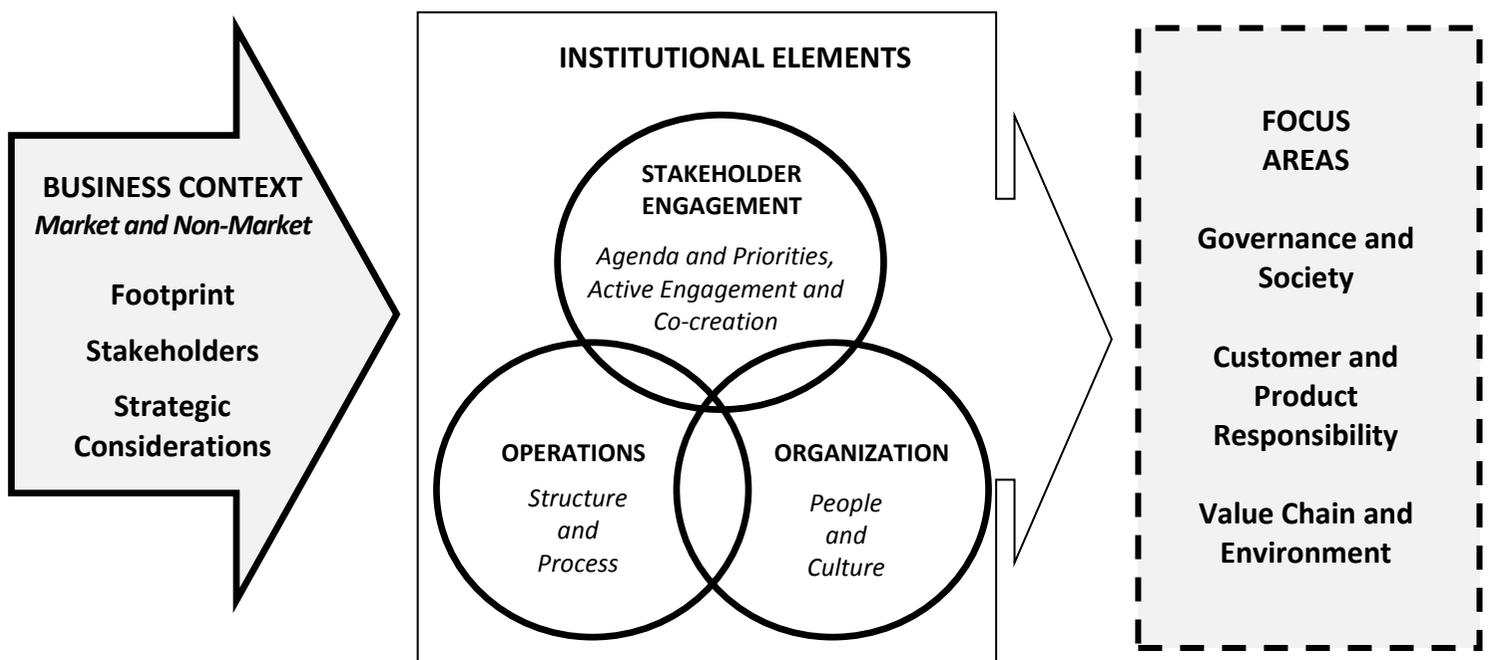


SOCIAL INNOVATION: BUSINESS INVENTION AND SOCIAL SOLUTIONS

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Institutionalizing Social Innovation



*** The Institutional Elements of Social Innovation allow an organization to continually assess its business context; spot opportunities; generate, farm, and nurture fresh ideas and harvest the fruits of innovation in ways that create sustainable positive change for society in a manner that builds real value for the company. ***



AIM

RAMON V. DEL ROSARIO, SR.
CENTER FOR CORPORATE
SOCIAL RESPONSIBILITY

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Innovation plays an important role in any organization. It not only allows the organization to become more resilient and adaptable to changes in the environment, very often it is the means by which the organization is able to create significant value and effect great change. When the transformative powers of innovation are focused on social concerns, there is the potential for radical improvements for large segments of society.

The AIM RVR Center for Corporate Social Responsibility defines social innovation as a new concept or application that integrates the concept of sustainability and the creation of both shareholder as well as social value. It is also important to note that social innovation programs must be measurable, quantifiable and replicable. The Center's framework on Social Innovation focuses on institutionalizing the attitude and processes of social innovation into the entire business organization. The Framework includes three components: (1) Assessment of the Business Context; (2) Institutional Elements of Social Innovation (Stakeholder Engagement, Organization and Operation); and (3) Focus Areas.

This occasional paper also includes an analysis of the structures, systems and processes of 3M as an example of how a company has integrated the practices of social innovation throughout its entire organization. The company is able to embed social innovation in: its business culture and practices, processes and systems, research and development of products and services, and the development of evaluation and measures of success.

This paper aims to provide the reader with a working knowledge of the potential value of social innovation, how it can be implemented in a manner that enables a company to be more competitive while creating social value, and finally provides a framework within which to understand how social innovation can be built into the values, structure and practices of corporations.

This working paper was written by Assoc. Prof. Maria Elena B. Herrera, with the assistance of Maria Cristina I. Alarilla, Asian Institute of Management Ramon V. del Rosario Center for Corporate Social Responsibility. All materials are prepared solely for the purpose of class discussion. They are neither designed nor intended to illustrate the correct or incorrect management of problems or issues contained in the paper.

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WHAT IS INNOVATION?

Innovation is defined by the New Oxford Dictionary of English as, “Making changes to something established by introducing something new.”¹ Peter Drucker defined innovation as “the task of giving human and material resources new and greater wealth-producing capacity...Managers must convert society’s needs into opportunities for profitable business.”²

Phillis et.al. (2008) differentiates innovation as a process and as an outcome. They argue that innovation as a process looks into the approaches “that produce innovation, such as individual creativity, organizational structure, environmental context, and social and economic factors.” On the other hand, innovation as an outcome looks into the outputs “that manifests itself in new products, product features, and production methods.”³

O’Sullivan and Dooley (2009) provide a more comprehensive definition of innovation which transcends scope, type and organization. They defined it as

*...the process of making changes, large and small, radical and incremental, to products, processes, and services that results in the introduction of something new for the organization that adds value to customers and contributes to the knowledge store of the organization.*⁴

Phillis et.al. (2008) identify two criteria for an idea or change can be called innovation: novelty (i.e. new to the user, context and application) and improvement (i.e. must be more effective or efficient than the existing alternatives).⁵

O’Sullivan and Dooley (2009) identify four drivers of innovation: (1) Emerging technologies; (2) Competitor Actions; (3) New Ideas from customers, strategic partners and employees; and (4) Emerging changes in the external environment. A summary of the description of four drivers are presented below.

1. Emerging technologies could be used as the “basis for innovative products, process and services that can revolutionize the fortunes of an organization.” Sources of emerging technologies are “universities, high-technology start-ups and competing organizations.”
2. Competitor actions can “act as a benchmark regarding projects and initiatives to pursue.” This goes beyond merely copying and involves taking ideas further.
3. New ideas could come from external and internal stakeholders of the company. These may include “employees, suppliers, customers and lead users, [which may] reveal new opportunities that otherwise might have gone undiscovered.”

¹ O’Sullivan, D. and Dooley, L. (2009) *Applying Innovation*, USA: Sage Publications. Online. Available HTTP: <http://www.nuigalway.ie/staff-sites/david_osullivan/documents/applyinginnovation.pdf> (accessed 09 October 2012).

² Drucker, P.F. (1986) *Management: Tasks, Responsibilities, Practices*, USA: Truman Talley Books. Online. Available HTTP: <<http://www.civil.pdn.ac.lk/acstaff/Jayalath/pages/books/Management%20-%20Tasks,%20Responsibilities,%20Practices%20by%20Peter%20Drucker.pdf>> (accessed 27 July 2012).

³ Phillis, J.A ., Deiglmeier, K. and Miller, D.T. (Fall 2008). “Social Innovation: Rediscovering Social Innovation.” Stanford Social Innovation Review. Available HTTP: <http://www.ssireview.org/articles/entry/rediscovering_social_innovation/> (accessed 27 July 2012).

⁴ O’Sullivan, D. and Dooley, L. (2009) *Applying Innovation*, USA: Sage Publications. Online. Available HTTP: <http://www.nuigalway.ie/staff-sites/david_osullivan/documents/applyinginnovation.pdf> (accessed 09 October 2012).

⁵ Phillis, J.A ., Deiglmeier, K. and Miller, D.T. (Fall 2008). “Social Innovation: Rediscovering Social Innovation.” Stanford Social Innovation Review. Available HTTP: <http://www.ssireview.org/articles/entry/rediscovering_social_innovation/> (accessed 27 July 2012).

4. External environment may refer to competitor actions or changes in macro-environment (includes political, economic, cultural or technological environment) where the company operates. "As organizations struggle to realign with their new business environment, they must innovate their products, processes and services accordingly."⁶

Innovation could occur in products, processes, services. Product innovation refers to "making beneficial changes to physical products," such as introducing touch mobile phones or including internet access and camera functions to mobile phones. Process innovation refers to "making beneficial changes to the processes that produce products or services," such as adopting a new production line that assembles mobile phones faster and cheaper as well as more efficient; or using recycled mobile phone components in the manufacture of new units. And service innovation refers to "making beneficial changes to services that customers use," such as packaging special services and new mobile phones with the avilment of new phone contracts, and creating disposal bins where customers can deposit used and old mobile phones for more environmentally sound disposal.⁷

Innovation can help companies become more competitive and profitable by increasing revenue, improving productivity, reducing cost, improving brand value, and building new partnerships and relationships. The opposite is true for companies that fail to innovate because they could "lose market Share to competitors, suffer from falling productivity and efficiency, lose key staff, and experience steadily reducing margins and profit, and going out of business."⁸

PROCESS OF INNOVATION

The process of innovation is considered to be an "end to end process"⁹—it has a specific start and end point. Idea creation ends with the crafting of an idea, invention ends with the development of a prototype. Innovation ends with a successful implementation in the market place.

Based on innovation literature, innovation starts at the assessment of the external and internal environment in identifying new ideas. These new ideas are developed further and assessed for best fit with the organization/company's interests. Once the idea is identified and developed, it is tested and evaluated. If the idea seems to produce the expected results, it is adopted and used. Processes using this basic approach are presented by both O'Sullivan and Dooley (2009) (Idea Generation, Opportunity Recognition, Development and Realization)¹⁰ and Phills et.al. (2008) (generating a novel product or solution; product invention; diffusion/adoption)¹¹.

⁶ O'Sullivan, D. and Dooley, L. (2009) *Applying Innovation*, USA: Sage Publications. Online. Available HTTP: <http://www.nuigalway.ie/staff-sites/david_osullivan/documents/applyinginnovation.pdf> (accessed 09 October 2012).

⁷ Ibid.

⁸ Business Link. (n.d.) "The Business Case for Innovation." Available HTTP: <<http://www.businesslink.gov.uk/bdotg/action/detail?itemId=1073792537&r.i=1073792540&r.l1=1073858796&r.l2=1074298365&r.l3=1074027604&r.s=sc&r.t=RESOURCES&type=RESOURCES>> (accessed 15 August 2012)

⁹ Baya, V., Parker, B. and Wasden, C. (2011) "Can Innovation be discipline without killing it?" Available HTTP: <<http://www.pwc.com/us/en/technology-forecast/2011/issue2/features/innovation-disciplined.jhtml>> (accessed 09 October 2012)

¹⁰ O'Sullivan, D. and Dooley, L. (2009) *Applying Innovation*, USA: Sage Publications. Online. Available HTTP: <http://www.nuigalway.ie/staff-sites/david_osullivan/documents/applyinginnovation.pdf> (accessed 09 October 2012).

¹¹ Phills, J.A., Deiglmeier, K. and Miller, D.T. (Fall 2008). "Social Innovation: Rediscovering Social Innovation." Stanford Social Innovation Review. Available HTTP: <http://www.ssireview.org/articles/entry/rediscovering_social_innovation/> (accessed 27 July 2012).

However, various innovation scholars believe that implementing and evaluating an idea is not enough. There is a need to add specific stages/and or approaches which fully integrate the values and processes of innovation into the organization.

1. Scaling up Phase. PWC believes that organizations need to take into consideration the “size of market opportunity” because this is critical in the commercialization of the product or service.¹² This is particularly true for innovations that could address basic social problems that transcend countries and nationalities.
2. Adopting a Strategic Innovation Approach. Palmer and Kaplan present a strategic innovation approach which identifies the importance for organizations to continuously consider the strategic alignment of innovation in its core business and operations. They argue that innovation is not a “one-size-fits-all” approach but must be tweaked in order to address the basic concerns of the organizations and at the same time take into consideration the interests of its stakeholders.¹³

The process of innovation should not be managed blindly—a specific target/objective should be identified. The specific objective could change during the process of innovation but the articulated objective acts as a guide, which directs all efforts and initiatives toward a shared goal. Some factors that could result in failure in innovation include: poor goal definition; poor alignment of actions to goals; poor participation in teams; poor monitoring of results; and poor communication and sense of community.¹⁴

FACTORS AFFECTING INNOVATION

There are various factors that could facilitate or impede innovation in an organization. These factors range from the macro-economic environment (i.e. industry performance and composition, government regulations, business landscape, and stakeholder concerns) to internal conditions and circumstances (i.e. culture, leadership, people, process and structures).

It is therefore in the interest of the organization to continuously monitor these factors in order to anticipate changes and risks as well as develop strategies that mitigate its impact to the organization or stakeholders. Organizations could also invest in specific areas that could equip them with the advantage over their competitors. For example, investments could be made in employee’s skills to equip them with the current information and knowledge, technologies for better information gathering, and research networks for idea generation and assessment.¹⁵

¹² Baya, V., Parker, B. and Wasden, C. (2011) “Can Innovation be discipline without killing it?” Available HTTP: <<http://www.pwc.com/us/en/technology-forecast/2011/issue2/features/innovation-disciplined.jhtml>> (accessed 09 October 2012)

¹³ Palmer, D. and Kaplan, S. (n.d.) “A Framework for Innovation: Blending strategy and create exploration to discover future business opportunities.” Available HTTP: <<http://www.innovation-point.com/Strategic%20Innovation%20White%20Paper.pdf>> (accessed 09 October 2012).

¹⁴ O’Sullivan, D. (2002). Framework for managing business development in the networked organisation. *Computers in Industry*, 47, 77–88.

¹⁵ New South Wales, Department of Education and Communities and Charles Sturt University. (2011) “Factors that Influence Success or Failure in Innovation” Available HTTP: <http://hsc.csu.edu.au/design_technology/innovation_emerging/factors/success_failure/1.2.11.html> (accessed 09 October 2012).

Table 1: Factors Affecting Innovation

Macro-economic factors	<ul style="list-style-type: none">• Government based: Regulations and laws• Industry based: Industry maturity, Customer needs and expectations, Technological opportunities, Investment attractiveness, Intensity of competition, Company size, Origin of ownership and export orientation• Society based: Stakeholders key concerns and interests (including opinion leaders and champions)
Internal Business Environment	<ul style="list-style-type: none">• Process and Structure: Information, funding for innovation and R&D, process of innovation• People: Leadership, corporate culture, networks, employee skills

Source: Zakić, N., Jovanović, A. and Stamatović, M. (2008) "Factors that Influence Success or Failure in Innovation" in FACTA UNIVERSITATIS Series: Economics and Organization Vol. 5, No 1, 2008. Available HTTP <<http://facta.junis.ni.ac.rs/eao/eao200801/eao200801-03.pdf>> (accessed 12 October 2012); and Tolba, A.H. and Mourad, M. (August 2011) "Individual and cultural factors affecting diffusion of innovation" in Journal of International Business and Cultural Studies (Volume 5). Available HTTP: <<http://www.aabri.com/manuscripts/11806.pdf>> (accessed 12 October 2012)

DEFINITION OF SOCIAL INNOVATION

Social Innovation differs from innovation because it seeks to provide solutions to social problems. Phillips et.al (2008) defined social innovation as:

*A novel solution to a social problem that is more effective, efficient, sustainable, or just than existing solutions and for which the value created accrues primarily to society as a whole rather than private individuals... A social innovation can be a product, production process, or technology (much like innovation in general), but it can also be a principle, an idea, a piece of legislation, a social movement, an intervention, or some combination of them.*¹⁶

The RVR Center for Corporate Social Responsibility defines social innovation as:

1. A "new concept" or "new application." A new concept refers to a new idea. This means the company is the first to implement/pilot test the social innovation program. A new application means that the program/theory is being implemented in a new field, and hence required adaptation. If a company is simply replicating a program from the same industry/sector; then it is usually not innovation.
2. Creates shareholder value and social value. Social innovation accrues benefits both for the company and community. Benefits to the community can include direct benefits to the community or indirect benefits to the community – e.g. in environmental improvement that can significantly improve future livelihood sources or health conditions.
3. Significant impact that is measurable. Social innovation generates benefits to the community, which should be quantifiable.
4. Replicable. The social innovation program could be implemented by another company.

Social innovation need not be radical. It could involve using the company's existing technology, strengths and capabilities for new applications. Clearly, social innovation, like all of CSR is most efficient when aligned with corporate capability. For example, a telecom company could face difficulty in attempting to address health concerns by providing basic health services for the poor. However, if the company truly wishes to focus on health services as a priority development goal, it

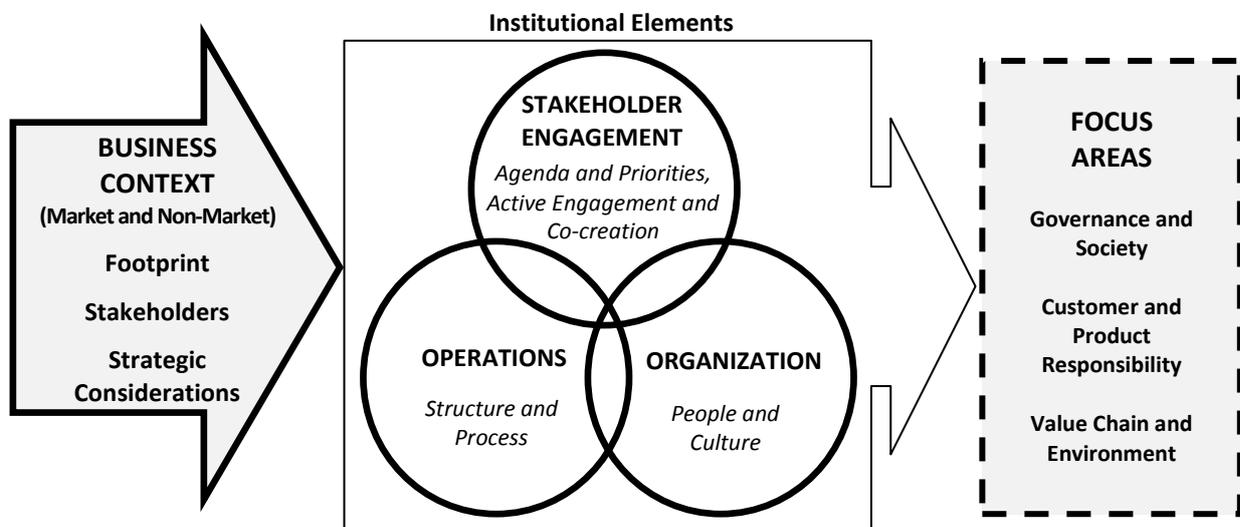
¹⁶ Phillips, J.A., Deiglmeier, K. and Miller, D.T. (Fall 2008). "Social Innovation: Rediscovering Social Innovation." Stanford Social Innovation Review. Available HTTP: <http://www.ssireview.org/articles/entry/rediscovering_social_innovation/> (accessed 27 July 2012).

could focus on developing IT platforms that enhance the delivery of health services. An example of this is Smart Philippines' Secured Health Information Network and Exchange, which is currently implemented in Iloilo province. It creates shareholder value since the health professionals use Smart mobile services, it also create social value since it facilitates easy access to patient records and documents. The project is measurable since Smart and its partners could track the number of patient records in the database as well as the number of health workers using the system. It is also replicable because the system could be transferred and used by workers in another location/province.

Institutionalizing Social Innovation in an Organization. The RVR CSR Center has developed a framework to help companies institutionalize social innovation into the organization. The framework requires alignment with business realities: footprint, stakeholders and key business concerns. It also requires a clear understanding of desired outcomes. Social outcomes can be generally in any of the three focus areas of: governance and society, customer and product responsibility or value chain and environment.

The Framework includes three components: (1) Assessment of the Business Context; (2) Institutional Elements of Social Innovation; and (3) Focus Areas.

Figure 1: Institutionalizing Social Innovation



Assessment of the Business Context refers to the review of the market and non-market environment. This includes the firm's footprint, stakeholders and strategic considerations. Footprint analysis involves analyzing the economic, environmental and social impact of the company's operations. For example, the mining industry has a heavy footprint—it has the potential for significant impact, both positive and negative, on society and environment. The positive impact of mining industry includes economic development due to payment of royalties and government taxes, as well as employment generation. The negative impact of the mining industry includes pollution, boom-and-bust cycle, social unrest, displacement and loss of livelihood. A clear understanding of the mechanism of these impacts and available mechanisms and opportunities for both mitigating negative impact as well as extending positive impact is critical to achieving transformative change and significant social value.

Stakeholder assessment involves the evaluation of the interests and influences of the individuals/group of individuals that are affected by or influence company's operations—such as the employees, investors, consumers, suppliers, local community, society in general, government, environment, business associations, and media. Companies need to identify their interests and concerns. Generally, almost every company has a similar set of key stakeholders; and the interests of these stakeholders are also the same. For example, investors and shareholders' interests are focused on equity (high rate of return on their investments); employees want high wage and favorable work environment; customers want quality and affordable products and services; and local community want social development and livelihood programs. However, it is important to note that the level of influence and specific interests of every stakeholder varies per company—and location. Stakeholder interests are greatly influenced by the social, environmental, economic and political context of their situation and location.

Strategic considerations refer to the general situation, core values, philosophies, strategy, resources, assets, and competencies of the company. Assets and capabilities may include infrastructure, equipment, manpower skill sets; as well as the reach and capacity of the company's operations. For example, logistical and transport companies have a fleet of vehicles at their disposal. Their systems are also efficient and accurate since customers use their services (i.e. speed and on-time). Their competencies can be particularly useful in during disaster response activities.

The assessment of the business context is critical in understanding the company as a whole. The different elements of the business context are important in identifying opportunities for social innovation within the company as well as gaps in the local market that the company can address. This framework is useful for highlighting which factors companies must take into consideration when developing a business environment that encourages social innovation.

The Framework also presents three Institutional Elements that help trigger and embed the values and processes of social innovation in an organization: Stakeholder Engagement, Operations, and Organization. Companies must be able to analyze and assess these components and determine potential approaches in integrating social innovation in each area.

1. Stakeholder engagement: Stakeholder engagement does not only focus on identifying possible partnership opportunities but also in developing collaborative initiatives which leverage the assets and competencies of each party in addressing stakeholder needs. Companies need to ensure that its priorities match that of its stakeholders. An important component of stakeholder engagement is the presence of community assets or social capital because it helps stakeholders contribute something to the collaborative partnership. Stakeholders no longer act as mere beneficiaries, but as partners in addressing the social issue.

In the Philippines, the delivery of educational teaching materials to far flung rural areas in the country is a particular challenge. Schools are located on top of mountains, islands and secluded communities. Coca-Cola Philippines, which has broad and deep market and distribution penetration is both deeply invested in community goodwill as well as uniquely suited to understanding logistical challenges. The company partnered with the Department of Education (DepEd) in the project called "Textbook Count." Various stakeholders help DepEd in the delivery of textbooks to schools in time for the start of every school year. Coca-Cola trucks deliver its products as well as the textbooks in public schools along their route.

2. Operations: Companies need to ensure that they have the necessary structures and processes that allow the company to integrate innovation strategies into its operations. Companies may do this by assigning a department/team to take charge of identifying possible opportunities for social innovation, and slowly involving various departments in evaluation and actual implementation. The firm must also be open to continuous improvement and testing of ideas. Over time, the company must develop a system for ensuring that the social and environmental concerns not only factor in to regular operations and R&D, but also become a source of ideas for new products, services, and operations improvements.

Operational elements of embedding include standard processes for constantly scanning the environment for opportunities, institutionalized idea sessions, social idea development boards and mechanisms and institutionalized approaches for funding, evaluating and replicating social innovations.

3. Organization: This refers to the employees and corporate culture. It is important that the company creates an environment that encourages innovation among its employees. These may include leadership's openness to innovation and to new ideas or democratizing the corporate organization structure. An example is including the participation of employees, selected stakeholders and consumers in product development and R&D. The company may also continuously involve employees and stakeholders in evaluating possible changes in operations and value chain partnerships.

In evaluating ideas, companies can identify involved focus areas: (1) Governance and Society; (2) Customer and Product Responsibility; and (3) Value Chain and Environment.

1. Governance and Society. This focus area refers to the company's capability to manage relationships with society in general, through initiatives such as the following: community involvement, education and culture, employment creation and skills development, technology development and access, wealth and income creation, health, and social investments. This focus area also covers the company's capacity to adhere to ethical conduct in its business and stakeholder dealings in relation to transparency, fair competition, and accountability.

This also includes labor and employee engagement efforts such as managing employee relationships and ensuring welfare and protection through initiatives such as social dialogue, human development and training, diversity and equal opportunity, volunteerism programs, and labor rights.

Innovation translates not only in the processes and products but also in the type of stakeholder engaged or target beneficiaries. It is common for companies to address general concerns on livelihood and education by providing training and employment opportunities for individuals in the community. Companies could also address the concerns of particular populations, especially the marginalized, e.g. indigenous people, handicapped, and militant groups.

StarHub Singapore, for example, offered call center training and offered employment opportunities for prison inmates. StarHub hoped that by giving the inmates call center training, they could use these skills after their release.¹⁷

¹⁷ StarHub Singapore, 2012 Asian CSR Awards.

2. Product Responsibility and Consumer Rights. This focus area refers to the company's initiatives on matters such as fair marketing, product labeling, protection of consumer health and safety, sustainable consumption, compliance, consumer service, and education awareness.

Innovations in this area include the ability to offer market-sensitive solutions to providing access to critical products, such as HIV drugs or cancer medication.

Companies that are able to anticipate future demand effects of social concerns can stand to benefit economically from innovation while creating social good. For example, historically, plastic has been a mainstay for packaging. Today, either regulations or popular opinion have severely limited the use of plastics due to its negative impact on the environment. Hence, biodegradable plastics and disposable, biodegradable utensils have become popular.

3. Environment and Value Chain Management. This focus area refers to how a company manages its value chain in order to optimize its social and environmental footprint. It covers host community engagement, as well as environmental sustainability and protection projects. These initiatives may address the following issues: prevention of pollution, sustainable resource use, climate change mitigation and adaptation, and protection of the environment and biodiversity.

Social innovation under this category involves innovation that focuses on cleaner, greener processes, products and technologies. It also includes addressing the needs of local communities, including the bottom of the pyramid (BOP). BOP marketing involves developing products and services that are affordable and readily accessible—tweaking the concept of “sachet marketing.”

BOP partnership involves managing the company supply chain and operations in order to profitably engage the BOP. A common BOP approach used by telecommunication companies is engaging the BOP in the distribution of mobile services. For example, Smart Philippines and Globe Telecom developed models which encourage entrepreneurship among the poor by developing programs that allow them to retail mobile loads to their community network. The programs included capacity-building including training. This mechanism is both more efficient for the company as well as a source of income for distributors.

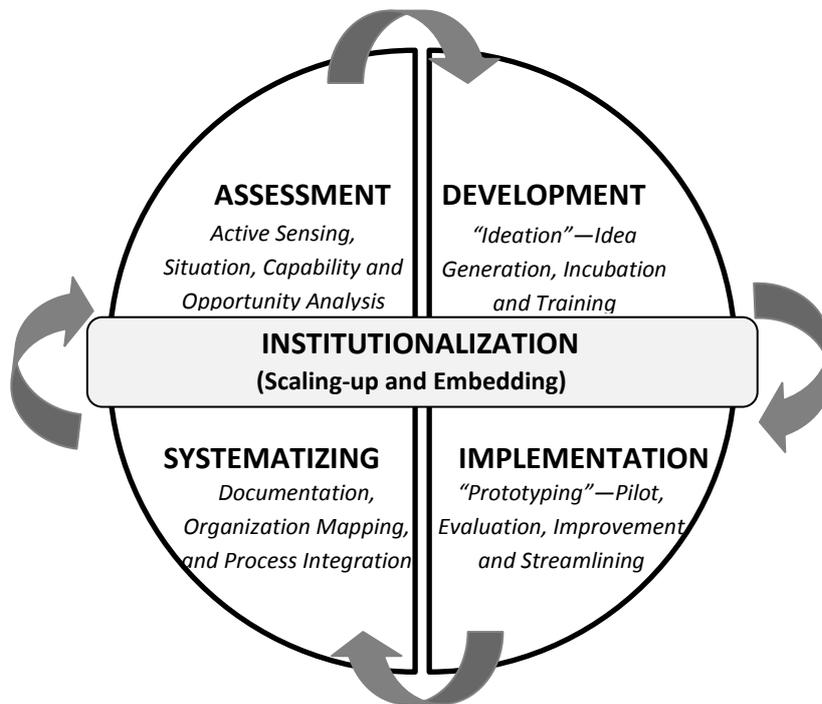
A similar strategy is also adopted by Nestle' Philippines through its micro-distributorship and program, which creates employment opportunities for low income individuals in urban and rural communities by selling Nestle products.

Process of Social Innovation. The framework: “Process of Social Innovation” presents five steps in the process of social innovation. The stages are:

1. Assessment refers to both internal and external analysis. Companies must identify their key assets and capabilities, as well as examine future plans (i.e. how they want to be known in their respective industries). In addition, companies must identify the social issues affecting the business or prevalent in their area of operation. This provides a clearer understanding of what social issues they can address taking into account company's objectives and interests.
2. Development refers to the creation of a “new” idea that fits the company's profile and addresses social issues. Ideas may be developed through brain storming, situational analysis, or interviews. The idea need not be original, it may be adopted from a different industry or field. Various “options” need to be screened to assess which alternative best fits the

company's business objectives and addresses social needs. This involves the generation and evaluation of ideas and the preparation for pilot testing and implementation.

Figure 2: Process of Social Innovation



3. Implementation refers to prototyping. Prototyping includes the actual pilot testing of the new idea and evaluating its impact. In social innovation, new ideas and their impact must be studied, verified and checked before rollout to the public. A key focus for this stage is the evaluation for mainstreaming and scaling up.
4. Systematizing involves documenting program rationale, key components, key processes, and key performance and risk indicators. It also includes a plan for replicating, mainstreaming and scaling up.
5. Institutionalization refers to the mainstreaming and up-scaling of the program by implementation into all the feasible areas or locations of the corporation.

Throughout all the processes, companies need to continuously conduct performance evaluations and monitoring in order to assess progress, as well as identify and address problem areas.

There are two kinds of social innovation, one that creates incremental improvements in social good and ones that create radical change. These latter, transformative changes have the potential to truly build a better world. Either approach to social innovation requires that actual social solutions be implemented on a sustainable scale.

Innovation can proceed from a conscious, planned effort to turn the innovation lens onto a social problem or from the discovery of an opportunity or from the occurrence of an event that reveals a social gap or opportunity.

The road from recognition of a problem, gap or opportunity, to development of an idea to full implementation of a social solution can take months, years or even decades. A disciplined approach to implementation, evaluation, systematization and institutionalization is critical to implementing solutions that actually achieve a positive social outcome in a sustainable manner across a wide scale.

In most cases, the path to successful social innovation, from assessment to idea generation to implementation and scaling up involves the active involvement and cooperation of stakeholders.

At this point it is important to emphasize that social innovation is not the same as idea generation or program development. Only when the idea or plan or program is successfully implemented and replicated sustainably on a wide scale on a massive scale (thus creating social value) can it be considered to have created a social solution—and hence be called social innovation. Examples of social solutions are presented below.

- Ponseti Method: Treating Clubfoot among Infants and Children. Clubfoot occurs one in every 1,000 births.¹⁸ The treatment was discovered by Ignacio V. Ponseti in 1948. The principles of the technique included “gentle manipulation and casting of newborns at weekly interval.” By using this technique, the feet are “successfully corrected without the need for major reconstructive surgery.” Ponseti discovered this treatment based on various experiences and observations in the clinic and operations. Recently, the World Health Organization organized programs in Africa, India, South America which trained health care professionals in the Ponseti technique. “In Uganda, over 100 professionals have been trained, resulting in effective treatment of 95% of new cases of clubfoot.”¹⁹
- Coca-Cola Philippines’ NutriJuice Program: Nurturing Stronger and Healthier Children. About 37.4% of Filipino children ages 6-12 years old are iron deficient. Coca-Cola Philippines partnered with the Food Nutrition Research Institute of the Department of Science and Technology in developing NutriJuice, “orange juice drink fortified with iron, zinc, lysine and vitamins A and C, and which has been scientifically proven to help reduce IDA.”²⁰ In 2006, the program was initially rolled-out in Metro Manila among 300 students. During the pilot test, the NutriJuice had:

*(1) Significantly reduced anemia among iron depleted children; (2) scores of all children supplemented with fortified juice were higher than those who had non-fortified juice; (3) The fortified juice had significantly increased the weight and height of both the anemic and underweight children.*²¹

As of 2012, the program has helped 200,000 children from urban and rural cities in the Philippines.²²

¹⁸ Right Diagnosis. (n.d.) “Statistics about clubbed foot.” Available HTTP: <<http://www.rightdiagnosis.com/c/clubfoot/stats.htm>> (accessed October 2012).

¹⁹ World Health Organization. (25 September 2007). “Media Centre: Basic surgery training to save lives and prevent disability.” Available HTTP: <<http://www.who.int/mediacentre/news/notes/2007/np30/en/index.html>> (accessed October 2012).

²⁰ The Coca-Cola Company. (June 2009). “NutriJuice.” Available HTTP: <<http://www.thecoca-colacompany.com/ourcompany/pdf/nutrijuice.pdf>> (accessed October 2012).

²¹ Ibid.

²² Castillo, L.V. (05 July 2012) *Lawmakers laud Coca-Cola Philippines for its corporate social responsibility*. Online. Available HTTP: <<http://www.congress.gov.ph/press/details.php?pressid=6269>> (accessed 10 September 2012)

- Knowledge Channel Foundation: Access to Basic Education through ICT: Knowledge Channel is the “the first and only TV and online media tandem primarily focused on the Philippines’ basic education curriculum.” It provides basic infrastructure and educational materials for schools in the Philippines. According to its website, the “K Channel television alone is viewed by more than 3 million school children in close to 2,500 schools in Luzon, Visayas and Mindanao” A third-party evaluator reported that K Channel Schools showed an increase in student’s National Achievement Test scores by an average of 3% per year; decrease in dropout rates and increase in enrolment rates and completion rates.²³
- Smart Philippines: BOP as a Business Strategy: Smart Philippines is the leading telecommunications company in the Philippines. In 2000, the company took on a bold approach to use the BOP as a business model. It developed and launched products that are geared to address the mobile needs of the BOP market. These products include: Smart Buddy²⁴, Smart Money²⁵, Smart Load²⁶, and Pasa Load.²⁷

The Smart Load is considered one of the most successful products launched by the company. Only four months after its launch (in May 2003), “2/3 of Smart’s pre-paid users were reloading their phone electrically.” In June 2003, it was estimated that “91% of Smart Buddy subscribers were using Smart Load as their reloading mechanism [and] Smart Load accounted for 61% of sales derived from reloads.”

With these new products, Smart’s operating revenues increased by 40% from PhP 22 billion (US\$395 million) in 2003 to PhP 31 billion (US\$554 billion) in 2004. “Operating income increased by 91% to PhP 15.27 billion (US\$274.1 million) and net income by 90% to PhP 11.64 billion (US\$208.79 million).”

CASE VIGNETTES ON INTEGRATING SOCIAL INNOVATION INTO THE COMPANY

Triggers for social innovation may come from any of the three Institutional Elements of: Stakeholder Engagement, Organization or Operations of the company. Social innovations generally arise from stakeholder ideas or needs, employee ideas, or analysis of the processes and structures of the company. Also, the full process of social innovation, from assessment to idea generation to testing and systematizing can be improved and sustained by all three elements.

Below are three case vignettes that present how companies were able to identify, adopt, implement and develop social innovation ideas.

Stakeholder Engagement. Stakeholder engagement can result in ideas for social innovation either from the point of view of addressing a concern or perceived gap, or from taking advantage of new ideas or opportunities arising from discussions with stakeholders. An example of a successful social innovation initiative rooted in stakeholder engagement is Double A’s Khan-Na Program (Thailand).

²³ Knowledge Channel. (n.d.) “About Us.” Available HTTP: < <http://kchonline.ph/about-kcfi> > (accessed October 2012).

²⁴ “Smart Buddy is the pre-paid cellular phone subscriber service.” (Source: Smith, 2004)

²⁵ “Smart Money is the “world’s first electric cash card linked to a mobile phone.” (Source: Smith, 2004)

²⁶ “Smart Load enables the electronic transfer of airtime via SMS. It transfers pre-paid airtime from a retail merchant or other reseller to a pre-paid customer, allowing for cash payments to the reseller.” (Source: Smith, 2004)

²⁷ Smith, S. (September 2004). “What Works: Smart Communications –Expanding Networks, Expanding Profits.” Available HTTP: < What Works: Smart Communications > (accessed October 2012).

In line with its sustainability agenda, Double A promoted a policy focusing on sustainable sourcing of raw materials. To address this concern as well as the increasing need for farmers to augment their income, Double A developed the Khan-Na Program. In this program, Thai farmers plant paper trees on unused farm land and Double A “pledges a buy-back guarantee for the matured trees.” Double A also offers free cutting of paper trees and logistic support.²⁸

Double A formed two groups responsible for the implementation of the Khan-Na Program. Their responsibilities focused on: (1) Recruiting contract farmers from over 60 provinces of Thailand; (2) Supplying quality Double A Paper-Tree seedlings to farmers; and (3) Pledges to buy Double A Paper trees after 3-5 years of cultivation.

Double A experienced an overwhelming positive response from the community—farmers were so eager to join the program that the project experienced seedling shortages in the initial stages of implementation. They developed the project further by setting up consultation teams that stay in close contact with the contract farmers. The teams conduct “regular visits to contract farmers once every two months throughout the 3-year cultivation period.” In addition, a help hotline was also set up to help farmers contact the company when they need assistance.

Because the program is part of Double A’s value chain, the program will continue to exist whether or not Double A has discretionary earnings for corporate social responsibility projects. As long as the business continues to grow, the program will grow with it.

Figure 3: Examples of Social Innovation



Organization. Social innovation can also be rooted in organization concerns and structures. An example of this is Malampaya Foundation’s Bridging Employment through Skills Training (BEST), which began as a method of addressing labor requirements for the Shell business unit and was made sustainable through a partnership with the Malampaya Foundation and other partners.

²⁸ Double A. (2011). “Entry Form to the 2011 Asian CSR Awards”

Shell Philippines Exploration, B.V. needed employees during the construction phase of the facility in Batangas. As a community empowerment program and as part of developing labor sources for the company, the Bridging Employment through Skills Training program was launched in 2007. The training program included welding, scaffolding, pipefitting, appliance servicing and other industrial-related courses to less privileged but deserving individuals aged 21-35 years old.

The Foundation realized that the refinery would employ far fewer people from the community in the operations stage. The families of the contracted labor enjoyed an increased standard of living during their period of employment but long-term employment opportunities of the same nature may not be available post-construction. The Foundation therefore was concerned about maintaining good will over the long term. As a result, the Foundation continued to implement the program even after the facility was completed.

As of 2011, the program has trained 889 community members. The remarkable increase in the number of beneficiaries is caused by the partnership that was developed with some of the Foundation's partners. The Foundation partnered with government agencies, training organizations, industry associations and shipping companies to ensure the program's development and sustainability.

In this case, organizational concerns and related structures (such as the Malampaya Foundation), as well as engaging players with shared goals, who then become involved stakeholders, resulted in a sustainable program

Operations. GE's ecomagination is another example of social innovation rooted in organization process and structure. In this case, social innovation arises from a green-open innovation platform, which encourages and shares innovative sustainable ideas to the public.

GE explains that ecomagination is a natural extension of its continuous search for green products and innovations. Under the leadership of Jeffery Immelt, GE introduced ecomagination, which is a "green-focused research and development program." Ecomagination is "GE's commitment to imagine and build innovative solutions to today's environmental challenges while driving economic growth."²⁹

Ecomagination sought to address global sustainability issues concerning the depletion of oil and gas reserves; lack of access to clean water; increasing demand on natural resources, infrastructure, and access to energy; as well as to reduce greenhouse gas emissions.³⁰

In 2005, through the ecomagination platform, GE pledged to (1) double GE's investment in clean R&D (from US\$700 million in 2005 to US\$ 1.5 billion in 2010); (2) increase revenues from ecomagination products; (3) reduce greenhouse gas emissions and improve energy efficiency of its operations; and (4) keep the public informed.³¹

²⁹ Ecomagination. (n.d.) "Ecomagination." Available HTTP: <<http://www.ecomagination.com/>> (accessed 10 October 2012)

³⁰ GE. (2005). "GE 2005 Ecomagination Report: Taking on Big Challenges." Available HTTP: <http://ge.ecomagination.com/_files/downloads/reports/ge_2005_ecomagination_report.pdf> (accessed 10 October 2012).

³¹ Ibid.

After six years (2011), GE announced that the ecomagination initiative reached more than US\$ 105 billion in sales and services. GE reports that:³²

In 2011, GE generated US\$21 billion in revenues from ecomagination products and services and invested more than US\$2 billion in research and development, continuing progress toward the Company's goal of a US\$10 billion cumulative investment from 2010 to 2015. In addition, thirty four new products and services were added to the ecomagination portfolio in 2011, including the Flex Efficiency 50 Combined Cycle Power Plant, The Waukesha 275GL+ natural gas engine, and GE's Rail Edge Movement Planner software. In addition, reinforcing our commitment to open innovation, to date, GE and our venture capital partners have invested US\$134 million in GE's ecomagination Challenge winner, all of which have the potential to transform markets and radically increase resource efficiency.

As long as GE prioritizes the development of green innovation as an engine for enterprise, ecomagination will continue to exist.

CASE STUDY: 3M

3M is considered a highly innovative multinational company. It has received innovation awards from various international organizations. It is said that innovation is part of 3M's DNA. It is rooted in its strategy, culture, operations and organization structures and practices. 3M's culture of innovation is particularly suitable to social innovation. It is a team-based, collaborative approach – one that includes working closely with customers, suppliers and other stakeholders. It is also a flexible and open approach, one that allows for multiple uses for the same technology and the consideration of multiple approaches for specific objectives.

Okie created quite a stir among the workers, for he was the first live inventor they had ever met. Like William McKnight, he was quiet, soft-spoken and unaffected. But he said he hated "to be confined to the specific."

*Mildred Houghton Confort,
author, "William L. McKnight, Industrialist"*

The 3M innovation culture is a culture of discovery, not merely one of problem-solving, one focused on creating the future, rather than simply tweaking current approaches. Alex Cirilla, division vice president for 3M's Commercial Graphics Division says: "*Innovation has more to do with inventing the future than with redesigning the past.*"

A predisposition to change is part of the 3M innovation DNA.

From the point of view of social innovation, two other rather important things are "coded" in 3M's DNA: an appreciation for people as a critical resource and a deep-rooted belief in "doing the right thing."

In order to fully understand social innovation within 3M, it is important to understand 3M as a business and as an organization.

³² GE. (2005). "GE 2005 Ecomagination Report: Taking on Big Challenges." Available HTTP: <http://ge.ecomagination.com/_files/downloads/reports/ge_2005_ecomagination_report.pdf> (accessed 10 October 2012).

3M's History and Background. 3M is a multinational company with US\$30 billion global sales in 2011 (US\$19.5 or 66% are sales outside United States); operates in 65 countries; products sold in nearly 200 countries; and has 84,000 employees worldwide.³³

Time-tested Truths: 3M's History

- Conceive, believe, achieve. Persistence—combined with creativity and faith—is still the best formula for long-term success.
- Don't let one approach or solution blind you to better options.
- Struggle is a necessary component of success.
- "Patient money" and patient people help the big ideas germinate.
- Ask your customers what quality is—then never let the standard slip.
- Give good people opportunities, support them and watch them thrive.
- Respect the "power of patents."

Source: 3M. (2002). "A Century of Innovation: The 3M Story."

Some of 3M's early innovations include: the first waterproof sandpaper (1920's); masking tape (1925); Scotchlite™ Reflective Sheeting for highway markings, magnetic sound recording tape, filament adhesive tape (early 1940's); Thermo-Fax™ copying process, Scotchgard™ Fabric Protector, videotape, Scotch-Brite™ Cleaning Pad (1950's).³⁴

The history of 3M, as documented in the book "A Century of Innovation: The 3M Story," helps explain how deeply ingrained innovation is in the company's DNA. 3M was originally a mining company whose founders realized that the mineral ("Crystal Bay" corundum) they had actually extracted was different and much less valuable than what they had expected (anorthosite). Their response to this seeming disaster was to engage in the business of manufacturing, first of grinding wheels and then of sandpaper. Corporate historians credit the faith of both investors and the original founders for the continued survival of the company in those early years. The founders, who worked without pay in the early years, were credited with "remarkable ... tenacity".

3M's venture into the manufacture of sandpaper was not without challenge. Knowing little of manufacturing, the sandpaper produced by the original founders were found wanting by the market. The company response was to visit customer sites in order to better understand concerns. Solving this initial problem necessitated much experimenting.

These early challenges are the bedrock on which 3M's culture continues to revolve, a culture reliant on people – their faith and tenacity, a culture that believes in experimentation, one unafraid to take risks, one which brings employee and customer, internal and external stakeholders, together in order to address concerns.

I used to define innovation as something that happened in the lab, but our customers don't see it that way. We're innovative when we help them. We're innovative when we give them solutions.

*Katja Finger, communications manager,
3M Public Relations and
Communication,
Latin America and Africa*

The same institutional elements that embed innovation into the DNA of the 3M business enable the embedding of a bias for social innovation within the 3M organization.

³³ 3M. (n.d.) "About Us: Who we are." Available HTTP: <http://solutions.3m.com/wps/portal/3M/en_US/3M-Company/Information/AboutUs/WhoWeAre/> (accessed 10 October 2012)

³⁴ Ibid.

3M's Organization: People and Culture. 3M is known as an innovative company. For 100 years, the company has adopted new technologies and continuously invested in research and development, producing new products in various applications. 3M calls itself as a "Global Innovation Company."

We have a responsibility to be a good citizen wherever 3M operates

*Harry Heltzer,
retired chairman of the board and CEO*

3M is a global innovation company that never stops inventing. Over the years, our innovations have improved daily life for hundreds of millions of people all over the world. We have made driving at night easier, made buildings safer, and made consumer electronics lighter, less energy-intensive and less harmful to the environment. We even helped put a man on the moon. Every day at 3M, one idea always leads to the next, igniting momentum to make progress possible around the world.³⁵

Time-tested Truths: 3M's Culture

- At the foundation of 3M's culture are critical attributes that influence decisions—big and small.
- 3M is committed to "doing the right thing" not the easiest or least costly thing.
- A "culture of caring" for employees is a major tenet of the 3M culture.
- Integrity is imbedded in 3M's culture.
- 3M leadership is willing to take and hold an unpopular stand if it believes it is the right thing.
- 3M takes a long-term view in the economies where it has a presence.
- While culturally diverse, 3M employees around the world share the same core values.
- 3M has always believed in being a good corporate citizen.
- Shedding a product, project or division can be healthy; it is sometimes a necessary part of a growing, changing company.
- There's time to win and a time to cut your losses: know the difference.
- Decisions to sell or exit a business require courage, clear heads and compassionate follow through.
- Even if a business is sold, valuable expertise and technology often remain in the company.
- When the marketplace and the margins change, revisit your business goals.
- Good ideas can come from outside 3M; be wary of "not-invented-here" blind spots.

Source: 3M. (2002). "A Century of Innovation: The 3M Story."

Throughout its history, 3M has exhibited a strong culture of flexibility, responsiveness, and change—heavily dependent on its strategy, vision, mindset and the culture of its founders, management and employees. The company's devotion to invention, creation and constant innovation is supported by its enduring belief both in the value of people working together. In 3M, innovation is seen as best accomplished when people work together, and especially in close coordination with customers and suppliers.

Early experience with the potentially deadly effects of less than scrupulous attention to "doing the right thing" taught 3M the value of sustainability, corporate integrity and being a good corporate citizen.

In the 3M belief system, corporate social responsibility is good for business.

These values are reflected in 3M's financing policies, its growth strategy and its people management philosophies.

³⁵ 3M. (n.d.) "About Us: Who we are." Available HTTP: <http://solutions.3m.com/wps/portal/3M/en_US/3M-Company/Information/AboutUs/WhoWeAre/> (accessed 10 October 2012)

In 2005, “3M spent US\$1.24 billion on research and development, or 6% of its US\$21.2 billion in revenue.” According to Larry Wendling, vice-president of 3M's corporate research labs, “If you're going to be an innovative company, organic growth and new products have to be what drives the company.”³⁶

3M's culture of innovation is embedded their management philosophy. As Wendling puts it, "Hire good people and let them do their job in their own ways. And tolerate mistakes."³⁷ 3M's employee policies on reward and dual career options for veterans also encourage innovation.

3M's Leadership Attributes

Thinks from the Outside In; Drives Innovation & Growth; Develops, Teaches & Engages Others; Makes Courageous Decisions; Leads with Energy, Passion & Urgency; and Lives 3M Values.

3M's capability in terms of working with customers and suppliers as well as constantly engaging employees translates well to the area of stakeholder engagement. The collaborative approach is particularly useful in inspiring change as, within the 3M system, all employees are encouraged to think and act as business leaders and aspire to the 3M leadership attributes.

The Leadership attributes 3M clearly translate well to the area of social innovation.

3M's Stakeholder Engagement Mechanisms: Active Engagement and Co-Creation

3M's history contributed to its cultural bias in favor of a collaborative approach to innovation. Collaborative mechanisms are embedded in 3M's way of doing things: stakeholder consultation, employee involvement in R&D, and active participation in research networks.

Consumers are constantly consulted in developing and improving products. The development of Post-it Picture Paper is a good example. This product “marries the adhesives of 3M's iconic sticky notes with photo paper so consumers can print digital snapshots at home and [stick] them up on the fridge or any other flat surface.”³⁸ Post-it Picture Paper was developed after 3M researchers learned that although digital photography is easy, most people store images on their computer, which means they have to scroll through before they can find their favorite images. Although some people print their favorite photographs, the researchers also learned that most of them tend to store the photos in a drawer, where they're just as difficult to find. 3M's solution was the Picture Paper, which makes photos as easy to display as a Post-it note.

Employees are encouraged to spend 15% of their time on innovation. This “15% Time Program” is an employee engagement program. It strengthens the company's culture of innovation and creates a way for the employee to engage in activities that are personally meaningful as well as potentially regarding for both the employee and the company. The program also fosters informal collaboration among employees who would not necessarily work together when performing their regular duties.

The program does not only hone creativity and imagination among employees, but also encourages them to think outside the box. Examples of 15 Percent Time products that have successfully penetrated the market include Scotch® Brand Tapes, Post-it® Notes, Scotchgard™ Fabric Protector,

³⁶Arndt, M. (09 May 2006) “3M's Seven Pillars of Innovation.” Available HTTP: <<http://www.businessweek.com/stories/2006-05-09/3ms-seven-pillars-of-innovation>> (accessed 09 October 2012)

³⁷ Ibid.

³⁸ Ibid.

automobile window treatment films, multilayer optical films and silicon adhesive systems for transdermal drug delivery.³⁹

Table 2: 3M’s Stakeholders and their Concerns

Major Stakeholders	3M Key Actions and Engagements
Employees	<ul style="list-style-type: none"> • Respecting human rights and diversity • Supporting, optimizing, and promoting development and growth • Ensuring a safe and healthy work environment • Ensuring equal opportunity. • Providing competitive compensation and benefits.
Customers	<ul style="list-style-type: none"> • Providing diverse innovative product solutions and high valued customer service/support • Offering a diversified portfolio of safe, reliable, dependable and sustainable products
Investors	<ul style="list-style-type: none"> • Delivering profitable returns on investment • Disclosing timely, concise, and relevant information (Economic, Environmental, and Social) • Responsive to inquires • Upholding corporate values
Government/ Regulators	<ul style="list-style-type: none"> • Complying with laws, regulations, and policies • Supporting and engaging on development/modification of changes
Business Partners (Suppliers/Contractors)	<ul style="list-style-type: none"> • Selecting credible suppliers and contractors that meet or exceed expectations. • Supporting collective efforts to deliver business results
Local Communities	<ul style="list-style-type: none"> • Supporting and engaging in citizenship activities • Providing economic and social value to community, while minimizing environmental impact.
Academia/Scientific Organizations	<ul style="list-style-type: none"> • Engaging on technical scientific research to develop innovative solutions to society
Media	<ul style="list-style-type: none"> • Ensuring 3M is represented accurately with current information
Non-Profit Organizations/ NGOs	<ul style="list-style-type: none"> • Partnering to understand societal concerns • Providing support to advance and solve global issues

Source: 3M. (May 2012). “3M: 2012 Sustainability Report.” Available HTTP: <http://solutions.3m.com/3MContentRetrievalAPI/BlobServlet?lmd=1338504824000&locale=en_WW&assetType=MMM_Image&assetId=1319229751200&blobAttribute=ImageFile> (accessed 20 October 2012)

3M is also active in research networks to help multinational organizations and US government agencies develop environmentally friendly design and products. Partnership examples include:⁴⁰

1. Working with World Resources Institute and members of the World Business Council for Sustainable Development “to develop a global protocol to quantify carbon emissions in the supply chain and throughout product life cycles”; and
2. Participating in the Design for the Environment (DFE) initiative through the U.S. Environmental Protection Agency (EPA) in identifying “effective chemicals for cleaning products that protect both human and environmental health.”

³⁹3M. (n.d.). “A Culture of Innovation.” Available HTTP: <http://solutions.3m.com/3MContentRetrievalAPI/BlobServlet?lmd=1349327166000&locale=en_WW&assetType=MMM_Image&assetId=1319209959040&blobAttribute=ImageFile> (accessed 10 October 2012)

⁴⁰3M. (n.d.) “How we connect.” Available HTTP: <http://solutions.3m.com/wps/portal/3M/en_US/3M-Sustainability/Global/Stakeholders/Connect/#Notable%20Stakeholder%20Interactions> (accessed 10 October 2012)

In fact, in 2005, 3M institutionalized a global stakeholder engagement program based on AccountAbility's AA1000 Stakeholder Engagement Standard. The program was developed using tools from "From Words to Action; The Stakeholder Engagement Manual Volume 2: The Practitioner's Handbook on Stakeholder Engagement" created by AccountAbility, the United Nations Environment Programme, and Stakeholder Research Associates.⁴¹ The stakeholders that 3M engages with are Employees, Retirees, Customers, Peer Companies, Academics/ Universities, Students, Competitors, Communities, Governments, Investors, Suppliers, and Nongovernmental Organizations.

Under this program, 3M organizations engage and consult with their stakeholders through: Neighbor meetings; Employee meetings; Employee surveys; Community newsletters; Facility open houses and tours; Active participation in local civic groups; Participation in community organizations like chambers of commerce or task forces around issues such as economic development and job creation; and Facility Websites.⁴²

3M's Operations: Systems and Processes. Within 3M, innovation is clearly about finding solutions for stakeholders. It is also clear that these solutions can only be found by working with stakeholders.

3M's culture of innovation is marked by the creation of an environment that encourages exploration. 3M is open to new technology, which may or may not have practical application. They call it "uninhibited research for uninhabited markets" or "following technology wherever it leads."⁴³ Extra time, extra money, even purposefully looser controls during the early stages of experimentation are built into the core business model of the company.

In the early stages of a new product or technology, it shouldn't be overly managed. If we start asking for business plans too early and insist on tight financial evaluations, we'll kill an idea or surely slow it down.

Harry Hammerly retired executive vice president, International Operations, formerly vice president, Finance 3M

3M has created structures for ensuring that ideas are constantly harvested and farmed in ways that both encourage flexibility and discovery as well as further effectiveness.

3M encourages collaborative networking within the company through the Technical Forum, formed in 1951. During the forum, "9,700 R&D personnel participate in an annual symposium, where everyone can see what everyone else is working on." In addition, "Labs also host their own conferences and Webcasts and elect representatives to a governing body to set policy."⁴⁴

Policy concerning innovation management is particularly important in the area of intellectual property. One of 3M's core philosophies involves its belief in the value of patents to fuel growth and protect the return on its considerable investment in research and development. More importantly, patent protection is seen as crucial to 3M's competitive advantage, which "lay in the unique nature of its products."⁴⁵ Patent protection is seen as everyone's job. 3M also maintains a Strategic

⁴¹ 3M. (n.d.) "Sustainability In-depth: Meeting Needs and Keeping in Touch; 3M's Approach to Stakeholder Engagement." Available HTTP:

<http://solutions.3m.com/3MContentRetrievalAPI/BlobServlet?locale=en_US&lmd=1240970152000&assetId=1180581659226&assetType=MMM_Image&blobAttribute=ImageFile> (accessed 10 October 2012)

⁴² Ibid.

⁴³ 3M. (2002). "A Century of Innovation: The 3M Story." Available HTTP:

<http://solutions.3m.com/wps/portal/3M/en_WW/History/3M/Company/century-innovation/> (accessed October 2012).

⁴⁴ Ibid.

⁴⁵ 3M. (n.d.) "3M Overview." Available HTTP:

<http://solutions.3m.com/wps/portal/3M/en_US/careers/home/about/3M/> (accessed 10 October 2012)

Intellectual Asset Management program, which explores “ways to generate value from unused or underutilized intellectual property within the company.”⁴⁶ This latter approach of finding new uses for existing technology can often be particularly valuable when applied to social problems.

3M’s values and approaches are institutionalized not only through standard practices but also through an institutionalized mentoring and coaching programs that ensures that the core 3M values are replicated throughout the entire organization.

The company’s dogged determination to explore new possibilities is balanced by its determination to “do the right thing.”

3M was one of the first companies in Minnesota to establish a corporate foundation. This was an effort to ensure that money would continue to flow to the company’s host community in good times and bad.

In the 1970’s, 3M established its Pollution Prevention Pays (3P) program, a program that continues to permeate the company’s operations in the 21st century.

This attention to doing the right thing is evident in the way 3M treats its employees as well as in the way it takes a long-term view to its presence in countries. Observers say of 3M that they all stood tall in tough times.⁴⁷

The focus on sustainability has been particularly significant in its influence not only in day-to-day operations at 3M but also in its approach to process improvement and new product development. For most of its existence as company, 3M has been committed to economic, social and environmental sustainability. They have articulated their sustainability vision in order to provide a clear guide to the entire organization: “We want to help meet the needs of society today while respecting the ability of future generations to meet their needs.”

Their key objectives are:⁴⁸

- Managing our environmental footprint
- Developing solutions that address environmental and social challenges for our customers and society
- Assuring our products are safe for their intended use through their entire lifecycle
- Assuring the appropriate management of any 3M health and safety issues that may touch customers, neighbors, and the public
- Maintaining a safe and healthy workplace
- Satisfying our customers with superior quality and value
- Providing a supportive, flexible work environment
- Supporting local needs and education in communities where 3M employees live and work
- Conducting our business with uncompromising honesty and integrity
- Providing an attractive return for investors

⁴⁶ 3M. (n.d.) “3M Overview.” Available HTTP: <http://solutions.3m.com/wps/portal/3M/en_US/careers/home/about/3M/> (accessed 10 October 2012)

⁴⁷ 3M. (2002). “A Century of Innovation: The 3M Story.” Available HTTP: <http://solutions.3m.com/wps/portal/3M/en_WW/History/3M/Company/century-innovation/> (accessed October 2012).

⁴⁸ 3M. (n.d.). “About 3M Sustainability.” Available HTTP: <http://solutions.3m.com/wps/portal/3M/en_US/3M-Sustainability/Global/VisionHistory/About/> (accessed 10 October 2012)

Under the leadership of Inge Thulin, 3M's Chairman, President and CEO, the company's 2015 sustainability goal is to "reduce volatile air emissions 15 percent by 2015, reduce solid waste 10 percent and improve energy efficiency by 25 percent, all from a 2010 base."⁴⁹

In addition, 3M has adopted Lean Six Sigma in product manufacturing in improving speed and quality of the processes. "3M utilizes Lean Six Sigma to streamline operations, eliminate variations and deliver a competitive advantage to our customers."⁵⁰

Product responsibility innovation includes the adoption of cube utilization techniques in transporting and storing products, use of fewer packaging materials, as well as a lifecycle management framework in the production of sustainable products.

Cube utilization is used by 3M in the storage and transportation of its products. Cube utilization "is an approach to use the space within a storage area, trailer, or container most efficiently." 3M benefits from it through "reduced the storage and transportation space and cost required by our products."⁵¹

3M also uses fewer packaging materials whenever possible, examples of which are the Post-It Note[®] Cabinet Pack and the repackaging of the 3M Scotch-Brite[™] Tub and Tile Scrubber.

3M also adopted the Lifecycle management framework in the development of its products. In 2001, the new Life Cycle Management Policy was adopted which requires all "all business units to conduct life cycle reviews for all new and existing products." In developing new products, questions that are asked are: "How can we reduce the product's impact on the environment? How will we distribute it? And how will it ultimately be disposed of?"⁵²

Business Context

3M's innovation culture as well as its approach to corporate citizenship is both a response to its Business Context as well as its approach to shaping the future not only of the organization but also of the world and societies to which it belongs.

In understanding 3M's approach to social innovation, it is useful to juxtapose the institutional elements and the eventual focus areas for innovation against the 3M business context.

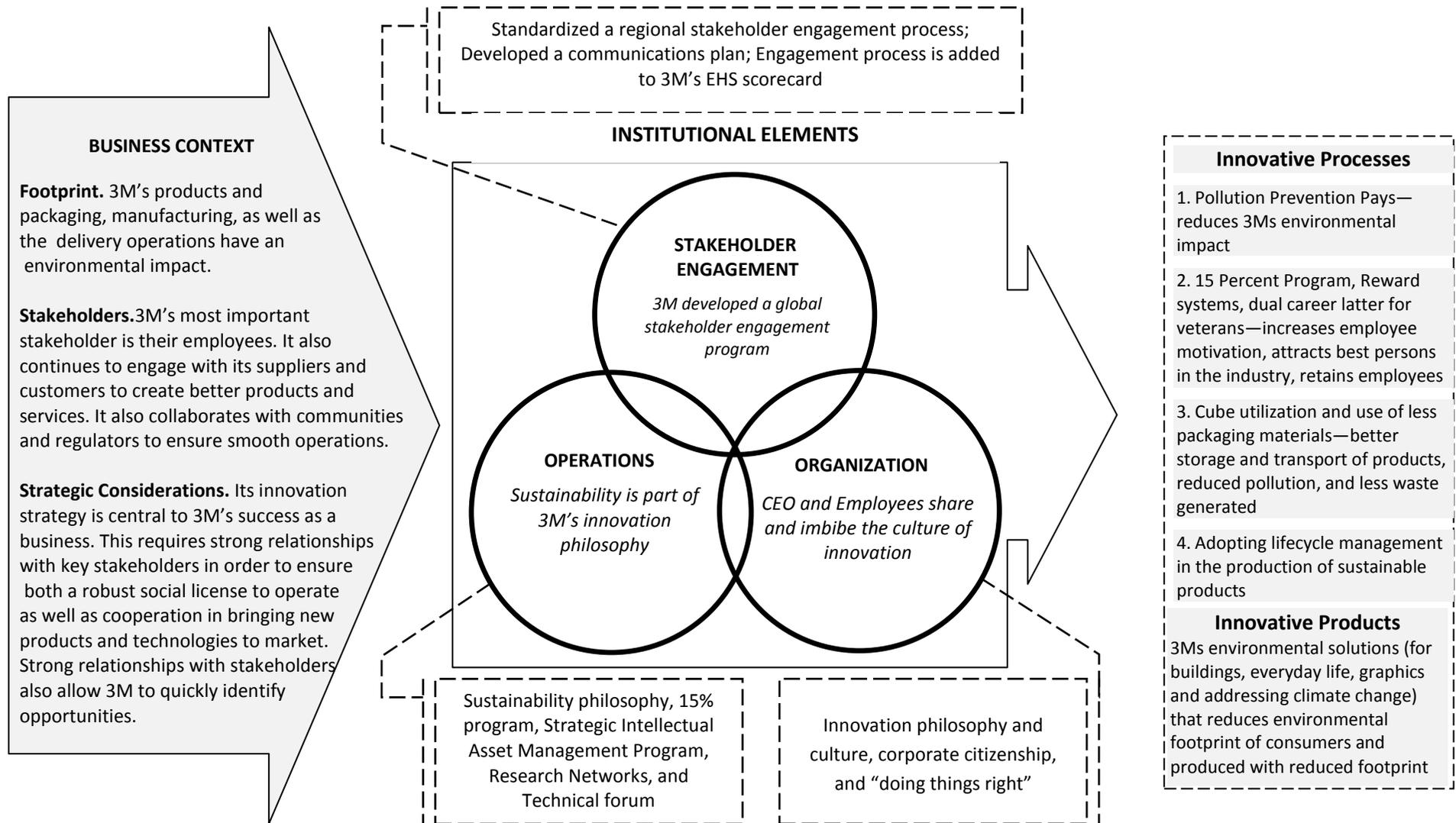
⁴⁹3M. (n.d.). "From Chairman and CEO." Available HTTP: <http://solutions.3m.com/wps/portal/3M/en_US/3M-Sustainability/Global/VisionHistory/CEO/> (accessed 10 October 2012)

⁵⁰3M. (n.d.). "Manufacturing Services: Lean Six Sigma." Available HTTP: <http://solutions.3m.com/wps/portal/3M/en_WW/DrugDeliverySystems/DDSD/technology-solutions/manufacturing-services/operational-excellence/lean-six-sigma/> (accessed 10 October 2012).

⁵¹3M. (n.d.). "Packaging." Available HTTP: <http://solutions.3m.com/wps/portal/3M/en_US/3M-Sustainability/Global/ProductInnovation/Packaging/> (accessed 10 October 2012)

⁵²3M. (n.d.). "Lifecycle Management." Available HTTP: <http://solutions.3m.com/wps/portal/3M/en_US/3M-Sustainability/Global/ProductInnovation/LifeCycleMgmt/> (accessed 10 October 2012)

Figure 4: Integrating Social Innovation and Sustainability using 3M’s Innovation Process, Culture and Products



Footprint: Impact on environment and local communities. The most important impact of 3M's operations is on the environment through gas emissions, air emissions, water use, energy consumption, waste disposal and toxic chemicals involved in the manufacturing of its products. The eventual method of use and disposal of the product itself as well as its packaging also have an environmental, and, in certain cases, a health impact. Hence, many of 3M's sustainability programs focus on environmental impact. As a result of this continuous focus, 3M has recorded significant decreases in its environmental footprint. In spite of this, 3M continues to face significant challenges in terms of its environmental impact.

The company was accused of polluting water sources and burying of toxic wastes. In 2010, the state of Minnesota sued 3M for contaminating the state's waters for decades. According to the complainant,

St. Paul-based 3M polluted public and private wells in the state for years by pumping the PFCs, or perfluorochemicals, it uses to make fire retardants, paints, stain repellents and other products into waters flowing into the Mississippi River and by burying the chemicals underground.⁵³

As 3M's environmental footprint has the potential to create widespread damage, it has very high visibility among a certain category of stakeholders. However, this also means that there is significant opportunity for improvement emanating from communicating and collaborating with stakeholders in terms of monitoring impact and devising new ways of addressing concerns.

Stakeholders: Impact, Interest and Influence. 3M's stakeholders include employees, who are particularly important given 3M's reliance on a robust innovation strategy. Close collaboration with customers, suppliers and distributors are also important in order to develop new product and process ideas as well as in order to bring ideas to market as effectively and efficiently as possible. Finally, a positive and open relationship with communities and regulators is critical to ensuring that 3M's global operations in multiple product lines, which have constantly changing shapes and patterns, are unhampered.

Business Considerations: External Considerations, Corporate Capabilities, Corporate Values. 3M operates globally in many industries, including some very highly regulated industries. Intellectual property rights are particularly important to the success of 3M's innovation strategy. The ability to change and successfully engage new distributors and suppliers and bring products to multiple markets is critical to 3M's the success of 3M. This means that good relations with government, social acceptability and a social license to operate are particularly important to 3M.

SOCIAL INNOVATION at 3M. In addition to producing innovative and sustainable products, 3M has also adopted innovative processes to gain a competitive advantage.

3M claims that it has the "leading know-how in 42 diverse technologies, which allows researchers to take an idea from one realm and apply it to another."⁵⁴ This is particularly important in combining technologies to develop products. This particularly plays an important role in developing and improving

⁵³ Keller, J.B. (30 December 2010). "Minnesota sues 3M over pollution claims." Available HTTP: <<http://www.reuters.com/article/2010/12/30/us-3m-idUSTRE6BT31L20101230>> (accessed 20 October 2012)

⁵⁴ Arndt, M. (09 May 2006) "3M's Seven Pillars of Innovation." Available HTTP: <<http://www.businessweek.com/stories/2006-05-09/3ms-seven-pillars-of-innovation>> (accessed 09 October 2012)

existing products which range from consumer goods, electronics and energy, health care, industrial, as well as safety and graphics.

Table 3: 3M's Innovation Credentials

<ul style="list-style-type: none">• 55,000+ diverse products• 40+ business units• Consistent record of breakthroughs• >25% of sales from new products in five years• 500+ patent applications every year• 45 established Technology Platforms• 100+ years of innovation• Over 10,000 technical employees
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Source: Stapleton, Gary. (20 October 2009). "Keeping Innovation Alive—The 3M Way: Uncommon Connections Innovative Solutions." Available HTTP: < <http://www.fitwise.co.uk/events/snn/documents/03.GStapleton.pdf> > (accessed 20 October 2012).

Clearly, the corporate integrity/responsibility and innovation blueprints in the 3M DNA almost automatically results in Social Innovation outcomes. The "coding" in the 3M DNA that feed social innovation include: a) the habit of innovating "widely" (being open to possibilities), b) the value for and practice of internal and external collaboration, c) a strong value of corporate integrity (doing the right thing), and d) a disciplined approach to innovation that includes global networking as well as a clear focus on optimization of new technologies. 3M's focus on patent protection means that it is predisposed to fully documenting processes and impacts in order to perfect patent protection. This approach combined with its "go to market" competency means that it has the ability to turn social ideas into fully scaled social innovation solutions rapidly and efficiently. Clearly, the habits and competencies of business innovation, combined with the corporate philosophy of "doing the right thing" help 3M create social solutions even when the innovation lens is not primarily focused on social concerns.

3M's innovative processes cover all of the three focus areas of: footprint management, employee engagement and labor policies, and product responsibility.

Of particular importance in understanding 3M's approach to social innovation is the fact that 3M itself articulates that the best capability they bring to helping society is through their ability to develop new products and processes and introduce them rapidly on a wide scale.

Product Spotlight: 3M's propensity to innovate is our most effective way to promote change.

Source: 3M Website.

Footprint management innovation includes their Pollution Prevention Pays program which reduces 3M's environmental impact. The 3P program was implemented in 1975 and continues to play a critical role in managing the company's footprint. Compared to other programs, "3P is different, because it reduces consumption of resources by preventing pollution up front—through product reformulation, process modification, equipment redesign, and recycling and reuse of waste materials." According to the company, 3P "has resulted in the elimination of more than 3.5 billion pounds of pollution and saved [the company] nearly US\$1.5 billion."⁵⁵

⁵⁵3M. (n.d.) "Pollution Prevention Pays." Available HTTP: <http://solutions.3m.com/wps/portal/3M/en_US/3M-Sustainability/Global/Environment/3P/> (accessed 10 October 2012).

Employee engagement and labor policies innovation includes the 15 Percent Time Program, Reward Systems, Dual career ladder for veterans—these programs increase employee motivation, attract the best talent in the industry, and improve employee satisfaction.

3M also rewards employees “for outstanding work”, which is reinforced in the “dual-career ladder so veteran researchers can continue to move up without becoming managers.”⁵⁶

Table 4: How does 3M define environmental Solutions

<p>Products that help 3M customers to reduce their environmental footprint</p> <ul style="list-style-type: none"> • Products that reduce air pollution • Products that reduce customer energy use &/or greenhouse gas emissions • Products that reduce customer waste (via reuse, recyclability, &compostability) • Products that reduce customer water use or pollution • Products that prevent the disturbance of environmentally sensitive areas or clean up industrial pollution • Improve fuel economy in vehicles (i.e via light weighting) <p>Products that are manufactured with a reduced footprint</p> <ul style="list-style-type: none"> • Products manufactured using a low/no solvent (VOC) process • Products that are made with recycled content, renewable resources, or using 3rd party certified materials • Products that do not contain materials of concern typically found in competitive products • Products with less of a carbon footprint than other similar solutions using the same methodology

Source: 3M. (n.d.) “Our Solutions.” Available HTTP: <http://solutions.3m.com/wps/portal/3M/en_US/3M-Sustainability/Global/ProductInnovation/Solutions/> (accessed 10 October 2012)

This approach is best seen in 3M’s approach to innovating for environmental solutions. Environmental solutions cover areas such as buildings, everyday life, graphics and products addressing climate change. These environmental solutions not only reduces consumer footprint but are also manufactured with reduced footprint.⁵⁷

- Environmental Solutions for Buildings refer to products for building management and construction markets that contribute to certification under the U.S. and Brazil Green Building Councils LEED® rating systems.
- Environmental Solutions for Everyday Life refer to products for home and office that have an environmental or energy-savings advantage.
- Environmental Solutions for Graphics refer to commercial large format graphics and lighting solutions with an environmental advantage.

⁵⁶ 3M. (n.d.) “Pollution Prevention Pays.” Available HTTP: <http://solutions.3m.com/wps/portal/3M/en_US/3M-Sustainability/Global/Environment/3P/> (accessed 10 October 2012).

⁵⁷ 3M. (n.d.) “Our Solutions.” Available HTTP: <http://solutions.3m.com/wps/portal/3M/en_US/3M-Sustainability/Global/ProductInnovation/Solutions/> (accessed 10 October 2012)

- Environmental Solutions for Addressing Climate Change refer to products that reduce energy use and greenhouse gas emissions

CONCLUSION AND OBSERVATIONS

Social innovation involves developing a new solution for social issues—it must not only be new but must be able to create social value as defined by stakeholders. Private companies can engage in Social Innovation in many ways but a consistency in approach and certain institutional elements make it more likely for companies both to initiate as well as successfully implement social solutions.

Adopting innovative processes and developing new products are two possible approaches that companies and organization can adopt. The approach would vary depending on the corporate strategy and vision of its leaders. The key is having an objective in mind and using it as a guide. The challenge is to ensure that company's assets, strengths and capabilities are aligned in addressing the social issue. Key messages on social innovation—product and processes—are presented below.

- *Addressing basic social needs does not necessarily imply a radical change.* Companies should not be intimidated with the enormity of social issues – particularly those concerning education, health, nutrition, livelihood and employment. Rather, they must study and use their skills and competencies in developing innovative products, services and approaches.
- *Companies need not push innovative products and services into current crowded market spaces; rather they could tap neglected consumer markets.* The needs and concerns of the BOP are often neglected by corporations, possibly because of the perceived notion that it has a limited return on investment and low profit margin. The BOP market poses a huge opportunity for companies—their basic interests such as education, health, shelter, employment could act as inspirations for innovation. A Company's creativity comes into play in designing products and services that are affordable and readily available.
- *Social innovation does not only address current need, but also anticipates the future demand.*⁵⁸ The challenge for corporations and organizations alike is anticipating the evolving needs of stakeholders and customers. Since successful development of innovative products and services could take months, years and even decades, companies need to forecast the future demand.

Institutionalizing innovation is not an easy task. It can be a daunting, frustrating process. The firm or organization must be fully committed in institutionalizing innovation into the company's DNA. It needs to institutionalize constant scanning of its market and non-market environment as well as an internal analysis of its corporate culture, organization, and operation. The challenge is to create a coherent and cohesive platform that allows the company or organization to create social good in a manner that is aligned with business objectives, philosophy, strategy and capabilities. These Institutional Elements are key to institutionalizing social innovation: Stakeholder Engagement, Organization and Operations. Some key observations are provided below.

58Zakić, N., Jovanović, A. and Stamatović, M. (2008) "Factors that Influence Success or Failure in Innovation" in FACTA UNIVERSITATIS Series: Economics and Organization Vol. 5, No 1, 2008. Available HTTP <<http://facta.junis.ni.ac.rs/eao/eao200801/eao200801-03.pdf>> (accessed 12 October 2012)

- *Do not afraid to break new ground and make mistakes, it is part of the learning process.* Companies should understand that there is no one size fits all when it comes to social innovation. Companies should encourage employees to try out new and innovative programs. However, due to the limited resources of a company, innovation must be guided by a clear understanding both of the company's capabilities and concerns as well as a clear understanding of the needs, wants and aspiration of all its critical stakeholders. Stakeholder engagement is critical to managing the effect of mistakes. If stakeholders are part of the process, they can also become part of the solution.
- *Social innovation does not stop with the development or single implementation of an idea. True social innovation is sustainable. Hence, it is ideas that are successfully implemented and systematized and can be systematically replicated, mainstreamed and scaled up that are the true examples of social innovation.* Many efforts are concentrated in idea generation and single implementation. However, a single implementation is like a pilot test or prototype. Unless the program can be replicated and scaled up, the no real social innovation has occurred. There are many examples of social innovation in the form of products and services that addresses the needs of stakeholders—particularly the poor. This approach is evident in the various bottom-of-the pyramid (BOP) approaches as well as village empowerment initiatives. The challenge for many companies is how to integrate innovate ideas into the general operating structure of the company and how to scale up for mass use or production.
- *Stakeholder engagement mechanisms enable the innovation process. Institutionalized stakeholder engagement provides the company with a regular source of information about social opportunities and gaps. Mechanisms for engaging stakeholders are also extremely helpful in developing, implementing and evaluating pilot projects. Stakeholders can be particularly important in clarifying on the ground concerns, practical realities, and what metrics of performance are truly relevant.*
- *Integrating innovation as a strategic approach for companies is critical in ensuring competitive advantage, however, for it to be successful, companies (and its people) must be open to innovation.* One of the benefits for adopting innovative products, services and process is increased productivity, income and competitive advantage. However, the true driver of innovation within the company is its people (particularly the employees). Thus, the company need to develop a corporate culture that fosters creativity, imagination, resourcefulness among its employees. Furthermore, a shared and collaborated vision in any innovation initiative must be developed. This is true for regular business innovation and is true of social innovation as well.
- Standard processes, mechanisms and structures for fostering innovation allow the company to ease the process of assessment, idea generation, pilot testing, systematization, replicating and scaling up.
- *Evaluation and monitoring are key in the innovation process.* An important aspect of any innovation program is the establishment of frameworks and metrics. These provide direction and guidance, and also enable the company to determine the success and failure of its programs. For social innovation, in addition to the standard business indicators, indicators for social value also need to be used. In order to do this, the company must take care to ensure that its social value measures are acceptable to its stakeholders.