

# GE Energy

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Managing Distance in China



Rotterdam, 2009 | **RSM Erasmus University** | Dr. Taco H. Reus

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## Executive Summary

Jeffrey Immelt, General Electric's chief executive, recently announced that the company should 'scale globally' yet 'connect locally', implying a glocalized international strategy. The conglomerate recognizes the huge potential of so-called 'growth markets' such as China, especially in the energy infrastructure sector. Yet, multinational enterprises face complex challenges when expanding to new horizons. GE encounters both risks and responsibilities as it extends its branches around the globe. A sound international corporate responsibility (ICR) strategy mitigates complications and provides a sustainable framework in which the company can operate on an international scale. The company currently advocates two complementary ICR schemes, recognizing its own responsibility towards all stakeholders involved. The first, 'ecomagination', focuses on the development and production of 'green' technology, which enables future economic growth worldwide thus leading to a sustainable competitive advantage. The second strategy concerns proper citizenship behavior, which aspires to dialogue with employees as well as customers in order to find common solutions improving welfare. Yet, the company's share value is still struggling to recover from its all time low after the bankruptcy of Lehmann Brothers in late 2008. This paper proposes the so-called 'S+P' strategy tackling the two major challenges of GE Energy when managing distance in China. On the one hand, capacity building ('S') ought to create a market for 'green' products and services by increasing environmental awareness of locals as well as educate suppliers on how to create sustainable goods. Improving the rule of law in China ('P'), on the other hand, should help GE Energy to build on its unique technological expertise without fearing being copycatted by domestic competitors. Combined, the two parts pave the way towards a sustainable sustainable competitive advantage (SSCA) for GE Energy in China and embrace Mr. Immelts goal of 'scaling globally' by adapting the conglomerate's strategy to China's unique economic context.

Keywords: 'General Electric', 'GE Energy', 'China', 'Global Strategy', 'Internationalization', 'Manage Distance', 'Corporate Responsibility', and 'Competitive Advantage'.

## Acknowledgements

A special thank to Dr. Taco H. Reus for his guidance.

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## Introduction

Founded in 1878 by Thomas Edison, General Electric (GE) climbed back to the top five largest US companies in 2009 (CNN, 2009). Its revenues stood at \$183bn in 2008 whereas its profit shrank to \$18.1bn from its record high of \$22.5bn in 2007 (General Electric Company, 2009f). A slashed dividend and a downgrading by S&P and Moody's do not help GE, which has seen "\$269bn wiped off its stock market value since the beginning of 2008" (The Economist, 2009a). Especially the expansion of GE Capital, the conglomerate's financial arm, by chief executive and chairman Jeffrey Immelt endangered the company's existence during the recent financial crisis (The Economist, 2009a). The remaining business units, however, do much better. GE Energy, for example, was the fastest growing unit over the past four years (General Electric Company, 2009f).

The biggest market opportunity for GE Energy lies in the penetration of 'growth markets', GE's definition of emerging economies (General Electric Company, 2009f). China, being the fastest growing economy worldwide by absolute measures (Central Intelligence Agency, 2009), captures GE's center of attention. Being a partner of the 2008 Olympic Games held in Beijing alone produced revenues of over \$2bn (General Electric Company, 2009f). Yet, operating businesses abroad can generate managerial difficulties, which obstruct effective governance (Tulder & Zwart, 2006).

With businesses in over 100 countries worldwide half of GE's revenues originate from outside the United States (General Electric Company, 2009). Yet, GE's internationalization strategy is not as global as it might seem. A closer look on recent trajectories in the company's strategic approach called 'globalization' helps to decipher the GE's internationalization strategy.

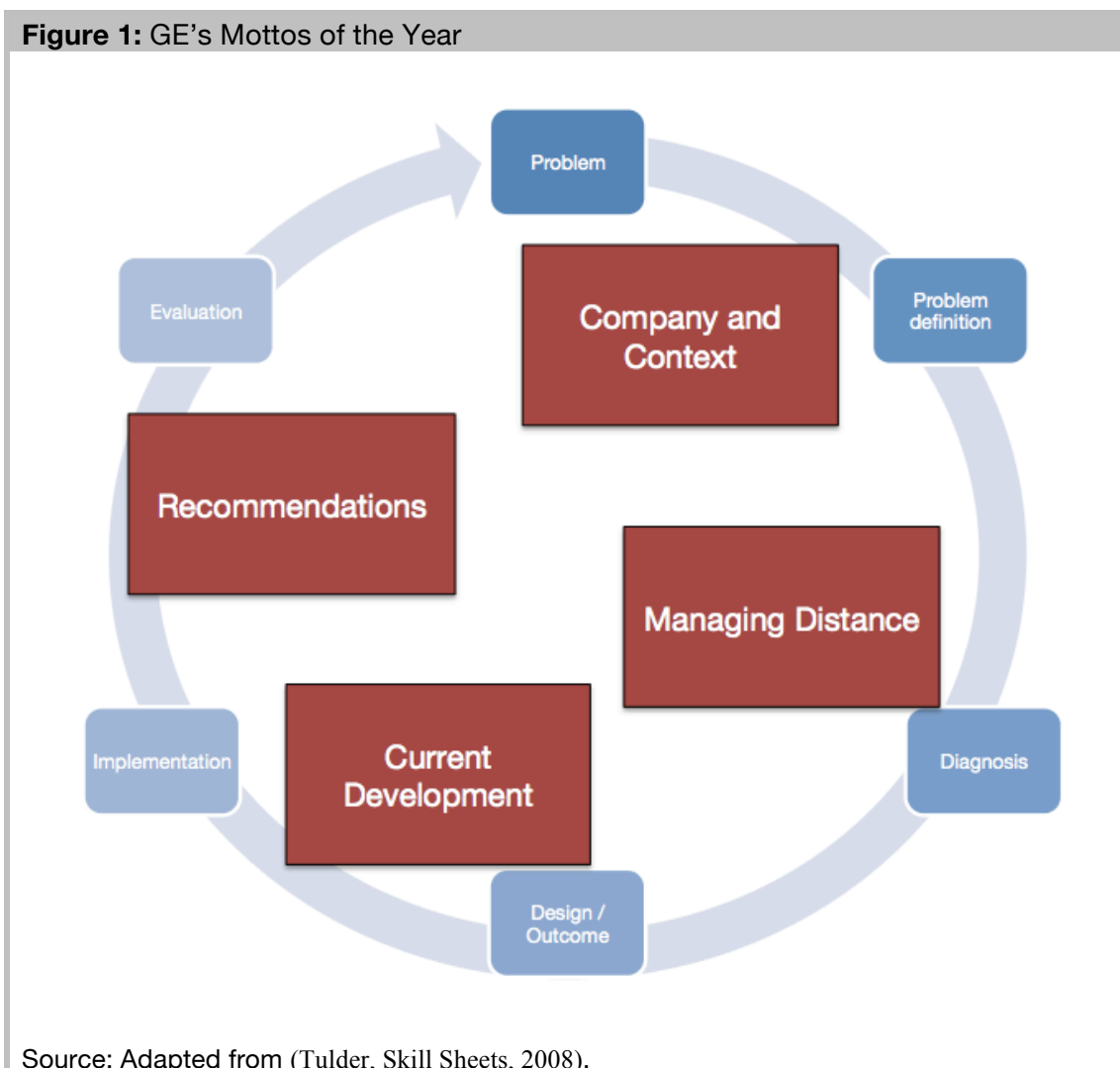
"In GE's first phase of globalization, the company achieved global scope by identifying existing products with global potential and taking them into markets throughout the world. In the second phase, GE globalized its resource base — for example, by establishing centers of excellence in R&D outside the United States. In the third, GE began to adapt global products to local needs — a phenomenon labeled 'Glocalization'" (General Electric Company, 2009).

The strategy simply follows three principles: 'connected', 'scalable', and 'localization'. 'Connected' implies that only by connecting the sum of its parts GE obtains a competitive advantage. 'Scalable' means that the conglomerate identifies potential opportunities to expand locally innovated products to other emerging markets as well as to markets in developed countries. Lastly, 'localization' symbolizes the development of products in and for emerging markets in order to reach local customers (General Electric Company, 2009).

The structure of this paper is based on the reflective circle as illustrated in figure 1 (Tulder & Zwart, 2006). The four main steps conducted in this paper

are linked to the reflective circle to assure the proper reasoning from induction to deduction.

**Figure 1: GE's Mottos of the Year**



Source: Adapted from (Tulder, Skill Sheets, 2008).

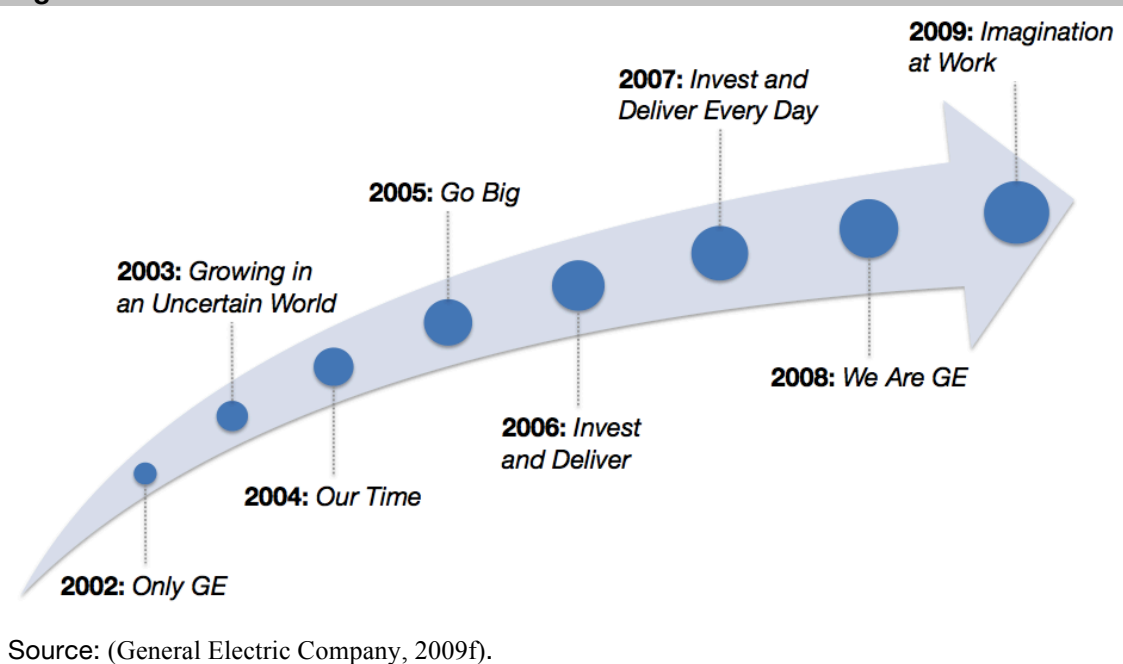
The first research step covers the company background, its internationalization structure and the set up of its global value chain. It further analyzes GE's institutional context and the issues within, therefore defining the problem. The second step, 'managing distance', elaborates the trade-off between risks and responsibility when encountering distance and defines major challenges resulting from that trade-off. The chapter 'current development' covers the actual solutions of GE on how to manage distance. Finally, the fourth step 'recommendations' advises GE Energy on how to effectively manage distance in China and on how to deal with risks and responsibilities in an emerging market.

## Company and Context

### General Developments

This year, chief executive Jeffrey R. Immelt declared the motto to be ‘GE: imagination at work’, determined to solve the world’s biggest problem (General Electric Company, 2009f) (see figure 2). Already in 1995 GE had certain highlights to present to its share- and stakeholders in its annual report. By operating only in markets where a top or second position is possible and by implementing a corporate culture that resembles the one of a small company, a ‘new kind of company’ was born.

**Figure 2: GE’s Mottos of the Year**



The following year, the ‘GE Growth Model’ was introduced, explaining the benefits of combining its product, service, and media business with GE Capital (General Electric Company, 2009f). The next two years stood in the limelight of innovation and quality improvement, namely the ‘six sigma’ initiative launched in 1997 (General Electric Company, 2009f).

GE kept pace with the internet trend and invested heavily in e-business, which, in 1999, was “already so big and transformational that it has almost outgrown the bounds of the word ‘initiative’”, according to Mr. Welch, Mr. Immelt’s predecessor (General Electric Company, 2009f).

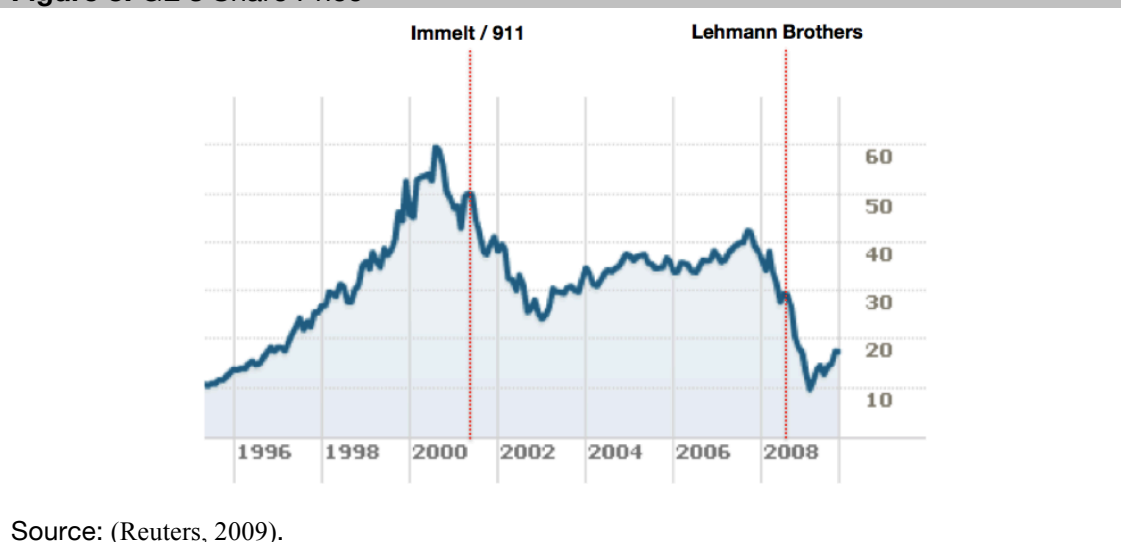
The new millennium was, at GE at least, all about ‘globalization’. Having transformed towards a ‘global learning company’, GE’s core competency shifted from manufacturing and servicing to recruiting and nurturing the world’s best talents (General Electric Company, 2009f). “GE is strong...There is much to be proud of” wrote Immelt to the shareholders in 2002, also

emphasizing the company's growth model that was (partly) responsible for GE's success (General Electric Company, 2009f).

In 2003, GE tried to grasp major world-changing trends by introducing three new technologies: next generation energy, molecular medicine, and nanotechnology (General Electric Company, 2009f). Yet, the reasons behind new energy were not to mitigate environmental changes but rather to limit risks and build upon global problems, thus acting merely selfishly.

'Our Time', the motto of 2004, consisted of three elements, real time, prime time, and future time (General Electric Company, 2009f). The message was to drive growth today, tomorrow, and in the future, thus giving a hint on sustainable growth. 'Our time' finally ended in 2006, when the share price hit another low, being unable to recover to pre 9/11 levels (see figure 3). GE talked about repositioning and preparing the ground for future growth, especially in challenging global economic environments (General Electric Company, 2009f), therefore distracting from its underperforming share.

**Figure 3: GE's Share Price**



Source: (Reuters, 2009).

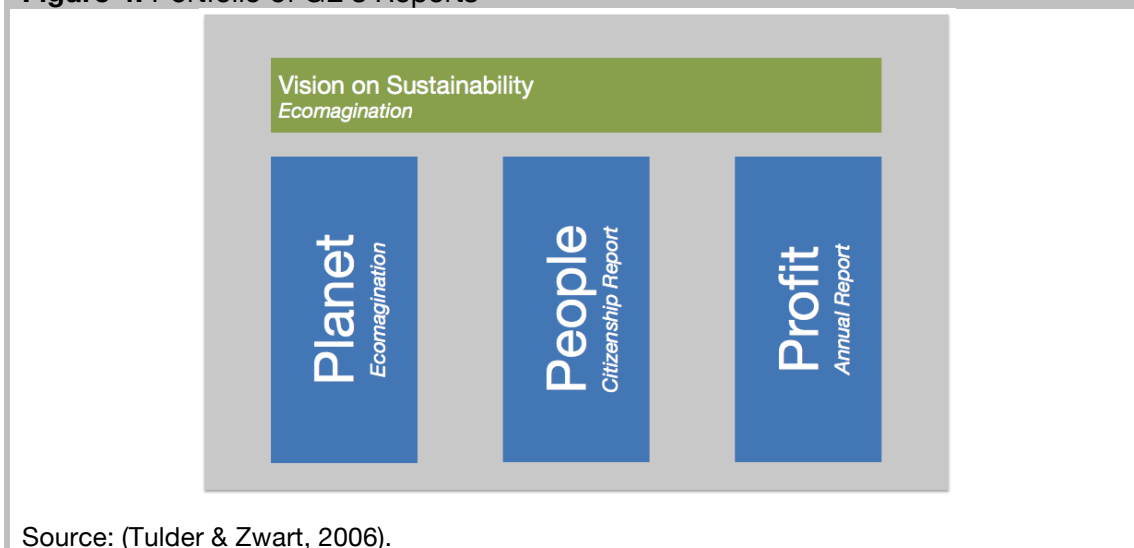
After the bankruptcy of Lehmann Brothers in late 2008, GE's share plunged to an all-time low during the 1995-2009 period; 'SuperWarren' came to rescue by investing \$3bn in the company (The Economist, 2008a). GE issued another \$12.2bn in shares (The New York Times, 2008), further diluting its already decreasing profits. With 'We Are GE', Mr. Immelt continues to shift GE's businesses from low-margin to high-margin operations; yet "his seven years at the helm have not impressed investors" (The Economist, 2008a).

Apart from evolving technology and battling with shy shareholders GE also improved the one page 'community' section of its annual reports by replacing it with a glossier 'citizenship' page. In 2002 it read "corporate citizenship... - GE lives these practices every day" (General Electric Company, 2009f). Until 2008, when an annual 98 pages citizenship report was launched, however, window

dressings seems to have been the most likely reason for providing writing space to the topic of citizenship. Even the introduction of the new supplementary reports did not impel GE's appearance in the quarterly *FTSE4Good* list, an index measuring companies' performances in regard to corporate responsibilities standards (FTSE, 2009). This September, however, GE is listed in the *Dow Jones Sustainability World 80 Index* (SAM Indexes GmbH, 2009), which measures the financial performance of the leading sustainability-driven companies worldwide.

Reporting at GE evolved into a tripartite entity, consisting of the three Ps as well as a vision on sustainability (see figure 4). In the past, the profit part stood in the limelight whereas today two special reports, the 'citizenship report' and the 'ecomagination' dossier, extend GE's reporting by planet, people and a company-wide vision on how sustainability should look like. In order to offer a comprehensive and holistic view on its global businesses, GE still needs to further develop its reporting towards a 'sustainability report' (Tulder & Zwart, 2006).

**Figure 4:** Portfolio of GE's Reports



Source: (Tulder & Zwart, 2006).

Today, the conglomerate focuses on innovating, inventing and building advanced technology, which it calls "The American Renewal" (General Electric Company, 2009k). Groundbreaking or not GE's share price has already partly recovered since January 2009; Reuter's share barometer currently points slightly towards the buy side (Reuters, 2009). For 2010 GE should aim to turn imagination into reality.

## Internationalization

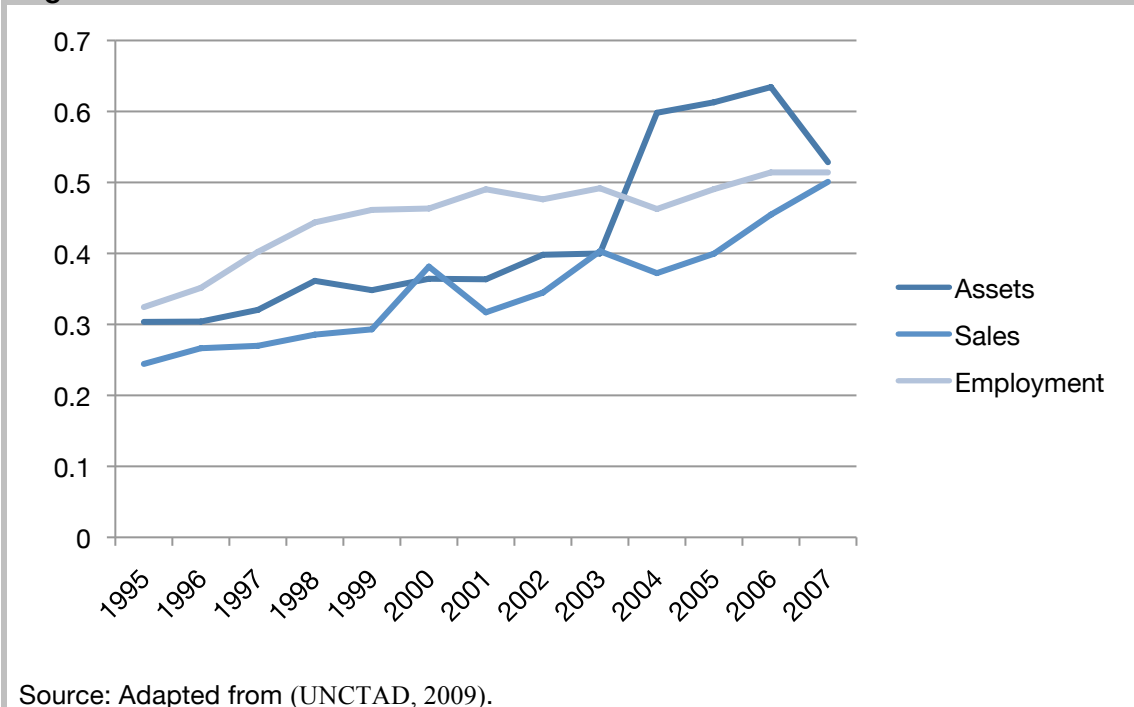
The extent of internationalization of a firm can be explained through the 'Transnationality Index' (TNI), used by the *United Nations Conference on Trade and Development* (UNCTAD). This index "helps to assess the degree to



which the activities and interests of companies are embedded in their home country and abroad” (UNCTAD, 2008) and is a composite of the three ratios foreign assets to total assets, foreign sales to total sales, and foreign employment to total employment (UNCTAD, 2008).

In 1995, GE’s TNIs assets, sales, and employment stood at 30.35%, 24.43%, and 32.43% respectively. The indices increased steadily throughout the course of history and reached around 50% in 2007 (see figure 5). While year 2003 to 2004 represented a major leap forward in the aspect of assets from 39.99% to 59.81% due to the boost in foreign assets, falling housing prices in 2007 accounted for a downturn that dragged the TNI from its peak of 63.43% to 52.85%.

**Figure 5: TNI**

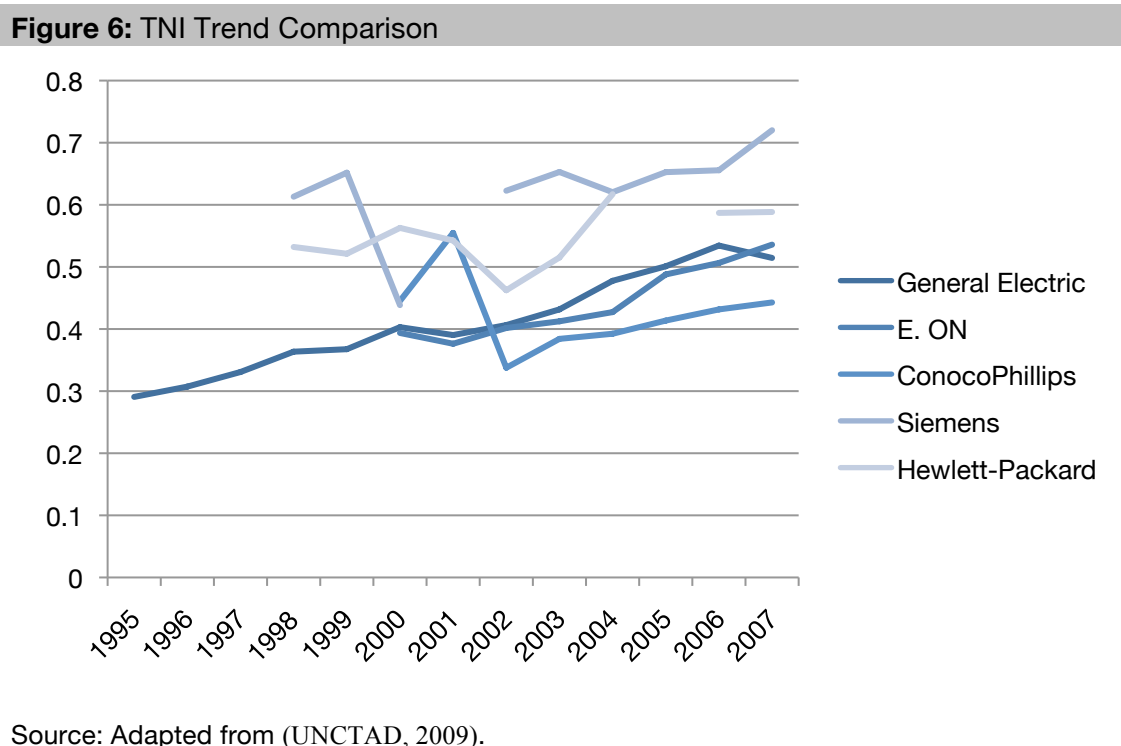


Source: Adapted from (UNCTAD, 2009).

GE has been ranked first of the world’s top 100 non-financial MNEs for many years since the amount of foreign assets are the determining factor (UNCTAD, 2009). Nevertheless, its main competitors including E.ON, ConocoPhillips, Siemens, and Hewlett-Packard (BusinessWeek, 2009) have outperformed GE with regard to the indices (see figure 6).

Being old players of the electrical and electronic equipment industry, Hewlett-Packard and Siemens scored relatively high in the mid-1990s but kept advancing only slowly. They individually stopped growing at about 60% and 70% in 2007. The new comers E.ON and ConocoPhillips, on the other hand, also possessed good starting points yet CoconoPhillips experienced a plummet in its TNI value probably caused by the tragedy of 9/11.

By comparing the averages of assets, sales and employment indices, GE is clearly not as internationalized as its competitors (see figure 6). With further increasing index values, these firms might eventually surpass GE.



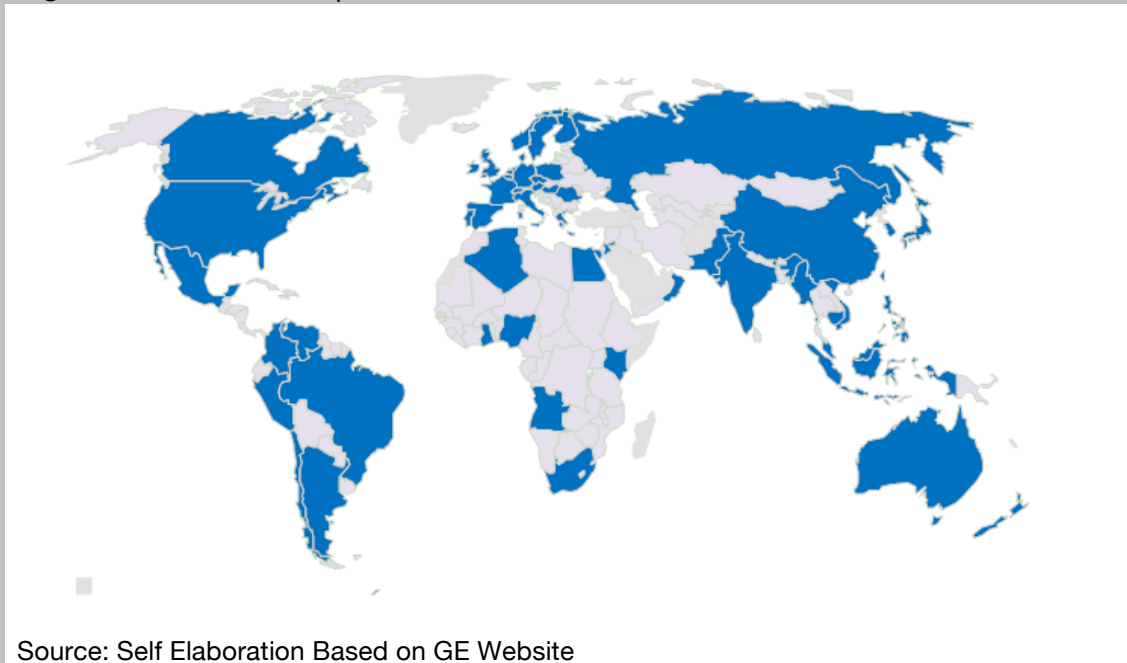
The *Network Spread Index* (NSI) shows the geographical spread of a company’s operations. Introduced by Ietto-Gillies in 1998, the NSI is calculated by dividing the number of countries a company is represented in by the total number of countries in the world (Ietto-Gillies, 1998). The author suggests, however, that the first value should be divided by 178, the number of countries receiving inward investment (Ietto-Gillies, 1998). Since 1998, however, this number is likely to have changed; therefore, the total number of countries receiving inward investment is defined as 192, the official number at the United Nations (The Economist, 2008b). A higher NSI can spread risk among different countries and create opportunities due to additional knowledge gained from the presence in various locations (Ietto-Gillies, 1998).

Since GE does not provide a detailed set of countries where the company operates in, the NSI is calculated using two different values. First, according to GE’s website, the conglomerate operates in “more than 100 countries worldwide” and half of its revenues come from outside the United States (General Electric Company, 2009q). Based on this statement, GE’s NSI reaches approximately 51.02%.

Second, countries where local websites of GE exist were chosen as representatives to visualize the geographical spread of GE. With 63 out of 192 countries around the world, the company has at least a spread of 32.31% (General Electric Company, 2009d). As shown in figure 7, GE has tapped

into most countries in America, Europe, and Asia. Even though its presence Africa is still mediocre, GE has been conducting business there since 1898 (General Electric Company, 2009q).

**Figure 7: International Spread**



Source: Self Elaboration Based on GE Website

GE has put strong emphasis on investments in both R&D as well as outside venture capital. In recent years, the company focused especially on sustainable investment. GE committed to double the investment in eco-related R&D costing up to \$1.5bn in 2010 up from \$750m in 2005. In spite of the economic downturn, GE's investment in cleaner technologies reached \$1.4bn in 2008 and total investment topped \$4bn since the introduction of this program (General Electric Company, 2009b). As a result, GE was ranked first among 130 top global R&D companies by *R&D Magazine* for proactively addressing the world's high-tech challenges and for being the firm where R&D professionals most wanted to work (General Electric Company, 2008a).

GE not only meets domestic R&D demands associated with military healthcare, military power and electronics, and homeland protection applications but also expands its influence to other countries (General Electric Company, 2008a). The company has around 36,000 technologists employed globally and more than 2,800 researchers are working in the four global research centers located in New York, Shanghai, Munich, and Bangalore (General Electric Company, 2009j).

Among them, the *GE China Technology Center (CTC)* is a multidisciplinary research center located at the *Zhangjiang Hi-Tech Park* since 2003. Its purpose is to display GE's technologies and serve customers in Asia. The research focuses on creating market-leading innovations for the following fields (General Electric Company, 2009g):

- Power Electronics and Controls
- Advanced Manufacturing
- Imaging Technologies
- Crystals and Ceramics
- Chemical Technologies

GE is listed on both the *New York Stock Exchange* (NYSE) and the *Boston Stock Exchange*. Furthermore, it is also listed on the *London Stock Exchange* and *Euronext Paris*. However, NYSE is the most representative market for GE, dating back to 1892 (General Electric Company, 2009n). Outside the United States and Europe, GE was also traded on the *Tokyo Stock Exchange* (TSE) between November 1987 and June 1995 when it got delisted (Tokyo Stock Exchange, 2009). The reason was neither explained in their record nor could it be found elsewhere. As Shanghai intends to allow foreign companies to list on its stock exchange from next year (The Financial Times, 2009b), Coca-Cola, General Electric, and Wal-Mart apparently are amongst the US companies that may seek this opportunity (Bloomberg, 2009). Since there has been no attempt to re-enter TSE for almost 15 years, GE's focus seems to have shifted from mature markets towards emerging markets like China.

## Global Value Chain

Make or buy decisions are considered as strategic choices of a company and form the basis sourcing decisions. The analysis of GE's choices regarding domestic in-house and offshore production as well as domestic and global procurement (Tecso, 1998) enables the discussion of risks resulting from management of distance within a firm's value chain later on.

Today, many firms no longer compete as a single entity against each other but rather as a link in their own supply chain against other supply chains. This paradigm shift in management practices influences strategic business models and leads to different global operations in international firms. If a firm enters a new market, it not only has to consider its own control over the supply chain but also the levels of foreign ownership control from other entities inside its supply chain. Foreign ownership control in this context is defined as the extent of claims on the profit realization potential of particular products and services (Hong, Noh, & Hwang, 2006). A firm's value chain strategy therefore is a key element in a successful international firm strategy.

„Companies with global supply chains face significant challenges in order to ensure that their suppliers make safe and quality products and that they are produced on time and at competitive prices. In addition, stakeholders increasingly expect companies and their business partners to respect and implement national and international labor and environmental standards in their workplaces. This challenge becomes even greater when companies source suppliers from countries without adequate government enforcement” (Ansett, 2009).

Ansett thereby emphasizes the importance of linking micro developments with macro trends. Analyzing the vertical and horizontal position of a company helps to assess linkages between those two dimensions. According to the ‘core companies’ concept developed by Tulder et al (Tulder, 2009a), a company can be characterized by its ability to position itself in the value chain between supply and distribution. This, together with their large production and technological capacity, ‘core companies’ can exert an immense influence on adding value.

The vertical positioning of GE and its consolidated affiliates depends on the company’s strategy of exercising ownership control in its value chain (Maddigan, 1981). It is analyzed by calculating the degree of vertical integration and the total value added over the period between 1995 and 2008. Formula 1 shows the calculation of value added. Since the market value added, which is the sum of the discounted value added, is equal to the net present value of all cash flows, value added equals cash flows.

**Formula 1: Value Added**

$$VA = E + D + P = CF$$

VA = Value added  
 E = Employee wages and benefits  
 D = Amortization and depreciation  
 P = Profits  
 CF = Cash flow from operating activities

The degree of vertical integration can be measured by using formula 2.

**Formula 2: Degree of Vertical Integration**

$$DVI = VA / S$$

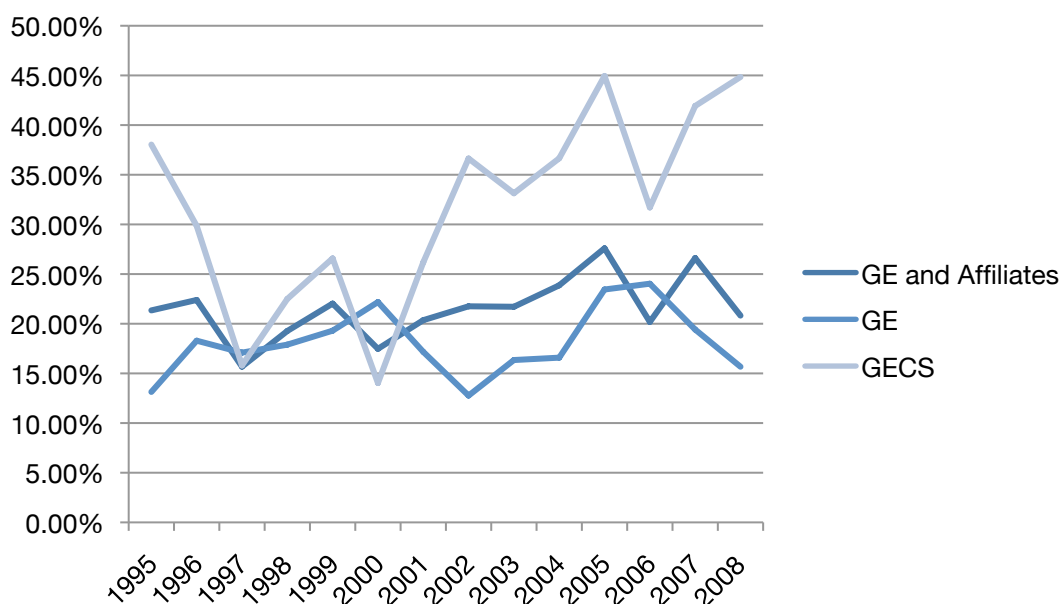
DVI = Degree of vertical integration  
 VA = Value added  
 S = Total revenue

The timeline of the DVIs of GE including its consolidated affiliates, GE<sup>1</sup>, and GECS<sup>2</sup> is shown in figure 8. The data of the year 2001 has been extrapolated, using the average of the value of 2000 and 2002, due to a lack of data in the GE’s annual reports. Except the decline in GECS’s DVI in the years 1997 and 2000, the values of all DVIs are rather stable over time. But in comparison with the DVIs of GE Industrial and GE and affiliates, GECS has clearly a higher degree of vertical integration.

<sup>1</sup> GE = GE Industrial

<sup>2</sup> GECS = General Electric Capital Services

**Figure 8: GE's DVIs**



Source: (General Electric Company, 2009f).

GE's entire conglomerate can be allocated to totally six SIC branches. It runs businesses in mining, construction, manufacturing, infrastructure, finance, and services (United States Department of Labor - Occupational Safety & Health Administration, 2009). GE Energy's portfolio can be divided into the categories products, services, and lifecycle services. The business unit engages in five SIC branches, suggesting that it has very diversified operations. Over time, GE's diversification has been reduced due to retreats from the plastic surgery industry for example.

Both aspects of the value chain, the horizontal and vertical integration of GE, can be combined to analyze the company's strategic choice in respect to the value chain (Tulder, Berghe, & Muller, 2009c). Since GE operates in multiple value chains every chain has its own position (see figure 9). Even though GE's horizontal spread is very broad, overall the company has a small degree of vertical integration due to its business-to-business orientation. GE mainly offers products and services to other businesses and is in control over resources and technology securing competitive advantage and strengthening GE's position in the value chain. Yet, GE provides some products such as appliances directly to consumers. The company is therefore diagonally diversified in different value chains.

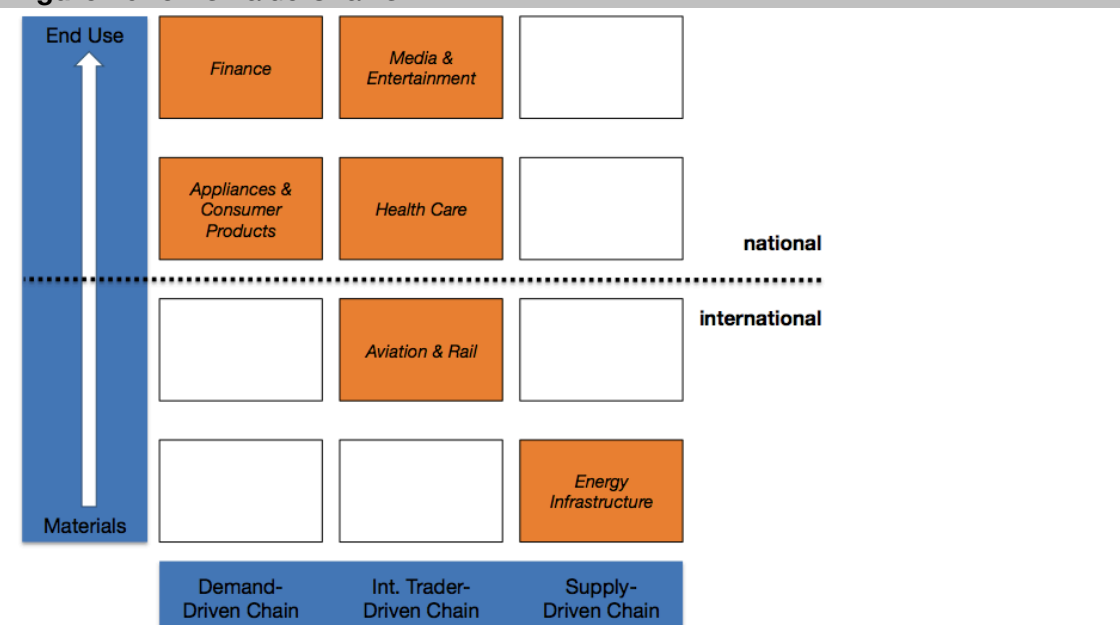
**Figure 9: GE's Value Chains**

	% Value	Infrastructure		Manufacturing			
		Energy Infrastructure	Aviation / Rail	Appliances / Consumer Products	Healthcare	Media & Entertainment	Finance
<b>Resources</b>	0	█					
	10	█					
<b>Components</b>	20	█					
	30		█		█		
	40		█		█		
<b>Assembly</b>	50		█	█	█		
	60		█	█	█	█	
	70			█	█	█	█
<b>Distribution</b>	80				█	█	█
	90				█	█	█
<b>Consumers</b>	100				█	█	█

Source: Adapted from (Tulder, Berghe, & Muller, 2009c).

Figure 10 illustrates the position of GE in defined value chains (Tulder, Berghe, & Muller, 2009c). These value chains are defined by combining similar production cycles of GE's product portfolio.

**Figure 10: GE's Value Chains**

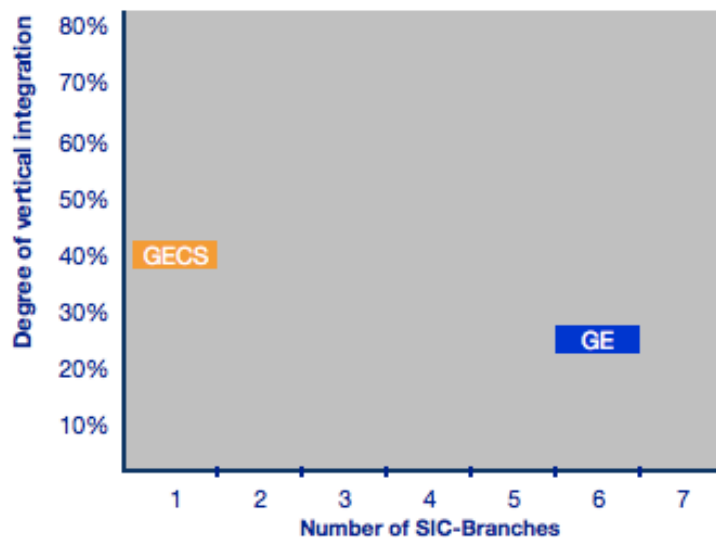


Source: Adapted from (Tulder, Berghe, & Muller, 2009c).

The horizontal spread of these value chains is, on the one hand, an advantage and allows GE to diversify risks involved. On the other hand, however, this spread also creates an enormous distance regarding the control of the chains and triggers a trade-off between GE's risks and responsibilities. The variance of the degree of freedom in most of the

company's chains is around 20% to 30%. Only the finance chain has a DVI of around 30% to 40%, which is due to the demand-driven chain of financial products. Especially resource-designated chains such as in energy infrastructure tend to be more supply-driven, which is shown in figure 11 (Tulder, 2009a).

**Figure 11: Vertical and Horizontal Integration of GE and GECS**



Source: Adapted from (Tulder, Berghe, & Muller, 2009c).

The horizontal and vertical positioning of GE and GECS is illustrated in a combined way in figure 11. The conglomerate's chains are clearly spread broadly, yet the company is less vertically integrated within its chains (Tulder, Berghe, & Muller, 2009c).

By specifying strict rules in its code of conduct, GE improved its reputation of corporate governance (General Electric Company, 2005). For a successful reputation management, GE should stick to suppliers in more developed countries in North America and Europe. The company's commitment to reduce variable costs, including \$2bn of sourcing on direct material purchases, leaves GE no choice but to transfer more sourcing from developed countries to developing countries (General Electric Company, 2009f). GE therefore faces a huge dilemma between quality and costs.

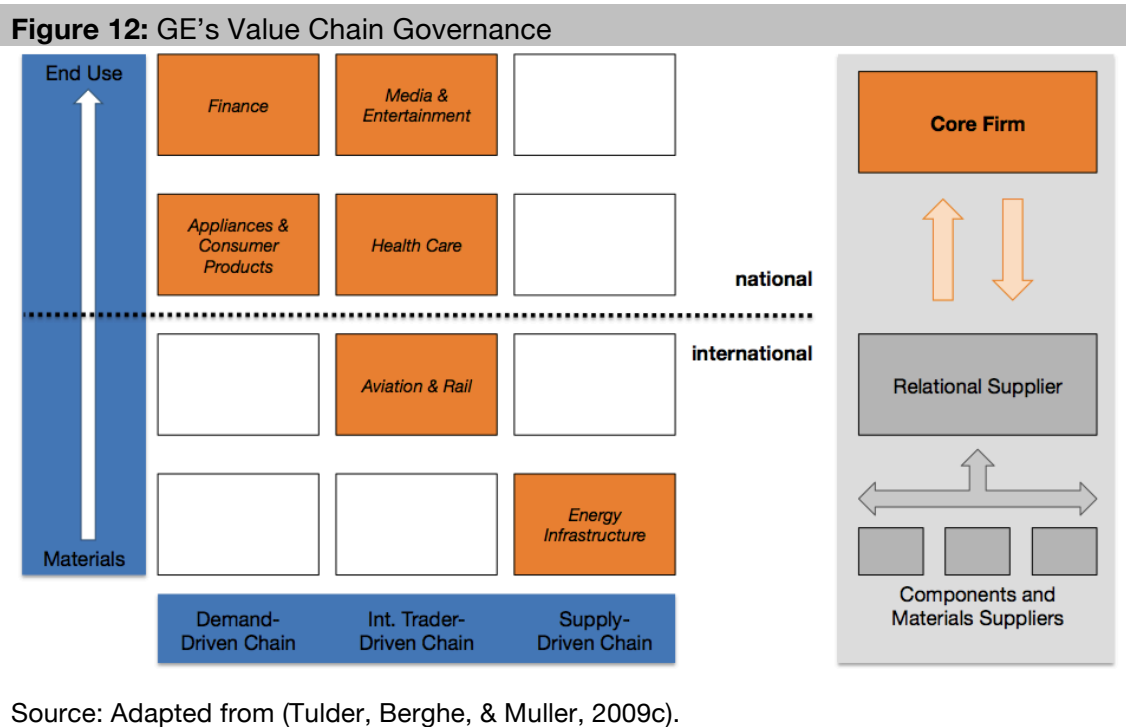
GE takes three actions in order to guarantee that standards are met properly. First, the conglomerate sets expectations for its suppliers regarding environment, health, safety, and employment practices and conducts on-site inspections, mostly in emerging markets. Second, it provides training to suppliers and identifies capacity-building projects in places where the company has a significant supplier base to help address deficiencies identified in on-site assessments. Finally, there are thorough program reviews and piloting program refinements designed to encourage GE's



suppliers to adopt their own management approach regarding ethical business issues (General Electric Company, 2009p).

The most dominant example is the ‘Environment, Health and Safety’ (EHS) program. GE, the US and the Chinese governments have teamed up to establish an EHS academy in Guangdong Province, China (General Electric Company, 2009p). The three-year project aims at training EHS professionals locally. In 2007, GE hosted the third EHS forum in Shanghai to discuss EHS regulatory trends in China and to share best practices among companies, regulators, and academics (General Electric Company, 2008a). Although the program is currently still in process, it certainly helps to foster GE’s ideal towards a dilemma-free future in emerging countries.

Integrating GE’s horizontal and vertical positioning with the company’s governance practices, the value chain governance can be developed (see figure 12). GE is managing the distance within its value chain using the relational governance type (Tulder, 2009a).



## Institutions: US Perspective

With the establishment of the *World Trade Organization* (WTO) in 1995, an institution was created concerned not only with the trade of products but also services and the handling of intellectual property. Its purpose is to provide a forum where membership countries can bargain about trade barriers and facilitate or hinder worldwide trade by setting trade agreements (WTO, 2007).

Institutions such as the WTO are especially important to MNEs because trade agreements directly influence the transaction costs of organizations that are trading across borders (Vachani, Doe, & Teegen, NGOs' influence on MNEs' social development strategies in varying institutional contexts: A transaction cost perspective, 2009). The WTO, which includes 153 member states, marks the most important institutional development regarding international trade. The next important step towards facilitated international trade is expected when the WTO's *Doha Round*<sup>3</sup> will eventually lead to progress after almost eight years of negotiations (WTO, 2009).

*NAFTA*<sup>4</sup>, the foundation of the European Union<sup>5</sup> in 1992, ASEAN<sup>6</sup>, Mercosur<sup>7</sup> and SADC<sup>8</sup> are signs of a different approach to deal with international trade. Whereas the WTO has a global approach to international trade, these regional unions point out a trend towards a more regional trading system and shift institutions from national to regional level (Tulder, Berghe, & Muller, 2009c). Liberal trade could dramatically change GEs competitive context in terms of transaction costs caused through international barriers. These developments mark a shift towards the integration into a system of international trade (Tulder, Berghe, & Muller, 2009c).

Another major institutional development in the last twenty years was the emerging voice of NGOs regarding MNEs. These new social movements started to increase the importance and power of civil society after the end of the Cold War in 1989 (Tulder, Berghe, & Muller, 2009c). Vachani et al argues that the influence of NGOs especially in regard to the degree of social responsibility in the operations of MNEs has distinctively risen. Pressure has thereby risen for MNEs that they ensure that their value chains around the globe follow current policies. Also, the influence of NGOs is setting up new norms, which might not be part of institutional policies yet, is changing the rules of the game (Vachani, Doe, & Teegen, NGOs' influence on MNEs' social

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<sup>3</sup> Doha Development Round WTO. (2009 йил 25-September). *Doha Development Agenda: Negotiations, implementation and development*. Retrieved 2009 йил 14-October from WTO: [http://www.wto.org/english/tratop\\_e/dda\\_e/dda\\_e.htm](http://www.wto.org/english/tratop_e/dda_e/dda_e.htm)

<sup>4</sup> North American Free Trade Agreement (NAFTA Secretariat, 2009)

<sup>5</sup> EU (EU, 2009)

<sup>6</sup> ASEAN (ASEAN, 2009)

<sup>7</sup> Mercosur (Mercosur, 2009)

<sup>8</sup> SADC (SADC, 2009)

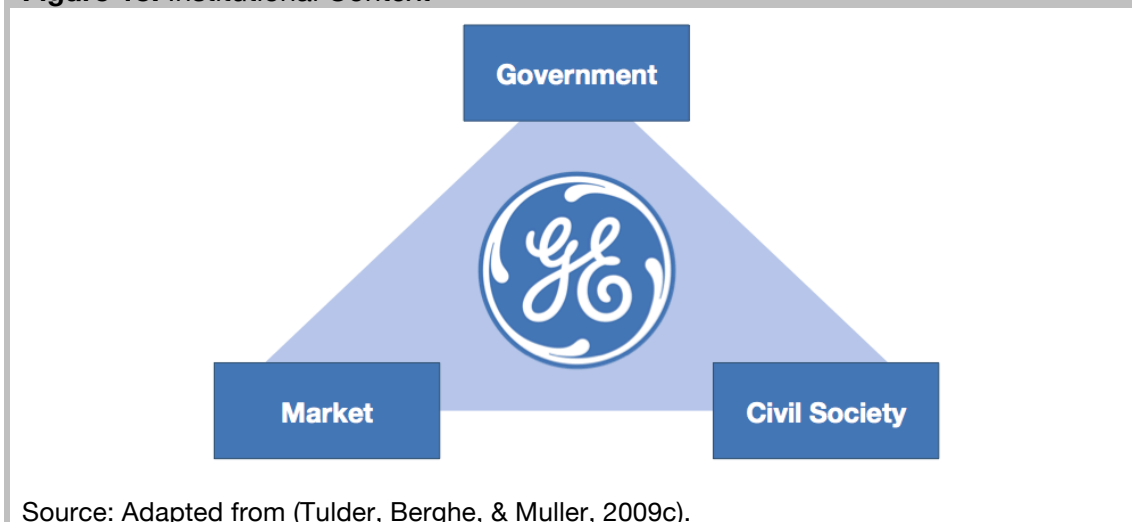
development strategies in varying institutional contexts: A transaction cost perspective, 2009).

If the market is defined as an institution, economic cycles play a big role when discussing institutional developments. Two major events must be considered. First, the dotcom bubble that led to slumping stocks and profit increases beginning of the 21st century (Time Magazine, 2000). Second, the current global financial crisis that is still changing the rules of the game dramatically and that is also exercising pressure on all sectors of GE. Jeffrey Immelt refers not only to the current economic crises but also to a much more fundamental change of the global economy:

„The macro-environment has been brutal. The losses in the whole financial services industry are projected to be at least \$2 trillion. The lending capacity that has come out of the system is somewhere between \$5 trillion and \$10 trillion. We have now entered an economic recession across most of the world. [...] We are in a recession and, at times like these, it is difficult to predict how bad and for how long. We are running GE to “weather the cycle.” However, I believe we are going through more than a cycle. The global economy, and capitalism, will be “reset” in several important ways. The interaction between government and business will change forever. In a reset economy, the government will be a regulator; and also an industry policy champion, a financier, and a key partner“ (Immelt J. R., 2009b).

This change can be explained by considering the ‘Kondratieff Cycles’ according to which we are in a declining phase of the fifth cycle, which is considered to run until 2015 (Tulder & Zwart, 2006). In such a declining phase institutions as well as the underlying rules of the game are being restructured and reshaped and cause a severe economic downturn that can last up to twenty years (The New York Times, 2009). All three spheres illustrated in figure 13 are therefore imposing pressure on GE and are defining its institutional context.

**Figure 13:** Institutional Context



Source: Adapted from (Tulder, Berghe, & Muller, 2009c).

For GE's Energy there are some developments of particular interest. First, the energy sector is still bound to scarce natural resources such as gas or carbon. These are goods that are a challenge when traded internationally and between the spheres government and market because natural resources are considered to be public goods (Tulder & Zwart, 2006). The scarcity of non-renewable resources for the energy supply creates pressure for the end user as well as for GE being the supplier. The industry eventually evolves to offer new and alternative technologies, such as the 'smart grid', that improve the management of energy consumption (U.S. Department of Energy, n.a.).

The need for new technologies that allow a more effective use of renewable resources such as solar power is emerging and pressuring GE and its competitors to emphasize on innovation in this sector. The pressure also stems from the rising awareness and power of civil society as highlighted before. The awareness in terms of resource scarcity as well as the greenhouse gas emissions that the energy sector is causing is an issue and challenge for GE Energy.

Furthermore, national governments are taking action to reduce CO<sub>2</sub>-emissions by imposing stricter policies such as the Kyoto Protocol, whose purpose it is to reduce greenhouse gas emissions over the period from 2008 to 2012. 37 industrialized countries and the European Union are currently involved in forging this policy led by the UNFCCC<sup>9</sup> (UNFCCC). GE is aware of this pressure and is responding to it.

“Accelerated innovation: In some ways everything has changed, but much remains the same. The planet's population is still four times what it was a century ago. Nearly half the world still lacks access to basic sanitation, while the need to reduce greenhouse gas emissions continues unabated. We cannot afford a prolonged downturn in the innovation and entrepreneurship needed to deliver better, more efficient, and affordable mobility, healthcare, housing, nutrition, and energy” (General Electric Company, 2009a).

## Institutions: Chinese Perspective

Many Asian countries possess outward-oriented economies with high dependence on the world market. In 1997, due to speculations against the Thai baht as well as insufficient foreign exchange reserves, the Asian currency crisis erupted. The ripple effect shattered Asia and led to the so-called *Asian Financial Crisis* (Nanto, 1998). China's rate of FDI inflows was largely diminished. The number of application for investment approval also suffered from a negative growth. Thanks to its large domestic market and strong exporting industry, the impact on China was relatively small. Moreover, moderate control over capital projects and financial services accounted for its survival (Liu, 1999).

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<sup>9</sup> UNFCCC: United Nations Framework Convention on Climate Change

As a consequence, Asian countries actively introduced better investment incentives to regain foreign direct investment. China was no exception. Besides certain restricted items, it awarded foreign enterprises for importing advanced techniques and equipments. It also authorized local governments to extend tax incentives (Liu, 1999).

In the 20th century China was a mediocre participant in world trade accounting for less than 1% of global trade. After avoiding, observing, and trying for several decades, China finally became one of the 143 members of the *World Trade Organization* (WTO) in December 2001 (CRI Online, 2009). In order to meet the requirements of membership, China introduced fundamental changes regarding foreign trade, foreign investment, and its economic system in general. It gradually adopted western managerial practices to create a commercial and societal environment.

Participation in the WTO led to three major impacts on the openness of China's economy (CRI Online, 2009). First, the communist country learnt to conduct business in a more democratic way. Second, trade agreements shifted from unilateral to bilateral dialogues between WTO members. Finally, China's passive obedience of existing regulations shifted to a more active participation by creating rules. Eight years of membership not only forged the country but also presented a new opportunity for developed countries. For now China occupies the third place in world trade with trade volume totaling \$2.5trn. It is expected to replace Germany, which stands on the second place, by the end of 2009 (CRI Online, 2009).

Almost six decades ago, China's jobless population stood at 4.74m implying an unemployment rate of 23.6% in China (China Daily, 2009). In accordance with rapid development of economy and society, two laws, the labor union law and the labor law, were sequentially introduced. In 2008, the unemployment rate had decreased to a mere 4.2% (China Daily, 2009). Three new labor-related laws were implemented in the same year (china.com.cn, 2009), serving as the foundation of labor rights as well as status improvements. As a result, an increasing number of enterprises have been forced to review and improve their labor-management relations.

Pressure from rising unemployment recently triggered serious trade protectionism in the western world, especially in the United States (cnYes.com, 2009). Fortunately a trade war was mitigated when Mr. Obama assured that the US has no intention for protectionism. Meanwhile, China reacted to the conflict rationally by pointing to trade negotiation rules in the WTO and proved to being capable of dealing with an international issue in a decent way (The Financial Times, 2009a).

With the China-US Trade Relation Pact signed in 1979, both parties agreed on mutual protection of patents, trademarks, and copyrights. The Chinese government has set up related bureaus and promulgated series of related laws to bridge the gap since. In 1994, however, the US government launched

the so-called *Special 301* investigation against China due to a lack of complete and transparent intellectual property legislations deterring US companies from entering the Chinese market. After imposing a 100% tariff as punitive sanctions China planned to strike back with an anti-retaliation list in early 1995. Fortunately, the tariff war did not erupt due to US concessions to postpone the investigation allowing for more time to settle the conflict (Chinese Economy, 2009b).

China has put more efforts into the protection of intellectual property after entering the WTO. It amended patent laws, trademark laws and copyright laws to expand the scope of protection, to stipulate the liabilities, and to strengthen the investigation and punishment of violations (CRI Online, 2009). Nevertheless, China's reputation of a notorious counterfeiter worries foreign companies and investors. As GE states in its citizenship report, a fledgling legal framework, unbalanced rural and urban job opportunities as well as the lacking public awareness of intellectual property have contributed to raise concerns about rampant counterfeiting and piracy.

Even though China is a developing country and has thus no legal obligation to restrict its greenhouse gas emissions, the government agreed to sign the Kyoto Protocol in late 2002. Some argue that China is the biggest beneficiary from the Kyoto protocol since the country receives 73% of total carbon credits amounting to tens of billions of dollars in investment to finance low-carbon technology (FT Chinese, 2008). The government started to pull its weight by establishing professional teams and releasing the *China National Climate Change Program* in June 2007, aiming to achieve the target of 20% reduction of energy consumption per unit of GDP by 2010. The government thereby set clear policies and measures to address climate change related issues as well as the needs for international cooperation (China National Development and Reform Commission, 2009).

Being the two major energy consumers on this planet, collaboration regarding energy production and usage between the US and China came to no surprise. In 2004 the *China National Development and Reform Commission* and the *US Department of Energy* signed the *Understanding Memorandum for Developing Energy Policy Dialogue* in order to form a mechanism of communication and collaboration between the two countries' energy departments. For years later, in 2008, both sides agreed on the *Ten Year US-China Energy and Environment Cooperation Framework* (Ministry of Science and Technology, 2008).

Series of actions were taken in 2009. In July the US Energy Secretary, Steven Chu, visited China to launch the US-China Clean Energy Joint Research Center, which aims at developing energy-efficient coal and car techniques. On September 27, the fourth China-US Energy Policy Dialogue was held in Qingdao, Shandong province. All these efforts are believed to pave the way for Mr. Obama's visit to Beijing in November. The combination

of the US' advanced techniques and China's huge market will help both countries to reach their separate and common goals (Chinese Economy, 2009a).

## Issues

Since Jeffrey R. Immelt became chairman and chief executive succeeding John F. Welch in 2001, GE's share price has not reached its value from 2001 except for a brief moment during 2007. Disturbances already happened to some extent before what *The Economist* calls 'Immeltdown' (The Economist, 2008c).

A major incident was the battle over GE's dispatch of PCB, a chemical substance, into the Hudson River. From 1946 until 1977 these substances were released ruthlessly and caused severe damage to the environment (The New York Times, 2000). The company finally agreed to clean up 43 miles of the riverbank costing approximately \$700m (The New York Times, 2005).

Another breakdown occurred due to friction between GE and its largest labor union. In 2003, workers staged a two days strike demanding coverage of rising health costs (The New York Times, 2003a). Conflicts with unions can be savaging for companies and costing them huge amounts of money resulting from factory shutdowns and delayed deliveries. In GE's case, however, the bargaining power of the unions is shrinking: the unions 88,500 members in 1969 decreased to merely 14,000 in 2003 (The New York Times, 2003a).

In 2008, GE sold its plastic division for \$11.6bn to SABIC (The New York Times, 2007b), Saudi Arabia's largest public company, the largest successful deal so far. The company is also looking to spin off its consumer and industrial division in order to stimulate profit growth (The Financial Times, 2008).

A merger in 2001 between GE and Honeywell, a conglomerate, has not taken place due to a ruling by the European Commission (The New York Times, 2004). The acquisition would have cost \$43bn. Another recent failed deal was the planned purchase of two Abbott Laboratories for \$8.1bn in cash; the two companies had "failed to agree on final terms" (The New York Times, 2007a).

Yet, according to David R. Nissen, GE Money's executive, partnerships "have been one of our most powerful strategic tools" (The New York Times, 2007c). For example, GE and Hitachi are to merge their nuclear power businesses because Hitachi is "currently building new plants, and we see that as a major asset, being able to tap into that experience base", says John Krenicki, executive of GE Energy (The New York Times, 2006).

GE is also expanding its businesses in China. In 2003, GE Energy received orders to provide gas turbine systems accounting for \$900m (The New York Times, 2003b). In April 2009, a technology-licensing contract with Nanjing Turbine & Electric Machinery Co was signed, further expanding GE Energy's

presence in China (General Electric Company, 2009i). Furthermore, GE's first wind turbine assembly plant was opened in China this year, which will help the Chinese government to achieve its renewable energy capacity target (General Electric Company, 2009h).

As GE is struggling with a low share price and shrinking profits, the company presents new innovative ideas and realizes future-oriented partnerships. The company seems to have learned from past mistakes as no new major incident such as the Hudson River devastation has occurred so far. As unions lose part of their bargaining power new clashes with other stakeholders and institutions will happen. With the divestiture of the consumer division, GE Energy's expansion of its Chinese businesses is gaining in importance for the company's future.



## Managing Distance

### Distance Factors

The United States and China are located on different continents with a geographic distance of approximately 11,611 kilometers. This physical distance poses difficulties on face-to-face contact. Although being conquerable due to the development of transportation, a long flight of 14.5 hours still causes delays. Advancements in telecommunication, especially video conferencing, are becoming more recognized by MNEs and might eventually mitigate geographical distances. However, since the United States is 14 hours behind China complicates simultaneous work between the two locations. While both countries straddle great range of longitude, the weather varies greatly between the two countries. Strategies of GE are therefore affected; for instance, methods of energy exploitation, storage, and usage in China differ from those in the United States.

Hofstede (Hofstede, *Cultures and Organizations: Software of the Mind*, 2004) analyzed a large database of employee values scores collected by IBM between 1967 and 1973 covering more than 70 countries. His research identified five dimensions (see table 1) including the ‘power distance index’ (PDI), ‘individualism’ (IDV), ‘masculinity’ (MAS), the ‘uncertainty avoidance index’ (UAI), ‘long-term orientation’ (LTO), in order to provide an understanding of cultural differences.

**Table 1:** Hofstede’s Dimensions

<b>PDI</b>	The extent to which the less powerful members of organizations and institutions (like the family) accept and expect that power is distributed unequally.
<b>IDV</b>	The degree to which individuals are individual in contrast to integrated groups.
<b>MAS</b>	The distribution of roles between genders towards the males.
<b>UAI</b>	Indicates to what extent a culture programs its members to feel either uncomfortable in unstructured and unclear situations.
<b>LTO</b>	Values associated with long-term orientation are thrift and perseverance.

Source: (Hofstede, 2009).

According to Hofstede’s dimensions, there are large differences between the United States and China (see table 2). The two largest cultural differences are on individualism and long-term orientation suggesting that American people are much more individualistic and far more short-term oriented than Chinese people. Moreover, China’s culture seems to be more open to steep hierarchies and power differences among social classes. These cultural differences obviously impose a threat on GE’s business model if not adapted properly to China’s context.

**Table 2: Hofstede's Dimensions**

	<i>United States</i>	<i>China</i>	<i>Difference</i>
<b>PDI</b>	40	80	40
<b>IDV</b>	91	20	71
<b>MAS</b>	62	66	4
<b>UAI</b>	46	30	16
<b>LTO</b>	29	118	89

Source: Adapted from (Hofstede, 2009).

The GDP of both the United States and China is among the world's largest. In 2008, while the US ranked number one with a GDP of \$14trn, China ranked number three with \$4trn (The World Bank, 2009a). Throughout the twentieth century the United States has dominated the world economy. China is close behind Japan and due to overtake it soon. If current growth rates continue China will become the largest economy in the world someday between 2025 and 2030. The United States will be forced down to the second place (EconomyWatch, 2009). However, regarding GDP per capita adjusted to PPP, the US still dominates China with \$46,900 against \$6,000 (Central Intelligence Agency, 2009). The Human Development Report (HDI) also supports the fact by putting the two countries in 'very high human development' and 'medium human development' groups separately (United Nations Development Programme, 2009). These huge gaps point out that China still has a long way to go in order to catch up with developed countries such as the United States.

Regarding energy consumption, the United States heavily depends on petroleum while China mainly lives on coal. In 2008, usages of the predominant resources went up to 37% (Energy Information Administration, 2009c) and 70% (Energy Information Administration, 2009a) respectively. China took the lead of total renewable energy consumption for electricity production in the world due to its recent massive addition of hydroelectric plants. The United States follows closely with 7% of renewable sources of which 36% stem from hydroelectric plants (Energy Information Administration, 2009b).

The United States is a country that is famous for its liberty and is marked 'free' by *Freedom House*, a Washington-based NGO, with its highest scores in political right and civil liberties (Freedom House, 2009). China, a communist country, on the other hand, belongs to the 'not free' group (see table 3). Although the openness has been improving over recent years, publishers are still under strict governmental control through censorship, hindering companies from reaching their stakeholders directly and factually.

**Table 3: Freedom Scores and Status**

	<i>United States</i>	<i>China</i>
<b>Political Rights Score</b>	1	7
<b>Civil Liberties Score</b>	1	6
<b>Status</b>	Free	Not Free

Source: (Freedom House, 2009).

While the United States has 51.3% of Protestants and 23.9% of Roman Catholics (Central Intelligence Agency, 2009), there are four main religions in China including Chinese folk religion, Confucianism, Taoism and Buddhism (Central Intelligence Agency, 2009). The divergence results in considerably differences in norms and values between American and Chinese people. In order to enable workers from both countries to collaborate, GE's understanding of both worlds is necessary. The education of American workers coming to China, for example, is essential if cultural differences are to be mitigated.

Moreover, the United States and China installed two completely different legal systems. The first uses the English common law, which is based on tradition, precedent, and custom. The latter adopted a civil law system with detailed sets of laws organized into codes (Hill, 2007). The importance of institutional distance for businesses actually lies in contract law since it is the body of law that governs contract enforcements. Specified details in contracts embody the flexibility of common law. It is the same character that enables judges to interpret disputes in accordance with current circumstances. As discussed earlier in this text, China has improved the protection of intellectual property through various laws over the past four decades, but the protection is still considered to be insufficient by Western MNEs.

In the 2007 corruption ranking China was ranked 57 while the United States made it on rank 17 (World Audit, 2008). According to the *Ease of Doing Business* ranking in 2009, China is far behind the United States for all eleven categories (see table 4).

**Table 4: Freedom Scores and Status**

	<i>United States</i>	<i>China</i>
<b>Ease of Doing Business</b>	4	89
<b>Starting a Business</b>	8	151
<b>Dealing with Construction Permits</b>	25	180
<b>Employing Workers</b>	1	140
<b>Registering Property</b>	12	32
<b>Getting Credit</b>	4	61
<b>Protecting Investors</b>	5	93
<b>Paying Taxes</b>	61	130
<b>Trading Across Borders</b>	18	44
<b>Enforcing Contracts</b>	8	18
<b>Closing a Business</b>	15	65

Source: (The World Bank Group, 2009b).

However, GE possesses the first mover advantage by operating more than 50 subsidiaries and one research center on China's mainland. The company is likely to be familiar with the fundamental rules of the game to cope with the Chinese government. Also, GE owns a certain degree of bargaining power as a giant MNE that had time to establish its ties in the Chinese economy.

The strength of non-governmental organizations (NGOs) pictures another distance factor. In the United States, 21498 NGOs are registered with the *World Association of Non-Governmental Organizations* (WANGO) (World Association of Non-Governmental Organizations, 2009). The volunteer rate of both men and women are 23.2% and 29.4% respectively (Bureau of Labor Statistics, 2009), which together with the number of NGOs illustrate the strong power of civil society in the nation. The Chinese volunteer rate, in contrast, was a mere 3% in 2006 (Xinhua News, 2006), revealing that enterprises are less likely to receive blame or challenge from NGOs in China as compared to the United States.

## Risks

There are three types of risks that GE needs to deal with when managing distance between the United States and China. All three, culture and development, institutions and stakeholders, and reputation and stakeholder risks originate from the five aspects of distances mentioned in the previous section.

The extreme differences in IDV and LTO (Hofstede, *Cultures and Organizations: Software of the Mind*, 2004) entail the difficulties GE faces in human resource management. Employees at GE therefore will have different characters depending on whether they grew up in China or the United States. As workers switch countries, say for the purpose of knowledge transfer,

managing these differences become crucial if the benefits of cultural interaction are to outweigh its costs.

Also, customers in China have different perceptions of what products are important and worth buying. According to Maslow's hierarchy of needs, the deficiency needs have to be satisfied before one pursues self-actualization (Maslow, 1943). In a developing country many people are still struggling to meet their deficiency needs. As a symbol of self-actualization it seems unlikely to see a widespread environmental consciousness at this stage of economic development. Certainly, with the rise of the internet this consciousness might spread faster, but revolutionary energy exploitation and usage will not fully catch on in the near future. GE Energy therefore might not be able to find a market for its innovative green products.

Running business in China is further hampered by institutional risks. Since the communist government holds full control of business and media, it is almost impossible for GE to exert influence on society to shape people's thinking towards a certain direction. Fortunately, Beijing is currently supporting clean and renewable energy developments, which provides GE Energy with the opportunity to sell its products. Yet, if the government was to change its policy the conglomerate might see itself deprived from this market.

Moreover, the failure to safeguard intellectual property rights due to China's weak rule of law puts GE at great risk. The company's energy business is focusing on research and development to develop innovative technologies and processes in the energy industry. Being infamous for counterfeiting Chinese suppliers are not very reliable since some of these firms are also doing business with GE's competitors. Consequently, GE can neither pin the hope on suppliers nor on the government for absolute protection.

There is no domestic NGO powerful enough to directly confront GE; yet, the company still has to cope with being monitored by American or worldwide watchdogs. China has been on the watch list of many NGOs regarding labor rights and product quality issues. Thus, the collaboration of GE and the Chinese government is destined to be in the spotlight.

The risk matrix, which identifies critical issues, identifies six issues GE is involved in (see table 5). The two most critical issues are labor rights and intellectual property rights since they shape the legislative framework that GE operates in and directly affect GE's daily operations. The Chinese laws differ from US laws to a great extent, which puts GE at risk of not being able to run its business smoothly in China.

**Table 5: GE's Risk Matrix (I)**

	<b>Negligible</b>	<b>Minor</b>	<b>Moderate</b>	<b>Serious</b>	<b>Critical</b>
91-100%				Labor rights	Intellectual property
61-90%					
41-60%		HR management	Environmental awareness	Product quality	
11-40%					
0-10%					Ease of doing business

Source: Adapted from (SEPO, 2009).

Table 6 depicts the probability of the occurrence of each hazard on the y-axis whereas the magnitude of the impact is measured in the x-axis. Finally, GE faces five risks with a medium hazard score and one risk, intellectual property rights, with a high hazard score. Conducting business in China is therefore not immensely risky, yet, if not managed carefully, the distance between China and the US might damage GE's operations.

**Table 6: GE's Risk Matrix (II)**

	<b>Negligible</b>	<b>Minor</b>	<b>Moderate</b>	<b>Serious</b>	<b>Critical</b>
91-100%	Medium	High	High	High	High
61-90%	Medium	Medium	Medium	<b>Medium</b>	<b>High</b>
41-60%	Low	<b>Medium</b>	<b>Medium</b>	<b>Medium</b>	High
11-40%	Low	Low	Medium	Medium	High
0-10%	Low	Low	Low	Medium	<b>Medium</b>

Source: Adapted from (SEPO, 2009).

## Challenges

GE's annual citizenship report of 2007-2008 reads: "GE takes a unique 'company-to-country' approach in emerging markets...[which] allows us to use the breadth of our multi-business company to make a difference in rapidly growing economies" (General Electric Company, 2008a). This approach includes the development of innovative and unique products as well as the employment of local talents (ibid). The company therefore tries to incorporate local demand and supply in its business model. Despite righteous intentions of GE's management, the company faces various challenges in emerging markets including China, e.g. corruption and unprotective laws.

A recent report by *The Economist* informs about China's 'other face' where corruption still complicates business (The Economist, 2009b). Seeing that the rule of law in China still remains relatively weak as compared to the United States, effective governance is crucial for conducting business properly. GE therefore tries to support the Chinese government to implement laws, rules and regulations. By investing into initiatives, GE hopes to strengthen the

prevailing rule of law. The company continues investing into the *US-China Legal Cooperation Fund*, a unique effort to strengthen the rule of law in China. Launched in 1999, the initiative attracted over \$1m from 44 different companies trying to shape China's economic context (US-China Legal Cooperation Fund, 2009). Albeit the tiny size of the fund, GE seems to be pleased with current trends. Stephen Maloy of the *GE General Council for Asia Pacific* asserts:

“We are seeing massive development in rule of law in China. The country is putting into place 100 years of legislation in 10 years and is doing it very conscientiously and with a real effort to be consultative” (General Electric Company, 2009o).

Although GE counts on third-party efforts to improve the economic context in China, the company's management is well aware of GE's own role. As Karan Bhatia, vice president of *GE International Law and Policy*, puts it:

“For multinational companies, strengthening the rule of law creates a level playing field on which to compete. It promotes stable, durable economic growth in prime export markets and creates an environment in which companies feel comfortable doing business on a moral and ethical level” (General Electric Company, 2009o).

The company identified major responsibilities in the infrastructure sector where GE Energy operates, including security and human rights, governance, ethics, and anti-corruption efforts (General Electric Company, 2008a). The conglomerate tries not only to mitigate negative effects resulting from these issues but also to help to improve and develop China's economy.

In 2008, for example, GE delivered more than 335 innovative products for the Olympic Games in China (General Electric Company, 2008a) accounting for over \$500m revenues, according to *Fast Company*, a monthly business magazine (Fast Company, 2007). As part of the company's 'ecomagination' strategy, water purification technology was supplied to Chinese authorities that intended to set up a rainwater recycling system. Such partnerships offer a chance to negotiate with the Chinese authorities and might eventually increase GE's bargaining power, writes Fast Company (Fast Company, 2007). The number of partnerships GE is engaging in is steadily increasing.

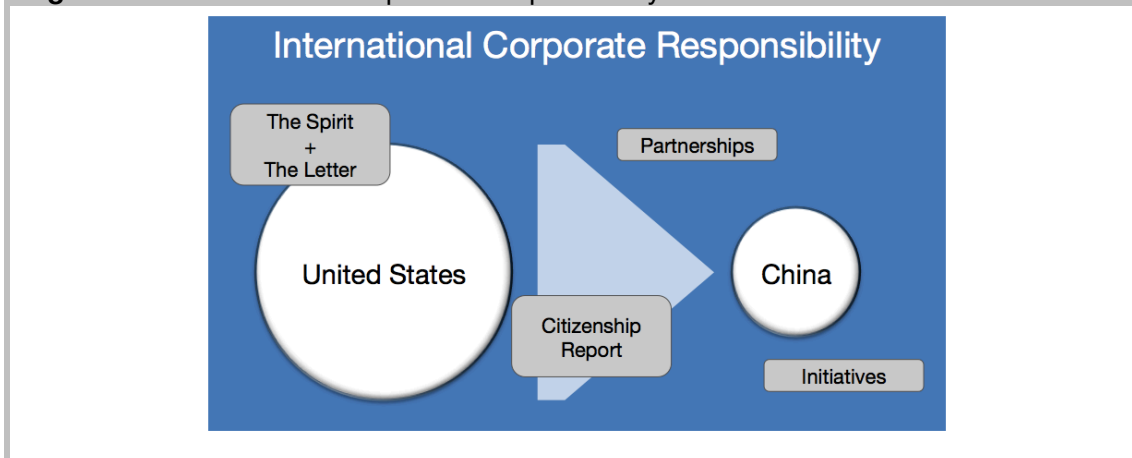
The new *Guangdong EHS Academy*, for instance, partly funded by the *GE Foundation*, is due to open this year. A result of collaboration with the *Institute for Sustainable Communities*, an NGO, the academy will offer “state-of-the-art training to equip environment, health and safety managers with the skills necessary to move Guangdong's supply chain toward EHS compliance and leadership” (General Electric Company, 2009a). Guangdong is one of the provinces that GE Energy identified to have power shortages (General Electric Company, 2004). GE's interest in the availability of local talents in this area thus is obvious.

GE also expanded its ‘supplier reputational review program’ to “encompass freedom of association, discrimination, and harassment in line with GE’s statement of Principles on Human Rights” (General Electric Company, 2008a). As of 2007, 111 of the totally 295 certified auditors are in China (General Electric Company, 2008a), which shows GE’s success in establishing a more regulated approach to whom to conduct business with. The company also increased its efforts to check its employees against labor laws, e.g. minimum age (ibid). Moreover, new training materials should help workers to identify falsified documents, complementing the work of auditors (ibid).

GE’s international corporate responsibility in regard to GE Energy in China consists of four elements (see figure 14). In ‘The Spirit + The Letter’, written in GE’s headquarters in the United States, Mr. Immelt legitimizes any further CSR action:

“There is no conflict between excellent financial performance and high standards of governance and compliance—in fact, the two are mutually reinforcing. As we focus on becoming the pre- eminent growth company of the 21st century, we must recognize that only one kind of performance will maintain our reputation, increase our customers’ confidence in us and our products and services, and enable us to continue to grow, and that is performance with integrity” (General Electric Company, 2005).

**Figure 14:** International Corporate Responsibility



The annual citizenship report, first issued in 2008, builds on the Immelt’s statement and sets clear goals for every year. The GE citizenship website keeps visitors updated about new trends and solutions around the world. Although GE’s commitments in emerging markets are presented in the ‘Growth Markets’ section of the citizenship report, there is no individual document pointing out the company’s policy directions in China.

Directives and procedures are, to a large extent, directed by headquarters to China’s subsidiaries. Many partnerships that are formed try to ‘outsource’ GE’s responsibility to shape the local context. Even though the company has a significant of partners in China, many important partnerships are



sponsored by headquarters in the United States. Local managers therefore seem to have less authority over what actions can be taken to exert influence on the Chinese government. The rules and goals set by headquarters are decisive and set the direction China's subsidiaries are supposed to pursue. On the other hand, this 'company-to-country' approach greatly increases GE's bargaining power over local governments. If only the subsidiary negotiated with the Chinese government without the backing of the entire conglomerate, major achievements would seem nearly impossible.

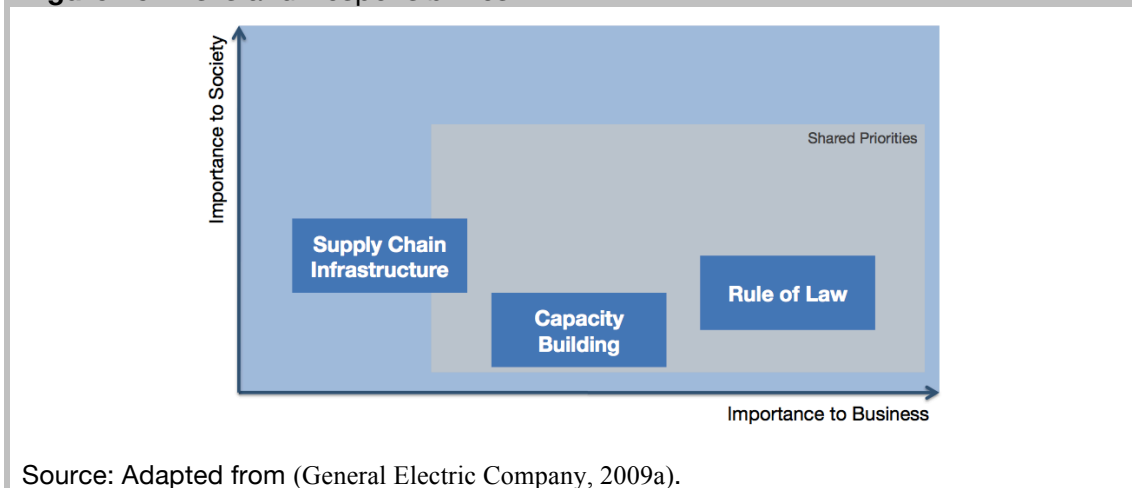
## Responsibilities

GE Energy in China falls into two of the six major business trends identified by GE: infrastructure technology and growth markets (General Electric Company, 2008a). According to GE's citizenship report (General Electric Company, 2009a), there are three risks and responsibilities relevant for GE Energy in China:

- Rule of Law
- Capacity Building
- Supply Chain Infrastructure

Figure 15 plots these three items against their importance to society as well as to business. An area of 'shared priorities' emphasizes risks and responsibilities are important to both society and GE's business activities.

**Figure 15: Risks and Responsibilities**



Source: Adapted from (General Electric Company, 2009a).

Capacity building was already of high importance to GE according to the 2007-2008 citizenship report (General Electric Company, 2008a). The term in this sense describes the development of demand and supply markets regarding 'environmental health and safety'. GE, for instance, set up a partnership with an academy specializing in EHS located in Guangdong, China (General Electric Company, 2009a). A sufficient level of both demand and supply

regarding green technology is necessary in order to sell 'green' products. The conglomerate therefore intends to strengthen its connections to suppliers and the local community, which eventually consumes the outcome. A summit held in 2008 aimed at identifying the current state of knowledge among suppliers as well as educating those firms in modern management principles (General Electric Company, 2009a). Moreover, a planned pilot score system should improve GE's approach to supply chain infrastructure (General Electric Company, 2009a).

Yet, since the rule of law in China is still weak as pointed out in the 'risk matrix' presented earlier in this text, advancing GE's business in China is knotty. Both labor rights and intellectual property rights seem underdeveloped when measured by western standards. Especially the latter is important for GE if the company is to utilize advanced technology in China's energy infrastructure sector. If not handled properly, the company might lose its sustainable competitive advantage over local technology firms simply copycatting GE's knowledge. Currently GE has plans to improve the workers' awareness of human and labor rights by distributing training materials, for example (General Electric Company, 2009a). The conglomerate, however, reveals no hint on tackling insufficient property rights.

## Business Models

GE's business model regarding CSR needs to be assessed in order to determine the company's growth strategy since GE's efforts and decisions on 'international corporate responsibility' (ICR)<sup>10</sup> are based on its context (Tulder & Zwart, 2006). GE's website on citizenship reads:

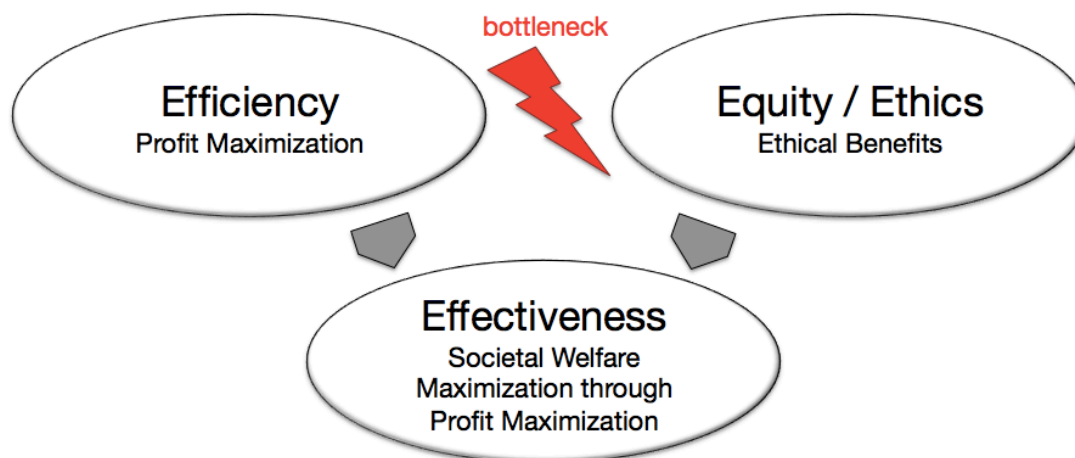
"Responsible leadership and operational excellence are hallmarks of GE. Our citizenship framework — make money, make it ethically and make a difference — enables us to make contributions and create value for society in ways that are aligned to the business strategy of the company" (General Electric Company, 2009c).

The 'Triple E' model, introduced by Tulder and Zwart, helps to analyze GE's CSR strategy (Tulder & Zwart, 2006). The bottleneck (see figure 16), i.e. the transaction cost of GE, refers to the findings of Vachani et al who highlighted the importance of transaction costs in the institutional context of their non-market social development strategies (Vachani, Doe, & Teegen, NGOs' influence on MNEs' social development strategies in varying institutional contexts: A transaction cost perspective, 2009).

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<sup>10</sup> International Corporate Responsibility

**Figure 16: Societal Interface Management**



Source: Adapted from (Tulder & Zwart, 2006).

In order to create value for local societies a MNE can choose to implement several diverging business models such as CSR strategies. However, when doing business across borders and over distance, the specific context determines the relative success of an MNE's ICR strategy, which adds three dimensions to CSR (Tulder & Zwart, 2006):

1. Increased bargaining dynamics
2. Increased importance of rivalry
3. Increased complexity of issue

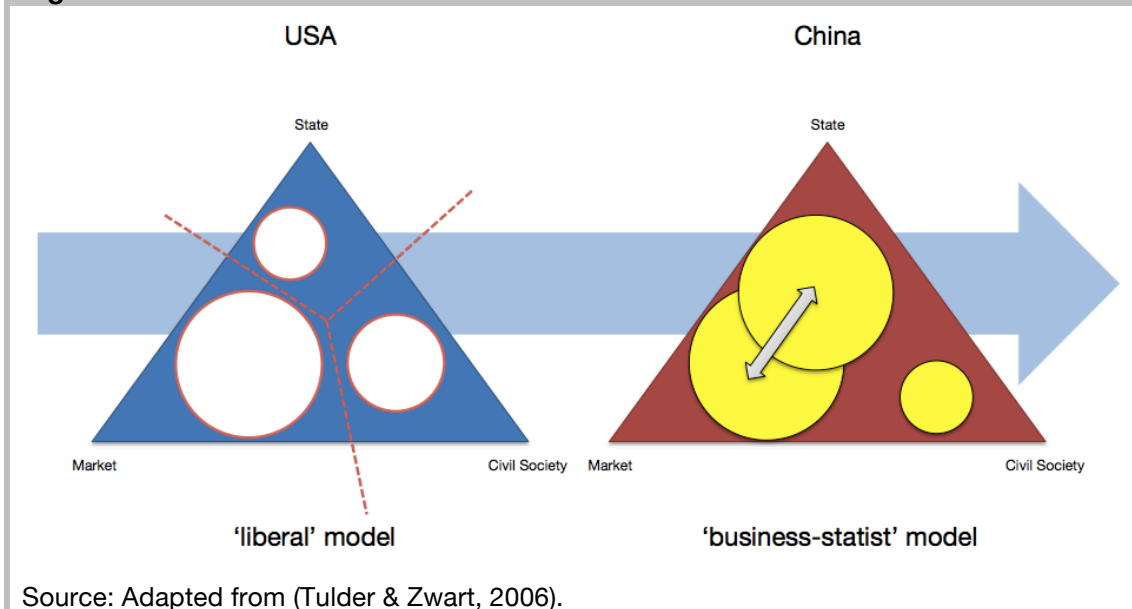
Particularly the complex institutional context for GE's ICR strategy is determined by the CSR regimes of its home and host countries. CSR regimes of countries comprise three main elements (Tulder & Zwart, 2006):

1. Legal requirements
2. Government policy practices
3. Nature of interaction between business and civil society

These three elements play a major role in managing the distance between the US and China at GE Energy. When considering the two countries' institutional models regarding their relative institutional openness, the countries can be matched to two CSR regimes that in turn can be classified and compared. China can be classified as economically closed but inward open to foreign FDI. The US, in contrast, is a closed economy with only a small FDI stock as percentage of GDP (Tulder & Zwart, 2006). However, a country's success in the international competition is not solely determined by its institutional model, which can differ immensely and affect a country's success to a large extent. China is classified to possess a 'business-statist' model, whereas the US carries a more 'liberal' model. The distance caused

by the differing institutional models are important when an American MNE is entering China's market (see figure 17).

**Figure 17: Institutional Models**



Source: Adapted from (Tulder & Zwart, 2006).

These institutional models and their differences form the basis for the CSR regimes in both countries. The US regime therefore tends to follow a liberal approach that is primarily concerned about the legal protection of property rights and anti-trust regulations rather than in social regulation. It is compliance oriented and not voluntaristic. The government takes the role as a mandating and facilitating actor. Civil society and the public advocacy are modest. American companies, on the other hand, are the strongest actor in this model and lead the formulation of codes of conducts globally. Still, most American firms are mainly reactive regarding issues and risks. The court has the biggest influence on CSR strategies of US. In host countries, however, the threat of local competitors plays an important role for US firms and for their way to operate across borders. Furthermore, the 'liberal' model contains a 'universalist' approach of many US firms thinking that only their codes and policies are correct, e.g. labor rights or the commitment to lower CO2 emissions.

To enforce CSR efforts in a 'liberal' regime short-term profit incentives are necessary. For instance, customers have to be willing to pay a premium for renewable energy. Chinas CSR regime, the corporate-statist approach, aims solely at efficiency and at the international competitiveness of the industry itself. CSR guidelines are barely formulated unless they strengthen the country's competitiveness. Once adopted, the guidelines are implemented strictly due to the centralized government system. CSR efforts are primarily developed in the area of environmental protection. In other areas China follows an inactive CSR and ICR approach (Tulder & Zwart, 2006). Figure 18 illustrates the difference between the US and Chinese CSR regimes.

Figure 18: CSR Regimes

Inactive	Reactive	Active	Pro- / Interactive
"Corporate Self-Responsibility"	"Corporate Social-Responsiveness"	"Corporate Social Responsibility"	"Corporate Societal Responsibility"
Efficiency		Equity / Ethics	Effectiveness
<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p><b>Liberal approach, USA</b></p> <p>Moderately open; mandating/facilitating; shareholder oriented; common law; public advocacy: low; strong corporate volunteering and philanthropy tradition</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p><b>Corporate-statist Approach, China</b></p> <p>Moderately closed; Partnering; producer oriented; communist law; informal codes; low transparency; no volunteering</p> </div>			

Source: Adapted from (Tulder & Zwart, 2006).

Although figure 18 depicts both regimes to be close to each other in terms of regime characteristics, the distance between the countries should not be neglected. It is challenging for GE Energy to manage that distance and implement an ICR strategy to overcome these differences. Even though both regimes highlight efficiency and China has linked its currency and fiscal model to that of the US, Western firms are still likely to face ethical traps in Asia (Tulder & Zwart, 2009b). Therefore, the ICR regime between the US and China is based on 'corporate *self*-responsiveness', a mixture between an inactive and a reactive stance towards issues and risks. In the narrower context of environment China is progressing but its actions are mainly triggered by policy incentives and the scarcity of energy resources (The Washington Post, 2009). The 'liberal' approach of the US sheds light on the importance of competitiveness but focuses more on the effect of GE's competitors and customers towards the risks of environmental damage. The ICR regime is thus a hybrid model based on similar triggering factors.

MNEs operating across borders face challenges such as barriers caused by distance as well as increased rivalry. Yet, gaps in international governance legislation increases the MNE's freedom to act (Tulder & Zwart, 2006). For GE Energy this freedom as well as the distance between the US and China are major aspects of the company's internationalization growth strategy. 'A powerful future', is how GE Energy sees its current strategic orientation. Its company information website reads:

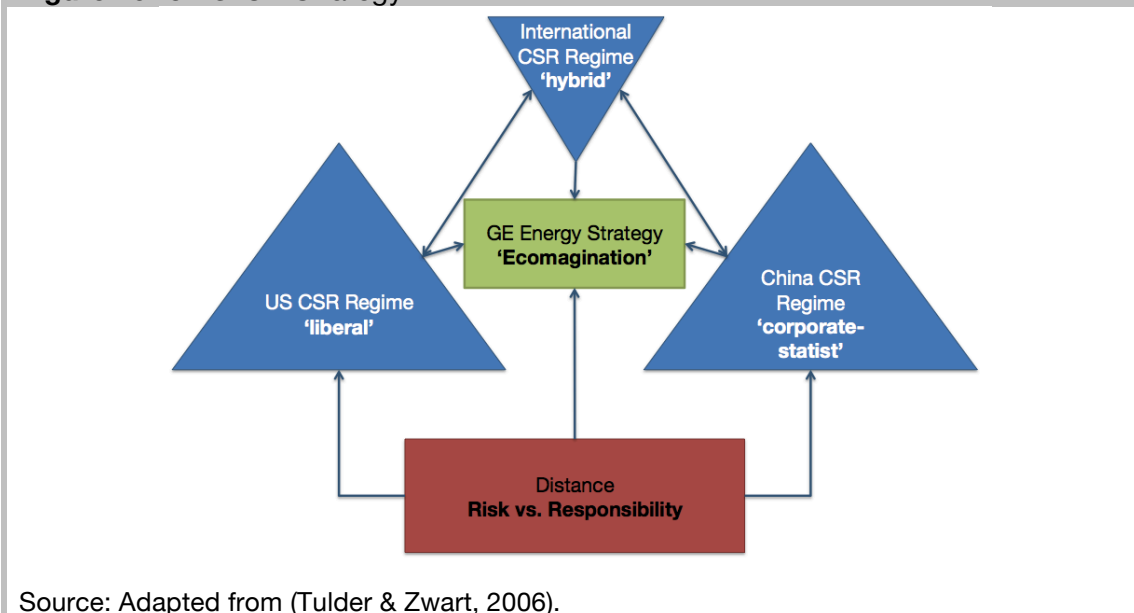
“GE works closely with customers to achieve mutual growth and success. We work in tandem with governments and communities to manage complex international relationships and develop critical infrastructures. We also work intimately with suppliers, enabling them to become extended GE factories and platforms for accelerated globalization. Through these powerful partnerships, we create innovative products and technologies that serve the world’s people” (GE Energy, 2009).

Jeffrey Immelt even sees ‘green technology’ as the main solution to escape the current recession. In addition, the US energy industry is losing its competitive edge compared to China in terms of effectiveness and clean energy efficiency. Mr. Immelt sees the current US energy policy as mainly responsible for the backlog in innovation and competitiveness. In terms of CSR regimes concerning energy efficiency and environment, the US needs to catch up with the Chinese approach. In a recent report *The Washington Post* explains that:

„There is no topic of greater importance to America's economic future. The question is whether the United States will lead or lag in tomorrow's global energy markets. And the difference between these two futures is dramatic. Energy in the United States costs more than \$1 trillion a year -- for oil, coal, natural gas, nuclear and renewables. This is on top of a similar sum spent on the things that use this energy -- our homes, shops, factories and cars. That means about \$2 trillion a year is at stake right here. [...] We are clearly not in the lead today. That position is held by China, which understands the importance of controlling its energy future. China's commitment to developing clean energy technologies and markets is breathtaking“ (The Washington Post, 2009).

The relationships between the mentioned national CSR regimes, the distance between them, the necessary hybrid ICR regime to mitigate this distance, and GE Energy’s strategy in particular are illustrated in figure 19.

**Figure 19: GE’s ICR Strategy**



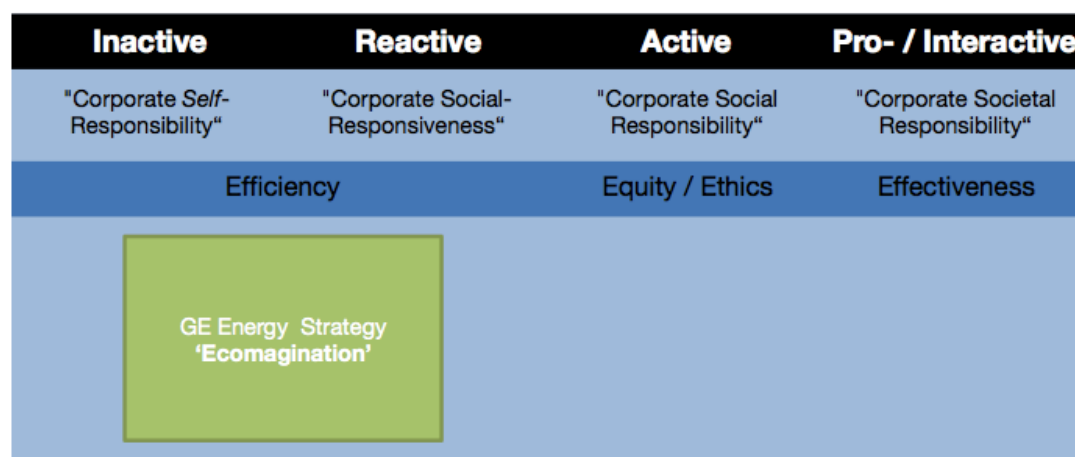
Source: Adapted from (Tulder & Zwart, 2006).

GE Energy introduced the so-called ‘ecomagination’ business initiative, an attempt to help meet the demand for clean and energy-efficient products as well as to drive reliable growth for GE (General Electric Company, 2009e). To develop the initiative into a business strategy five commitments and targets were defined.

1. Increase revenues from ecomagination products
2. Double investment in R&D
3. Reduce greenhouse gas emissions and improve the energy efficiency of GE’s operations
4. Reduce water use and improve water reuse
5. Keep the public informed

The ‘ecomagination’ model helps to explain how to master the distance and how to create a successful context for GE Energy’s ‘ecomagination’ strategy (see figure 20).

**Figure 20:** ‘Ecomagination’ Strategy

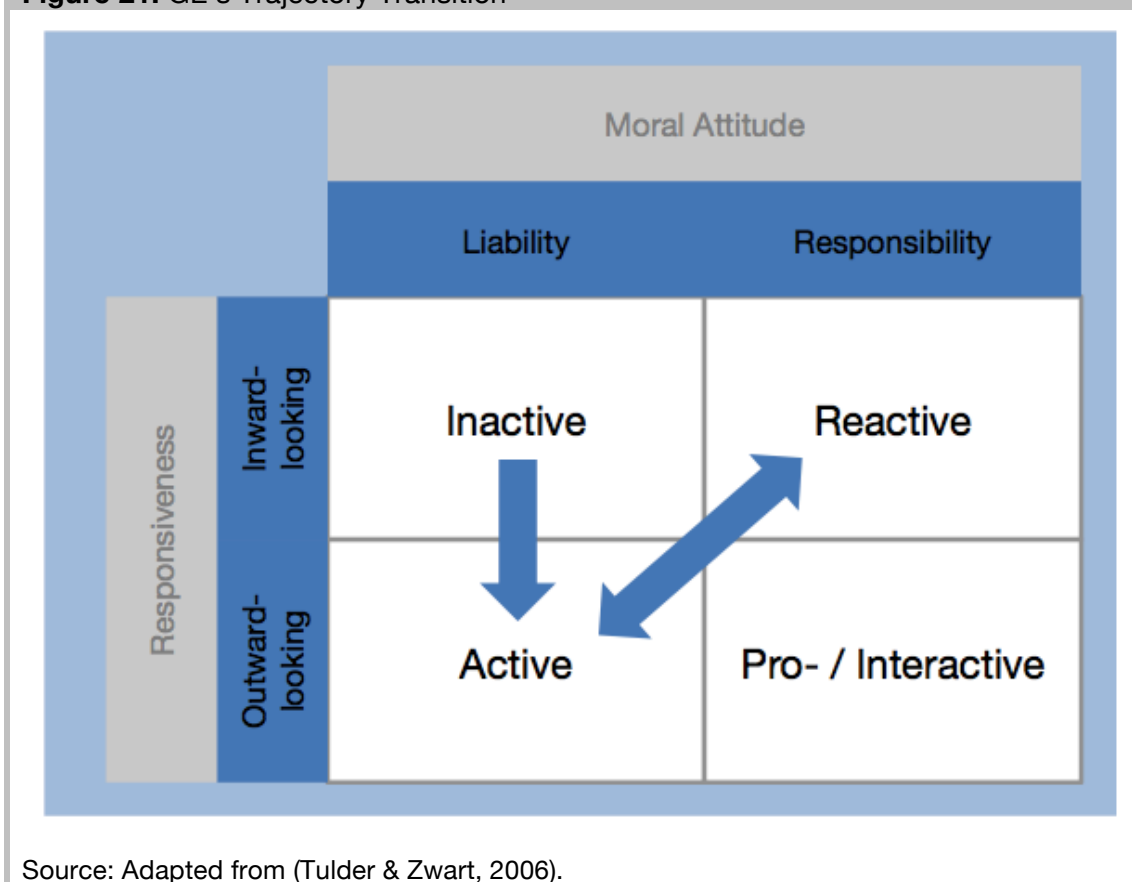


Source: Adapted from (Tulder & Zwart, 2006).

In order to successfully implement the ecomagination business model, GE takes a reactive stance towards the issue and other major stakeholders such as governments and competitors. Due to GE’s efforts to communicate its ecomagination model, the company, however, takes an active role in addressing the importance of environmental degradation. Even though the conglomerate spends on R&D and tries to increase energy efficiency, GE still calls for actions from third parties, especially from the US government, directed towards the introduction of strict legislation, which should help create incentives in the dominating home market for its competitors to follow GE’s strategy. GE’s efforts are merely based on the demand for energy efficient products. The company’s diversification strategy of energy utilities is therefore independent of the retreat from the use of non-renewable resources (The Washington Post, 2009).

GE is rather concerned with being reliable than being responsible for climate change showing its intrinsic moral attitude. However, GE is extremely outward-looking regarding its stakeholder responsiveness as the company expects its stakeholders to act accordingly. With the leadership change of Jack Welch by Jeffrey Immelt, GE changed its responsiveness level from a complete shareholder perspective (Welch) to a more outward oriented approach (Immelt). This is certainly also due to the economic changes in the past eight years (Krishnakumar, 2009). This trajectory transition from mainly being inactive to being reactive is illustrated in figure 21.

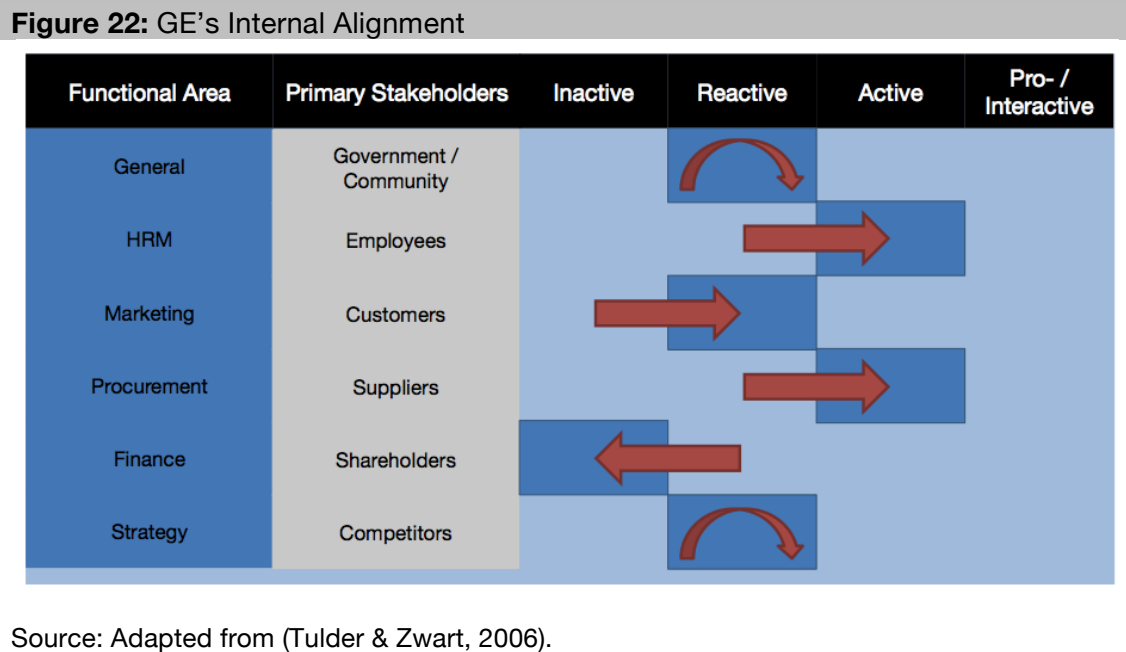
**Figure 21:** GE's Trajectory Transition



Although GE's current position is identified as reactive, the company is actively approaching the transition to take a more responsible stance. For example, the main challenge for the implementation of a reactive CSR strategy is the difficulty to influence external stakeholders due to external barriers (Tulder & Zwart, 2009b). Since GE in this context is entering an inactive CSR regime in China new challenges will certainly arise. Changing the local internal alignment of GE's employees and management practices towards a reactive or even active stance will become a major obstacle. GE is therefore actively communicating its efforts through its 'ecomagination' reports and implements strict codes of conduct to align its internal strategy with its CSR model (General Electric Company, 2009c).



GE's ICR strategy, previously identified as a 'hybrid' model, which is used to actively engage local stakeholders in China, complements the company's reactive stance in its home market. This approach increases the complexity of an ICR strategy and can lead to a certain level of inconsistency in GE's overall CSR concept. It creates a tension between global integration and local responsiveness. It is necessary, however, to develop a strong relationship with local stakeholders, which benefits both locals and GE (Tulder & Zwart, 2009b). Figure 22 depicts GE's internal alignment over the past 15 years.



GE's alignment towards its employees, foremost in China, is active in order to lead the way for 'ecomagination'. Due to its reactive stance towards customers, governments, and competitors, GE's alignment can be classified as reactive since these three areas are of major importance to the core strategy of GE. Yet, the conglomerate dedicates strong efforts to take an active stance towards its suppliers, for example with its partnering program as part of the company's 'ecomagination' business strategy (General Electric Company, 2009e). Over the next 15 years, the boxes depicted in figure 22 might move towards the right side; otherwise the future of GE's 'ecomagination' strategy will be at stake.

## Current Developments

### Portfolio of Partnerships

As the worldwide partner of Olympic Games from 2005 to 2012, GE has worked closely with the organizing committees. It provides state-of-the-art products and services for these events (General Electric Company, 2009m). The 2008 Beijing Olympic Games were considered a successful realization of GE's core values called 'ecomagination'. By providing electricity, lighting, and water, it participated in approximately 355 constructions of infrastructure projects including 37 Olympic arenas and 168 commercial buildings in and around Beijing. For instance, drinking water and rain recycling systems for the *Beijing National Stadium* as well as streetlamps powered by solar energy were major contributions (General Electric Company, 2008b).

Climate change has been a hot topic in public policy debates over recent years. Intending to pull its weight GE is involved in the *Intergovernmental Panel on Climate Change* (IPCC) and participates in ongoing dialogues with emerging countries such as India, China, and Brazil. Moreover, the *United Nations Climate Change Conference in Copenhagen* to be held this December provides a rare opportunity to create the frameworks needed in order to slow down, stop or even reverse the increase of greenhouse gas emissions and to enable sustainable economic growth worldwide. GE also helped to found the *United States Climate Action Partnership* (USCAP), a coalition among 26 major corporations and NGOs (General Electric Company, 2009a).

The *Guangdong Environmental Health and Safety Academy* (EHS Academy) due to open this year is collaboration between GE and the *Institute for Sustainable Communities*. Funded partly by the GE Foundation, it provides state-of-the-art training to equip environment, health and safety managers with the skills needed to move Guangdong's supply chain towards EHS compliance and leadership (General Electric Company, 2009a). The purpose of this pilot project seems to be to evaluate the impacts of such educational programs on the quality of labor. If the capacity building experiment is proved effective GE might want to extend it to other provinces in China.

Another educational initiative is GE's formation of close relationships with leading law schools allowing the company's attorneys to hold lectures. Also, GE invests in rule of law initiatives, most recently in the *U.S.-China Legal Cooperation Fund*, an ambition to put no single individual above the law. In other words, the initiative aims at encouraging economic development and investment by enhancing the transparency of China's legal systems (General Electric Company, 2009a).

GE addresses human rights in emerging markets by participating in partnerships to further business and human rights dialogues, especially through the *United Nations Global Compact* and the *Business Leaders*

*Initiative* (General Electric Company, 2009a). While the former is an initiative aiming at encouraging businesses to follow sustainable and responsible processes, the latter aims at enhancing the understanding of businesses regarding human rights dilemmas leading to a contribution to global leadership and best practices (General Electric Company, 2009c).

## GE vs. Greenpeace

GE operates six business units employing over 12,300 workers in China (General Electric Company, 2009l). 48% of the top 100 management positions are held by Chinese while another 30% are held by people originating from neighboring Asian countries (ChinaHRD, 2006). During the last decade GE worked hard to improve its brand image in China. Steve Bertamini, vice president of GE, states, “we hope people could link the words like green and conservation to our company” (China.com, 2009). This would give GE’s brand image a boost since the company is currently focusing on promoting green energy technology. GE’s expansion in China will speed up because of the enormous domestic demand for infrastructure and energy resulting from the population shift from rural to urban areas (China.com, 2009).

Since the establishment of its first Chinese affiliate in Hong Kong in 1997, Greenpeace China considers turning China into a sustainable environment as one of its most important objectives. In 2004, headquarters marked China as one of the three critical working areas and concentrated the NGO’s efforts on climate and energy, food and agriculture, water pollution, and forest protection. Greenpeace China was awarded *Outstanding Non-Governmental Organizations* by two influential media the following year (Greenpeace, 2009f).

A green trajectory of growth is theoretically feasible and practical. China was the second largest emitter of greenhouse gases in 2008 (Greenpeace, 2009f). It is likely to move to the first place this year (International Business Times, 2008). Greenpeace therefore believes that China’s efforts on environmental protection would have a major influence on global practices.

Since NGOs in China are not strong enough to confront enterprises directly there were no head-on-head collisions. However, Greenpeace has been a serious watchdog concerning environmental issues. It thus has the confidence to achieve its goals through research, reports and campaigns. During the Beijing Olympic Games, for example, the process of applying, planning and preparing environmental issues was a major priority of the Chinese government since *Green Olympic* was one of the three pillars of the Games. Greenpeace was able to convince the Chinese government to set the budget for *Green Olympic* to \$12.2bn (Greenpeace, 2009a).

Already in 1992 Greenpeace started collaborating with the *Sydney Organizing Committee* and encouraged it to include environmental design in

arena and game planning to embody an integrated solution. Five years later the NGO began requesting more advanced products and services from the Olympic sponsors in order to minimize the negative impact on the environment (Greenpeace, 2009a). These accumulative efforts indirectly set the standards GE had to follow in order to participate in the 2008 Games. This obedience can be interpreted as an implicit confrontation between Greenpeace and GE.

In July 2008 Greenpeace announced the *Beijing Olympic Games Evaluation Report* to appraise its environmental works. The measures used to improve environment and infrastructure include upgrading industrial technology, expanding public transport system, adopting the most stringent vehicle emission standards, and utilizing more renewable energies prove Beijing's resolution on sustainable development. Regrettably, without mandatory policies and indicators in the guidance, the result was partly compromised (Greenpeace, 2009c). Still, Greenpeace's achievements could turn into an environmental paradigm for other Chinese cities. By posing stricter requirements on contractors and sponsors more state-of-the-art products and techniques could be adopted (Greenpeace, 2009b).

Another incident happened in April 2008 when Greenpeace China released a report during the *International Symposium on Public Participation in Environmental Protection* indicating that 13 of the 28 dominant MNEs operating in China do not reveal information about regional or specific plant emissions. GE was among the 13 companies that Greenpeace blamed for adopting double standards in host and home countries thereby violating China's right to know about its environment condition (Taiwan Environmental Information Center, 2008).

As of May 2008, China began practicing the so-called *Environmental Information Disclosure Methods* (EIDM) requiring enterprises to disclose their pollution information. This October Greenpeace investigated the top 50 international firms and the top 100 Chinese companies to show the effect of EIDM. Eight international firms and ten Chinese ones were blamed for exceeding pollution standards and not revealing their information on time (Greenpeace, 2009d). GE was on the blacklist in 2008 but got removed from it this year. The reports thus must have a certain impact on the MNE's behavior that forced it to correct its conduct.

Greenpeace is, however, not satisfied with the inadequate content of the method, which does not specify and classify types of pollutants and destinations of discharge. Yet, ideal disclosure systems in Europe, the United States, and Japan could be used as benchmarks. Greenpeace believes an integrated online inquiry system would better suit the needs of civil society, hence trigger public involvement, which, in turn, would make companies more willing to engage in clean production (Greenpeace, 2009d). In March 2008 the NGO launched the *Green Investment Report*, aiming at helping fund managers and analyst to strengthen environmental elements of

their financial analysis, in order to share important information about environmental risks and issues (Greenpeace, 2009e). Consequently, the potential damage to MNEs that do not comply with standards might be larger due to these opinion leaders, further increasing the bargaining power of NGOs.

As GE states in its citizenship report, issues are incorporated into the company's strategic planning implying its transformation from mere cosmetic to effective CSR (Porter & Kramer, 2006). The two examples stated above illustrate that the relationship between GE and Greenpeace has become an implicit virtuous circle inducing GE to shift from an inactive to a reactive CSR approach. Similarly, Greenpeace's role as a watchdog advanced to a more cooperative role (Tulder & Zwart, 2006).

## Compliance Likelihood

In his 'statement of integrity' published in GE's code of conducts, 'The Spirit & The Letter', Jeffrey Immelt writes:

"There is no conflict between excellent financial performance and high standards of governance and compliance — in fact, the two are mutually reinforcing. As we focus on becoming the preeminent growth company of the 21st century, we must recognize that only one kind of performance will maintain our reputation, increase our customers' confidence in us and our products and services, and enable us to continue to grow, and that is performance with integrity" (General Electric Company, 2005)

The 'compliance likelihood framework', which helps to interpret the specificity and compliance components of the code (Brule, 2009), is used to analyze GE's 64 pages code of conduct. This framework allows stating the level of integrity in GE's performance, as defined by Mr. Immelt. The framework is split into two dimensions, specificity and compliance, measuring the

"[...] probability that firms will conform in practice to codes either proclaimed by themselves or developed by other actors, and that these claims will in fact be translated into responsible behavior and action" (Brule, 2009).

In other words, the framework tests whether GE is likely to engage in window dressing. The company's code of conduct consists of six broad rules (General Electric Company, 2005), which are neither measurable nor sanctionable in case of misbehavior:

1. Obey the applicable laws and regulations governing our business conduct worldwide.
2. Be honest, fair and trustworthy in all your GE activities and relationships.
3. Avoid all conflicts of interest between work and personal affairs.
4. Foster an atmosphere in which fair employment practices extend to every member of the diverse GE community.
5. Strive to create a safe workplace and to protect the environment.

6. Through leadership at all levels, sustain a culture where ethical conduct is recognized, valued and exemplified by all employees.

Overall the 'code of conduct compliance likelihood' for GE is high (see tables 7 and 8). Particular information regarding integrity standards is only accessible by employees, stressing the internal alignment of GE's code of conduct. From this viewpoint, GE is unlikely to engage in window dressing. Many detailed programs and defined codes, however, will not be fully implemented unless government policies, consumer demand and competitor behavior change and create a competitive context that assures sustainable growth, which inherits integrity and strategy at the same level.

**Table 7: Compliance Likelihood Framework (I)**

Criteria		Elaboration		Classification
Social	Forced Labor	GE employee policies, Fair employment practices		'high' - (5)
	Training			
Environment	Workplace Safety and Safety	Health		'medium' - (3)
	Competing Globally; Working with Suppliers			
Generic	Competition	Ecomagination, 'Citizenship' report, PR Communication		'high' - (5)
	Consumer compliance	Working with Suppliers, Consumers, Government, Competition Corruption, Trade Laws, Money Laundering		
Organizations targeted	Community - 'Citizenship Report'			'medium' - (3)
	Competing Globally, Complying with Competition Law, Working with Governments	Ethics in multiple Business Partner areas		
Geographic scope	General	compliance, Law compliance		'low' - (general)
	Business Partner: Suppliers, Competitors			
Nature	Website: Business Partner in particular, Partnership program			'medium' - (moderate)
	Global			
Quantitative standards	Region			'high' - (majority)
	75% Metrics Measurement on website for running programs			
Time horizon	10% - 25% but still reactive			'vague'
	home country driven with extended influence of local/international law standards - Standards on national website			
References				'clear'

Source: Adapted from (Tulder & Zwart, 2009b).

**Table 8: Compliance Likelihood Framework (II)**

Compliance		
<i>Monitoring Systems and Processes</i>	Obligation for employees to raise concern, Ombudsperson Process, Integrity Training	'vague'
<i>Position of Monitoring Actor</i>	combination of parties involved. Stakeholder dialogue, Firm and self-responsibility as main factor	'4'
<i>Sanctions</i>	Penalties for violations - termination of employment	'severe'
<i>Sactions to third parties</i>	Termination of Partnership or preventative prohibition to engage with third party under certain circumstances	'severe'
<i>Financial commitment</i>	Multiple Programs	'high'
<i>Management commitment</i>	Multi level commitment	'high'

Source: Adapted from (Tulder & Zwart, 2009b).



## Recommendations

### A Sustainable Sustainable Competitive Advantage

As the world is suffering from the shattering financial crisis and threatening climate change, enterprises have a unique opportunity to review and revise their strategy. In fact, those who do not adapt to the change will lose their edges in this shuffle. In his article 'The New Frontiers' Raman emphasizes four shifts of which three are relevant to this case (Raman, 2009). First, the growing division between developed and developing countries leads to a focus on emerging markets, especially on the huge market China. Second, joint forces among emerging giants imply the importance of partnerships for conglomerates such as GE to tap into pristine markets. Third, high stakes regarding sustainability issues suggests that enterprises should go 'green' on a global scale.

GE Energy faces a challenge when balancing its strategy between integration and local responsiveness in China. There are theoretical approaches that aim at finding the necessary strategic balance, which creates a sustainable competitive advantage. Some authors stress the asymmetries between borders that create opportunities for international firms seeking to exploit these asymmetries. Yet, others argue that a global to local dichotomy is too simplistic in order to cover the entire complexity (Fahy, 2001). GE is a globally acting MNE with a high degree of local responsiveness in emerging markets (General Electric Company, 2008). The company drives the rhetoric in its strategy to 'think global, act local' in order to optimize integration, responsiveness and the effective knowledge transfer, which fosters GE's human capital (Fahy, 2001).

Nidumolu et al depict a path consisting of five stages towards sustainability, including viewing compliance as opportunity, making value chains sustainable, designing sustainable products and services, developing new business models, and creating next practice platforms (Nidumolu, Prahalad, & Rangaswami, 2009). As a gigantic MNE GE possesses the scale and sources to perform well in most stages; the distances between the United States and China, however, create obstacles and expose GE to risks and challenges. As identified earlier in this text, rule of law and capacity building are both major challenges for GE Energy's capabilities of local responsiveness in China.

A sound rule of law promotes stable, durable economic growth and economic predictability, which creates an environment where MNEs feel morally and ethically comfortable conducting business. The rule also incorporates international as well as local property rights, which protects GE's knowledge. The proper protection of intellectual property is a necessary especially for technology and innovation oriented companies like GE. It is a minimum requirement in order to gain a competitive advantage as a result of R&D

spending. From a resource perspective sustainable competitive advantage is the result of valuable, rare, and imperfectly imitable resources as well as substitutability (Barney, 1991). GE's energy products and services are unique due to the company's innovative and dominant competences. The products, however, are neither perfectly imitable nor substitutable due to the complex political, economical and legal environment in China. GE therefore has to penetrate the China's entire market and secure a first-mover advantage in order to quickly establish a sense of identification.

GE's second challenge is to build up capacity in China's energy infrastructure market. The term capacity building means to shape GE's competitive context in China in a way that increases the demand for the company's products and subsequently boosts profits. Ways to shape the context include building innovative partnership networks with suppliers, competitors and institutions to facilitate research and coordinate efforts aiming at creating sustainable innovation (Wescott, 2002). This external alignment of capacity building should be complemented with an internal alignment by developing human capital. Del Valle and Castillo stress the importance of internal training and external education to build up human capital inside and outside of the firm, which positively influences the competitive context (Del Valle & Castillo, 2009).

While capacity building functions as the foundation of selling, rule of law provides is the premise of protection. The former mitigates the risks of product quality, labor rights and human resource management while the latter lowers the menace posed by copycats and increases ease of doing business as well as environmental awareness.

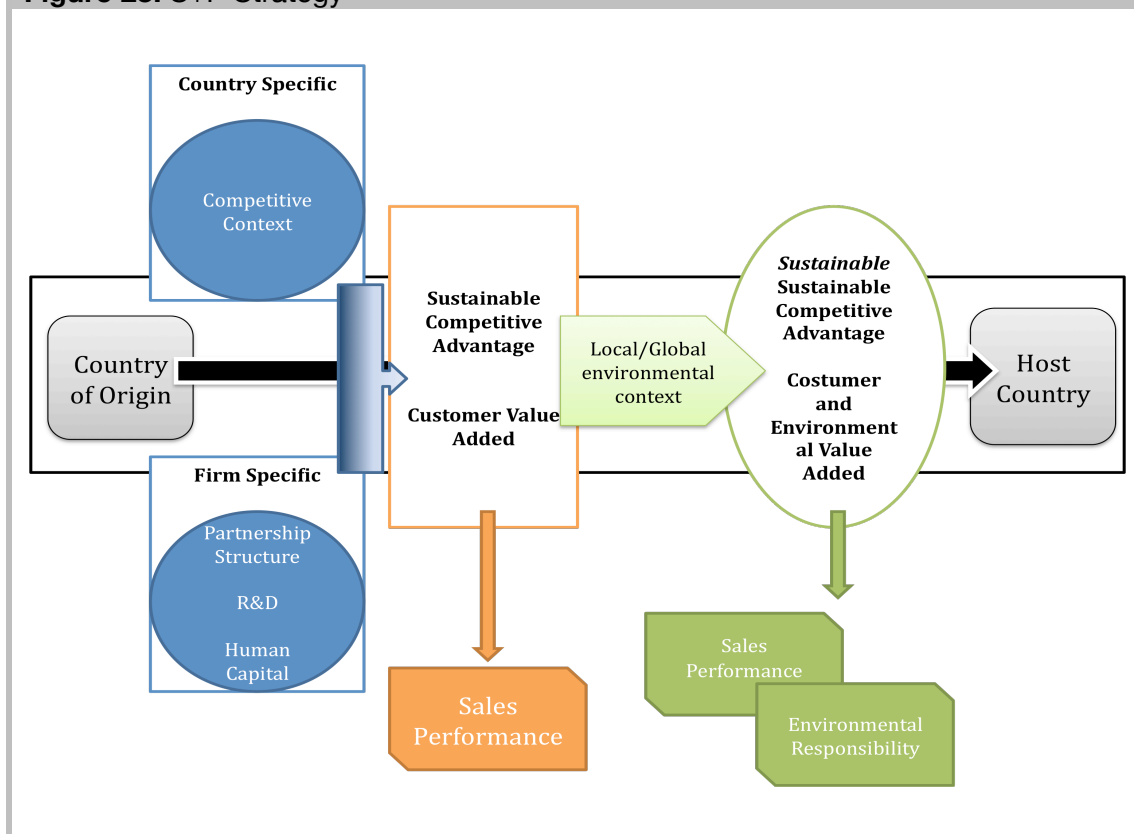
Both challenges must be tackled by GE Energy in order to develop and foster an effective sustainable competitive advantage in China. GE's aim should extend beyond a sustainable competitive advantage towards a so-called 'sustainable sustainable competitive advantage' (SSCA). Tulder and Zwart define the term SSCA as a combination of an efficient strategy, which leads to profit, innovation and growth, with an ethical strategy, which comprises of fairness, environmental aspects and a democratic vision. The outcome is an effective strategy, 'doing the right things right', which leads to an improved market position through environmental investment, interactive innovation with adequate patent protection as well as improved market shares through fair labor and supplier conditions (Tulder & Zwart, 2006).

Figure 23 illustrates our 'S+P'-strategy for GE Energy in China. The conglomerate needs to consider China's specific competitive context in order to effectively deal with the distance in between the home and the host country. Furthermore, GE must reconsider its own investment in its network, R&D, and human capital to form a new context that subsequently leads to a sustainable competitive advantage. By highlighting the importance of better-protected intellectual property and stronger capacity in the field of

green energy technology, GE is able to create a SSCA in China and can therefore add value for its customers and the environment.

Our advice for GE Energy on how to manage the distance between its home and host country is further elaborated in two steps. The first step explains how GE Energy can build up local capacity and subsequently sell, the ‘S’ part of the strategy, more of its green energy products. It also shows how the company can protect, the ‘P’, its intellectual property in China. The second step presents the leadership model needed to face challenges appropriately.

**Figure 23: S+P Strategy**



Bridging the distance between home and host country involves the consideration of both country and firm specific aspects (see figure 23). China’s competitive structure does not allow free market competition, for example, thereby limiting GE’s strategic choices. Since GE Energy has a large technological knowledge that needs to be protected, intellectual property rights play an important part. If these aspects are optimized, the company managed to obtain a sustainable competitive advantage, leading to a surge in sales. In order to stay sustainable in the future, sales performance goals need to be complemented with environmental responsibility goals. Both ‘S’ and ‘P’ are necessary in both stages. Only by protecting GE’s technology, it can operate and innovate further in a sustainable way. Innovative green products alone will not lift GE’s share whereas the creation of a market for its goods leading to higher sales will

definitely show an impact on shareholder's behavior. This 'S+P'-strategy will consequently lead to a sustainable competitive advantage for GE Energy.

## Stakeholder Collaboration

Institutional distance increases the complexity when managing product quality. Unlike suppliers in the United States, many Chinese firms are not capable of finding the adequate balance of the quantity and the quality of their products and services. With the EHS Academy in Guangdong, for example, GE launched projects in order to lift their knowledge. The conglomerate should, however, also come up with a code of conduct for its suppliers to standardize quality criteria. Moreover, by cooperating with local NGOs, GE would acquire a better understanding of current demand thereby knowing what products and services are suitable for the market.

China's relatively poor labor conditions result from development and normative distances since Chinese suppliers are mainly profit-oriented instead of welfare-oriented. The EHS program mentioned above also contributes to mitigate this risk. Yet, it would probably prove more effective to set labor related standards for suppliers directly or simply request them to implement certain international standards such as ISO as the premise for cooperation.

Cultural and normative distances both increase the risk when dealing with human resource management issues. Extreme differences in Hofstede's values (IDV and LTO) between the US and China are particularly important factors because they tend to be communication and cooperation barriers. Incorporating some specific criteria into GE's code of conduct in order to regulate human interaction and to avoid divisions between individuals or departments is a possible solution.

As of today GE sets regulations based on the US international trade control (ITC) law to prevent its employees from sneaking out business secrets across national borders (General Electric Company, 2005). However, this code is not applicable in China implying that GE could only rely on its own incomplete rules regarding intellectual property. GE should thus create another wall at the supplier's end since these firms often have access to critical documents.

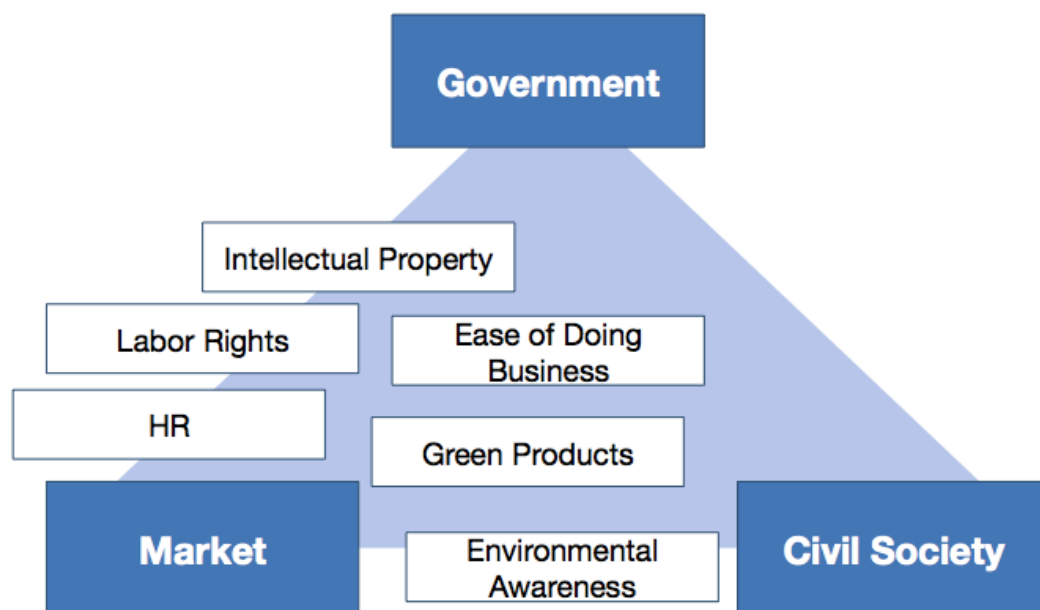
Contradictorily, the ease of doing business in China is both high and low at the same time. On the one hand it is low because the Chinese government is communist and does not negotiate even with a large MNEs. In recent years, however, the ease for GE Energy increased because the *China National Development and Reform Commission* recently released China's *National Climate Change Programme*, which aims at achieving a 20% reduction in energy consumption per unit GDP by 2010 (China National Development and

Reform Commission, 2009), opening previously closed markets. With common 'green' goals incentives instead of barriers await GE Energy.

The risk of low environmental awareness stems from a high difference in development between the US and China. Most effective would be to change the society's environmental awareness through institutions. GE, however, may not have enough bargaining power to lobby for such an extreme change. The media, for example, are controlled by the Chinese government. Consequently, it is much more feasible to partner with NGOs such as Greenpeace to trigger public awareness.

Figure 24 depicts the six risks in the stakeholder triangle. All three spheres carry part of the responsibilities depending on the issue. Intellectual property and labor rights can be influenced by the government to a large extent. GE could engage in more comprehensive HR practices, educate its employees about their rights and offer greener products. Civil society should eventually have a higher environmental awareness so that green products find a market. The S+P strategy needs to tackle all three spheres if meant to be successful. GE therefore should enter a dialogue with other firms, the government and NGOs, which, in turn, communicate with the individuals in civil society.

**Figure 24:** Stakeholder Triangle in the S+P Strategy



Source: Adapted from (Tulder & Zwart, 2006).

## Leadership Challenges

Jeffrey Immelt argues that developing a culture of integrity is the biggest challenge for high-quality leadership:

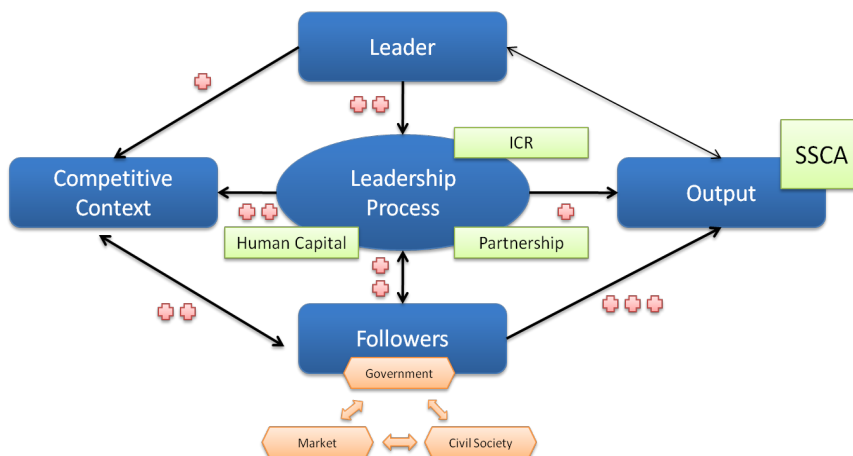
“We’re a 130-year-old company that has a great record of high-quality leadership and a culture of integrity.” (Immelt J. , Jeff Immelt, CEO, 2009a)

Leadership without integrity can indeed become a dangerous attribute. According to Tulder and Zwart, great leaders thus share three characteristics: ambition, competence and integrity (Tulder & Zwart, 2009c). Furthermore, the effectiveness of leaders depends on their relationship with their followers and their ability to motivate them by communicating a strong vision that changes the competitive context. As Tulder and Zwart put it:

“Effective societal interface management requires effective leadership.” (Tulder & Zwart, 2009c)

The leadership challenges that GE Energy faces in China are complex. The desired outcome of GE has been defined as creating a SSCA by dealing with the challenges of capacity building as well as by influencing the prevailing rule of law. These two challenges are summed up in GE’s competitive context. The consequent leadership challenge is defining by the leadership process, which influences followers in such a way that they, in turn, positively reshape GE’s competitive context. If this context is favorable for GE and if its internal human capital is aligned properly GE’s leadership process will lead to a ‘sustainable sustainable competitive advantage’ (see figure 25).

**Figure 25: Leadership Model**

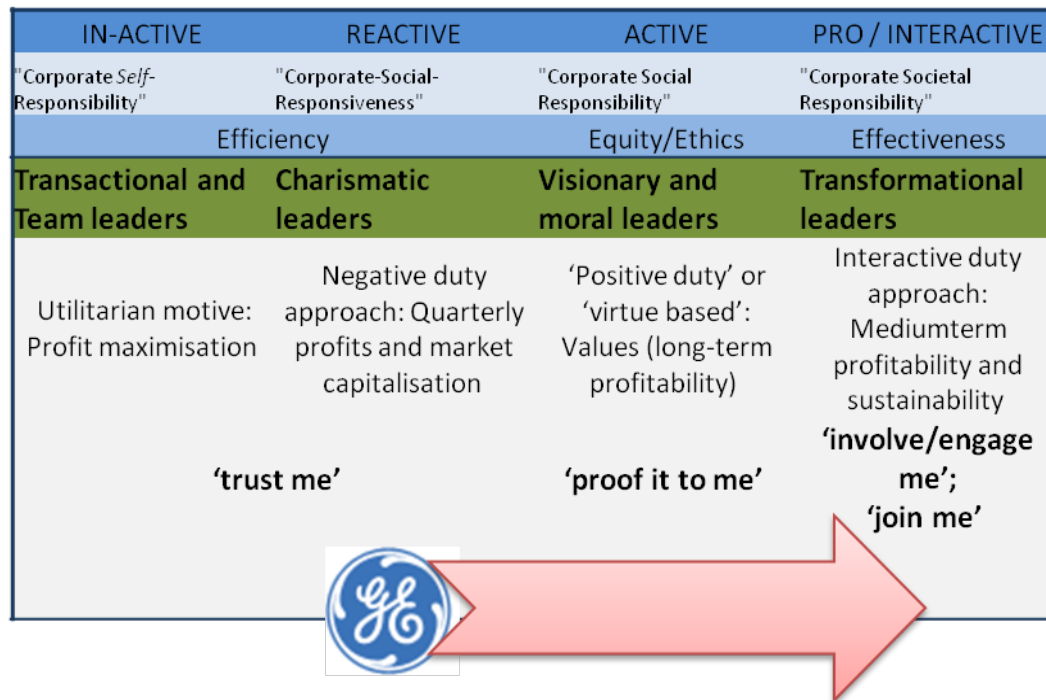


Source: Adapted from (Tulder, 2009d).

Each of the four leadership styles introduced by Tulder and Zwart match one of the four CSR approaches (see figure 26). GE’s leadership style as well as its CSR approach overall fits best to the reactive approach and to

charismatic leadership since GE's formulated visions are still heavily bounded to governmental policies and customer behavior.

**Figure 26: GE's Future**



Source: Adapted from (Tulder & Zwart, 2006).

The advice for GE concerning its leadership style is to change to a more visionary style, which serves as a precondition for an ultimate transformational leadership style. Latter is necessary to fully meet all leadership challenges and create a SSCA for GE Energy. This type of leadership is directed at formulating and implementing a new organizational vision that is embedded in a broader vision of civil society as well as at the active involvement of external stakeholders (Tulder, 2009d). Efficient leadership for GE Energy therefore contains two dimensions of engagement. First, GE needs to invest more in human capital and align its employees to its internal strategy and vision. Second, the company should convince its external stakeholders to join the company's vision. These two dimensions consequently will change GE Energy's competitive context in China and lead to a SSCA. As Mr. Immelt puts it:

"The most important thing I've learned since becoming CEO is context. It's how your company fits in with the world and how you respond to it". (Immelt J., Jeff Immelt, CEO, 2009a).

## Conclusion

The narrowed context of GE Energy's analysis in China must be stated in order to identify limitations of the research conducted in this paper. On the one hand, narrowing the context provides the opportunity to focus more on hidden risks, which are not revealed easily if considering the entire firm structure. On the other hand, a narrowed context creates a blind spot for risks and responsibilities only to be revealed if the whole conglomerate is considered. Extending the research conducted in this paper to the entire General Electric Company would certainly add value and provide an outright picture of how to effectively manage distance within a global conglomerate.

Furthermore, the research method used in this paper is based on primary resources gathered from GE's reports and state-of-the-art literature about the theory of international firm strategies and distance management. Still, to some extent, the possibility of using 'window dressed' data from GE can lead to pitfalls in this research. A more fact-based research method, which excludes qualitative statements given by GE, could help avoiding such pitfalls. Focusing on quantitative data and using in-depth risk analysis models would thus add value to future research. Another addition to avoid the risk of using 'blue- or greenwashed' data is to complement the compliance likelihood framework used in the paper with the implementation likelihood framework in order to evaluate the level of 'input-output window dressing' of GE's reports.

The S+P strategy, which helps to manage the distance between the US and China in the energy industry, is based on the challenges that GE identified when entering emerging markets. In order to keep the strategy feasible two of the three main challenges GE faces are being tackled. Future research could enhance the advice given to GE by including the third dimension 'supply chains' of managing risks.

The power structure in China is totally different from those of democratic countries. It consists of a dominant state, a moderate market, and a weak civil society. Looking also at the Chinese perspective mitigates bias in this research. Due to Chinese rules and regulations there is not much political, economical, and societal information available to the public, mainly because the media is under governmental control and no critics on policies could be found. Moreover, the government rather than NGOs has the greatest impact on people. As a result, there was no direct clash between GE and NGOs in China.

Rather than analyzing tensions between GE and NGOs, pressure between the Chinese government and the conglomerate could provide more insight into the topic. Yet, determining whether NGOs could become a regional or international leader would be intriguing. International NGOs are, after all, gaining ground in China and could lead the way for domestic organizations to build up their voice.



Our S+P strategy could help GE Energy in China to unlock its latent potential embedded in this emerging market. To achieve their desired goals and reap a ‘sustainable sustainable competitive advantage’ in the Chinese energy sector, GE must effectively deal with the distance between GE’s business strategies and the Chinese context. Vijay Govindarajan, Chief Innovation Consultant at GE, stresses the importance of operating in emerging markets but hints at possible complications.

“[T]he rise of emerging markets, such as India and China, mark a new phase of globalization, and, to date, most multinational companies have targeted only the top of the pyramid in these markets — the wealthiest 10%. The real potential lies in unlocking the other 90%. That is easier said than done” (General Electric Company, 2009).

By managing the trade-off between the risks and responsibilities of GE’s engagement in emerging markets, the S+P strategy, on the one hand, builds capacity in order to reshape the competitive context in China, which creates demand subsequently leading higher sales and profits. The strategy, on the other hand, also develops a positive environment for innovation through sound intellectual property rights as well as through the alleviation of corruption, which is the main barrier hampering innovation at GE. Consequently, the strategy aspires a transformation from a reactive ICR approach to a truly active stance towards issues and stakeholders involved. The advice given to GE Energy therefore bridges the gap between ‘imagination at work’ and ‘implementation in the field’. As GE’s website tells:

“GE people worldwide are dedicated to turning imaginative ideas into leading products and services that help solve some of the world’s toughest problems” (General Electric Company, 2009).

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We want to affirm that this term paper was done independently and without external help. We have used only sources and aids that we have cited and we have identified these sources within the text. This work has not been submitted in this or a similar form to another examination board nor has it been published.