the business side, in this case, the push originated from a shift in public attitude in Germany just prior to and after reunification (Wustenhagen & Bilharz, 2006). In the 1980s, increasing awareness of climate change and the Chernobyl accident altered public perceptions of nuclear and coal electricity generation. German environmental organizations like Friends of the Earth helped to organize citizens concerned about these issues and began to advocate for alternatives. The German Association for the
Promotion of Solar Power (Forderverein Solarenergie) developed the concept of ‘cost covering payment’ for electricity generated by renewable energy technology. This concept ultimately was applied in Feed-in Laws at federal and local levels. The 3,500 owners of small hydro power plants, many of whose members were politically conservative, organized small and medium-sized German firms in support of the Feed-in Law, and the German Green Party obtained backing from other major parties in the Bundestag including the Christian Democrats. It promoted the Feed-in law statute as one that would level the playing field for all sources of electricity by setting the feed-in rates at levels based on the external costs of conventional power generation.

Politicians were increasingly concerned with public opinion that wanted to do something about climate change, and the utilities did not exercise power in opposition. The Feed-In Tariff law that was passed in 1990 received unanimous support in the Bundestag with the Christian Democrats joining the Social Democrats and Greens in voting for the measure. It required utilities to connect generators of electricity from renewable energy technology to the grid—a significant step as they were under no obligation to do so previously. It also required utilities to buy the electricity at specific rates favorable to the renewable electricity generators.

*Act 2 -- Backlash*

Up to this point, the traditional German electricity supply system had been dominated by utilities set up to generate electricity from coal and nuclear sources. The utilities and their allies always had been hostile to alternatives which might threaten to disrupt the system. Government had supported generation from coal and nuclear sources through a series of incentives for coal and nuclear electricity generation after 1970s energy shocks. Thus, the traditional electricity
system did not present promising political opportunities for renewable energy advocates and it was surprising how easily the Feed-in Tariff Law passed. The business community in this instance acted second after a broad coalition had formed in German society that backed alternative energy and the Feed-In Tariff that was necessary to support it.

Though utilities were not happy about the Feed-in law, they viewed it as primarily aimed at a small number of generators and therefore did not at first see it as a major issue. Moreover, the law passed soon after German reunification. Most utilities were preoccupied with the transition. Consequently, although the opponents of the Feed-Law were quite powerful, they failed to use their power effectively. However, after the law was passed, the utilities and government officials, especially those in the Ministry of Economic Affairs (MEA) started to voice their opposition to the law. The MEA proposed to reduce feed-in tariff rates for renewables in 1997 and the association of German utilities lodged a complaint with the European Commission claiming that under the laws of competition, the Feed-In Tariff law was unfair. The Federation of German Industry (BDI) claimed that it would hurt German competitiveness and create unnecessary burdens, and citizens begin to raise NIMBY issues with regard to wind turbines cluttering rural landscapes.

**Act 3 -- Strengthening the Commitment to Renewables**

In response to this attack on the tariff, the German renewable industry increased its lobbying efforts. The association of solar producers threatened to go abroad in the absence of domestic market expansion. Jobs would be lost just when Germany, in the post-unification period, needed them the most. Other renewable firms allied themselves with environmental groups in defending the Feed-in Law. The equipment and machinery producers and the German wind energy
association were powerful lobbying groups. They worked with regional associations and helped to organize protests in response to government threats to reduce renewable energy subsidies in 1997. Activists held protests and encouraged local governments to force the utilities to enter into long-term contracts with renewable suppliers even when those contracts guaranteed highly favorable rates to the renewable producers. The activists emphasized that support for renewables helped to create jobs and economic growth. The German Wind Energy Association claimed that 50,000 jobs had been created and that the government underestimated the negative impact of fossil fuels. Wind was the biggest customer of the German steel industry after automobiles.

This pressure bore fruit. The Renewable Energy Sources Act passed in 1997 gave justification for further support of renewables by explicitly referring to the fact that conventional electricity generation entailed significant external social and environmental costs paid for by the public. The new 1997 law established long-term 20 year guaranteed tariff rates to investors in renewables. However, to address concerns of excessive costs and illegal (based on EU competition law) support for renewables, the tariff rates was set to decline over time. Though some compromises had been struck with the opponents of renewables, this law resulted in substantially increased diffusion of wind and solar technologies throughout Germany. It fueled the growth of sustainable power investment and production throughout the world.

**Discussion**

From these cases we can see that transition to sustainability consists of a series of incidents that alternate between consensus and conflict among partisan stakeholders over time. The projects companies undertake connect to each other. They bring into play resources, knowledge, technologies, institutional actors, and arrangements that transcend the boundaries...
and capabilities of a single organization. They arouse whole societies. They are not carried out in isolation, nor can they be.

The movement toward sustainability has a momentum of its own. Achieving sustainability goals is a collective, not an individual, accomplishment (Hoffman, 2000). The participants are in the media and government. They are in environmental organizations (Yaziji & Doh, 2009). They are protestors. They also are a company’s ostensible partners -- companies like Transocean and Halliburton that let BP down in the Gulf of Mexico oil spill disaster.

As the three cases demonstrate, the collective actors who engage in sustainability projects are not necessarily a set of like-minded people who share common purposes or goals. Instead, diverse and partisan actors in the public and private sectors are involved. They have different interests, perform divergent roles, and are embedded in path-dependent and often opposing social, technical, and political processes that do not necessarily coalesce to all of the parties’ benefit. This collective process necessarily involves conflict and partisan mutual adjustment; much of it not pleasant either for organizations or their leaders.

To better understand and manage this process, it is useful to cognitively map the core components of an infrastructure or ecosystem for sustainability in a particular domain, and the roles that various private and public sector actors are likely to play in the development and implementation sustainability projects (Boutilier, 2009). This infrastructure, or ecosystem, is likely to vary by project and stage of development over time.

The private actors that are involved play a number of roles. They engage in proprietary research and have development, manufacturing, marketing, and distribution functions. These functions do not necessarily have to be moving in a single direction with regard to sustainability.
goals (Prakash, 2000). Private actors have profit-making goals, while public-sector actors have the responsibility to create public goods and collective resources. They have the responsibility to build intellectual, financial and technological endowments, institutional norms, laws, and standards and they also have the responsibility to educate consumers and the public at large (Garud, Tuertscher & Van de Ven, 2013) The goals of public sector actors must go beyond the reach of a single private firm. They should not be created for the sole advantage of a single firm or sector.

There also are many non-private and non-public actors that are part of sustainability infrastructures (Hoffman, 2000). They include those who represent and lean toward the goals of the private sector actors and those who do not. Those who lean toward the goals of the private sector may provide research and lobbying services. Those who lean in the opposite direction and claim to represent a broader public interest try to debunk these efforts. The creation of these infrastructures or ecosystems for sustainability is well beyond the reach of single organizations, thereby requiring the participation of many private, public, and non-profit organizations in coalition, in opposition, or in relationships of indifference or neutrality toward each other.

The actors involved are likely to reach out to universities and research institutions for scientific facts and opinions, for training, and for human resources. Financial institutions will also be involved (Hoffman, 2000). They perform the critical functions of generating liquidity and creating insurance which are needed in order to develop and implement risky sustainability initiatives.

The success of a sustainability project is highly dependent on the development of a well-functioning sustainability infrastructure (Hoffman, 2000). Indeed, our cases suggest that the
time, cost, and risk incurred by organizations in developing their sustainability projects are inversely related to the developmental progress of establishing the institutional arrangements and resource endowments for a sustainability project at the infrastructure level. In our first two cases organizational employees (Google) and top leaders (BP) tried to develop these infrastructures in a conscious and intentional way before the fact, only to have counter movements come to life and challenge their primacy. In the third case, the infrastructure was built outside the coalition of interests that historically had supported the utility industry in Germany. The counter-movement to the established infrastructure came first and the utility industry had to respond in a reactive way. The counter-movement rejuvenated the supporters of alternative power. In the BP case, the counter-movement’s supporters keep expanding during the planned Whiting expansion. From a relatively small group in Indiana, they encompassed new actors in Illinois and nationally. As the new actors became engaged BP and kept losing credibility. It had to retreat and had few resources to draw upon when it hit by the Deepwater Horizon tragedy.

Concluding Suggestions

The challenges discussed above are exacerbated by the complexities leaders of organizations face when they are managing not one, but a portfolio of sustainability projects. These projects vary in degrees of consensus and ambiguity among stakeholders, and hence require different decision strategies as the Thompson and Tuden typology suggest. John Browne himself now seems to better recognize this insight, as shown in a recent article he co-authored in the *McKinsey Quarterly* (Browne & Nuthall, 2013). A company cannot just proclaim its adherence to sustainable values and goals. It must back up these declarations with operational excellence.
The sustainability projects in which companies are involved, moreover, develop unevenly over time, with ambiguous elements and elements that arouse stakeholder voice and opposition (Marcus & Fremeth, 2011b; Sarkis et al., 2010; Boutilier, 2009). The life span of a given sustainability project varies in its degree of consensus and ambiguity, as our cases illustrate, and therefore requires adopting different decision strategies and change processes over time. The cases also show that conflicts among the stakeholders can become destructive or constructive depending on how they are addressed. Managing a portfolio of sustainability projects with ambiguous goals and conflicting stakeholder groups challenges the leaders of organizations to gain skills and experiences in pluralistic leadership and dialectical processes of change (Hargrave & Van de Ven, 2006; Van de Ven & Poole, 1995). The strategic logic of pluralistic leadership is the logic of complexity (Lengenick-Hall & Wolf, 1999) not that of capabilities or hyper-competition. In other words, the logic that leaders might apply in typical projects where people agree may not be relevant in other settings of conflict among multiple stakeholders.

With this mind, we conclude with five practical suggestions for managing a firm’s portfolio of sustainability projects.

1) Managing sustainability projects with low consensus and high ambiguity require sharing leadership among conflicting actors. If they are to be constructive, dialectical processes of change require learning; they require engaging social movements as opposed to squelching the opposition by hierarchy or force. Examples of these social movements include proponents for preserving the environment as opposed to proponents for the Keystone pipeline, or proponents for protecting the water supply as opposed to proponents for ensuring energy security via technologies like fracking. Constructive dialectics depends on the ability of actors with partisan
agendas to mutually adjust to each other’s perspectives. Due process requires that divergent voices be heard. In these settings, the extent to which any leader or organization has complete power is limited.

2) While building consensus among actors who play in the field of sustainability certainly is a worthy aim, it is hard to realize. Organizational leaders should expect conflict as the norm rather than the exception. Often this conflict goes nowhere and frustrates leaders. Sustainability is a struggle. In theory, it may sound like a rallying cry that unites people, but it is actually one of the most divisive issues facing the world today. A prime example of this type of frustrating conflict was the inability of the U.S. government to pass cap-and-trade climate legislation in 2009. Many organizations struggled to get this legislation passed including BP. Many other organizations struggled against it. In the end, it was not passed. This failure upended many business plans that had been created in the expectation that legislation would be reality.

So, in addition to expecting that conflict will erupt, organizational leaders can increase the odds of successful outcomes by gaining skills in practicing methods of creative conflict resolution and partisan mutual adjustment among pluralistic actors with legitimate but divergent interests and bases of power.

3) Sustainability project leaders should be prepared for setbacks, obstructions, and blockages as their projects unfold over time. As the three cases examined here demonstrate, sustainability is not a domain where organizational leaders can issue simple commands and expect them to be obeyed. As our cases show, the best of strategic plans go awry. No matter how powerful firms may seem, there will be countervailing power, checks on what they do, and balances on what they can accomplish. The transition to sustainability does not consist of a
predictable linear sequence of events or stages. Instead, based on our studies of innovation (Van de Ven et al., 2008) it is more likely that the process consists of a nonlinear cycle of divergent and convergent activities that may be repeated over time and at different organizational levels. While leaders cannot control this process, they can learn to maneuver the setbacks, obstructions, and conflicts by practicing and developing skills for these hurdles when they arise.

4) Leaders that run in organizational packs will be more successful than those who go it alone. Running in packs means that they simultaneously will cooperate and compete with the leaders of other organizations engaged in sustainability activities. It is analogous to bicycle racers who cue their pace to one another and take turns breaking wind resistance until the ending sprint. Running in packs presents organization leaders with many challenges about how to cooperate, with whom, and when. To what degree should they work with or against other organizations that are also running in the pack, often with interests, roles, and objectives different than their own.

The relative influence of actors in these packs depends on how much bargaining power and degrees of freedom they have. In the BP Whiting case, the company’s degrees of freedom quickly contracted. After the Texas City accident, the pipeline leak, and the Gulf of Mexico oil spill, BP had virtually no room left for maneuver. Its appalling operational lapses depleted it of the credibility it had meticulously tried to build up with other organizations, with its own employees, and with the public. After the property damage it caused and the loss of life and injuries for which it was responsible, it no longer could plausibly claim that it was making the transition to a sustainable future. Its operations were not even being executed at a minimally responsible level. Google, in contrast, by virtue of its many investments in alternative energy
was able to recapture its image as a sustainability leader after being challenged. The effort by the German utility industry to push back on the Feed-in Law, which came after a new and counter organizational ecosystem had built momentum, largely faltered. Instead, this effort resuscitated and gave new life to its opponents.

Though we have emphasized that achieving sustainability is a collective, not individual, achievement, this collective endeavor does not consist of a set of like-minded people who share common purposes or goals. Instead it consists of many diverse and partisan actors in public and private sectors that have different interests, perform divergent roles, and are embedded together in the development of infrastructures for sustainability. This suggests that leaders have a number of strategic choices to make on whether to lead or follow on what sustainability projects and infrastructure components.

5) Being in the driver’s seat on all projects and infrastructure components is neither wise nor possible. On some issues leaders may want to maintain flexibility and be reactive rather than taking a leadership role. Why try to shape the issues when the end-result may be disappointment? Some of the benefits from being proactive can be measured but others are intangible. Intangible benefits include obtaining early warning about problems, gaining intelligence about emerging issues, and learning. The knowledge gained might translate into influence, legal protection, and/or legitimacy, but then again it might not. It might lead to innovation, to an understanding of markets and business opportunities that otherwise would be ignored, but it does not necessarily have to lead in this direction.

In deciding whether to lead or follow, organizational leaders are apt to balance the costs and the benefits on a project by project basis. The impacts on an organization’s bottom line of
these project by project decisions are likely to be uncertain. Thus, though having a seat at the table may be useful, most organizational leaders will decide to occupy it only selectively or sporadically. Their priorities may lie with some projects but not others. They will be leaders on some projects but in some domains they will prefer to be neutral or passive and to act only if provoked.

While influenced by calculations of costs and benefits, these choices are inherently ambiguous and cannot be fully anticipated. Some organizations have long standing programs like Target’s donations of 5% of its profits to charity. Other organizations have also carved out special niches for themselves. But even when they set themselves apart, consistency eludes these organizations. Consider Johnson and Johnson whose mission statement put the people it served – patients and doctors – above its shareholders. The mission statement was considered a model because it was not just a series of empty words but it motivated action during the Tylenol recall when Johnson and Johnson risked profitability for the sake of its customers. However, what happened to these vaunted principles when this company was recently found to have knowingly sold hip replacements that failed in as little as five years to unsuspecting patients?

A better understanding of the process of sustainability management, therefore, is needed to avoid these damaging lapses to which some companies have been prone. The damaging lapses have meant that they have not been living up to even the minimum goals of sustainability, to protect people’s lives and property and to not damage the environment, let alone to promote greener business jobs and economic growth. Insights from process studies of the management of organization change could be usefully applied to assist the leaders of organizations from following into these traps (Langley et al., 2013). These insights would emphasize the centrality
of time and the role of tension, contradiction, paradox, and dialectics in driving the patterns of change toward a more sustainable future.
References


Huyn, J., Kaplan, J., Katpally, S., Pierce, B., & Pierson, B. 2012 *BP: Beyond petroleum?* Erb Institute, University of Michigan


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**Figure 1. Typology of decision-making strategies.**
Adapted from Thompson and Tuden (1959)