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Continuing to Embrace HS&E Excellence

Submitted by:
Firmenich SA

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Continuing to Embrace HS&E Excellence – Everyone, Everywhere, Everyday

Founded in 1885, Firmenich SA is a privately held business, headquartered in Geneva, Switzerland specializing in Fragrance, Flavor and Ingredients. Our fragrances, flavors & ingredients are used in perfumes, cosmetics, beverages, food, pharmaceuticals and household products. Firmenich employs over 6500 people and has a presence in over 64 countries (39 affiliates with 25 manufacturing sites). Sales in our fiscal year (FY11) ending June 2011 were 2.8 billion CHF.

As a family owned business, values and principles based around people, caring, ethics and integrity have always been at the heart of how the company operates. As far back as 1976 the Company formalized this philosophy and published their “**Fundamentals**”, which include reference to ethical standards, integrity, protection of people and the environment, quality and governance & compliance. The Fundamentals are the basic principles that guide the everyday actions of everyone in the company. In 2010 the “**Fundamentals**” were refreshed and reissued with an increased emphasis on sustainability.

Journey towards “world class”

In 2004 Firmenich created a Global Corporate Compliance function. This built on the already existing functions of HS&E, Quality, and Product Safety & Regulators Affairs and incorporated the new functions of Risk Management and Internal Audit.

By mid - 2004 a new global head of HS&E was appointed. The rationale behind this appointment was recognition by the Board and newly appointed CEO that our historical approach to HS&E management needed to radically change to achieve the ambition of “world class” culture and performance to be realized.

By October 2004, Firmenich had developed and communicated its new “operating philosophy” on HS&E, with the issue of the **Health Safety & Environmental Charter**. Every employee worldwide received a copy of the Charter, (multi-language).

Our traditional approach had been one whereby the HS&E functional staff were seen as being solely responsible for the management and performance in this area. Recognizing and accepting that line management and employees should be held responsible and accountable for HS&E; with professional functional support from the global HS&E team was a step change in management thinking. Our Charter has since been re-branded and re-issued in 2007 and again in 2011, as part of our continuous communications strategy.

Communications included the development of a «brand» identity – “**HS&E – Inspired by a passion for excellence**” which supported the company five year strategic plan “**Inspire 2010**”. Branding included posters, slides, logos etc. It facilitated recognition of a professional approach to HS&E. During 2010 we started positioning HS&E with the new company strategy – “**Embrace 2015**”, with the re-issue of the HS&E Charter.

HS&E Management System

15 Management Principles and 40+ Operational and Process Safety Codes setting minimum mandatory global standards, “**MUST DO’s**”. Written to mirror the requirements of OHSAS18001, ISO14001, ILO and CEFIC guidance, this is the basis on which we audit our activities. Audits, their findings, subsequent recommendations and corrective actions are all tracked via a tailored web based application. Emphasis is placed on ownership of the corrective action by line management and timely closure.

HS&E Management Principles are compulsory and describe the high level management system that each affiliate must implement locally. Principles describe what is required followed by more detailed ‘Expectations’ to help management interpret the requirements.

Operational HS&E Codes are compulsory and outline the minimum mandatory requirements which ensure effective operational control. The codes harmonize performance between affiliates and are used to benchmark performance across Firmenich.

Global Integrated Management System (IMS)

A landmark in our HS&E strategy was the 2005 launch of our “**Global Integrated Management System (IMS)**”. This web-based application allowed improved safety & environmental reporting, investigation and corrective action tracking. It was a major step forward, providing tools for management and greater transparency and accountability for performance improvement. It is clear that had we not implemented this system, lack of visibility on performance would have hindered management ability to drive improvement.

- **Recording & Investigation**

The heart of the IMS is the ability to report globally all Injuries, Illnesses, Incidents and Environmental performance data. Managers are informed by automatically generated emails, whenever a report is entered into the system. This facilitates better sharing and learning between affiliates, divisions and regions. Reporting is also complemented by a Root Cause Analysis tool, allowing consistent analysis and comparison of every event and ultimately focusing improvement efforts in the right areas.

- **Root Cause Analysis**

Using a Root Cause Map developed specifically for Firmenich; each root cause is identified and linked to our HS&E Management standards within the IMS database. The system also dictates that every root cause requires a corrective action assigned to a manager and tracked for completion against a deadline. Built into the IMS is the ability to take a global view of where improvements are needed.

- **Performance Tracking & Reporting**

Data allows a “real-time” picture of performance against performance KPI’s. The system provides management with multiple reports on performance and corrective action tracking. Since 2005, our base year, we have achieved an **88%** improvement in Lost Time Case Rate and **74%** in Total Recordable Case Rate for employees and supervised contractors (April 2012 rolling 12 months). The accuracy of our data has never been better, with strict emphasis placed on use of the reporting tool and follow up on corrective actions. 3rd party verification is provided for both our systems and the performance improvements we publish.

HS&E Culture & Continuous Improvement

Visible Senior Management commitment, our HS&E Charter, the Management System and IMS database, act as the foundation for our HS&E culture. Some milestones along our journey have helped reinforce this, these include:

- Signing the World Safety Declaration - first in our industry.
- CEO HS&E Webcast
- Agenda Item at all Firmenich Board meetings.
- Monthly performance updates to top management and feedback.
- Behavioral safety programs and employee involvement activities.
- 35 HS&E system certifications
- Firmenich Protection and Prevention Program
- Internal award for HS&E excellence.
- Occupational Health and Hygiene Baseline Audits.
- Environmental Baseline Audits
- Linking bonuses to HS&E performance.
- 2008 DuPont Safety Award for “Felt Leadership”
- 6th Annual Sustainability Report.
- P&G Best Supplier – Perfect Environmental Performance Score

The support our Board of Directors, the CEO and his management team has never been higher. Firmenich has recently set revised, equally challenging HS&E objectives for the current five year strategy period – Embrace 2015, to continue reinforcing the philosophy of continuous improvement and further build on our great achievements which were further recognized in 2011 when Firmenich were awarded the IMD-Lombard Odier Global Family Business Award and the Ethical Corporation Award in the category of Best Private Company.

We truly believe that today we have not only improved the Firmenich HS&E performance, but we have set the standard for the industry as a whole. The evidence for this is in the fact that all of our main competitors are now publishing annual sustainability reports, highlighting the improvements that they are also achieving and following our lead. This is something we are very proud of.

Note: This narrative makes reference to supporting evidence which is provided separately and is listed on the Cover Sheet. Primarily this is the Supporting Presentation (File D) and the appropriate page is indicated as follows: Slide XX.

Continuing to Embrace HS&E Excellence

“Everyone, Everywhere, Everyday”

SECTION I: BUSINESS PROFILE

Business description:

Firmenich SA is a privately held business, headquartered in Geneva, Switzerland specializing in Fragrances, Flavors and Ingredients. The company was founded in 1895 and our fragrances, flavors and ingredients are used in fine perfumes, cosmetics, beverages, food, pharmaceuticals and consumer household products (File E)

Firmenich employs over 6500 people and has a presence in over 64 countries (39 affiliates with 25 manufacturing sites). Sales in our fiscal year (FY11) ending June 2011 were 2.8 billion CHF. We currently have a global market share of approximately 14%, with the top five companies in our industry representing 60% of the global market. We are the largest privately owned company in our industry and the second largest overall (sales). A short introduction to Firmenich is available by following this link:

<https://www.dropbox.com/s/654gf8u4dbk8fc0/CorporateFirmenich2011.mov>

Due to our private ownership, we do not disclose our full financial statements to any outside parties. We defend our financial independence strongly and view it as a major competitive advantage.

We do however publish our sales figures annually. They have increased in local currencies in each of the last six years covered by this award application (2005-2011 inclusive). In fact our average growth has

been approximately 8% per annum since 1989. We achieved 50% organic growth since 2002 (without acquisition). We have been profitable in just about all of our 117 year history. Our profitability in each of the past seven years is in-line with our largest public competitors (Givaudan, IFF, Symrise & Takasago).

As the award process continues, we will release certain additional figures to provide the transparency that is needed. A statement can also be secured from our CFO and from Price Waterhouse, our external auditors. We also have full scope annual audits which are unqualified in opinion.

As our business activities cover the manufacture of fragrance and flavor compounds, flavor ingredients and individual and unique fragrance and flavor molecules (ingredients) there is not one single ISIC Code which would cover all of our activities. The most relevant code (ISIC Rev. 4) would be 2011, (the manufacture of synthetic aromatic products), however, our natural ingredients business unit would be best represented by 2029, (manufacture of natural essential oils). We would also have to consider 1079 for our food flavor compound manufacturing (manufacture of other food products n.e.c.). In North America our NAICS code is 325100 (“Basic Chemical Manufacturer”).

EHS and business challenges:

This award submission allows Firmenich the opportunity to describe the defining stages in what we feel is as a “journey”, a journey towards achieving truly sustainable “world class” Health, Safety & Environmental Sustainability (HS&E) management and continuous performance improvement. (HS&E is standard terminology used widely within the company and will be used throughout this document).

What we will describe in this award submission are the defining milestones in this journey (2004-2011) which overlap two of the Firmenich five year business strategy cycles (2005-2010 & 2010-2015); internally named “INSPIRE 2010” (Slides 15 & 36) and EMBRACE 2015 (Slide 43). The inclusion of HS&E, in the business strategy, defined as “INSPIRE 2010”, was the first time in the company history where we had true integration and alignment of business objectives alongside stated HS&E performance

objectives and goals. This represented a major change in culture, as well as a significant challenge going forward.

SECTION II: LEADERSHIP

HS&E is an established business imperative and the “EMBRACE 2015” strategy carries this forward with HS&E as the cornerstone and foundation of our Sustainability strategy. This is best summed up by our CEO – *“Today, sustainability is broader than a “green strategy”. It is a game changer. With this in mind we are inventing the fragrance and flavor business of the future. We did not develop a separate sustainability strategy for 2015 – but a 2015 strategy that fully integrates Sustainability”*

To view a video of our Sustainability Strategy please follow the link:

https://www.dropbox.com/s/jy93we3y0lsgdxy/Firmenich_Sustainability_video_2010.wmv

Organizational Leadership

HS&E leadership starts at the « top » - a cliché, but a fact in Firmenich. The Chairman of our Board of Directors clearly sets the tone for HS&E as line management responsibility and he personally receives monthly updates on overall company performance and directs and coaches our CEO on his role in setting out an agenda for HS&E excellence within the Company.

The commitment and leadership of our current Chairman is best described through an excerpt from his speech to all employees during the February 2010 opening of our newest chemical ingredients manufacturing facility in Dahej, India;

- *Our Fundamentals remind us that “people are our main asset” and that we “do not compromise on safety”. Therefore the safety and protection of our people, our business partners and the communities in which we operate, is central to our company values*

- *Safety within Firmenich is an ongoing priority and calls for continuous improvement, and whilst we make good progress, we are always conscious of ways in which to progress and become further recognized as the leader in this important area.*
- *Our goals and objectives are therefore very ambitious and challenging. Our “Charter for HS&E Excellence” requires a commitment that each and every one of us plays a role to ensure we achieve our ultimate goal of “zero injuries, zero harm”.*
- *We strongly believe that in order to achieve our goals, the responsibility and shared accountability is firmly with our management, supported by our HS&E teams and all of our employees. It has become our “operating philosophy” for health, safety and environmental excellence.*
- *I therefore count on everyone here today to fully understand the values of Firmenich and to ensure that Firguj lives up to these values and becomes a pillar of excellence for the entire Firmenich group.*

The Global Vice President, Health, Safety & Environmental Sustainability produces monthly HS&E performance reports for the CEO and his Executive Management Team (EMT) and personally gives an annual HS&E Performance Review to the EMT members.

Commitment to EHS goals

Our commitment to EHS goals is best summarized with reference to our company business strategy – “Embrace 2015”. As part of this business strategy, new corporate EHS goals were established and communicated throughout the company. Backed by the Board, CEO and Executive Management Team, the 2015 goals include a commitment to further improve our already industry leading safety performance (Slide 18) with a 50% improvement in TRC rate for employees and supervised contractors, a 15% reduction in absolute carbon dioxide emissions, a 15% reduction in our water use rate and a commitment to further our use of renewable energy. (Slide 43)

Corporate culture/climate

Defining the corporate culture for HS&E within Firmenich has to start with our company core values, our « Fundamentals » which embody the values of our shareholders, the Firmenich family – specifically, high standards for HS&E (Slide 3). It is the foundation on which we develop the HS&E culture.

Our core values consist of intangible factors, a philosophy and some basic principles. Our Fundamentals guide our every action, enabling us to remain true to ourselves and make a difference in an ever-changing world.

First defined in 1976, they have been updated twice, in 1995 and more recently in 2010 to align with the “Embrace 2015” business strategy. The core of our Fundamentals has not changed, as these principles reflect what we value most, their expression has been adapted over time to ensure each employee can continue to identify with them and to use them as a guide in their daily professional lives.

Our Fundamentals form an integral part of our unique identity, define our culture and are the foundations of our past and future success and help guide all of our actions in HS&E management.

Corporate citizenship

As a family company, we are committed to our belief that sustainable business success is anchored in the long-term interests of our employees, local communities and the environment.

We are committed to behaving ethically and to contributing to economic development while improving the quality of the life of our workforce and their families, as well as of the local community and society at large. Furthermore, we are committed to a development program that meets the needs of the present without compromising the ability of future generations to meet their own needs. (See Firmenich Sustainability Report 2011, File P). This is not a recent trend for Firmenich. Our CEO’s father signed the International Chamber of Commerce Charter for Sustainable Development back in 1991.

In our 2011 fiscal year, ended June 30, 2011, we reported that we had:

1. Recorded our 6th consecutive year of safety performance improvement.
2. Since our 2005 baseline year, we achieved all 5 of our environmental goals (Slide 36)
3. Completed a major solar power installation at our North American HQ.
4. Achieved a total of 35, 3rd party management system certifications since 2005
5. Created the Firmenich Charitable Foundation
6. Continued to develop our Sustainability Partnerships (See Sustainability Report 2011, Pg 20/21)

Some of the milestones of our Corporate Sustainability/CSR Leadership include:

- 2012 - P&G Best Supplier – Perfect Environmental Performance Score (Slides 56&57)
- 2011 - Firmenich is awarded the IMD-Lombard Odier Global Family Business Award (Slide 55)
- 2011 - Fred Henri Firmenich awarded medal in Corporate Governance by the International Academy of Quality.
- 2011 - Firmenich receives the Responsible Business Award – Best Private Company - from Ethical Corporation, for our serious commitment to CSR.
- 2010 - Firmenich sets challenging Sustainability Goals as part of its business strategy “Embrace 2015”, in the areas of workplace safety, environmental performance (carbon emissions and water use), sustainable sourcing of natural raw materials, use of renewable energy and improving the livelihoods of children through improved nutrition and hygiene.
- 2009 - Firmenich exceeds three of its five 2010 environmental goals. Overall, we achieved 14 ISO 9001 Quality certifications, 9 ISO 14001 Environmental certifications, 10 OHSAS 18001 Safety certifications and 16 Food Safety Standard certifications.
- 2008 - Firmenich becomes the first in the industry to sign the UN’s Global Compact, committing us to perform against ten principles upholding social, environmental and anti-corruption.

- 2008 – Firmenich wins the Dupont Safety Award for ‘Felt Leadership’.

View this link to see the acceptance speech by our CEO:

<https://www.dropbox.com/s/l189ave3k16sf86/Dupont%20Award%20-%20CEO%20Acceptance.wmv>

- Firmenich commits to finding solutions to the impending global crisis over the availability of clean water by signing the CEO Water Mandate.

- Firmenich establishes the Firmenich Sustainability Advisory Board, of 5 independent experts.

- 2007 - Invited to become a member of the Global Alliance for Improved Nutrition (GAIN) Business Alliance, to help promote market-based solutions to nutrition.

- Launched a sustainable vanilla sourcing program in Uganda, embracing business, social and environmental objectives and improving the lives of thousands of Ugandan vanilla farmers.

See presentation of the Firmenich Sustainable Sourcing Program:

<https://www.dropbox.com/s/jfw1rxwv9cps6kv/S%20-%20Firmenich%20Sustainable%20Sourcing%20Program.pdf>

- 2006 - Firmenich is first in the industry to launch an independently-verified Sustainability Report, certified by international verification Group, SGS.

- 2005 - Firmenich sets baseline data and 2010 goals in five key environmental areas, reinforcing its long-time commitment to sustainable business practice, and launches a global annual Community Day (Slide 59) to support local communities around the world.

SECTION III: INTEGRATED EHS MANAGEMENT SYSTEM

In this section we will try to focus on “HOW” Firmenich addresses the specified criteria by providing relevant evidence of actual practices and behaviors which we feel demonstrate the integration of HS&E into our business processes. The references given in the text will link with our supporting material.

Management Leadership and engagement

In February 2007, Firmenich became the first company in its Industry to sign the World Safety Declaration. The Chairman, Mr. Jean-Marc Bruel and our CEO, Mr. Patrick Firmenich signed the Declaration. The signing was covered in our “in-house” company magazine SENSO (Slide 7) and was

also the subject along with our management philosophy on HS&E in a CEO Webcast in May 2007 broadcast to all employees worldwide by Mr. Patrick Firmenich, view link:

<https://www.dropbox.com/s/9847xqktr4hk0eg/J%20-%20Firmenich%20CEO%20Webcast.wmv>

Our CEO has also signed up to the International Labor Organization (ILO) led Seoul Safety Declaration. The support from the Board, CEO and Management Team has never been higher. With monthly updates on HS&E performance; quarterly CEO Safety Reviews; annual Executive Management Team HS&E reviews; safety performance first on agenda at every Board Meetings, these are some of the activities that have changed the emphasis on Health, Safety and Environment within Firmenich.

Organizational communications and systems documentation

The launch in 2004, and subsequent re-issues of our HS&E Charter (Files G & H) have helped create the foundation to build and sustain world class HS&E performance, by ensuring that we continually refresh the message around the Firmenich world. We always look for innovative ways in which to communicate our Charter and engage employees at the same time. Examples of this would be a “poster signing” where the Charter commitment section is personally signed by all employees on a site.

We developed and created an internal management system framework at the corporate level which became our “*HS&E Management Principles and Operational Codes or Principles & Codes*” – (Copy included – File I). These are divided into several different elements including:

- **The HS&E Management Principles** These are compulsory & describe the high level management systems required to ensure effective control of HS&E within an Affiliate. These tools are based on, but do not reflect all requirements of, international standards such as ISO14001 & OHSAS 18001.
- **The Operational HS&E Codes** These are also compulsory and describe how individual activities and operations must be managed. The Codes are based on accepted ‘Industry & Sector Best Practice’ for operational control.

- **The Process Safety Codes.** These are special Codes (also compulsory) designed to manage chemical & equipment hazards and to prevent accidents and the release of chemicals & or energy.

Together, the Principles & Codes represent the “Must Do’s” or mandatory requirements that each affiliate has to fully implement to meet corporate expectations regarding HS&E management.

- **The Advanced EHS Management System Standards** These are optional & describe the high level management systems required to meet the requirements of international standards such as ISO14001 & OHSAS 18001.

If adopted in full these management systems will meet all of the requirements of internationally recognized standards and guidance on HS&E management (See SGS Verification Statement – Slide 13) including:

- ISO14001 (the environmental management standard)
- OHSAS 18001 (the H&S management standard).
- The ILO Guidance on Occupational Safety & Health Management Systems
- European Chemistry Industry Council’s (CEFIC) Responsible Care program (Excluding those requirements relating to Product safety which are already managed through the Firmenich Product Regulatory requirements).

In 2005 we also launched the HS&E Integrated Management System (IMS). This web-based platform, allowed amongst its many other functions, improved reporting, investigation and corrective action setting for all Injuries, Illnesses and Incidents. This was a major step forward in providing tools to management providing better transparency on performance and driving improvement. It is clear that had we not implemented this, the visibility on performance would not have allowed management to drive continuous

improvement. The HS&E IMS access is available to everybody in Firmenich. All injuries, illness or incident entries generate a summary email report containing a web link to the complete entry. An initial notification (within 24 hours) is followed up by a more detailed investigation, root cause analysis, action plan and approval process all recorded in the IMS (Slide 21). This universal access and reporting means that experience and lessons learnt are shared across the Firmenich world. (Slides 21-30 and File R)

Recently we have up upgraded the environmental module within the IMS (Slide 34) to enable greater data granularity. An upgrade of the integral audit module (Slide 49) is underway and the safety and health modules will be upgraded later in 2012. In addition we recently launched a complementary web based document management system (Slide48). All part of our continuous improvement program.

Assessments, audits and continuous improvement

The Principles & Codes also form the basis for the corporate HS&E audit program. All affiliates are required to conduct an annual gap analysis to determine the extent to which the requirements of the Principles & Codes have already been met. (File F & File U)

The Principles & Codes are further supported by more detailed guidance notes (**HOW TO's**) which are developed as part of our learning from injuries/incidents, risk assessments, process hazard analyses, behavioral audits etc.,. These documents support our continuous improvement efforts. (File V – See two H2S documents).

As we have set an objective to have all manufacturing sites third party certified to OHSAS 18001 and ISO 14001 by June 30th 2013 we developed the Advanced HS&E Management System Standards (File F & File I) as a guide. To date we have achieved a total of 35 certifications at 20 out of 25 sites. We use the annual surveillance audits, conducted by our third party auditors, to continuously improve our management systems.

All of our audit findings, non-conformances, actions arising from injury/incident investigations, Process Hazards Analysis (PHA) etc are managed within the HS&E IMS. A monthly management report is produced showing the percentage of completed and outstanding actions for each site. All High and Medium priority outstanding actions are published by action owner to provide transparency and ownership/commitment. This is the real driver for continuous improvement. (Slide 19)

Hazard recognition and risk recognition

All affiliates are required to establish procedures for the on-going identification, assessment and evaluation of HS&E hazards and risks associated with all facilities, plant, process, equipment, activities, products and services, and for the management of these to achieve acceptable levels of risk. Our OHSAS 18001 certification requires this.

Risk assessments are required to be updated on a regular basis. Risks are managed through the use of standard operating procedures, instructions, rules and the local management systems. This includes the design of workplace facilities, processes and equipment etc and respects all requirements of national HS&E laws including operating licenses and permits and is fully consistent with the Firmenich HS&E Codes. We have achieved this by ensuring each region has access to up to date governmental regulatory requirements (e.g. Europe: Novaveille by Enablon Regulatory Watch).

Employees are provided with adequate training to enable them to identify hazards, assess risk and to understand the hierarchy of controls. (Example: Risk Assessment Team Leader Training and Static Electricity Hazards Training) The effectiveness of this process is periodically audited to ensure that all identified high risks are given priority and that actions necessary to control risk are implemented in a timely manner. (See Action Tracking – Slide 19)

To summarize, each of our affiliates document and implement procedures for conducting Task Based Risk assessments (this is required by our own internal management system and by the third party OHSAS 18001 certification) to ensure that they:

- Establish and implement: documented procedures for the on-going assessment and evaluation of all HS&E hazards and risks (including physical, chemical, biological, ergonomic, and psychological hazards) associated with all facilities, plant, process, equipment, activities, products and services
- Define criteria for levels of acceptable and unacceptable risk
- Provide for employee and line management involvement in the risk assessment and risk review process to the extent that every employee and manager is involved in the risk assessment of, at least, their own activities
- Maintain documented records of all risk assessments
- Regularly review (at least annually), and where appropriate, update risk assessments especially after change or incidents
- Establish operating controls including procedures, instructions, rules and systems (including the design of workplace facilities, process and equipment etc) to manage all relevant risks as identified through risk assessment
- Identify and monitor key operating parameters and ensure that employees understand their roles and responsibilities to maintain operations within these parameters
- Ensure that all operational controls respect the requirements of national HS&E laws including operating licenses and permits and are fully consistent with the Firmenich Operational HS&E Codes
- Ensure that the reliability and availability of HS&E protection systems are maintained by appropriate testing, inspection and maintenance programs
- Provide adequate resources to manage risks
- Involve employees in the design of effective operational controls
- Effectively communicate risk assessments and operational controls to relevant employees to help create a risk aware culture

Prevention through design and engineering (See File V)

Our Facilities, Plant, Process and Equipment are designed, procured, constructed, commissioned, operated and decommissioned, using recognized standards and executed through Firmenich Plant Engineering groups at each affiliate. The Plant engineering groups have a variety of project management systems, and these systems take account of all HS&E considerations at all project stages.

Project engineers must follow the corporate capital project guidelines (File V). These guidelines require that HS&E is included in the project scope, through risk analysis, environmental impact assessment, and confirmation that all local permits are obtained.

At minimum projects must comply with national laws and the relevant Firmenich HS&E Operational Codes, which ever offers the highest level of protection.

Project engineers obtain input from all stakeholders during the project design phase. This input is needed to make the projects safe, operable, maintainable, and able to produce highest quality products. This input can take the form of informal discussions, feasibility and design reviews, operability reviews, and risk assessments. Where necessary, advice or approval from local regulatory authorities will also be obtained.

Larger projects may apply staged safety reviews according to our internal procedures. Larger projects will have a Steering Committee of senior management personnel, including Corporate Compliance/HS&E, whose mission is to ensure the project design and execution including HS&E issues are correctly implemented.

Process Hazard Analysis (PHA)/Risk assessment is an essential component of all capital project designs. Risk assessments are done using the appropriate tools. Qualitative methods including HAZOP, What-If, and Zurich Hazard Analysis are typical, but other methods can be used where required. The objectives of the risk assessments are to ensure risks associated with the project are eliminated or reduced

as far as reasonably practicable, and identify recommendations as needed to reach these residual risk levels.

All capital projects must be submitted to business management for funding decision. Above a cost threshold, projects are reviewed by an Investment Committee of senior managers. For projects above this cost threshold, the Firmenich capital project procedures require HS&E, Quality, and other Corporate Compliance validation. This validation includes approval by the local &/or regional HS&E manager, and completion of a Risk Assessment/PHA. Building projects are evaluated by a specialist in the areas of fire and asset protection. For large projects, it is often necessary to obtain committee funding approval to undertake basic and detailed engineering. For these projects, a preliminary project Feasibility Checklist is undertaken, and the results incorporated into the project funding request.

For smaller, plant projects below the threshold level, a simpler requirement of local HS&E manager approval is sufficient, but a similar review process including risk assessment is generally necessary to obtain the HS&E Manager approval. These plant modifications also require the use of our Management of Change procedure. (See section: Process Safety and Management of Change.)

Some capital projects are initiated as a result of an injury/incident investigation, where it is determined that engineering design may reduce the potential for reoccurrence. These projects must still follow the approval requirements described above.

Quality inspection systems are a typical part of the construction phase of projects, as specified in Firmenich Process Safety Code on Mechanical Integrity (File I). These inspection systems are also essential for maintenance materials and parts. Major equipment is subject to off-site fabrication inspections during construction, and all equipment, materials, and parts undergo inspection by knowledgeable technicians upon arrival at Firmenich facilities. Inspection of on-site fabrication and equipment installation, instrument loop checking, and software validation are also conducted.

Prior to startup of a capital project, Firmenich requires a Pre-Startup Safety Review (PSSR) to confirm that the project was built according to the design and that the project is ready to be started up. Details regarding PSSR are provided in the Process Safety section below. Finally, ongoing preventive and corrective maintenance is performed on existing plant equipment in order to maintain its ongoing integrity. Where we have identified that equipment failure can cause a loss of containment or other safety concern, the focus is towards predictive and preventive maintenance techniques. Planned and corrective maintenance activities are recorded and normally analyzed for trends and backlogs. The largest plants utilize Computerized Maintenance Management software (CMMS), while smaller affiliates utilize simpler planning and scheduling tools (e.g. Excel). In 2012, we are upgrading the most widely used CMMS software to a newer, easier Windows-based version. Several of the affiliates previously using only Excel are also being upgraded to this software, User training and data migration are important components of the upgrade.

Operational EHS programs

Affiliates establish challenging realistic and measurable local HS&E objectives and targets aligned with the corporate objectives and targets. Objectives and targets are supported by programs defining responsibilities, methodologies and timescales for their achievement.

Firmenich management ensures that they:

- Establish challenging, realistic and measurable local HS&E objectives and targets, on an annual basis, aligned with corporate objectives and targets. Affiliate Senior Management will demonstrate commitment to continuous improvement in HS&E performance
- Consider feed-back from employees, audit reports, incident investigations, accident statistics, health monitoring information, other HS&E performance monitoring data, changes in legislation, risk assessments and suggestions of others when setting HS&E objectives and targets

- Ensure the technological, financial and operational viability of objectives, targets and programs
- Establish supporting management programs to implement objectives which fully document responsibilities, methodologies and timescales for their achievement
- Incorporate HS&E objectives, targets and programs into personal objectives and evaluations, wherever possible
- Monitor suitable performance indicators to demonstrate that programs are being implemented and that objectives and targets have been achieved
- Communicate HS&E improvements to employees and other relevant interested parties (e.g. contractors, customers and suppliers).

In order to better embrace asset protection and business continuity within our overall HS&E operational management programs, Firmenich created the Firmenich Prevention and Protection Program (FPPP), in collaboration with one of our insurance partners, FM Global. This program aimed at balancing prevention via traditional organizational and administrative safety measures, with physical protection measures and has become the standard for our loss prevention program within the company. Within this program, FM Global makes scheduled inspections of Firmenich manufacturing affiliates and provides recommendations for new building construction projects. The collaboration with our external insurance partner, FM Global, has been exemplary and held up as a model for others.

Process safety and management of change (See File V)

We have corporate requirements for Process Safety and Management of Change detailed in the HS&E Principles and Codes. These requirements provide a framework to ensure minimum process safety standards are achieved at all affiliates globally.

Major changes to operations or equipment utilize a risk assessment or Process Hazard Analysis (PHA) to identify safety risks and propose improvements. These are team-based exercises, led by trained leaders. The team must include personnel knowledgeable about the process, normally a supervisor, engineer and

an operator. The plant personnel are essential to provide the shop-floor perspective and identify previous or possible upsets,

To facilitate the conduct and consistency of PHA's we established corporate PHA software, developed corporate PHA work templates, provided in-house team leader and member training, and established a corporate risk severity/probability matrix. A minimum set of Process Safety Information is required in order to conduct the PHA. This includes layout and process drawings, operating procedures, and key equipment design parameters.

As noted previously, for manufacturing-related capital projects to receive funding approval, PHA's or similar risk assessments must be conducted and recommendations addressed in the project.

We developed an application within the HS&E IMS database to manage and document closure of PHA actions. The database provides a central location to upload PHA actions, notify assignees of the open actions, and document the actions taken. The database highlights overdue actions and sends email reminders to the assignees. In 2010, the company established These actions are included in our key action item closure metric, with the objective of all affiliates exceeding >90% closure for high priority actions.

As a routine part of capital projects, operating procedures are required to be prepared or updated. This is normally done by an engineer or supervisor following standard formats. Training of employees on the new procedures, equipment and other project-related changes is also required. Typically this training is done by a supervisor, engineer, or at some locations, the site training coordinator, and may be conducted in classroom setting or in the field depending on the nature of the change. At a minimum, employees must provide a signature to acknowledge the training. Often a brief test is used to confirm understanding of the key concepts.

As noted above, before a project is started up, a Pre-Startup Safety Review (PSSR) must be conducted.

The PSSR is a team-based activity that utilizes a checklist to confirm that the project is installed per the

design, and is ready and safe to operate. The PSSR is also used to confirm that the PHA has been conducted, its actions completed, operating procedures and training completed, and process safety information documents updated. The PSSR includes a field inspection by PSSR team members to validate project readiness and identify incomplete or otherwise needed project actions. Outstanding items must be completed before startup except for those items that the PSSR team determines as not essential for startup – these are then listed for future follow-up. Several standard PSSR checklists are available in the IMS database. These or similar documents are available in several languages for international use.

For changes to existing operations and equipment, Firmenich requires that all changes be formally documented and evaluated prior to introduction, including changes to chemicals, technology, equipment, procedures, and facilities. In-kind replacements and adjustments within previously defined safe limits are not considered changes. Our electronic Process Change Notification (PCN) application manages the entire change workflow -- the submission of proposed changes, approval by multi-disciplined team, review and acknowledgement by affected employees, and the update of affected process safety information documents.

The PCN application allows the author of the proposed change to select the appropriate approvers by function, and the employee departments (operating and maintenance personnel) and plant documents that will be affected. The application uses company email to notify the selected employees of changes that require their action. Approvers may accept the proposed change, request modifications to the change or its documentation, or suggest more detailed risk analysis be done before approval. When the change is approved by all, the application automatically notifies the personnel who were selected for training or assigned documents. The application can also accommodate temporary and emergency changes.

Personnel whose work is affected by a change are informed and trained on the change and its impact on their work. This training is conducted at a daily shift meeting, a regularly held safety meeting, or a

dedicated meeting for the training. Any questions or concerns employees have about the change can be expressed and resolved at this time. Their training is recorded in the PCN application or on a separate signature sheet. Process safety document updates are recorded similarly, with the assignee indicating on the PCN form when the assigned document has been updated.

As with larger projects, a PSSR must be done on PCN changes to ensure readiness for startup. The change owner is responsible for this review and for documenting it in the PCN application. When all PCN training, documents, and startup are completed and recorded on the PCN form, the PCN is automatically closed.

To encourage employee PCN training and document updates to be completed in a timely manner, the PCN application issues weekly reminder emails to assignees of incomplete actions after predetermined time periods. The application also provides lists of incomplete follow-up actions sorted in several ways: by change number, person, or department. This allows employees to view their own incomplete actions and managers to view incomplete actions for their entire departments.

The PCN application was created in 2004. It is now undergoing a complete rewrite and upgrade. The new application will be established as a new module in the IMS system.

Workforce empowerment and involvement

We believe this is a strong part of our performance successes over the years. We also acknowledge that in last year's award application we did not do justice to this. Our business strategy for 2015 includes development of emerging markets. To align with this goal we have developed supporting material to highlight workforce involvement especially in those affiliates in our developing markets (Files K&L).

We feel this best represents what we do at a grass roots level.

Our affiliates have also established local Health, Safety & Environment Committees and Sub-committees, as appropriate, for the review of local HS&E performance on a regular basis. The HS&E Committee is management led and all relevant line manager/supervisors have to participate. The committee includes worker representation (freely elected) in accordance with national laws and practice. Committee meetings are fully minuted and actioned. Implementation of actions is reviewed at subsequent meetings. Minutes and actions are routinely displayed for all employees. Manufacturing sites hold SHEQ (Safety Health Environment and Quality) Days whereby all site employees engage in organized activities around key HS&E and Quality local issues.

Motivation, behavior and attitude

Management at all levels is required to demonstrate continuously and without exception, that HS&E is an integral part of the job. All levels of management are required to lead by example including taking personal action where necessary. Management is required to establish and implement clear rules of conduct on HS&E including the use of disciplinary procedures to enforce local HS&E rules and systems. Management has to establish positive motivational tools, including affiliate reward and recognition schemes, to establish/reinforce the culture for HS&E.

Management takes timely and appropriate action in the event of HS&E issues and provides adequate resources for their resolution. Management gives employees regular feedback on their individual performance on HS&E

All managers and employees, and others working on behalf of the organization are required to formally report any known deficiencies with respect to HS&E to their line manager.

Workforce competency building

Competency building is described on two levels : i) that of the functional HS&E professional and ii) our operational line management, supervision and the workforce in general.

The Vice President HS&E has built a professional support team, which has evolved and strengthened to its present format (Slide 9). The aim was to have functional professionals valued as credible business partners and facilitate delivery of world class HS&E support. Competency building included a requirement that the HS&E Leadership Team all had a formal recognized HS&E qualification for the region(s) in which they operated. (In Europe, IOSH International Certificate leading to EurOSHM, In US, ASSE, CSP). This was supported by our own in-house training programs and HR related tools such as Personal Development Management.

A good example of management HS&E competency building would be a program we participated in with one of our major clients on Safety Leadership. The program was developed with the Paris based business school INSEAD and CEDEP, an executive education consortium. Our Senior Supply Chain Director for Perfumery Europe attended this training in early 2010 along with the HS&E Director for Europe.

European Perfumery Division safety performance has since shown the largest overall improvement in the company. We followed up this success in 2012 by sending two Senior Supply Chain Directors on the same course. We are now in the process of making this training mandatory for all site operational managers.

We have also developed a partnership with BST Solutions to deliver both behavior based safety programs at the shop floor level as well as safety leadership training for operational management. (See Endorsement Letter, File O).

Impact of EHS on workforce on and off the job.

We recognize that a focus on HS&E inside the Firmenich world also has the potential to change employee personal behaviors that have a direct impact outside of the workplace.

This criterion is best represented by our Occupational Health & Hygiene and Wellbeing program. In 2008 we began out a baseline study at every major affiliate on the local systems, procedures and practices

around occupational health, hygiene and employee wellbeing. The audit generated actions which have led to the implementation of “Wellbeing” programs at various affiliates, including health club membership, annual health checks, dietary advice and other personal health related support.

Another aspect of HS&E “off the job” is shown via our efforts in environmental sustainability and the formation of “Green Teams” at various affiliates, (Slide 40). Initiatives generated by these teams have impacts both within Firmenich and also employee’s personal lives, such as waste recycling and car pooling.

At our HQ in Geneva we led an initiative with the City Chamber of Commerce to implement a Contractor safety rules scheme. We worked with the major companies within the city to agree common rules for the contractors we all engage on a regular basis. This has had a real impact on the safety performance of these local companies and has a direct impact on the lives of the employees working at these companies.

SECTION IV: PERFORMANCE MEASUREMENTS AND INFORMATION MANAGEMENT

Systemic use of key leading and lagging indicators

The use of key leading and lagging indicators is a critical part of ensuring we communicate to relevant management. Our integrated management system collects and collates all of this data. The data is a mix of leading and lagging indicators. Our headline performance data (lagging) is our TRC rate for the global company and then split by business division and region. Our key leading indicator is the monthly summary of all HS&E action items generated within the IMS via injury/illness/incident, safety observation, audit, risk assessment and hazard analysis. We provide data on high, medium and low priority action items and status (completion rate), which links to our operational management compensation incentive target of >90% completion rate for high priority actions, (Slide19)

The HS&E IMS also tracks other Key Leading Indicators for each operational site. These include the number of risk assessments carried out per month, the number of safety training hours, the number of audits/safety tours and the number of safety meetings held, (Slide 27).

Data is presented on a monthly basis to the Chairman, CEO and Executive Management team as well as senior operational management and the HS&E functional team who then communicate the data down throughout their organizations, (example in Slide 20).

Quality and appropriateness of measurements, data collection

We believe that the functionality provided by our HS&E IMS, which is continuously being improved, is truly world class. We recognize that the data collection and input has to match this and therefore put a lot of effort into making sure we review how data is collected, we audit our systems for data collection and we have the data third party verified.

The key to all of this is the accountability we give to data collection and reporting via the HS&E Charter and also via support from the CEO. It is clearly understood within the company that accurate and timely injury/illness and incident reporting is a requirement of continued employment. This accountability drives quality and appropriateness.

Data analysis and evaluation

The HS&E IMS enables us to take a consistent global approach to data gathering, analysis and evaluation. All sites are expected to report in the format defined in the IMS. Beyond this, affiliates are at liberty to keep records according to local practice and law as long as in general terms they comply with our HS&E Management Principle 10 and Principle 13:

10 - INFORMATION, DOCUMENTATION, RECORDS & DOCUMENT CONTROL

We will maintain accurate information on our operations and products. Our HS&E management systems will be fully documented and records will be kept to demonstrate that we comply with our management system requirements. All documents and records will be controlled to ensure that we have proper access to the right information at the right time.

13 - MONITORING OF HS&E PERFORMANCE

Affiliates shall develop and implement procedures for the proactive and reactive monitoring and measurement of HS&E performance. Sufficient information shall be collected and analyzed to evaluate of compliance with all elements of the HS&E management system. Affiliates shall on an annual basis conduct a self assessment against the requirements of the Firmenich HS&E Principles and Operational HS&E Codes.

Our Regional HS&E Directors act as “quality controllers” and ensure that the data collected is relevant and accurate. A further check on data accuracy is performed via our global HS&E audit program. Line management (at all levels) have access to the analysis, trends and raw data within the IMS in order to manage the HS&E issues under their remit. Local, regional and corporate HS&E also utilize the IMS data in order to inform the business and develop training and guidance as appropriate. Deeper analysis is also periodically undertaken to look for patterns and trends within the accident and incident data. (Slides 24- 33)

Use of information generated from performance data

This has already been touched upon but in essence IMS data is used as a management tool to monitor performance and set improvement targets. The data is also communicated within and without the organization (e.g. Sustainability Report) to keep key stakeholders informed of our HS&E performance.

One the greatest benefits of our IMS is the ability for one site to learn from another's experience even when that site is on the other side of the world.

Accessibility

All Firmenich staff have access to the IMS. The IMS is web based and accessed with a user ID and password which allows its use anywhere in the world from any PC either internally or externally to Firmenich. There are various levels of access but these are in place to control editing of the data rather than access to it. In addition various reports are created using IMS data and circulated within the business. In 2011 we built an internal HS&E Sharepoint Site (Slide 50) to share HS&E guidance, best practice and communications (e.g. announcements, safety alerts (File R), newsletters, recognition, performance, etc) throughout Firmenich.

Comparability

As all affiliates throughout Firmenich record performance data in the same tool, this makes comparisons of performance more straightforward. Where available we have tried to use universal HS&E measurement standards to record our performance. Affiliates can be compared against all other sites or similar sites or sites in their region. We have a special focus on comparing the performance of our divisional supply chain sites (Slides 20, 28, 29 & 31) show a number of supply chain only charts that are automatically generated. We benchmark our performance data against competitors, clients and leaders in the chemical industry, (Slide 18). This often means that we have to re-calculate the units used by them to make consistent and meaningful comparisons.

Effect of EHS on Triple Bottom Line

To really do justice to this section we could devote a whole 30 page application dedicated to projects and initiatives which have a triple bottom line benefit. At the heart of this award application is the safety and the well being of Firmenich employees and as a direct result of our HS&E efforts, had we not made any

improvement in our performance in each of the years from 2005, at least 190 Firmenich people would have subsequently been injured, with that injury resulting in either time away from work, inability to perform all of their work duties and/or professional medical treatment, instead those people went home safely. The benefit of these people not being injured and being at work is an obvious example of a triple bottom line saving.

SECTION V: EHS RESULTS

Evidence of added value or cost reduction

Firmenich continues to grow its business and expand its operational footprint and at the same time we have set challenging environmental sustainability goals to reduce our environment impact in many key areas. These goals, and the performance they deliver when met, will have a positive impact on the company balance sheet. We have many examples which could fill this narrative, we highlight two recent examples below:

- i) Installation of heat exchangers for the cleaning process within our Geneva based perfumery compounding plant. This project has a pay-back financially of less than two years but more importantly has the potential to reduce our CO2 emissions impact by more than 2000 tonnes per year and reduce the amount of water we use to clean as well as minimizing hazardous waste generation. More importantly this project is capable of being replicated globally at other sites.

- ii) The installation of one of the largest solar panel arrays in the New Jersey USA, at our North American HQ, which produces 1.2 million kilowatt hours of electricity per year, the equivalent of 13% of the total energy used in our manufacturing plant. This will reduce CO2 emissions by approximately 1000 tonnes per annum. The installation has an investment payback of less than 4 years and we have already sold our first set of energy credits (SREC's) at a greater premium than the business case figure. (See a video of the project by here: <https://www.dropbox.com/s/sym4trkmpuewu14/Time%20Lapse%2060%20640.mov>)

Also see our Example EHS Challenge - File X

Demonstration of continuous EHS performance improvement

This narrative and accompanying presentation have set out an argument and evidence for the progress we have made since 2005. We believe that we have made a sound case for both performance improvement and a commitment to sustained excellence. The headline reductions in our LTC and TRC rates of 74% and 88% are striking (Slides 16 & 17). We have committed to halve our safety performance during the current Embrace2015 period (which now includes supervised contractors).

We achieved all 5 key environmental goals between 2005 and 2010 (Slide36) and have set new equally challenging goals going forward to 2015 and continue to make excellent progress. (Slide 43)

SECTION VI: LINKAGE BETWEEN EHS AND BUSINESS PERFORMANCE

Integration of EHS and business management systems

The HS&E function sits within the Group Corporate Compliance division. Along with our Product Safety & Regulatory Affairs team we centrally maintain a business database (CoreDB) to compile global legal requirements interfaced to a single instance ERP (SAP). We provide data using dynamic business triggers across the entire business supply chains. HS&E supports the business process from, data at sales order creation, production processing, purchasing, and delivery through to shipment. We have local and regional legislative experts that coordinate legislative change requests with the central corporate compliance network.

EHS as a core corporate value

The section above on corporate culture/climate more than demonstrates that EH&S is a core corporate value for Firmenich. Our “Fundamentals” testify to this fact. Firmenich is the name of a family as well as a business. The family core values embrace EH&S and have done for 116 years.

Alignment of EHS with corporate objectives and strategies

Both the “INSPIRE210” and “EMBRACE2015” corporate strategies have HS&E and sustainability along-side other traditional business objectives. Our CEO has talked about how we established HS&E as a cornerstone to our Sustainability efforts which has now become an integral part of the overall business strategy, not added on as an aside or second thought . See link of our CEO talking about his commitment: <https://www.dropbox.com/s/9847xqktr4hk0eg/J%20-%20Firmenich%20CEO%20Webcast.wmv>

Continuous and systematic EHS and business performance

We have already mentioned many continuous improvement activities in this narrative and supporting material. The HS&E IMS is the real driver of continuous improvement as its provides the data, the analysis, the transparency, but more importantly, assigns the ownership and accountability for managing identified improvement opportunities, (Slides 21, 22, 24-29, 34 & 35)

Dynamic nature and interactivity of EHS with other operational functions

The EHS function sits within the Global Corporate Compliance Division within Firmenich. This provides the function not only with a degree of independence, but also a link to the Board and the governance aspects of the business, and to the Executive Management Team, with the Head of Compliance being an integral part of this. The three business divisions of Perfumery, Flavors and Ingredients, are each served by a senior member of the HS&E team acting as the single point of contact for these divisions and acting as a true business partner. Corporate decisions flow through the Compliance Executive Team, where the VP HS&E sits, and into the HS&E functional organization via assigned Senior HS&E Directors.

Demonstration of improvement in operational performance through EHS

We only have to look at our business performance as described earlier and then make the link with our 6 years of continuous EH&S and Sustainability improvements, to make the link between performance and business excellence. The conclusions are fairly obvious. This coupled with a clear recognition in our

Industry and via our major clients (Slides 51-57) – that we truly are the leaders in HS&E and Sustainability certainly puts us at a competitive advantage.

SECTION VII: OTHER FACTORS

There are always factors (opportunities) which will facilitate success as well as those which can potentially impede it. We like to think that the robustness of our program means that any challenges we face are dealt with smoothly and effectively. Our business is not static; our results show that we continue to grow. The 2007 acquisition of Danisco Flavors presented many integration challenges which we met head on. Today these acquired facilities are now performing at an acceptable performance level alongside all of our other sites, a testament to our EH&S programs.

More recent challenges have included the internal reorganization of the global supply chain and a split into the three business divisions. A solid foundation EH&S management and culture already in place, made this reorganization smoother.

SECTION VIII: CONCLUSIONS AND PATH FORWARD

As we mentioned at the beginning of this award application, this submission has allowed Firmenich the opportunity to describe defining stages in what we feel is as a “journey”, towards achieving truly sustainable “world class” Health, Safety & Environmental (HS&E) management with continuous performance improvement. The current path forward is defined by our “Embrace 2015” corporate business strategy, which has HS&E Sustainability not only at its heart, but now an integral part of all we do within the Company. We no longer single out HS&E as a standalone function or activity; it is a key component of our overall business continuous improvement efforts, ensuring continuity of business for at least another 117 years. The foundations for this were well secured over the past 7 years and built from the HS&E strategy, programs and performance described in this award submission. We have reached a

stage now where we feel that we are not only driving performance improvement in Firmenich, but also within the Fragrance and Flavor industry. Our forward looking ambition is to continue to lead the industry. We all feel extremely proud of what has been achieved and it is difficult to convey this in words. We therefore hope you have the opportunity to see and hear it first hand by talking to our leaders, management teams and all the employees who live this daily.

Neil McFarlane

VP Global HS&ES

May 2012

Damian Egan

Global HS&E Projects Director

FIRMENICH EXAMPLE EHS CHALLENGE - 2012

Statement of Challenge

In 2012 Firmenich launched “Wave 2” of a proactive corporate initiative named “Project MOVE”. The initiative is sponsored by our CEO and CFO and is managed by the Purchasing function. In short, the initiative was focused on delivering 50 million CHF of verified annualized expense savings, from projects linked to indirect purchasing (non raw materials). The HS&ES function were asked to lead one of the project streams around reductions in utilities spend (Energy & Water purchase). The targeted savings amount for this global initiative was 3 million CHF of annualized savings.

The main challenge was to find ways in which to engage the individual Firmenich operational sites to create cross functional teams which would analyze local utilities spend local environmental data on energy and water use and through collaboration, generate projects with an appropriate financial and environmental payback. The projects would be invested in via the normal company capital allocation program in order to realize the ongoing annualized savings.

Actions Taken

The initial action taken was to communicate this challenge to the HS&ES function globally and obtain “buy in” from the Regional HS&ES Managers who were asked to lead the initiative in their areas of responsibility. Our VP Health Safety & Environmental Sustainability outlined the challenge to the regional/functional management team, stating the “Project MOVE” concept, the financial deliverables, as well as this specific challenge on utilities spend reduction and its environmental deliverables. Our Global Process Safety Director was asked to coordinate the initiative globally.

Utilizing the already existing HS&E site based resources, cross functional teams were formed, chaired by the HS&ES Regional Managers and including, purchasing, finance, operations and facilities management

representatives. In total, 15 site teams were formed globally and on-boarded by our Regional HS&ES Managers.

Global data was generated by the central purchasing team on total energy and water spend for the baseline year FY11 for the 15 sites. This data was then validated locally by the financial controllers at site level and set as a baseline. The aggregate amount of 41 million CHF was set as a baseline on which 3 million in annualized savings would be targeted.

The teams used data provided by our HS&E IMS to analyze the site CO2 and water use footprint associated with the baseline utilities spend. This allowed quantification of the environmental payback of the projects they had identified.

The global guidelines which were established for individual projects stated that they should be based on one of three pillars, these being;

- Energy/Water Efficient Assets,
- Sourcing of Energy/Water
- Operational Excellence (Behavior based approach)

The energy and water efficient assets projects involve identifying efficiency opportunities in existing assets, or installation of new renewable energy plant (solar / wind / biomass).

The sourcing projects are focused on identifying new suppliers of energy /water /waste water treatment; with spend reduction and lower environmental impact.

The operational excellence projects utilize our experience and knowledge of behavior based safety programs and leverage that approach to identify operational level behavioral changes which would lead to energy /water efficiencies. An example in our Shanghai plant highlights this.

Results

Output from the 15 Site Teams has generated a total of 10 projects which will be finalized and operational by June 2012, which include 5 solar projects as part of our commitment to renewable energy use.

Currently, a total of 17 projects have been budgeted for FY13, at an estimated capital cost of 2.8 MCHF. The projects include manufacturing heat recovery equipment, building HVAC improvements, lighting, equipment insulation, and in-plant utility metering. The projects are expected to reduce energy costs by 1.4 MCHF/yr (verified annualized savings), and reduce CO2 emissions by up to 3000 MT/yr.

(See File W: Project Move Presentation)

Meanwhile, the site teams have continued to identify and develop additional opportunities. Our “pipeline” for continuing improvements in future years now has 20 project ideas to be approved and allocated for the FY14 budget process.

Continuous Improvement

A key part of operating this network of 15 teams is in the global coordination by the HS&ES function, led by our Process Safety Director. Local projects that have the ability to be replicated at other sites are quickly identified and shared with the teams. The establishment of the cross functional teams led by HS&ES also strengthens the credibility and relationship of the function at site/regional and global level.

Our leadership in Sustainability within the F&F industry is also leveraged in this project. We have been invited to participate with some of our largest global clients in sharing success stories and initiatives and learning from what they themselves have implemented in the way of efficiency programs. This enhances the supplier/client relationship and is a win/win on mutual environmental goals. It also supports our Path Forward in being accepted as the Industry leader in HS&ES.