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## Baobab Reflected in The Lake of Stars

“The Lake of Stars” is the moniker coined by David Livingstone for Lake Malawi. Soaring on the skirts of the stars, the Baobab is amongst the longest-living trees on earth - some are more than 2,000 years old. Nearly every part of the tree is useable - for lumber, fishnets, cords and clothing. The leaves are used as a vegetable, and its fruits are edible. This magnificent surreal specimen was captured reflected in a pool of water on the outskirts of Liwonde National Park in Malawi.



© Michelly Rall

## Cover: **Water, the Source of Life**

The Bemarivo River in the Antsirabe Nord Province of northeast Madagascar serves as a playground, foot crossing and laundry spot. The river provides means of irrigation and livelihoods for those who fish.

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# HIGHLIGHTS

## improved

OUR INDUSTRY-LEADING SAFETY PERFORMANCE BY A FURTHER **33%**

## invested

IN THE **LIVELIHOODS FUND** TO SUPPORT RURAL COMMUNITIES AND SUSTAINABLE ECOSYSTEMS

## succeeded

IN IMPROVING **7** OF OUR TRACKED ENVIRONMENTAL INDICATORS

## engaged

WITH THE **BILL AND MELINDA GATES FOUNDATION** ON HYGIENE AND SANITATION SOLUTIONS

## launched

AN INNOVATIVE PRODUCT SUSTAINABILITY INDEX FOR **101** TOP INGREDIENTS

## constructed

A NEW SCHOOL IN RURAL HAITI FOR NEARLY **500** STUDENTS

## achieved

**5** NEW THIRD-PARTY MANAGEMENT SYSTEM CERTIFICATIONS

## received

THE GLOBAL SUSTAINABILITY LEADERSHIP AWARD FOR **BEST PROJECT COLLABORATION**

## awarded

THE PRESTIGIOUS **ROBERT W. CAMPBELL AWARD** FOR EHS EXCELLENCE

# MESSAGE FROM OUR CHAIRMAN AND CEO

## Reflecting on Sustainability

Firmenich is not just the name of a Fragrance and Flavor company. It is the name of a family that has been personally committed to its employees and clients for the past 118 years.

As we publish our eighth annual sustainability report, we reflect on our sustainability journey and are reminded that nothing has served us better in achieving our long-term success than the commitment to our values as delineated in the Firmenich Fundamentals.

Reaching billions of consumers every day, we provide moments of inspiration and happiness when people experience products that bear the signature of our fragrances and flavors.

Firmenich has a rich heritage of craftsmanship and creativity, coupled with a real passion for winning. We have a tradition of being a relationship-based business, which drives value for our clients and their consumers by improving their products and enhancing their brands.

We have made great progress over the past year toward our sustainability targets, as sustainability is integrated throughout our business. Indeed, Firmenich does not have a separate sustainability strategy. It is simply part of who we are and what we do. In this report, we provide our results in the areas of safety, quality and environmental care. We also offer reflections on a number of new and exciting initiatives that we are working on. We aren't trying to make headlines. We are simply working hard every day to deliver sustainable solutions to our clients, to serve our communities and to make the world a better place.

As a United Nations Global Compact member, we are committed to transparent and balanced reporting, highlighting not only our successes but also the challenges that we face and areas where we need to further



Yves Boisdron  
*Chairman of the Board*  
*As of July 1, 2013*

Patrick Firmenich  
*CEO*

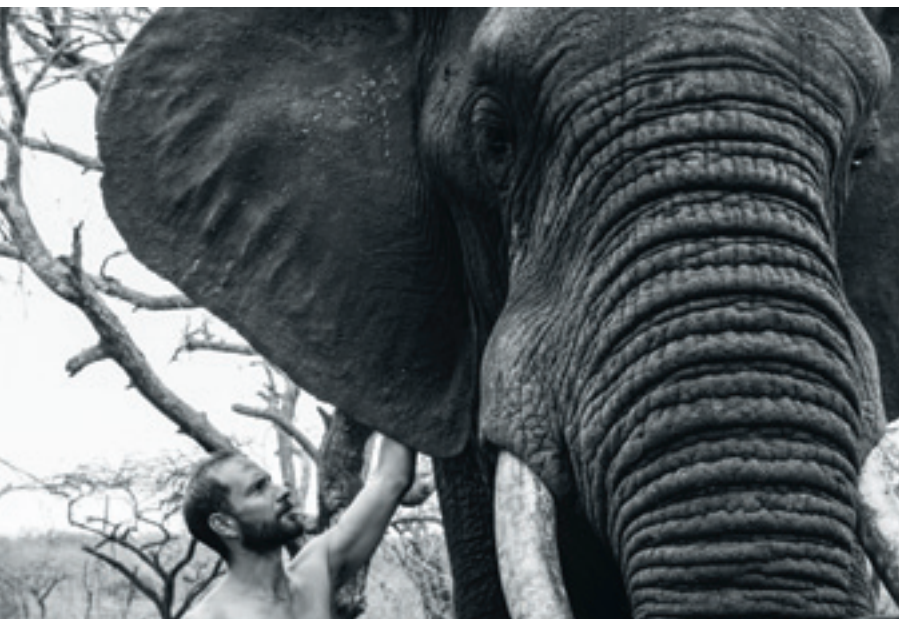
Vernon Sankey  
*Chairman of the Board*

improve. We welcome your feedback on this report, which has been prepared in accordance with the Global Reporting Initiative Guidelines.

The 6,400 talented and engaged people of Firmenich understand that sustainability is our individual and collective responsibility, and we warmly thank each of them for making sustainability a reality at Firmenich.

As we continue this journey, it is certain that the path ahead will be both interesting and inspiring.

# INTRODUCING MICHELLE RALL



## Our Collaboration with Photographer Michelly Rall

Each year, our sustainability report features work from an artist who captures the spirit of our sustainability journey. This year, we feature South African photographer Michelly Rall. We first met Michelly when he joined a Firmenich team in Uganda to capture the daily lives of vanilla farmers. Impressed by his art, passion, personal integrity and commitment to the environment and sustainability, we invited him to join us in Madagascar to create a visual record of our project to bring the world's first Rainforest Alliance-certified vanilla to market. Michelly accompanied us as we visited farmers in the Antsirabe Nord region of the country, living among farmers and trekking through the rainforests on a weeklong hike along "the vanilla trail."

Michelly is well known for his iconic images of royalty, international celebrities, models and politicians – yet he humbly articulates through his photos a sincere passion for the beauty of nature and "everyday people." Michelly creates and donates images to causes

close to his heart, supporting nonprofit organizations and campaigns that reflect his passion for conservation and people.

Over the years, Michelly has become a good friend of Firmenich. We worked with him on this report and together chose pictures that help our readers reflect on our sustainability journey and, hopefully, their own.

### **In His Own Words...**

Photography is not a job. It is a vocation. To peer fleetingly into the shadows and light of the world has been a privilege. Sustainability is more than just a word for me, it is central to my vision and passion to capture images that impact and make a difference to society.

I was born in South Africa, with a wide palette of creative inspiration. Relentlessly curious, I ventured out of this special place to hone my craft in New York, Paris and Milan. Over an explorative decade later, I returned to my home soil in Africa, happy with camera in hand and a renewed spirit within my soul.

To create the photographs for this report, I immersed myself in the communities, farms, villages, and forest and savanna ecosystems of Uganda, Madagascar, Malawi and South Africa to capture the very essence and fabric of their existence.

My partnership with Firmenich has shown me that good businesses that are socially responsible find ways to use their resources to make the world a better place. Each of us has a responsibility for the future of our planet. It is my sincere hope that my photos in this report will in some small way touch the hearts and minds of the readers of this report and inspire them to take action.

Michelly Rall



# SUSTAINABILITY VISION, STRATEGY AND GOALS

2015 — Strategic Sustainability Goals (from 2010 Baseline)

50%

FURTHER IMPROVE OUR INDUSTRY-  
LEADING SAFETY PERFORMANCE

8 Countries

COMPLETE SUSTAINABLE NATURAL  
INGREDIENT SOURCING PROJECTS  
IN 8 COUNTRIES

1 Million

IMPACT THE LIVES OF 1 MILLION  
CHILDREN THROUGH IMPROVED  
NUTRITION AND HYGIENE

-15%

REDUCE CO<sub>2</sub> EMISSIONS  
IN ABSOLUTE TERMS

-15%

REDUCE WATER USAGE RATE

90%

PARTIALLY POWER 90% OF  
OUR MANUFACTURING FACILITIES  
WITH RENEWABLE ENERGY

400 Key

CREATE A SUSTAINABILITY INDEX  
FOR 400 KEY INGREDIENTS

## About Firmenich

Firmenich is the world's largest privately owned company in the Fragrance and Flavor business. Founded and headquartered in Geneva, Switzerland, in 1895, Firmenich has created many of the world's best-known perfumes and flavors enjoyed around the world, every day. Our passion for smell and taste and a commitment to our clients lie at the heart of our success. More information about Firmenich is available at [www.firmenich.com](http://www.firmenich.com).

## Embracing Sustainability

Our vision is to remain an industry leader in sustainability, creating and capturing value with our clients and their consumers worldwide. We are committed to staying at the forefront of helping to solve global challenges, such as climate change, inequality in access to health and education services and inclusive economic growth. We will continue to:

- Create products that make a difference
- Contribute to our clients' sustainability strategies
- Understand consumer needs in emerging economies
- Anticipate global environmental trends









# GOVERNANCE

Individual and Collective Responsibility



# OUR FUNDAMENTALS

“Our Fundamentals guide our every action, enabling us to remain true to ourselves and make a difference in an ever-changing world.”



Patrick Firmenich  
CEO

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## CLIENTS

**We fragrance and flavor our clients' products for our mutual success.**

- We listen to our clients and transform their ambitions into reality.
- We anticipate consumer desires, continually reinventing the world of smell and taste.
- We deliver the winning combination of products, service and value for money, placing authority and accountability close to our clients.

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## PEOPLE

**People are the heart of our Company. They are recognized for their passion, talent and integrity.**

- We create an environment in which each employee is valued, empowered and encouraged to grow.
- We value the diversity and commitment of our people, enabling us to shape our future with confidence and imagination.
- We unite the finest talents and encourage an entrepreneurial team spirit to attain our strategic goals.

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## CREATIVITY

**Creativity is our essence.**

- We create fragrances and flavors that inspire our clients and consumers worldwide.
- We lead our industry in research & innovation, capturing breakthrough ideas around the world.
- We constantly strive to discover new ways to improve all that we do.

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## SUSTAINABILITY

**Our sense of individual and collective responsibility ensures our long-term success.**

- We strictly maintain the highest level of personal integrity and ethical values.
- We practice a sustainable business model for the well-being of present and future generations.
- We adopt the strictest international standards on quality, safety and the environment.

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## INDEPENDENCE

**Our independence gives us the freedom to control our destiny.**

- We are a family-owned company, committed to our independence.
  - We take a long-term view of our business.
  - We pursue a policy of financial strength, profitable growth and return on assets.
-

# OUR SUSTAINABILITY STRUCTURE

## Our Values

We are a company with strong core values. Described in the Firmenich Fundamentals, our values have inherently shaped the way we have worked in the past 118 years. Our Fundamentals are complemented by the Firmenich Code of Conduct, which reinforces our values and sets out the rules for daily behaviors and interactions.

Integrity is cemented in the foundation of Firmenich. We are open and honest in all that we do – in dealing with customers, colleagues, suppliers and the communities in which we operate. We relentlessly pursue excellence in everything we do. We live our Fundamentals every day and measure our success by the success of our customers, our people, our communities and our stakeholders.

## Our Compliance Group

As part of the overall program of corporate governance, Firmenich created a Corporate Compliance division ten years ago. The compliance team encompasses:

- Health, Safety & Environment
- Product Safety & Regulatory Affairs
- Toxicology
- Quality Assurance and Control
- Internal Audit, Risk Management, and Insurance

The Corporate Compliance division also spearheads and coordinates our corporate sustainability efforts. The Group Vice-President of Corporate Compliance reports directly to the Chief Executive Officer and, additionally, has an independent reporting line directly to the Audit Committee of the Board.

## Our Sustainability Council

Firmenich has been a thought leader in sustainability for many years. Our pragmatic, solution-oriented and company-wide approach to sustainability, developed with our Sustainability Council has also made us the action leader in sustainability according to our clients' feedback.

The Firmenich Sustainability Council was created in 2007. Composed of long-tenured members, with extensive sustainability backgrounds, our Council acts as a sounding board for the sustainability team and for Firmenich as a company, and keeps us abreast of emerging sustainability trends. Our Council members' diverse backgrounds in nonprofits, universities and leading companies help us engage with our stakeholders and capture and then prioritize our material issues on an annual basis. Council members are actively involved in specific projects, share their expertise on a regular basis and meet as a group at least once annually.

**MARC PFITZER**  
Managing Director, FSG

**STEPHANIE DRAPER**  
Director of System Innovation, Forum for the Future

**GUILLAUME TAYLOR**  
Founder and Managing Director, Quadia

**AILEEN IONESCU-SOMERS**  
Ph.D., Director CSL Learning Platform, IMD Global Center for Sustainability Leadership

**MANOJ KUMAR**  
CEO, Naandi Foundation

**DARIAN STIBBE**  
Director, International Business Leaders Forum



"The price of greatness is responsibility." These are the words spoken by Winston Churchill 70 years ago. Firmenich has demonstrated a deep sense of responsibility throughout its 118-year history. Companies with a sound commitment to values, a strong system of governance and compliance, and an engaged and inspired workforce will be the greatest contributors to a more sustainable world. Firmenich is one of these companies, and I consider it a privilege to serve here as a steward of sustainability.

**David Shipman**  
Group VP Corporate Compliance  
President, North America



# CORPORATE COMPLIANCE

75%

IMPROVEMENT  
IN TRC RATE OVER THE LAST  
FIVE-YEAR PERIOD

## Our People

### Health & Safety

In FY13 Firmenich achieved its eighth consecutive year of Health and Safety performance improvement. Total Recordable Case (TRC) rates fell from 0.63 in FY12 to 0.42 in FY13, which is a 33% improvement over the previous year and an overall improvement of 75% against the rolling five-year baseline (FY08-FY13).

Lost Time Case (LTC) rates also fell from 0.15 in 2012 to 0.14 in 2013, which is an improvement of 7% over the previous year and an improvement of 74% since FY08.

This year, 10 sites achieved zero TRC and 17 achieved zero LTC.

### Firmenich Wins Prestigious Robert W. Campbell Award for Environment, Health & Safety

In October 2012, Firmenich was the proud recipient of the international Robert W. Campbell Award, the highest and most prestigious safety award any organization can achieve globally.

Established in 2004 by the National Safety Council (NSC) in the United States and supported by a network of 22 global partners across five continents, the Award recognizes organizations that achieve excellence through the integration of health, safety and environmental (HS&E) management in business operations. Applications are reviewed by a panel of renowned experts and leaders in the business, education, safety, health and environmental fields.

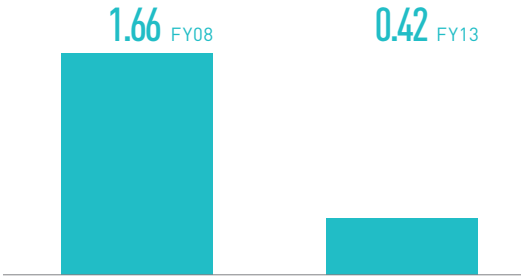
Neil McFarlane, Vice President of Global Health, Safety and Environment, identified the following cornerstones of Firmenich HS&E practices – which the Award panel recognized as exemplary:

- Fully integrates HS&E performance goals with overall long-term business strategy, allowing safety performance to improve each consecutive year since 2005
- Uses a bottom-up approach to engage *all* employees in the values of behavioral safety, to give them the skills and the tools to look at and manage their own safety
- Employs a family values-based system, which ensures that upper management is accessible to, and supportive of, HS&E advocates within the company

## TRC Rate

Rates per 200,000 exposure hours

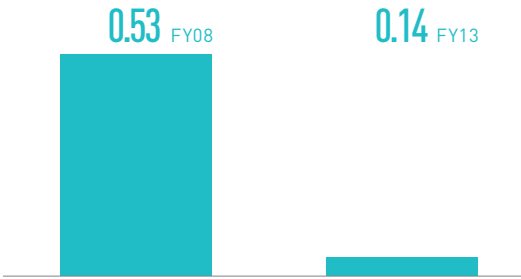
\* TRC Rate = Total Recordable Cases per 200,000 exposure hours. (This is the sum of Lost Time Cases + Restricted Work Cases + Medical Treatments, which are either work-related injuries or illnesses). Data is for full-time permanent and temporary employees (supervised contractors).



## LTC Rate

Rates per 200,000 exposure hours

\* LTC Rate = Lost Time Cases per 200,000 exposure hours (a recordable work-related injury or illness that results in time away from work of greater than one day or one shift following the day of the incident). Data are for full-time permanent and temporary employees (supervised contractors). Each year, we revalidate our data, making any necessary corrections retrospectively and reporting the corrections.



## Robert W. Campbell Award

Laura Fiffick, senior director of the NSC's Campbell Institute, who took part in the Award review process, commented:

*"What stood out in our minds ... is that the leadership was unbelievable across the board. Every employee we interviewed and talked to cared about safety."*

As recipient of the Award, Firmenich is now collaborating with the NSC and the Campbell Institute to effectively share our world-leading philosophy on HS&E. Activities have included the provision of keynote speakers for safety conferences and the publication of articles in leading safety magazines. Firmenich is also participating in the 2013 NSC National Safety Month, which aims to educate people about the causes of preventable injuries and deaths. This year's theme is "leadership and employee engagement," so it is a natural fit with the Firmenich approach to HS&E.

### **Firmenich China Participates in HS&E Culture Expansion Program in Taiwan**

In FY13, the HS&E Firmenich China Director participated in an event organized by the Taiwan Safety Council and Taiwan Occupational Safety and Health Institute as part of our Campbell Award duties, which include sharing our success with others. The event coincided with the tenth anniversary of the Taiwan Safety Council.

The program included a keynote speech at the Taiwan Safety Conference, which was attended by more than 300 senior managers from major Taiwanese companies, and participation in a South Taiwan safety seminar attended by more than 200 managers from local companies.

As part of this program, Firmenich presented the HS&E values, management systems, safety performance and best practices that were part of its Campbell Award-winning application.



### **Air Quality and Personal Exposure Monitoring**

In FY13, Firmenich embarked on a comprehensive program of air quality and personal exposure monitoring in six laboratory sites and eight manufacturing sites. Our goal was to determine if procedures and controls for the handling of Volatile Organic Compounds (VOCs) were effective and to compare performance at different sites.

Firmenich team celebrating Campbell Award



"Firmenich's family values-based system transcends employee cultural and regional differences. It is not about the company or its culture, it is about the culture in the company."

**Neil McFarlane**  
VP Global HS&E



## Air Quality under Good Control



The results from the monitoring and audit programs are being used to help improve our chemical handling and develop more stringent controls worldwide.

## Pursuing Premium Product Quality

An essential goal of corporate sustainability is ensuring that our customers are provided with the quality they expect. Firmenich has a reputation for providing a consistently high level of quality.

We have developed a robust reporting system to accumulate and evaluate our quality

Three hundred and thirty-two personal exposure and 48 area samples were evaluated for the presence of 92 different ingredients commonly used by the company. Samples were compared against the published occupational exposure limits (OELs) and derived no effect level (DNEL) for each ingredient.

The study concluded that, in general, VOCs are under good control. Only 12 personal samples (4%) exceeded reference values, and these were mostly linked to atypical working conditions and nonroutine operations. Some spot exposures were identified as requiring further investigation.

In parallel, Firmenich conducted a number of occupational health audits against our corporate requirements for occupational health and hygiene management. Findings showed continuous improvement in a number of areas but highlighted the need for emphasis on education and training for lab personnel.



“Leading the Corporate Compliance team in Southeast Asia, one of my responsibilities is to serve as an ambassador of sustainability and to help clarify our sustainability strategy within my zone. Everyone at Firmenich is empowered to co-create their own outcomes in taking sustainable actions.”

**Bee Lay Wong, VP Quality and Corporate Compliance, Asia Pacific**

statistics. We evaluate our quality based upon a number of criteria including a Customer Quality Index (CQI), which reflects any service or product nonconformance that could potentially impact a client.

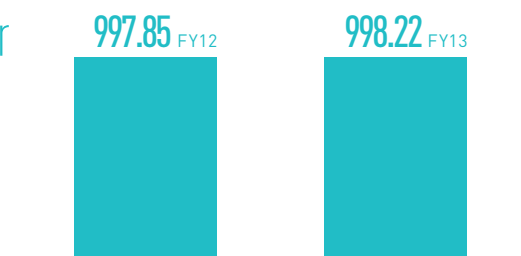
### Supplier Compliance

All new suppliers complete a sustainability and quality evaluation questionnaire (with detailed questions on social and environmental performance), used to risk assess their performance. The risk assessment helps, with other quality-critical factors, determining which suppliers should be subject to a detailed site audit to further evaluate their compliance. Any nonconformances arising are managed through our vendor compliance portal. Forty-nine supplier audits were conducted in FY13.

## Global Customer Quality Index

(Product Related)

CQI = all customer-accepted, conforming deliveries per 1,000 order lines





© Michelly Ratt

2 3



## Ensuring Product Safety

All substances used in our flavors and fragrances have to pass through a rigorous safety assessment. Our Product Safety and Regulatory Affairs Group (PS&RA) assures that all defined safety, regulatory and customer standards for all raw materials are followed.

We believe in global standards and use the same high standards wherever we operate, even if less-stringent local regulations exist. We use our strong influence in various national and international associations to advocate that such standards are respected and applied by the entire industry.

The PS&RA Group is devoted to ensuring that all products that Firmenich sells to its customers comply with the appropriate requirements regarding their inherent safety as defined by customers, industry associations and governmental bodies. This aim is accomplished by studying relevant literature to remain aware of and follow new regulations, complemented by our own toxicological and environmental studies.

## Use of Sustainable Palm Oil in Our Products

Firmenich is committed to the sustainable management of raw materials and the conservation of natural resources. In 2011, we issued our Palm Oil Sustainability Position Statement to consolidate our commitment to the sustainable sourcing of this sensitive and widely used raw material that is linked, in some areas, to widespread ecosystem destruction. The Position Statement outlines our vision that by 2015 all palm oil and palm kernel oil used in our products will be derived from sustainably cultivated sources.

By the end of FY13, most directly purchased palm oil was certified as sustainable by the Roundtable on Sustainable Palm Oil (RSPO). However, Firmenich also purchases some palm oil derivatives, which are contained in ingredients provided by our suppliers. Our innovation centers are working to find sustainable substitutes for these ingredients. Where substitution is not possible, suppliers must, by 2015, only use oil derived from certified sources in their ingredients.

These measures will significantly reduce our footprint in the palm oil industry and ensure that where we need to use such oils, they are derived only from sustainable sources.

La Plaine, Geneva, Switzerland

1

Tree fern in the Bwindi Impenetrable Forest which borders the Democratic Republic of Congo

2

Lime was Our Flavor of the Year 2013

3



# Individual and Collective Responsibility



© Michelly Rall

## Update on REACH

The objective of the European Union's Regulation No 1907/2006 concerning the Registration, Evaluation, Authorization and restriction of Chemicals (REACH), which came into force in June 2007, is to ensure a high level of protection of human health and the environment as well as the free movement of substances, while assuring the competitiveness of the European industry. REACH will provide us an opportunity not only to better assure the safety of consumers but also to further consolidate our commitment to the chemical industry's Responsible Care program.

By June 2013, we have submitted registration dossiers covering 10 phase-in substances. This allows us to continue providing our customers with our full product portfolio. Our REACH team will carry on working until the final registration deadline of 2018, supported by our Research & Development, Purchasing, Legal and Perfumery departments.

Information about the hazardous properties of our products is documented in our Safety Data Sheets (SDS) and relevant information is reproduced on product labels and packaging. Information in the SDS – more than 500,000 are released every year – helps our customers to better understand the safe handling of our

products. Our Regulatory and Health, Safety and Environmental professionals support our customers in their evaluation of HS&E protection measures. We provide SDS for all of our products, not only in those countries where it is a legal requirement to do so, but also in countries where it is not mandatory. SDS are available in 31 different languages.

## The Firmenich Consultant Medical Group

Established in 2006, the Firmenich Consultant Medical Group serves as an expert sounding board for the Compliance Management team. This group, composed of four medical doctors, meets at least once a year to help review internal activities and provide advice on our internal safety programs.

These physicians are experts in their respective fields and have been drawn from both Europe and the United States. The individuals have differentiated medical specializations in the following areas:

- Clinical dermatology
- Reproductive toxicology
- Chemical pathology and toxicology
- Respiratory and environmental medicine

As we are increasingly confronted with challenges across multiple areas of technical expertise within our company – toxicological, industrial hygiene, occupational disease, adverse consumer reactions – this team of physicians has evolved into an essential independent advisory group aiming to put Firmenich at the forefront of our industry with respect to external validation of our safety practices.

# Industry Driver

FIRMENICH PARTICIPATES  
IN MAJOR INTERNATIONAL  
INDUSTRY ORGANIZATIONS

## Engaging with Our Industry

Firmenich actively participates in fragrance and flavor industry associations in all of the major markets we serve. Firmenich management serves on the board of directors and scientific committees of most of the major industry associations. The following are brief descriptions of four leading industry associations with which Firmenich regularly collaborates:



### **International Fragrance Association (IFRA)**

The fragrance industry takes its regulation seriously and is committed to undertaking all of its environmental, social and economic responsibilities thoroughly. All of its ingredients and compounds are rigorously assessed for toxicity and allergens, and IFRA works closely with regulators and stakeholders to issue and update comprehensive safety standards. IFRA also independently spot checks fragranced products to ensure compliance with the IFRA Code of Practice.

### **International Organization of the Flavor Industry (IOFI)**

IOFI supports the safe use of flavors through an extensive and respected science program and a strong Code of Practice. Through its comprehensive advocacy strategy, IOFI has become a well-regarded resource for major industry stakeholders, both within flavor and food companies and among regulators worldwide.

### **Flavor and Extract Manufacturers Association (FEMA)**

FEMA furthers the business interests of its members through a sound scientific program designed to promote the safe use of flavors. FEMA fosters a global environment in which the flavor industry can create, innovate and compete. Its critical objectives include maintaining a credible, globally recognized scientific program and a consistent, scientifically valid approach to safety evaluation of flavor ingredients.

### **Research Institute for Fragrance Materials (RIFM)**

RIFM's purpose is to gather and analyze scientific data, engage in testing and evaluation, distribute information, cooperate with official agencies and encourage uniform safety standards related to the use of fragrance ingredients. RIFM maintains the largest database of fragrance materials available worldwide, classifying more than 5,000 materials.



By promoting positive collaboration with our competitors, working closely with our customers and actively participating in industry association technical committees, Firmenich can help drive our industry toward sustainability. We recognize the crucial role industry associations have in supporting our business. Firmenich encourages activities that advance the Fragrance and Flavors and the consumer product industries through scientific organizations such as the European Centre for Ecotoxicology and Toxicology of Chemicals (ECETOC) and the International Life Sciences Institute (ILSI). Firmenich also plays a significant role in the scientific and regulatory committees governing our industry, including the chairmanships of the International Fragrance Association (IFRA), the Regulatory Affairs and Advocacy Committee (RAAC), the International Organization of the Flavor Industry (IOFI) Science Board, the Flavor and Extract Manufacturer (FEMA) Flavor Regulatory Affairs Committee and the Food-DrinkEurope (FDF) Ingredient Group on Flavoring Issues.

Recently, Firmenich took a leading role in helping IFRA and RIFM reshape the fragrance industry's ingredient assessment program. We have strongly campaigned for more innovative risk assessment approaches that shift the attention away from the use of animal studies and encouraged the incorporation of toxicity screening assays into our assessment program to enable more efficient fragrance material evaluation. In particular, Firmenich was instrumental in the integration of BlueScreen™ HC (Gentronix Ltd) methodology into RIFM's testing cascade to prioritize materials of concern for genotoxicity and reduce the number of untested materials in the fragrance palette for this critical health endpoint.

In line with its historical culture of innovation, the Firmenich Research Division is highly committed to proposing new scientific solutions to solve the challenges posed to our industry by rapidly evolving regulations. Our deep involvement in various professional



© Michelly Rall

consortia and working groups enables us to anticipate future needs and proactively develop the most efficient and reliable techniques to characterize our ingredients for their composition and environmental properties.

# INVESTING IN PEOPLE

## Engaging Our Employees

As a family-owned company, we know that people are the heart of our company and that shared values are essential to success. To achieve our sustainable business goals, we need to attract and retain the best talent, stimulate creative and innovative thinking, and draw fully on the knowledge, experience and diverse backgrounds of our employees. We employ 91 nationalities across the company.

### “Tell Us How You Feel:” Taking Actions to Strengthen Our Employee Value Proposition

In 2012, Firmenich conducted an initial employee engagement survey that was extended company-wide in 2013. Employees engaged with management to identify a number of new opportunities to inspire and value our workforce. Our Human Resource Department worked closely with Corporate Management to launch initiatives to transform opportunities into action plans. In this report we highlight a number of these initiatives.



### Walk in My Shoes

In January 2013, our top executives led the way by being the first participants in our “Walk in My Shoes” initiative. In this program, senior managers spent time working along frontline employees to better understand workload and process issues and assess firsthand obstacles and opportunities. This initiative fostered knowledge sharing, encouraged cross-functional collaboration and better equipped senior managers and frontline employees to take corrective actions while also strengthening our processes and tools. In the first six months, 120 employees and 50 senior managers engaged in this program.

### Internal Communication on Company Performance and Strategy

All Firmenich employees benefit from our profit-sharing program: The Prime. This pro-



gram aims to reward employees, informing them of quarterly financial results and fostering company-wide accountability. In 2012, employees overwhelmingly welcomed a new format that better engages our employees with the latest client and people updates. In parallel, to broaden employees’ understanding of Firmenich’s strategy and objectives, we kicked off our first webcast series featuring inspiring conversations with top executives.

### Recognition

One of our Fundamentals is to “create an environment in which each employee is valued, empowered and encouraged to grow.” Firmenich launched two new employee-led recognition programs in 2013 to highlight exceptional behaviors: the Firmenich Excellence Award, a prestigious honor within our company, which rewards extraordinary project planning, organizing, implementing and delivering; and the Firmenich Spot Award, which is an immediate, local and manager-led highlight of exemplary performance or behaviors.

### Career Development

In 2012, to facilitate all aspects of training, career development and growth, Firmenich created the Career Discussion Guide for managers and employees and reassessed

“Walk in my shoes”  
in Singapore

1



Princeton, NJ, employees in a culinary kitchen

1

Firmenich Laboratory in Princeton, New Jersey, U.S.

2

eLearning training courses. Firmenich also started designing clear development expectations, called “career development building blocks,” for all divisions and all functions to clarify career development areas, create specific action plans and strengthen the career growth and development of our employees.

### Leadership and Development

Our employee engagement survey also led the development and implementation of executive communications training for many of our senior managers. The training was considered highly successful and will be followed in the coming year by a broader communications curriculum for mid-level managers.

### Focus on: Diversity and Inclusion

Throughout its history, Firmenich has demonstrated a strong commitment to people and values. This is expressed in the Firmenich Fundamentals. We believe that a diverse workforce will help our company realize its full potential and will allow us to benefit from the creativity and innovation of people with different experiences, perspectives and cultural backgrounds. It will also enable us to understand and respond to our diverse and changing customer base throughout the world.

For Firmenich, inclusiveness is about the exploration of our individual differences in a safe, positive and nurturing environment. Understanding each other allows us to move beyond simple tolerance to embrace and celebrate the rich dimensions of diversity.

We believe that attracting, developing and retaining a diverse base of talented employees is essential to our success. We make sure

that we are not only attracting and hiring the best and most diverse talent but also that we are retaining that talent by creating an inclusive work environment.

Our approach supports the goal that all our employees are treated with fairness, equality and respect.

Firmenich continually strives to:

- Build an environment of inclusion
- Treat all employees with fairness, equality and respect and
- Attract, retain and engage talented and diverse people

We highlight in this report statistics related to gender diversity, which is an area of focus for our company.

### Women’s Empowerment Principles

Firmenich is one of 600 companies worldwide, and the only company in the Fragrance and Flavor industry to have signed the CEO statement of support of the Women’s Empowerment Principles. These seven principles are:

1. Establish high-level corporate leadership for gender equality.
2. Treat all women and men fairly at work – respect and support human rights and nondiscrimination.
3. Ensure the health, safety and well-being of all female/male workers.
4. Promote education, training and professional development for women.
5. Implement enterprise development, supply chain and marketing practices that empower women.
6. Promote equality through community initiatives and advocacy.
7. Measure and publicly report on progress to achieve gender equality.

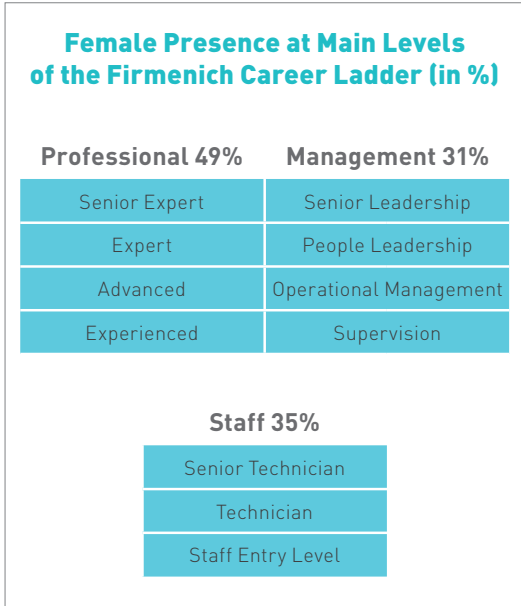
In December 2012, Firmenich hosted the first Swiss roundtable on the Women’s Empowerment Principles to advance equality between men and women. Attendees worked on two key topics: how to communicate the status of the Women’s Empowerment Principles implementation, and the Women’s Empowerment Principles value proposition.



To foster diversity, develop our talents and encourage senior female leaders' career development, Firmenich also launched a Senior Leader Mentoring program. This initiative paired six senior female leaders from Geneva, Paris, New York and Singapore to six members of our executive leadership team. On top of these strategic initiatives, Firmenich also runs a number of work-life balance programs.

**Integrating Adults with Disabilities in Geneva**

Since 1979, Firmenich has engaged with the state of Geneva to hire physically and intellectually disabled employees. Today, 24 well trained and skilled adults with disabilities occupy various positions at our Meyrin-Satigny site in Switzerland. These employees are respected and highly valued.

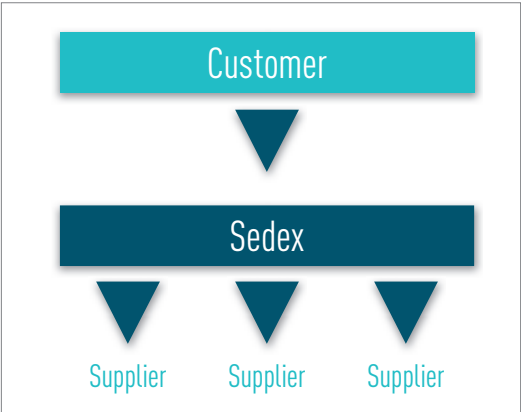


**The Supplier Ethical Data Exchange (Sedex)**

Sedex is a nonprofit membership organization dedicated to driving improvements in responsible and ethical business practices in global supply chains. Sedex provides an electronic system for collecting and analyzing information on ethical and responsible business practices in the supply chain.

Substantially all Firmenich manufacturing sites have been audited against the Sedex SMETA guidelines (and the Firmenich Social Accountability Standard) and the audit reports registered on the Sedex website. Sedex provides a secure, online database that allows members to store, share and report on information in four key areas:

- Labor Standards
- Health & Safety
- The Environment
- Business Ethics



Buyers can view and manage ethical information for all their suppliers in one secure place.









GREEN

Managing Our Footprint



# RESPECTING OUR ENVIRONMENT

6.1%

REDUCTION IN ENERGY USE  
IN THE PAST FIVE YEARS

## Our Performance

Firmenich continues to make credible and significant progress in many key environmental performance indicators (comparing FY13 against the previous year and against rolling five-year baselines) with improvements in performance for seven out of eight of the indicators reported – see table below.

We will continue to develop metrics to better understand our environmental performance and adopt more indicators to ensure that we maintain an effective, continual improvement strategy.

### Energy Use and Carbon Dioxide (CO<sub>2</sub>) Emissions

We remain steadfast in our commitment to reducing CO<sub>2</sub> emissions through a range of energy efficiency projects and to increasing the use of more sustainable fuel types, where feasible.

During FY13, our rate of energy use was reduced by 3.6% compared with the previous year and by 6.1% against a rolling five-year baseline (FY08 compared against FY13). Our Scope 1 and 2 CO<sub>2</sub> emissions rate in kg per tonne of production also fell by 4.5% (compared with 2012) and by 0.6% against the rolling five-year baseline.

In 2010, we set a very ambitious sustainability goal to reduce our absolute CO<sub>2</sub> emissions by 15% over a five-year period. We now realize how ambitious this goal actually is, given that CO<sub>2</sub> emissions as a rate of production (kg CO<sub>2</sub>/tonne product) are relatively flat on a five-year rolling basis FY08-FY13 (-0.6%) and have increased by 13% on an absolute basis. The original assumptions used at the time to define the 15% absolute reduction were largely based on an optimized operational footprint, as well as energy efficiency gains. In hindsight, the five-year window we set to achieve this reduction was too ambitious. Our future operational footprint is now well defined and being executed to plan and the programs for energy efficiency (see a sample on pages 26 and 27 and in previous sustainability reports) are starting to deliver the reductions we need. We will not alter our goal or timescale and will strive to deliver the reduction as originally stated.

	FY12	FY13	Annual Change (%)		FY08 vs. FY13 Change (%)
Total Energy Use (GJ/t)	11.1	10.7	-3.6	↓	-6.1% ↓
Scope 1 and 2 CO <sub>2</sub> Emissions (kg/t)	818	781	-4.5	↓	-0.6% ↓
VOC (kg/t)	1.2	1.2	0.0	→	-55.6 ↓
Total Water Use (m <sup>3</sup> /t)	23.1	22.5	-2.6	↓	-31.0% ↓
Process Water Use (m <sup>3</sup> /t)	8.4	7.1	-15.5	↓	-26.0 ↓
Hazardous Waste (kg/t)*	79	75	-5.1	↓	-31.8 ↓
Waste to Energy (%)*	30.1	32.3	+7.3	↑	NA
Waste to Landfill (%)*	9.1	8.3	-8.8	↓	-34.6 ↓

\* **Note** Hazardous Waste (kg/t) for FY13 excludes the "one-off" hazardous wastes generated by the December 2012 fire at our warehouse in Argentina, which are considered exceptional (these are however reported in the absolute hazardous waste figures on page 46 at the end of the report).

3,500

EXPECTED REDUCTION IN TONNES OF CO<sub>2</sub> IN THE COMING YEARS

55.6%

REDUCTION IN VOC EMISSION RATES

**Reducing Energy and CO<sub>2</sub> Emissions Around the World**

In the last 12 months, we have committed more than 2.6 million CHF to projects aimed at reducing our energy footprint. This funding was used to implement 22 energy efficiency projects and six projects involving renewable (solar) energy. These projects will reduce our CO<sub>2</sub> emissions by more than 3,500 tonnes per year in the coming years.

**Carbon Disclosure Project (CDP)**

This is the fifth year that Firmenich has been reporting Scope 1 and Scope 2 CO<sub>2</sub> emissions under the CDP. Our FY12 submission scored 74 on disclosure (an improvement on our FY11 score of 72). Also, during this period and for the first time, our Carbon Disclosure submission (for FY13) was independently verified by SGS. We will continue to actively participate in the CDP.

**VOC**

We recognize that continuous improvement cannot be achieved at the same rate all of the time and despite our best efforts, compared against our FY12 baseline, VOC emission rates have remained flat. In the early years of our strategy, we invested heavily in standards and technology to measure and abate VOCs and modified processes to reduce emissions. These initiatives have been implemented, and VOCs are much better managed: over a five-year rolling baseline performance period, this indicator has improved considerably with a reduction in VOC emission rates of 55.6%. We now see more stable VOC emissions year on year. The intent going forward is to ensure we manage VOC rates at the current stability level.

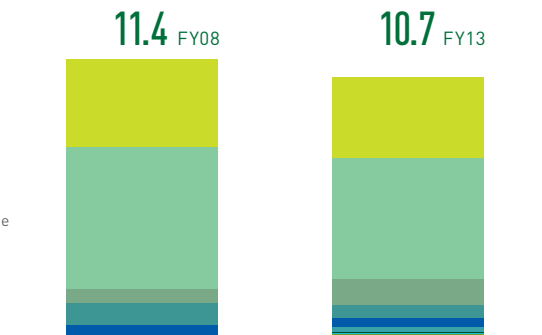


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**Energy**

GJ/t of production

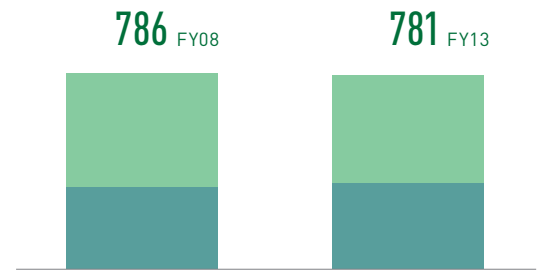
- electricity
- natural gas
- oil
- coal
- purchased steam
- LPG
- renewable generated onsite
- incinerating waste
- biofuel (wood)
- indirect heat purchased



**CO<sub>2</sub> Emissions**

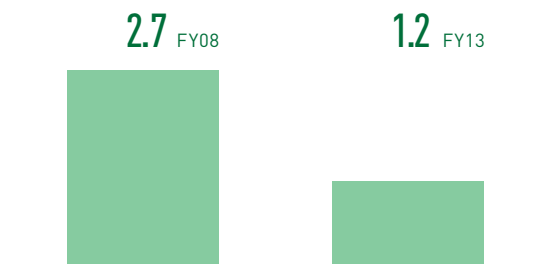
kg/t of production

- CO<sub>2</sub>, Scope1
- CO<sub>2</sub>, Scope2



**VOC Emissions**

kg/t of production



31%

TOTAL WATER USE REDUCTION  
PER TONNE OF PRODUCTION  
IN THE LAST FIVE YEARS

31.8%

REDUCTION IN HAZARDOUS  
WASTE RATE

**Water Use Rate**

Comparing against FY12, our total water use rate decreased by 2.6% and by 31% against the five-year baseline. The process water rate has been reduced by 15.5% since last year and by 26% against the five-year rolling baseline. Our target total water usage rate is a 15% reduction by 2015 (against a 2010 baseline). We are well on our way to achieving this goal.

**Waste**

We have again this year made excellent progress on waste management. Hazardous waste rates have been reduced by 5.1% since FY12 and by 31.8% based on a five-year rolling baseline. We continue to advance in finding ways to recycle waste. Waste sent to landfill decreased by 8.8% since FY12. Based on a five-year rolling baseline, wastes sent to landfill have been reduced by 34.6%. Wastes used for energy recovery increased by 7.3% since FY12.

**Environmental Scorecards**

As reported in FY12, Firmenich launched a pilot environmental scorecard initiative to encourage environmental improvement amongst our largest suppliers. The scorecards are used to collate and evaluate supplier-specific environmental data including: energy used, wastes produced, water used and emission of greenhouse gases. Supplementary questions cover topics such as improvement projects, fines and management systems.

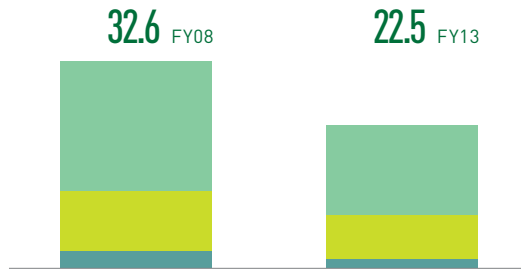
The scorecards were received back and analyzed in FY13. In this first year of the pilot, all suppliers who returned scorecards were provided with feedback on their score as it related to the completeness of their scorecard responses. In future years, scores and feedback will be based on the level and scope of reporting and environmental progress achieved. The pilot has proved a success with basic data being provided by 30 important suppliers. Scorecards will now be used annually to track supply chain performance and improvements over time. The scorecards are currently concerned with supplier-wide performance and will later collect product-specific data that will be used for calculating the product Environmental Sustainability Index, conducting product life-cycle analysis and reporting on Scope 3 carbon emissions.

Total Water Usage

m3/t of production

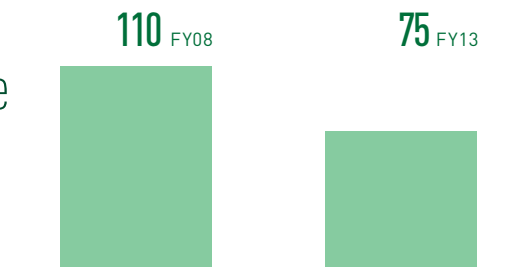
- domestic
- process
- NC-cooling

domestic = sanitary + gardening  
cooling = noncontact cooling water\*



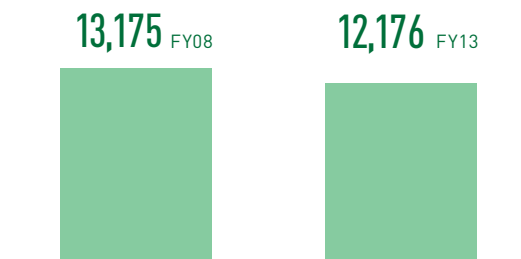
Hazardous Waste

kg/t of production



Recycled Waste

tonnes



\* Noncontact cooling water is water that is used in heat exchangers and does not contact materials from the process that it is used to cool. Since it does not contact process materials, the cooling water does not become contaminated during use. After use, the water is returned to the sources [e.g., lake, river] from which it was obtained.



# 12,176

TONNES OF RECYCLED WASTE



## Eliminating Freon

**REDUCING OZONE-DEPLETING GAS EMISSIONS IN NEW ULM, MINNESOTA, U.S.**  
An aging refrigeration system, for both a walk-in product cooler and a freezer, in the New Ulm affiliate has been replaced with two separate cooler and freezer refrigeration units. Both contain an advanced refrigerant (R404A) that is not considered ozone-depleting. As an added advantage, the replacement units use much less energy because they have high efficiency compressors and condenser coils and use independent control systems.



## Wastewater Treatment

**WASTEWATER TREATMENT IN CHINA**  
Firmenich Shanghai invested in a wastewater treatment plant upgrade.  
  
An investment of 300K CHF was made to increase plant capacity, upgrade odor treatment, and advance electrical and pipe work systems and sludge dewatering. The work, which was completed in December 2012 will improve odor removal efficiency more than 84% and increase treatment capacity by approximately 15%.

### Update on Certifications

As part of our ongoing commitment to certify all manufacturing sites against OHSAS 18001 and ISO 14001 by 2015, our site in Toluca, Mexico, achieved ISO 14001 certification this year. Eighty percent of our sites are now certified under both OHSAS 18001 and ISO 14001.



"In China, an emerging market of particular significance to Firmenich, the compliance team has played an active role in implementing our unwavering commitment to Our Fundamentals. I see sustainability as an exciting, enduring and invigorating journey."

**Rachael Rui-Feng Chen-Sun, VP, Government Relations and Corporate Compliance, China**

# Highlights of Our Global Environmental Sustainability Efforts

## 1 Electrical equipment installation

**Port Newark, NJ, U.S.:** Installation of electrical equipment to improve power quality and reduce power distribution losses. Estimated annual savings of 1,000 MWh in electricity and 550 tonnes of CO<sub>2</sub>.

## 2 Plant steam upgrades

**Anaheim, CA, U.S.:** Upgrades to restore plant steam system efficiency.

## 3 R22 compressor upgrades

**New Ulm, MN, U.S.:** R22 compressor upgrade to increase compressor efficiency and eliminate Freon use.

## 4 LED lighting installation

**Newark and Princeton, NJ; New Ulm, MN; Anaheim, CA, U.S.; Geneva, Switzerland, and Shanghai, China:** Installation of LED lighting in offices, labs, warehouses, manufacturing areas and a parking garage. Annual savings of 750 MWh in electricity and 385 tonnes of CO<sub>2</sub>.

## 5 Solar-powered water heater installation

**Sao Paulo, Brazil, and Toluca, Mexico:** Installation of a solar-powered water heater for domestic water.

## 6 Natural gas equipment modification

**Port Newark, NJ, U.S.:** Equipment and operational modifications to improve natural gas efficiency in air treatment thermal oxidizer.

## 7 Natural gas line installation

**Thirsk, U.K., and Toluca, Mexico:** Installation of natural gas lines to boilers and other fired equipment, replacing Liquid Petroleum Gas (LPG) supplies. These two projects reduced on-site CO<sub>2</sub> emissions by 430 tonnes per year and eliminated the hazardous transportation and off-loading risks associated with LPG and the CO<sub>2</sub> emissions related to truck deliveries. The process safety risks associated with maintaining LPG inventory on-site were also eliminated.

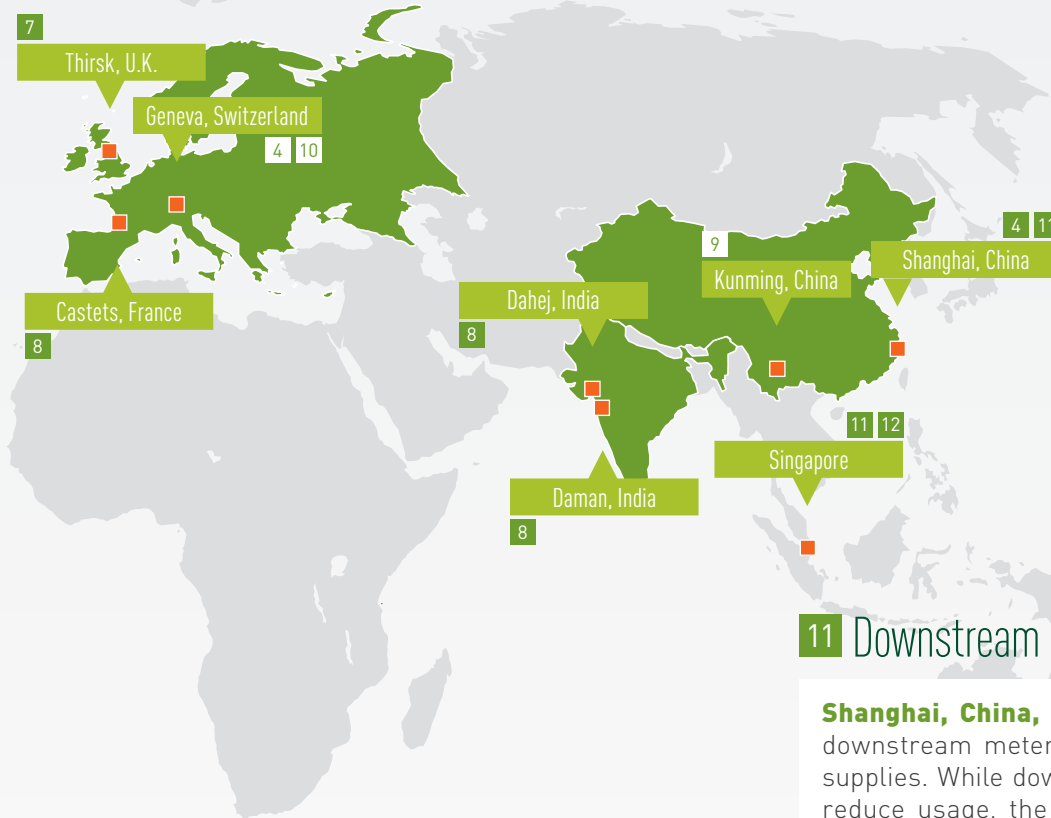


## 8 Solar photovoltaic projects

**Castets, France; Dahej and Daman, India:** Installation of solar photovoltaic projects to generate electricity.

## 10 Recovery of heat

**Geneva, Switzerland:** Recovery of heat from equipment cleaning water prior to discharge. The cooled wastewater is also preferred by the wastewater treatment authorities. Annual savings are anticipated at 3,180 MWh in electricity and 630 tonnes of CO<sub>2</sub>. (This project is still under construction).



## 9 Coal-fired boilers conversion

**Kunming, China:** Implementation of a project to convert the existing coal-fired boilers to run on biofuels made from wood waste, rice husk and bark in FY13. Historically, the boilers consumed 4,415 tonnes of coal and emitted 11,777.7 tonnes of CO<sub>2</sub> (annual consumption/emissions 2012).

## 11 Downstream meters installation

**Shanghai, China, and Singapore:** Installation of downstream meters on electricity, gas and water supplies. While downstream meters do not directly reduce usage, the data generated is essential to understand usage patterns and identify savings opportunities. We are encouraging our other affiliates to develop additional downstream metering projects.

## 12 Solar-powered water heater installation

**Singapore:** Installation of a new 3,500 liter solar-powered water heater. Annual savings of 57 MWh in electricity and 31 tonnes of CO<sub>2</sub>. In Brazil and Mexico, similar smaller solar systems have been installed for domestic hot water.



# SUSTAINABLE INGREDIENTS AND PRODUCTS

## Environmental Sustainability Index

Firmenich is seeking to encourage and lead in the development of industry standards for the life-cycle assessment of synthetic fragrance and flavor ingredients and compounds.

The Firmenich Environmental Sustainability Index for Synthetic Materials is an innovative and pragmatic method of modeling, measuring and reporting a range of important sustainability indicators associated with the sourcing, manufacturing, use and final disposal of fragrance and flavor ingredients. The index scoring allows ranking of ingredients and also illustrates how much each life-cycle stage, or each environmental indicator, contributes to the total index score.

The index, which was further refined in FY13, has already been used internally to help production and supply chain managers understand which materials have the greatest impacts and to identify where in the life-cycle of each ingredient the critical impacts occur. Data collected for the index was also used to respond to customer inquiries about the carbon footprint of certain ingredients.

Preliminary discussions have also been held with selected suppliers and clients to determine how the index may be used on a wider scale. It is intended that the index will be used to:

- Respond to client queries regarding ingredient and compound environmental performance (including the completion of environmental scorecards)
- Assist perfumers and flavorists in the creation and development of sustainable formulae
- Help set targets to reduce the impacts of ingredients
- Help compare the environmental performance of similar ingredients from different suppliers
- Help clients better understand their final products

Firmenich is now seeking to collaborate with selected suppliers and clients to test how the index could be used to aid decision making on sustainable sourcing and product development.

### Highlights from FY13

In FY13, the index methodology was subjected to an external critical review and validation in line with ISO 14040-44 standards. It was conducted by David Aeron-Thomas from Forum for the Future and Michael Z. Hauschild, Professor and Head of the Division for Quantitative Sustainability Assessment at the Technical University of Denmark in Copenhagen. The reviewers considered the methods used to carry out the life-cycle assessment, validity of data sources, interpretation of results and the transparency of reporting. The reviewers approved the methodology and general interpretation but also made a number of recommendations for improvement.

Also this year, a new, more robust method of extracting production data internally was tested. Three general chemicals were analyzed as benchmarks, and for the first time data for 10 ingredients were obtained from external suppliers to evaluate how the Index might be more widely used within the fragrance and flavor sector. A sensitivity analysis showed that data-collection methodologies and boundaries and the reliability of supplier data were important factors in determining the index scores and its accuracy.

To date, a total of 101 ingredients have been evaluated (50 in 2012 and 51 in 2013). The most impactful life-cycle stage varies widely for each ingredient, but generally most impacts are associated with raw materials, energy consumption, waste production and product properties.

# Recap on Index Methodology

Developed in partnership with Quantis, experts in life-cycle assessment, the index was first introduced by Firmenich in 2011.

The index is based on quantified data of three key environmental indicator categories: climate change, water depletion and potential environmental toxicity. Three key ingredient life-cycle stages are taken into account:

1. Sourcing and transportation of the ingredient's raw materials
2. On-site synthesis of the ingredient (where impacts would arise from water and energy consumption and waste generation)
3. Product use and disposal ("gate to grave")

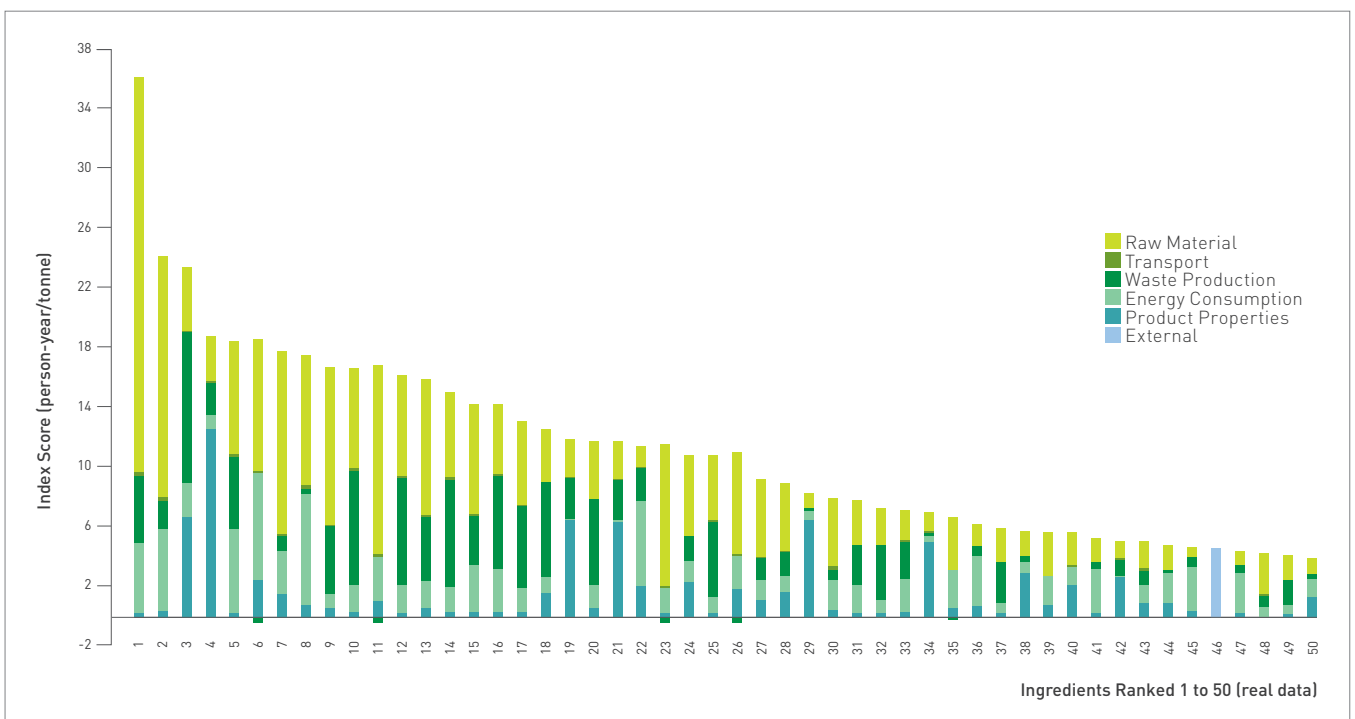
These impact category and life-cycle data are aggregated and normalized to express the final index score in terms of the impacts generated by an average global citizen over a period of one year.

An index score of "one" means that the production of one tonne of the ingredient has the same impact on the environment as an average global citizen in one year.

## What Are the Life-Cycle Stage Contributions?

		INDICATORS		
		Climate Change	Water	Environmental Toxicity
Sourcing	Raw Material	✓	✓	✓
	Transport	✓	✓	✓
	On-site Production			
On-site Production	Energy Consumption	✓	✓	✓
	Water Consumption	0	✓	0
	Waste Production	✓	✓	✓
Product Use and Disposal	Product Properties	Not relevant	Not relevant	✓

Different impact at different Ingredient life-cycle stages



# Knowledge

ALL FIRMENICH FRAGRANCE  
INGREDIENTS HAVE NOW BEEN TESTED  
FOR BIODEGRADATION

## Biodegradation and Ecotoxicity

Firmenich aims to provide clients and consumers, perfumers and flavorists with a palette of ingredients that meet the highest safety and environmental criteria at the leading edge of the current knowledge.

All Firmenich fragrance ingredients have now been tested for biodegradation. Beyond regulatory requirements, all compounds that have the potential to be introduced on the market are systematically and proactively submitted to the same tests. We have thus provided the prediction models (Catalogic) with a key contribution. In addition, we have worked to uncover biodegradation pathways that were previously obscure.

For environmental studies, we have not only established new analytical methods to support the ecotoxicological tests, but we are also building an in-depth understanding of the fragrance compound behavior in water. In addition, we have improved the measurement accuracy of reference data used for in-silico tests, which increases the reliability of subsequent predictions.

We have decreased organic solvent use in our analytical laboratories by replacing them with more environmentally acceptable green substitutes and by using new analytical instruments that use less solvent and energy.



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# Expertise

NEW TECHNOLOGY  
FOR ALTERNATIVE,  
SUSTAINABLE INGREDIENTS

## Partnership with Amyris

Firmenich is working in partnership with biotech company Amyris to develop an alternative, sustainable and complementary source of fragrance and flavor ingredients.

Many of the natural ingredients currently used in the Fragrance and Flavor industry are in limited supply and can potentially suffer from variation in availability and quality. Synthetic alternatives often require complex chemical conversions of nonrenewable ingredients such as petrochemicals.

This innovative project uses microorganisms as “living factories” to convert sugars (from a variety of different sources) into selected renewable fragrance and flavor ingredients that have many fewer sustainability and availability concerns.

One of the first products being produced is patchouli oil, which is a key ingredient in a large number of fragrances. Patchouli is a member of the mint family and grows mainly in Asia and Africa, but like many other natural essential oils it is prone to serious supply chain problems. For example, in 2010, a volcanic eruption in Java (one of the best sources of patchouli oil) destroyed a significant proportion of the patchouli crops and dramatically increased prices. Patchouli plants also suffer from a variety of diseases, which affect oil yields and quality. The new biotech patchouli would help mitigate such issues.



## Thermarome™ Sustainable Flavor Encapsulation Technology

Sustainability is a complex equation, combining environmental, economic and social considerations. By investing time and expertise into sustainable innovation, it is possible to produce solutions that can solve multiple challenges.

Firmenich has been working closely with our clients on a new patented natural encapsulation technology (Thermarome™) to reduce flavor oil losses when the flavors are applied to particular products. Findings indicate that this technology not only reduces the amount of raw materials used but also reduces odors and the potential of employee exposure to VOCs in the workplace, thus potentially limiting the need for abatement technologies. The total carbon footprint of the encapsulated flavors has been calculated as lower compared to the standard products they could potentially replace.







# GROWTH

Innovative and Inclusive Business



# PARTNERING IN SUSTAINABILITY

120 Million

TREES PLANTED BY THE LIVELIHOODS FUND.  
FIRMENICH IS VERY PROUD TO BE  
ASSOCIATED WITH SUCH AN INITIATIVE

Firmenich engages regularly with clients and suppliers to share best practices and ideas on sustainable innovation. Firmenich has also developed several cross-sector partnerships to support its sustainability programs. These partnerships allow us to engage with strategic stakeholders, such as NGOs, academia and governments, and enrich our sustainability work with specialized competencies.

In FY13, we continued our collaborations with a number of key long-term sustainability partners (see partnership map on page 35) and initiated new partnerships with the Livelihoods Fund, the World Toilet Organization and the Union for Ethical Bioproducts. Our decision to engage in new partnerships is driven by our materiality analysis and by the capacity of potential new partners to connect directly with our core business priorities: for example, we will work with the Union for Ethical Bioproducts to review our portfolio of natural ingredients and better understand our impact on biodiversity.

our CEO, and on the Board of Directors by Eric Nicolas, our Corporate Vice President and Chief Financial Officer. In the coming year, Firmenich looks forward to getting actively involved in the Fund's projects. This sort of engagement reinforces the integration of our sustainability thinking at all levels of our company.



Livelihoods Fund Project in the Araku Valley, India

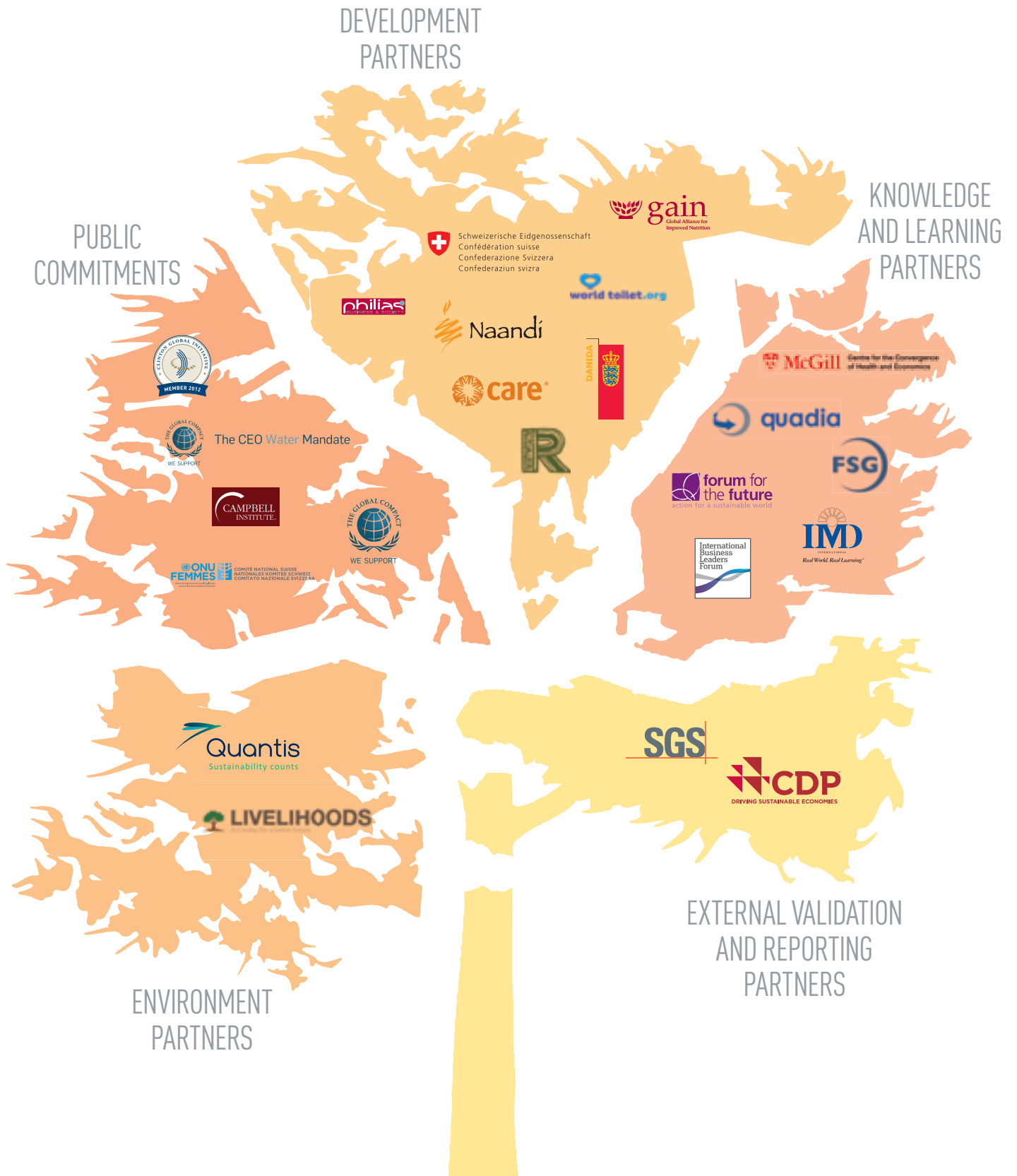
1

**The Livelihoods Fund**  
The Livelihoods Fund, an investment fund created in 2011, aims at supporting "the efforts of agricultural and rural communities to live in sustainable ecosystems which serve as the foundation for their food security and provide the resources that ensure their sustainability." The Fund supports agroforestry, rural energy and ecosystem-restoration projects that transform degraded ecosystems back into productive ones for local communities, while increasing CO<sub>2</sub> sequestration initiatives. To date, the Livelihoods Fund has planted 120 million trees, and Firmenich is very proud to be associated with such an initiative. Firmenich made a long-term financial commitment to the Livelihoods Fund in 2013. Firmenich is represented on the Fund's Advisory Board by Patrick Firmenich,



"Our sustainability partners challenge us every day in our sustainability projects, from India to Haiti, to design impactful, sustainable solutions."  
**Dr. Béangère Magarinos-Ruchat, VP, Sustainability Partnerships**

# Our Partnership Map



# SUSTAINABLE INNOVATION IN PERFUMERY

2.6 Billion

PEOPLE WORLDWIDE WHO DO NOT HAVE ACCESS TO PROPER SANITATION

## Vision and Strategy

The perfumery division focuses its sustainability strategy on four main pillars: eco-design, ethical naturals, health and hygiene and our people. To further integrate sustainability throughout our business and reach all perfumery functions, cross-functional teams are working together on these themes. Looking ahead, Firmenich will continue developing sustainable fragrance solutions and innovations, contribute to the improvement of consumer lives through hygiene and well-being and further leverage the exceptional creativity of our teams on sustainability issues. We aim to continue to be recognized and preferred by our partners and our clients for the tangible contributions we make to sustainability.

Jack Sim with Patrick Firmenich



to improve access to sanitation in developing countries.

### Sustainable Sanitation

In 2012, in partnership with the Bill and Melinda Gates Foundation and within the context of their Reinvent the Toilet Challenge, Firmenich scientists successfully achieved the identification of the molecules that contribute the most to latrine malodors, a crucial factor in developing malodor-counteracting fragrance technologies targeted to the base of the pyramid (BoP) consumers. This research has been published, allowing other scientists to contribute to the development of safe and sustainable sanitation in developing countries. Our field experience will help us create performing malodor-counteracting technologies that can impact and benefit sanitation and hygiene management.

### The World Toilet Organization

As part of our research program on malodor control and of our India Base of the Pyramid Project, Firmenich mapped the stakeholders involved in access to sanitation at the BoP. Globally, 2.6 billion people do not have access to proper sanitation. In 2012, we started a dialogue with Jack Sim, the founder and CEO of the World Toilet Organization, who has been involved in sustainable sanitation since 2001 and was named "Hero of the Environment" by *Time* Magazine in 2008. By breaking a taboo on sanitation, his work is helping to save millions of lives. Sim visited our Geneva offices in January 2013 and offered a very inspiring lecture hosted by our Research Division. With a great sense of humor, Sim shared his belief in social entrepreneurship, private market solutions and creative marketplaces where local entrepreneurs offer goods and services that are needed, desired and affordable for their customers – especially for the four billion people living at the base of the pyramid. He also shared the importance of fragrance in making toilets more desirable



## Malodor Management

In 2012, Firmenich pursued efforts to better understand malodors in order to design innovative and affordable fragrance technologies to improve sanitation and hygiene conditions in developing countries.

Poor sanitation, lack of hand washing with soap and limited access to safe drinking-water are the main causes for the nearly 1.7 billion cases of diarrheal diseases and the deaths of 760,000 children under five years old every year. Public and private organizations are focusing on the education of populations



# Sustainability Award



FIRMENICH RECEIVED THE 2013 SUSTAINABILITY LEADERSHIP AWARD FOR ITS COLLABORATION WITH THE NAANDI FOUNDATION

for BoP consumers. Our work on sanitation with Sim and other stakeholders is helping Firmenich expand its positive social impacts globally.

## The Naandi Foundation and Our Shared Senses Project

The Shared Senses project illustrates our approach to shared value creation by connecting Firmenich with BoP consumers. We have been working for the past three years toward our vision to create an inclusive and participatory approach to better understand consumers who live on three to ten dollars a day in India. Our program is now also starting to be developed in “favelas” in Brazil.

In order to better connect to low income consumers, we changed our traditional approach to gaining consumer insight and decided to use consumer interviewers from the target consumers’ own community. We worked with our longtime partner, the Naandi Foundation, to train local populations. This project allowed Naandi students to earn a living and gain valuable work experience, while acquiring new skills on market research and interview techniques.

In the course of the past year, we scaled up our project, which now includes regular product testing and produces quantitative and qualitative data on hygiene, home care and body care habits. We have trained 96 students to become interviewers and 16 supervisors to support the project on a daily basis with the Naandi Mahindra Pride School. Beyond new professional skills, Naandi students are gaining more confidence. They successfully conducted more than 1,000 interviews with low income consumers in rural and urban communities throughout India, from Mohali to Chennai. BoP consumers also

welcomed the program: they were comfortable sharing information with interviewers and excited to express their opinions on products that they use and desire.

### World Corporate Social Responsibility Congress Award for Sustainability Leadership

In February 2013, during the World Corporate Social Responsibility Congress in Mumbai, India, Firmenich received the Sustainability Leadership Award with the Naandi Foundation



in the category of Best Project Collaboration for our Shared Senses project in India. More than 2,500 applicants worldwide competed for this award. We were honored to receive the award for our social innovation supporting low income consumers in India. Firmenich looks forward to continuing our work with the Naandi Foundation and replicating the success of this project in other regions.

Naandi students conducting olfactive tests with BoP communities in India 2

# SUSTAINABLE INNOVATION IN FLAVORS

We believe that one of our biggest contributions is helping our customers tackle their sustainability challenges and meet their goals. To fully understand how we can have the most positive impact, we created an internal advisory network comprised of 20 senior leaders to examine how the flavors industry could most effectively address the issues faced by our clients in the food and beverage industry. Collectively, this “sustainability ambassadors” network has identified a number of key projects to pursue in FY14, focused around four pillars: health and nutrition, sourcing, environment and base of the pyramid populations.

## Successes and Innovations

We continue to focus on discovering and commercializing innovations in the field of taste perception and modulation, targeting our efforts on sweet and salt, as well as on cooling, protein and umami.

### **Sugar Reduction**

Globally, the consumption of sugar has steadily increased, resulting in a rise in health concerns such as obesity and diabetes. Our customers are looking for new and innovative ways to address this problem while still providing consumers with the products they know and love.

We have designed a specific portfolio of products (TasteGEM™) to help food and beverage manufacturers restore the taste profiles to foods and beverages with reduced sugar. In FY13, we had tremendous success helping our customers around the world reduce the amount of sugar in their products, including yogurt, chocolate milk, soft drinks and juices.

### **Salt Reduction**

Reducing salt in products is another key driver of our innovation platform. Our Salt-Print™ portfolio allows our customers to reduce the levels of salt in many different products, such as soups, dressings and meats.

### **Pulses Project with McGill University**

This year, partnering with the McGill Center for the Convergence of Health and Economics (MCCHE), we started a new multipartner program focused on increasing global consumption of pulses, which are annual leguminous crops such as lentils and pigeon peas.

Pulses provide a high-value nutritional source of plant-based proteins but remain underexploited in processed foods. The project, initiated by the MCCHE, calls for involvement of the public and private sectors to address the underutilization of such a nutritious crop.

The vision of this effort is to move from “feeding” people to “nourishing” people around the world. This aim will be achieved by enhancing consumption and perception of pulses as a nutritious, plant-based protein source.

### **Consumer Insights and Healthier Eating**

Why do most healthy products fail to establish consumer preference? Why do some people struggle to lose weight despite huge efforts while others seem to keep a healthy waistline effortlessly? Understanding why and how people make their food choices is critical when addressing food-related health issues. In order to fully understand consumers and their relationship to healthy foods, Firmenich is a founding member of The Global Healthy Choices Behavioral Project, an initiative that aims to fully uncover the basis for consumer preference.

The project, led by MCCHE, uses innovative techniques to uncover consumer behaviors toward food (i.e., in-depth psychological assessment and neurolinguistic programming). This deep understanding of consumers’ attitudes will shed light on the emotional drivers that shift consumers toward healthier choices in food, which will lead to new and exciting opportunities for food manufacturers looking to create healthier products.

There are currently four corporate sponsors on board with the project, and a North American pilot has begun with the recruitment of participants for the first phase. In addition, we recently received approval from the University of Toronto's Ethical Board to investigate the correlation between behavioral food choices and genetic imprints, which will allow us to make important connections to people's food choices and their genes.



### Collaboration with McGill University

Firmenich has been a corporate partner of the McGill Center for the Convergence of Health and Economics (MCCHE) program for two years. MCCHE is a world leader in promoting the development of a novel, integrative approach to the study of nutrition-related global health challenges. This integrative approach requires the collaboration of government, academia, NGOs and the private sector, and Firmenich plays an active role in the efforts of MCCHE.

## Sustainable Seafood Flavors: Firmenich Norway

"Upcycling" rethinks and reprocesses waste streams to create value. One example of "upcycling" within our value chain is found at our seafood flavor facility in Norway. Our operations in Ålesund, on the northern coast with access to the Barentz Sea, process 10,000 tons of seafood raw materials (largely by-products from the seafood industry) from around the world. Our focus is on 25 natural seafood materials and 11 species of fish, all of which have been caught in the wild; in fact, 86% of our total seafood raw material is sourced from Marine Stewardship Council™ certified fisheries. The remaining 14% is from smaller fisheries that are in the process of certification.

The by-products, which seafood manufacturers had previously disposed of into the sea, are made into seafood extracts and flavors such as shrimp, anchovy, lobster, crab and other popular seafood tonalities for our customers. These flavors are used in soups, stocks, sauces and ready-to-eat meals.

Utilizing our technology and expertise, we are transforming by-products from the seafood industry and maximizing the value created from the marine resources. This contributes to meeting market demand for seafood flavors without adding an extra burden on fish stocks.

Firmenich Norway 1

### Working with the Norwegian Government

Since 1989, we have been a driving force in finding ways to better utilize the proteins from seafood industry by-products, which traditionally are put back into the sea or utilized for animal feed. Through a sophisticated biotechnological process, we take these by-products and convert them into flavor and nutritional ingredients. As a result of this work, we were recently recognized by the Norwegian government in a white paper to Parliament published in March 2013.

As part of our continued commitment to improve the practices of the fishing industry, we now have an ongoing project supported and partly funded by the Norwegian government to further develop ways to utilize an additional 180,000 tons of by-products from the Norwegian fishing fleet and to increase the value of marine resources.

### Marine Stewardship Council (MSC™) Certification

Cod is a popular fish that is enjoyed around the world. In recent years, overfishing has led to a shortage of cod in Canada and the North Sea. However, in the Barentz Sea the stock has been well managed, and this is where Firmenich buys all our cod fish raw material. The Norwegian government has made a great effort to increase the level of cod stock and to ensure its sustainability.

The cod now caught in the Barentz Sea has been certified as sustainable by the MSC™. MSC™ certification means that a fishery operates in a manner that does not exploit the stocks or any other marine life or ecosystem, has made efforts to minimize its environmental impact and abides by all local, national and international laws, and the relevant scientific recommendations.



# SUSTAINABLE SOURCING OF NATURALS

## Commitment

THE SWISS DEVELOPMENT AND COOPERATION AGENCY AND FIRMENICH SUPPORT VETIVER FARMERS IN HAITI

Our work with communities is deeply rooted in the needs and aspirations expressed by the communities themselves. Only by fully understanding the local challenges and environment is it possible to devise appropriate, sustainable solutions.

### Vetiver from Haiti

Firmenich has been buying vetiver from Haiti for decades. In 2010, Firmenich made a commitment under the Clinton Global Initiative platform to work with vetiver farmers in Haiti to develop a sustainable production of vetiver oil. In 2012, at the Rio+20 Earth Summit, Firmenich launched a partnership with the Swiss Development and Cooperation Agency (SDC) to further support vetiver farmers in Haiti. We have deepened our partnership with the SDC in Haiti to enhance the value chain, increase farmers' incomes and crop diversification and strengthen community ecosystems.

Our partners, along with the Swiss Federal Institute of Technology, based in Lausanne, recently developed a new action plan focused on renewable energy along with a socio-economic analysis showing the impact using vetiver leaves has on the farming communities, and an environmental analysis to evaluate the expected reduction of CO<sub>2</sub> emissions.

“Our partnership with Firmenich in the vetiver value chain in Haiti is an exciting «work under construction» towards a shared vision. It brings together the perspectives of building a sustainable supply chain and achieving sustained poverty alleviation in southern Haiti, toward a better future of the farming communities.”

**Barbara Böni, Deputy Head, Latin America Division, Swiss Development Cooperation Agency, Foreign Affairs Ministry, Switzerland**

“The vetiver farmers I met in Haiti welcomed the opportunity to complement their artisanal skills with modern technology. The children from the school in Débouchette shared with me their dreams for a brighter future. As my stay in Haiti came to a close, I left the island with a true sense of hope. Each time I smell the beautiful scent of vetiver, I will know that Firmenich played some small role in touching the lives of the people of Haiti.”

**Patrick Firmenich, CEO, Firmenich**



“My trip to Haiti with Firmenich has been very successful. It gave me a chance to explore how to engage with local vetiver producers in order to use vetiver biomass as a combustible for distillation of essential oil.”

**Edgard Gnansounou, Ph.D.**  
Adjunct Professor EPFL  
Director of the Bioenergy and Energy Planning Research Group – EPFL

Studying vetiver in Haiti

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### Reinforcing Our Engagement with the Swiss Government

“SDC engages in partnerships with individual companies for reducing poverty through direct interventions – as in the vetiver initiative in Haiti with Firmenich. Companies also have a role in governance and policy – as with the UN Global Compact Swiss Network, in which Firmenich plays a key role.”

**Jean-Christophe Favre, Policy Advisor, Partnerships with the Private Sector, Swiss Development Cooperation Agency, Foreign Affairs Ministry, Switzerland**

### Vanilla from Uganda and Madagascar

#### Uganda

In Uganda, the past 12 months have seen considerable positive strides in the production of sustainable vanilla. Nearly 900 farmers have received training in improved crop management and production. With the establishment of viral disease-resistant cassava and nutritional sweet potato nurseries, 288 farmers have received potato vines, and cassava cuttings will be provided beginning September 2013. More than 7,500 fruit, timber and wood trees have been distributed to farmers and to a demonstration farm established at our main partner’s facility.

Radio programs continue to be one of the most effective ways to reach and educate farmers. Within the past year, 35 programs have been broadcast through a number of local radio stations in local languages. The demand for information on vanilla farming is increasing at a rapid rate and demonstrates the growing interest in vanilla in the region. The programs are also contributing to the campaign to replant vanilla by attracting younger farmers.

Approximately 855 individuals have attended HIV/AIDS and malaria workshops and have been counseled and tested for HIV. The reason for this success comes from the fact that our partner has chosen to take the service to the

rural vanilla farmer. There is still a lot of stigma around HIV/AIDS. To reach more rural farmers, we combined the HIV/AIDS and malaria workshops with crop-production trainings, which has ensured greater participation in trainings and more voluntary testing.

Since the start of our Village Loans and Saving Association (VSLA) program with CARE International, a total of 194 groups have been formed with close to 5,850 members trained, managed and monitored by 10 community-based trainers. Studies have been performed to confirm that the VSLA program has improved the incomes of individuals and families.

#### Madagascar

Firmenich continues to support communities of farmers by purchasing Rainforest Alliance (RFA)-certified vanilla and, working with a client, is also establishing 40 drinking water wells in vanilla farming villages that previously had no access to clean drinking water. During this period, Firmenich also assisted in the establishment of tree and crop nurseries to help farmers diversify their production and is contributing to the development of a health center in the village of Ambodilaluna in Antsirabe, an important center for our RFA-certified vanilla production.

### Launch of Sustainable Ugandan Vanilla-Based Cookie

Firmenich provided Ugandan sustainable vanilla extract as an ingredient in a premium cookie that is being sold to support African social and environmental causes. The story of our sustainable Ugandan vanilla appears on both the product packaging and on the company website and is an excellent example of our customers using a Firmenich sustainable ingredient as a brand differentiator.





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Cardamom farmer  
Guatemala

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### Patchouli and Cardamom from Guatemala

In Guatemala, Firmenich is working with a local supplier run by two young entrepreneurs who promote sustainable sourcing. For the past two years, they have distilled, exclusively for Firmenich, patchouli and cardamom essential oils in the Pacific region of Guatemala using equipment provided by Firmenich. The patchouli production was first implemented through an integrated cultivation program and later expanded to include a program in which free patchouli seedlings are distributed to local communities around the factory area. The goal is to distribute 500,000 seedlings to approximately 1,000 families.

Our supplier also partners with a network of cardamom planters in the area of Cobán. Working directly with farmers allows them to pay higher prices directly to farmers and to guarantee an income as the company buys the entire crop from each farmer. The result is a supply of high-quality, sustainable cardamom essential oil exclusive to Firmenich and its clients.

Kayapò woman with  
Tonka beans harvest

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### Copaiba and Tonka Beans from Brazil

In the Brazilian Amazon, Firmenich has developed two sustainable sourcing programs, with the support of local and global nonprofits, of copaiba oil and on tonka beans. As part of these programs, Firmenich not only buys directly from the producing communities but also provides technical training and financial support. As a result, each community's income has increased by 50-100%. In 2012-2013, Firmenich bought 31% of its copaiba oil supplies from traditional communities. In 2013, Firmenich started working with Kayapò Indians on tonka beans. We trained the indigenous community, and they now provide 38.5% of our global supply of tonka beans.

Flavor Leadership Team  
volunteer their time and  
talent on Community Day

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### Citrus

Firmenich is a large consumer of citrus oil and knows the importance of traceability. In 2012, the company started a citrus sustainability program with some of its larger suppliers in Latin America. The objectives of this program are to share knowledge with suppliers, evaluate them on their sustainability practices, build synergies and identify opportunities to work together on increasing sustainability in our supply chain through technical training, environmental and social initiatives.



"In Latin America, sustainability is a key element for Firmenich growth. In this very exciting environment, I am involved in managing responsible sourcing projects in the Amazon and regularly meet with customers and suppliers to develop joint sustainability initiatives in our supply chain."

**Luciana Castro, VP Quality and Corporate Compliance, Latin America**



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# TOUCHING HEARTS AND MINDS

## Community Involvement

While our sustainability work has become more and more integrated into our mainstream business, we maintain and expand our support for our global philanthropic work and our support for the local communities in which we operate. In September 2012, more than 2,220 employees volunteered in 121 projects as part of our eighth annual Community Day. This has become a key event for our company, bringing employees together to express the common values we place on individuals and sharing our talents and creativity within our local communities. Being able to share our skills, energy and positive spirit with those who are less fortunate is an enriching experience for all who are involved.

## Examples of Projects Carried Out Around the World This Year Include:

- Planting 1,000 trees in the rainforest in Mexico
- Rebuilding a children's playground in Norway
- Cleaning beaches in Turkey and Japan
- Encouraging energy-saving measures in China

In the U.S., 100 global leaders from our Flavor Division joined together to paint and refurbish apartments and landscape common areas at Eva's Village, a New Jersey service agency that provides food, housing and health care to the underprivileged in one of the poorest communities in that state.

## Opening a New School in Haiti

As part of our ongoing sustainability work in Haiti, we identified the difficulties met by the local farmers and, in particular, in the rural village of Débouchette, which includes the absence of both adequate facilities and staff for primary education. We decided to take action, and in October 2012, Firmenich

officially opened a new school in Débouchette. This school was built with funds contributed by the Firmenich Charitable Foundation, matched by a grant from the Digicel Foundation. The school consists of ten classrooms and is considered a standout facility in the south of Haiti. Nearly 500 students have already been provided with books and supplies, and teachers working under the National Education Program of the Ministry of Education have touched the hearts and minds of children who otherwise would not have had this opportunity.



Patrick Firmenich at the opening of the Firmenich School in Haiti

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## Giving

Charitable giving is embedded in our history. We believe that profitable companies have a social obligation to invest in their local communities and in the world community. In FY13, we contributed to more than 170 organizations – providing funds and volunteer time. Our philanthropic efforts are primarily funded through the Firmenich Charitable Foundation. Our giving program has three primary focus areas:

- Working to cure cancer (with an emphasis on breast cancer research)
- Providing improved access to nutrition and hygiene to those in need
- Supporting communities local to our facilities and from where we source natural raw materials

# ABOUT THIS REPORT

## Report Boundaries

This is our eighth annual sustainability report. The report follows our 2012 report and contains a full year of data based on fiscal year 2013 (FY13) from 1 July 2012 to 30 June 2013. The report covers global operations across the Firmenich Group including affiliates in 28 countries; it covers our manufacturing sites and nonmanufacturing locations.

We focus on key activities and achievements that we believe are of interest and value to our major stakeholder groups. Our stakeholders include all organizations or groups that could affect our business: employees, shareholders, clients, consumers, suppliers, communities in which we operate, industry associations, regulators, nonprofits, and universities.

The workplace, human resource (HR) and environmental data, unless otherwise indicated, covers all operations owned or controlled (production sites, sales offices, administrative offices, laboratories or combination of such facilities). The HR data is reported for fixed and temporary headcount.

The Firmenich Board of Directors is comprised of four internal members and five external members. The board includes representatives from the family shareholders, which ensures that the shareholders have a direct link to the highest governance body of the company. The link between the board and the employees is ensured through the Firmenich Code of Conduct, where the process for employees to connect with the highest governance body is facilitated through the Group Vice President of Corporate Compliance, the Group Vice President General Counsel and the Corporate Vice President of Human Resources.

The Sustainability Team is headed by the Group Vice President of Corporate Compliance, who reports directly to our CEO, making the Sustainability Team a crucial link between our stakeholders (clients, employees, suppliers, Sustainability Council, sustainability partners...), the Board of Directors and the Executive Team.

The Firmenich Code of Conduct is a document designed to help our employees make ethical decision in their day-to-day work within the company. It is based on our Fundamentals and covers ethical points such as conflict of interest, corruption, antitrust, harassment, confidentiality, governance and political and community activities. Within the document is a clear statement that Firmenich will in no way support political candidates or parties either financially or with in-kind donations. Our employees' adherence to our Code of Conduct has ensured that Firmenich has had zero legal actions for anticompetitive behavior, antitrust or monopoly practices in this reporting period and no monetary fines or sanctions for noncompliance in these areas.

To highlight our performance, the previous year's data and rolling five-year data are included in this report. Some of that data may differ from figures reported in previous sustainability reports. These variations reflect improvements made in the calculation and consolidation methods as well as changes made once more accurate data became available. The changes in effluent discharge (+6,625 M3) and water input (+6,098 M3) for 2012 on page 46 were due to one site mistakenly using the unit of measurement gallons instead of gal(US) in our management system. The FY12 reported scope 2 emissions differs from the figure reported in the past report since new published electricity CO<sub>2</sub> emission factors have been updated during FY13, effective from January 2012.



"Sustainability Reporting is a constant learning and improvement process for our company. Reporting against GRI indicators and certifying our report with SGS provides rigor and credibility to our report."

**Johan Firmenich**  
Project Manager, Sustainability

### Scope of This Report

We have applied the Global Reporting Initiative's (GRI) principles of materiality to this report, which state "information in this report should cover issues and indicators that would substantially influence the decisions of the stakeholders using this report." We used the GRI indicators as a guide to develop this report, and we strive to improve the scope and precision of our reporting each year. This is the third year that we are reporting our sustainability work according to the GRI guidelines (version 3.1), and we have therefore made an effort to improve on the indicators from last year. Firmenich is reporting at a self-declared level C+ as defined by GRI, and our report includes strategy, profile, sustainability governance and 21 performance indicators.

This report is independently verified by SGS (see page 45), and the management systems that generate our safety and environmental data are validated by independent experts. This report also serves as our Communication on Progress (COP) for the United Nations Global Compact (UNGC), for the CEO Water Mandate (COP-Water) as well as for the UN Women's Empowerment Principals.

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# EXTERNAL VERIFICATION

## SGS Société Générale de Surveillance SA report on sustainability activities in the Firmenich Sustainability Report for 2013

### Nature and Scope of the Assurance / Verification

SGS Société Générale de Surveillance SA was commissioned by Firmenich to conduct an independent assurance of the Sustainability Report 2013. The scope of the assurance, based on the SGS Sustainability Report Assurance methodology, included all text, and data in accompanying tables, contained in this report.

The information in the Sustainability Report 2013 of Firmenich and its presentation are the responsibility of the directors and the management of Firmenich. SGS Société Générale de Surveillance SA has not been involved in the preparation of any of the material included in the Sustainability Report 2013.

Our responsibility is to express an opinion on the text, data, graphs and statements within the scope of verification set out below with the intention to inform all Firmenich's stakeholders.

This report has been assured at a moderate level of scrutiny using our protocols for:

- evaluation of content veracity
- evaluation of the report against the Global Reporting Initiative Sustainability Reporting Guidelines (G3.1/2011)

The assurance comprised a combination of pre-assurance research, interviews with relevant employees at the Headquarters in Geneva; documentation and record review. Data has been assured at corporate level; base data utilized in the calculation of the consolidated figures have not been assured.

Financial data drawn directly from independently audited financial accounts has not been checked back to source as part of the assurance process.

### Statement of Independence and Competence

The SGS Group of companies is the world leader in inspection, testing and verification, operating in more than 140 countries and providing services including management systems and service certification; quality, environmental, social and ethical auditing and training; environmental, social and sustainability report assurance. SGS Société Générale de Surveillance SA confirms our independence from Firmenich, being free from bias and conflicts of interest with the organisation, its subsidiaries and stakeholders.

The assurance team was assembled based on their knowledge, experience and qualifications for this assignment, and comprised auditors registered with AA1000SA Certified Practitioner, Lead Quality, Environmental and SA8000 Auditor and experience in the flavours and fragrance industry.

### Verification / Assurance Opinion

On the basis of the methodology described and the verification work performed, we are satisfied that the information and data contained within Firmenich Sustainability Report 2013 is accurate, reliable and provides a fair and balanced representation of Firmenich sustainability activities in financial year ending 2013.

The apparent discrepancies in the previous years Environment statistics reporting for the running baseline have been noted by the assurers who are satisfied that they actually reflect improvements in data collection and consolidation methods.

The assurance team is of the opinion that the Report can be used by the Reporting Organisation's Stakeholders. We believe that the organisation has chosen an appropriate level of assurance for this stage in their reporting.

### Global Reporting Initiative Reporting Guidelines (G3.1 2011) Conclusions, Findings and Recommendations

In our opinion, the Firmenich Sustainability Report 2013 meets the content and quality requirements for GRI G3.1 Application Level C+.

Principles – In our opinion the content and quality of the report adheres to the ten GRI Principles. In future reports we would expect that areas where basic information has been included will be developed in line with these principles. Opportunities were identified for consideration in future reporting cycles to ensure continual improvement, including:

- future reporting should be clearer on the decision making process regarding stakeholder identification, mapping, engagement and feedback although some improvements were noted compared to the previous Sustainability Report.
- improved reporting on the identification and prioritisation of materiality issues.
- continue to expand the number and coverage of indicators to demonstrate a continued aim to improve transparency.

Standard Disclosures – All the standard disclosures required for reporting at an application level C+ were included or referenced in the report.

Indicators – The required minimum number of core indicators are included in the report.

### Strengths

Firmenich continue to address the wider issues of sustainable development as are relevant to their business and industry.

Signed for and on behalf of SGS Société Générale de Surveillance SA  
Geneva, September 2013





# OUR PERFORMANCE IN NUMBERS

PERFORMANCE	KPI	FY12	FY13
ENERGY (GJ)	Direct Energy (own source)	1,370,111.63	1,380,266.17
	Indirect Energy: purchased (inc. electricity, steam, etc.)	712,718.44	757,844.91
	<b>Total Energy</b>	<b>2,082,830.07</b>	<b>2,138,111.08</b>
CO <sub>2</sub> EMISSIONS (TONNES)	Scope 1: Direct Energy Source	86,092.73	86,590.67
	Scope 2: Indirect Source	67,650.02	69,432.71
	<b>Total CO<sub>2</sub> emissions</b>	<b>153,742.75</b>	<b>156,023.38</b>
<b>WASTE GENERATION AND DISPOSAL (TONNES)</b>			
HAZARDOUS (HZ) WASTE*	Incinerated (without heat recovery)	3,249.66	2,823.47
	Incinerated (with heat recovery)	10,515.87	13,845.29
	Landfilled	40.64	578.42
	Other	957.33	966.03
	<b>Total Hazardous Waste</b>	<b>14,763.5</b>	<b>18,213.21</b>
NONHAZARDOUS (NHZ) WASTE	Incinerated (without heat recovery)	1,518.41	809.52
	Incinerated (with heat recovery)	1,247.64	1,867.90
	Landfilled	2,962.39	2,594.72
	Other	377.88	182.61
	<b>Total Nonhazardous Waste</b>	<b>6,106.32</b>	<b>5,454.75</b>
EFFLUENT TREATMENT WASTE	Incinerated	1,224.08	1,905.97
	Landfilled	539.34	731.41
	Other	4,401.75	5,340.79
	<b>Total Effluent Treatment Waste</b>	<b>6,165.17</b>	<b>7,978.17</b>
TOTAL WASTE (HZ & NHZ)	Total Waste	<b>27,034.99</b>	<b>31,646.13</b>
	Total Incinerated and Landfilled	<b>21,298.03</b>	<b>25,156.70</b>
TOTAL RECYCLED WASTE		12,004.78	12,176.25
EFFLUENT DISCHARGE (M <sup>3</sup> )	Direct Discharge - with Treatment (to surface or ground water)	643,278.65	634,541.28
	COD - Direct Discharge with Treatment (tonnes)	1,937.07	531.90
	Without Direct Discharge (to municipal wastewater)	679,733.02	653,258.73
	COD - Without Direct Discharge (tonnes)	3,224.77	2,859.05
TOTAL EFFLUENT DISCHARGE		1,323,011.67	1,287,800.01
TOTAL COD - CHEMICAL OXYGEN DEMAND (TONNES)		5,161.84	3,390.95
WATER (QTY USED IN M <sup>3</sup> )	Municipal	1,226,011.58	1,111,395.80
	Ground	126,732.00	141,182.00
	<b>Municipal and Ground</b>	<b>1,352,743.58</b>	<b>1,252,577.80</b>
	Surface	3,013,867.00	3,350,146.00
	<b>Total Water</b>	<b>4,366,610.58</b>	<b>4,602,723.80</b>
OTHER DATA	NOx tonnes	135.71	124.53
	SOx tonnes	148.44	153.53
	VOC tonnes	220.72	247.50
PRODUCTION QTY (TONNES)		187,967.82	199,717.31

\* Hazardous Waste (kg/t) for F13 includes the "one-off" hazardous wastes generated by the December 2012 fire at our warehouse in Argentina.

<b>PERFORMANCE</b>	<b>KPI</b>	<b>FY12</b>	<b>FY13</b>
<b>EMPLOYEE DATA</b>			
INCIDENTS	Lost Time Injury (LTI)	11	10
	Total Recordable Cases (TRC)	45	30
	Lost Time Injury Rate (LTIR)	0.15	0.14
	Total Recordable Injury Rate (TRIR)	0.63	0.42
	Fatalities	0	0
LOST TIME INJURY (LTI) BY REGION	Europe	6	2
	India, Middle East & Africa	0	0
	Latin America	5	2
	North America	0	3
	North Asia	0	3
	South & East Asia	0	0
TOTAL RECORDABLE CASES (TRC) BY REGION	Europe	14	10
	India, Middle East & Africa	0	3
	Latin America	9	6
	North America	18	6
	North Asia	2	4
	South & East Asia	2	1
LOST TIME INJURY (LTI) BY GENDER	Male	9	9
	Female	2	1
TOTAL RECORDABLE CASES (TRC) BY GENDER	Male	42	26
	Female	3	4

# GRI INDEX TABLE

GRI INDICATOR	REPORTED	LOCATION
1.1	Fully	3
1.2	Partial	11-15, 19
2.1	Fully	Cover Page, 3 and 5
2.2	Fully	3, 36-43
2.3	Fully	www.firmenich.com/m/company/about-us/profile/facts-figures/
2.4	Fully	5, 44 and www.firmenich.com/t/locate/index.lbl?locate=europ
2.5	Fully	www.firmenich.com/m/company/about-us/profile/facts-figures/
2.6	Fully	3 and 5
2.7	Partial	www.firmenich.com/t/locate/index.lbl and www.firmenich.com/m/company/about-us/profile/facts-figures/index.lbl
2.8	Fully	www.firmenich.com/m/company/about-us/profile/facts-figures/
2.9	Fully	44 and www.firmenich.com/m/company/about-us/profile/facts-figures/
2.10	Fully	2, 10
3.1	Fully	44
3.2	Fully	44
3.3	Fully	44
3.4	Fully	44
3.5	Fully	44
3.6	Fully	44
3.7	Fully	44
3.8	Fully	44
3.10	Fully	44
3.11	Fully	44
3.12	Fully	48
3.13	Fully	45
4.1	Fully	44 and www.firmenich.com/m/company/about-us/profile/management/
4.2	Fully	www.firmenich.com/m/company/about-us/profile/management/

GRI INDICATOR	REPORTED	LOCATION
4.3	Fully	www.firmenich.com/m/company/about-us/profile/management/
4.4	Fully	44
4.12	Fully	3 and 44
4.13	Fully	3, 14-15, 35
4.14	Partial	8, 15, 35
4.15	Partial	44
4.16	Partial	8, 9 12, 14-17, 31, 34-38, 40-43
4.17	Partial	8, 9
EC1	Partial	Firnews 2013
EN3	Fully	46
EN4	Fully	46
EN8	Fully	46
EN16	Partial	46
EN20	Partial	46
EN21	Fully	46
EN22	Fully	46
EN26	Partial	11-13, 15, 28-30
LA1	Partial	47
LA7	Fully	47
LA13	Partial	44 and www.firmenich.com/m/company/about-us/profile/management/
HR5	Fully	19, 36-39 and www.firmenich.com/m/company/responsibility/social-accountability/index.lbl
HR6	Fully	19, 36-39 and www.firmenich.com/m/company/responsibility/social-accountability/index.lbl
HR7	Fully	19 and www.firmenich.com/m/company/responsibility/social-accountability/index.lbl
HR10	Fully	19 and www.firmenich.com/m/company/responsibility/social-accountability/index.lbl
SO1	Fully	43
SO6	Fully	44
SO7	Fully	44
SO8	Partial	44
PR1	Fully	28-29

REPORT APPLICATION LEVEL	C	C+	B	B+	A+
REPORT EXTERNALLY ASSURED	<b>G3 PROFILE DISCLOSURES</b> OUTPUT Report on: 1.1 2.1 - 2.10 3.1 - 3.8, 3.10 - 3.12 4.1 - 4.4, 4.14 - 4.15	REPORT EXTERNALLY ASSURED	Report on all criteria listed for Level C plus: 1.2 3.9, 3.13 4.5 - 4.13, 4.16 - 4.17	REPORT EXTERNALLY ASSURED	Same as requirement for Level B
	<b>G3 MANAGEMENT APPROACH DISCLOSURES</b> OUTPUT Not Required		Management Approach Disclosures for each Indicator Category		Management Approach Disclosures for each Indicator Category
	<b>G3 PERFORMANCE INDICATORS &amp; SECTOR SUPPLEMENT PERFORMANCE INDICATORS</b> OUTPUT Report on a minimum of 10 Performance Indicators, including at least one from each of: Economic, Social and Environmental		Report on a minimum of 20 Performance Indicators, at least one from each of: Economic, Environmental, Human rights, Labor, Society, Product Responsibility		Report on each core G3 and Sector Supplement Indicator with due regard to the Materiality Principle by either: a) reporting on the Indicator or b) explaining the reason for its omission



# VALIDATIONS

ZONE	SITE	SAFETY OHSAS 18001	ENVIRONMENT ISO 14001	QUALITY ISO 9001	FOOD SAFETY STANDARDS (GLOBAL FOOD SAFETY INITIATIVE)	HALAL	KOSHER	SEDEX
EUROPE	Castets, France	●	●			●	●	●
	Alesund, Norway	●	●	●	●	●		●
	Geneva (Meyrin), Switz.	●	●	●	●	●	●	●
	Geneva (La Plaine), Switz.	●	●			●	●	●
	North Yorkshire, UK	●	●	●	●	●	●	●
	Louvain, Belgium			●	●	●	●	●
	Grasse, France	●	●	●	●	●	●	●
NORTH AMERICA	Anaheim, California				●	●	●	●
	Newark, New Jersey	●	●		●	●	●	●
	Lakeland, Florida	●	●		●	●	●	●
	Princeton, New Jersey	●	●		●	●	●	●
	New Ulm, Minnesota	●	●		●	●	●	●
	St. Louis, Missouri	●	●	●	●	●	●	●
LATIN AMERICA	São Paulo, Brazil	●	●	●	●	●	●	●
	Bogotá, Colombia	●		●	●			●
	Buenos Aires, Argentina	●	●	●	●		●	●
	Toluca, Mexico	●	●	●	●		●	●
ASIA PACIFIC	Shanghai, China	●	●	●	●	●	●	●
	Dahej, India	●	●	●			●	●
	Daman, India	●	●	●	●	●	●	●
	Cileungsi, Indonesia	●	●	●	●	●	●	●
	Kunming, China	●	●				●	●
	Ibaraki, Japan			●	●			●
	Singapore	●	●	●				●
	Karawang, Indonesia			●	●	●	●	
TOTAL CERTIFICATIONS	FY13	21	20	17	20	18	21	24
	FY06	0	2	11	11	11	10	0

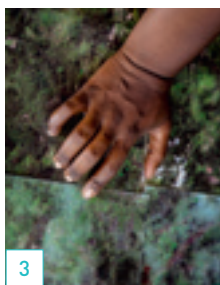
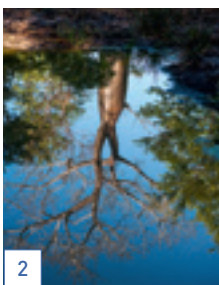
At the time of this report, the ISO 14001 certificate renewal of the site of Sao Paolo, Brazil was under progress.

Details for the above mentioned certifications can be found online at [www.firmenich.com/sustainability](http://www.firmenich.com/sustainability)

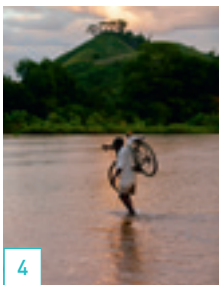
# MICHELLE RALL'S WORK... IN HIS OWN WORDS



**1** Cover: **Water, the Source of Life**  
The Bemarivo River in the Antsirabe Nord Province of northeast Madagascar serves as a playground, foot crossing and laundry spot. The river provides means of irrigation and livelihoods for those who fish.



**2** Page 1: **Baobab reflected in The Lake of Stars**  
"The Lake of Stars" is the moniker coined by David Livingstone for Lake Malawi. Soaring on the skirts of the stars, the Baobab is amongst the longest-living trees on earth - some are more than 2,000 years old. Nearly every part of the tree is useable - for lumber, fishnets, cords and clothing. The leaves are used as a vegetable, and its fruits are edible. This magnificent surreal specimen was captured reflected in a pool of water on the outskirts of Liwonde National Park in Malawi.

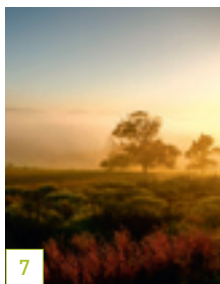


**3** Page 6: **Mapping the Vanilla Trail**  
The Firmenich sustainability team use an enlarged, floor-sized Google map in Madagascar to determine how to best protect ecosystems and enhance forest connectivity, while helping farmers plan their vanilla crops.

**4** Page 7: **Journey from Market**  
A man combines transport of bicycle and river crossing to return from a market. Removal of the native forest for cultivation during the past 50 years has led to significant soil losses.

**5** Page 16: **Spare us a Thought**  
This sign, in the West Coast National Park of South Africa, is inspired by the rare and endangered geometric tortoise, endemic to the area and often a victim of inattentive motorists.

Tortoises have existed, virtually unchanged, for more than 200 million years since dinosaur roamed the earth. This ancient family of animals is facing a survival crisis worldwide, as their habitats are under constant threat. A global action plan has been launched to prevent their extinction.



**6** Page 20: **Bamboo - Photographed in the Early Morning Light**  
One of the fastest growing plants with a multitude of uses, bamboo plays an integral role in the biodiversity of Thailand's Khao Sok National Park. Forty of the world's 1,450 bamboo species thrive here .

**7** Page 21: **Overberg, South Africa**  
Overberg, has one of the richest ecosystems in the world. As the early morning mist dissipated, this splendid moment arrived when time evaporated and little mattered.



**8** Page 32: **The Dewy Beauty of Flowers With Fragrance...**  
Colorful, edible, butterfly-like nasturtium blossoms, a member of the cabbage family, have delighted gardeners and cooks alike for centuries. This image was taken in our eco-garden after a rainfall in Cape Town.

**9** Page 33: **Cutting Edge**  
Rural villagers are poor but carry their heads with pride. Communities meet outdoors to groom themselves. Hairstyling is simple but stylish.



## A SUSTAINABLE CHOICE OF PAPER

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