



PASSION,  
TALENT AND  
INTEGRITY

# 2014 HIGHLIGHTS

## ACCOMPLISHED

84% certification of our manufacturing plants worldwide for OHSAS 18001 and ISO 14001

## CELEBRATED

Eight years of responsible sourcing in Uganda

## ACHIEVED

A 37% improvement in our safety performance rate, reaching a 79% improvement over the past five years

## CREATED

The first Marine Stewardship Council (MSC)-certified flavor

## IMPROVED

Our performance on all tracked environmental indicators compared with our FY09 baseline

## ATTAINED

Membership to the Union for Ethical BioTrade (UEBT)

## HONORED

With the 2013 British-Swiss Chamber of Commerce Corporate Social Responsibility Award

## ENGAGED

With experts at the Wharton School of the University of Pennsylvania (U.S.) and the IMD (Switzerland) on the development of two sustainability case studies

## ESTABLISHED

A joint venture with an Indian floral extracts and natural specialties enterprise to further develop sustainable sourcing

## JOINED

The World Business Council for Sustainable Development (WBCSD) and signed the Water, Sanitation and Hygiene (WASH) at the Workplace initiative

# MESSAGE FROM OUR CHAIRMAN AND CEO

## Passion, Talent and Integrity

As a family company, we remain committed to our belief that sustainability, in its broadest sense, is anchored in the long-term interest of our colleagues, local communities and the environment. As we have done each year since 2006, we have produced this report to give you open and factual information about our goals and the progress we have made against our key sustainability metrics.

We continue to make solid progress on several fronts. A safe workplace is particularly important to us, and we are especially pleased about further improvement in our world class Total Recordable Case rate of 0.27, recording a one year improvement of 37%. We also continue to make steady progress with our environmental objectives, improving over our FY09 baseline in all seven of the environmental indicators we have been tracking throughout this period.

We are dedicated to balanced and transparent reporting, highlighting not only our successes but also the challenges that we face and areas where we can continue to improve. We have made a lot of progress over the years, but as expectations continue to rise, we must continue to raise the bar.

This year, we have included for the first time in our report a materiality analysis developed in conjunction with leading sustainability think tank Forum for the Future. The materiality analysis helps us recognize and assess existing and emerging sustainability issues early on and helps inform our long-term sustainability strategy.

In the past year, we have joined the World Business Council for Sustainable Development, and we continue to collaborate with a number of leading partners, including academic institutions, governments, NGOs, customers and communities around the world to help maximize the impact of our efforts through shared learning. We actively support the ten principles of the UN Global Compact, the CEO Water Mandate elements and the Women's Empowerment Principles.

During the period this report covers, we also worked with three leading academic institutions – the Wharton School of the University of Pennsylvania, IMD and the University of St. Gallen – on the preparation of case studies that examine several unique aspects of Firmenich's sustainability journey. As these teaching instruments are utilized, we hope that our experience will positively inform the decisions of tomorrow's business leaders.

Increasingly, we've found that great people want to work for companies that are committed to sound principles of sustainability. Attracting talented people who share our passion for sustainability is important for our future success, and new talent brings with it new ideas that help us to continually improve.



FY15 will be another exciting and challenging year as we continue to evolve and enhance our longer-term sustainability strategy. We will continue to work with our clients, our suppliers and all of our stakeholders on sustainability issues that matter most to them. In the coming year, we will develop and publish new sustainability goals through 2020 and beyond.

We would like to express our appreciation to the thought leaders who serve on our independent Sustainability Council for their invaluable feedback. To reinforce our sustainability governance and geographic reach, we welcomed two new members to our Council this year, Dr. Rodney Irwin and Dr. Dajian Zhu.

We additionally thank you for your interest in our journey of sustainability. We hope that you find this report engaging and informative and that you will gain a real sense of the progress we are making.

Most important, we are an organization of 6,300 colleagues around the world. We recognize that our people are at the heart of our company and thank them genuinely for their passion, talent and integrity.

We are inspired to build on our heritage and to reach new heights as we continue our journey, preparing for generations to come.

Yves Boisdron  
*Chairman of the Board*

Patrick Firmenich  
*CEO*

# SUSTAINABILITY STRATEGY

## Sustainability at Firmenich

Firmenich is the world's largest privately owned company in the flavor and fragrance industry. Founded in 1895, and headquartered in Geneva, Switzerland, Firmenich has created many of the 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.

Throughout our history, the principles of sustainability have always been a strong focus for Firmenich: as early as 1991, Firmenich signed the International Chamber of Commerce Business Charter for Sustainable Development. In 2010, we developed a companywide strategic plan, *Embrace 2015*, that covered all divisions and set seven sustainability goals for 2015:

- Improve our industry-leading safety performance by 50%
- Reduce CO<sub>2</sub> emissions in absolute terms by 15%

- Reduce water usage rate by 15%
- Power 90% of our manufacturing sites in part with renewable energy
- Review and rank 400 key ingredients through our Sustainability Index
- Complete sustainable natural ingredient sourcing projects in eight countries
- Impact the lives of one million children through improved nutrition and hygiene

In 2010, we created a model, the "3G" (for Governance, Green and Growth), that conceptualized our approach, helped us visualize the breadth and the depth of our sustainability actions and illustrated the important connections between the three platforms. In 2014, as our sustainability strategy became more integrated into our business, we added a fourth platform, "Groups," to reflect our engagement with our people, communities and many stakeholders within our value chain. This new 4G framework better encompasses our sustainability strategy, focusing on:

GOVERNANCE	GREEN	GROWTH	GROUPS
<p>Leveraging Our Independence</p> <p>As a family company with strong values and fundamentals, Firmenich sets goals and standards well beyond compliance levels for:</p> <ul style="list-style-type: none"> <li>• Health and safety</li> <li>• Quality</li> <li>• Regulatory and compliance</li> <li>• Stakeholder engagement</li> </ul>	<p>Reducing Our Footprint</p> <p>Firmenich aims to maximize performance while using resources more efficiently, and minimize our environmental impact by:</p> <ul style="list-style-type: none"> <li>• Reducing our waste, water and energy impact</li> <li>• Measuring and decreasing the environmental impact of key ingredients</li> <li>• Sharing best practices</li> </ul>	<p>Creating Sustainable Products</p> <p>Firmenich invests 10% of its revenue in R&amp;D every year, to maintain our position as the lead supplier of unique ingredients, and to concentrate on:</p> <ul style="list-style-type: none"> <li>• Product biodegradability</li> <li>• Green chemistry</li> <li>• Responsible sourcing</li> </ul>	<p>Embracing Our People and Communities</p> <p>Firmenich's family values recognize the importance of our people and the communities within our value chain. Firmenich focuses on:</p> <ul style="list-style-type: none"> <li>• Partnering with experts</li> <li>• Engaging our people</li> <li>• Philanthropy and community work</li> </ul>

Please see [www.firmenich.com](http://www.firmenich.com) for more information about Firmenich



# RUSSELL JAMES PHOTOGRAPHER



Renowned art and fashion photographer Russell James' beautiful images are featured throughout this report. His dream-like photos often combine various natural elements together, drawing inspiration from the open landscapes of his native Australia, its extraordinary light and rich culture. His images have been featured worldwide, in leading art galleries, *Vogue*, *W*, *American Photo* and a variety of art books.

James created Nomad Two Worlds in 2009, a collaborative art project with indigenous artists that has evolved into a culturally relevant contemporary art and "meaningful luxury" consumer products company whose mission is to provide sustainable economic opportunities for the marginalized artisans and communities they partner with.

In October 2012, Nomad Two Worlds released its first fragrance, "Raw Spirit, Fire Tree," made in collaboration with key members of the Nyoongar community of Western Australia. Since October 2013, four new "Raw Spirit" fragrances, created by Firmenich Master Perfumer Harry Fremont, have been introduced as part of Nomad Two Worlds and Firmenich's commitment to the Clinton Global Initiative to develop 10 fragrances in cooperation with Indigenous and marginalized communities in Haiti, the Amazon, Australia and the United States.



## Cover description:

"Breathtaking Haitian landscape, actually taken by my photo assistants at the time, on a quiet and foggy morning from the Citadelle, UNESCO World Heritage Site and the largest fortress in the Western Hemisphere."

**Russell James**

Photo credit: Murray Hall and Paola Ambrosi De Magistris for Studio Russell James

## INTRODUCTION 1

CEO Message 1  
Sustainability Strategy 2  
Materiality Analysis 4

## GOVERNANCE 6

Our Fundamentals 8  
Health and Safety 9  
Quality Performance 11  
Stakeholder Engagement 12  
Going beyond Compliance 13  
Awards 14

## GREEN 16

Our Environmental Performance 18  
Environmental Sustainability Index 22  
Environmental Case Studies 23  
Highlights of Our Global  
Environmental Sustainability Efforts 26

## GROWTH 28

Responsible Sourcing 30  
Sustainable Products and  
Strategy in Our Perfumery Division 34  
Sustainable Products and  
Strategy in Our Flavor Division 37  
Product Safety 40  
Product Biodegradability 40  
Innovation and R&D:  
Leading in Catalytic Chemistry and Biotechnology 41

## GROUPS 42

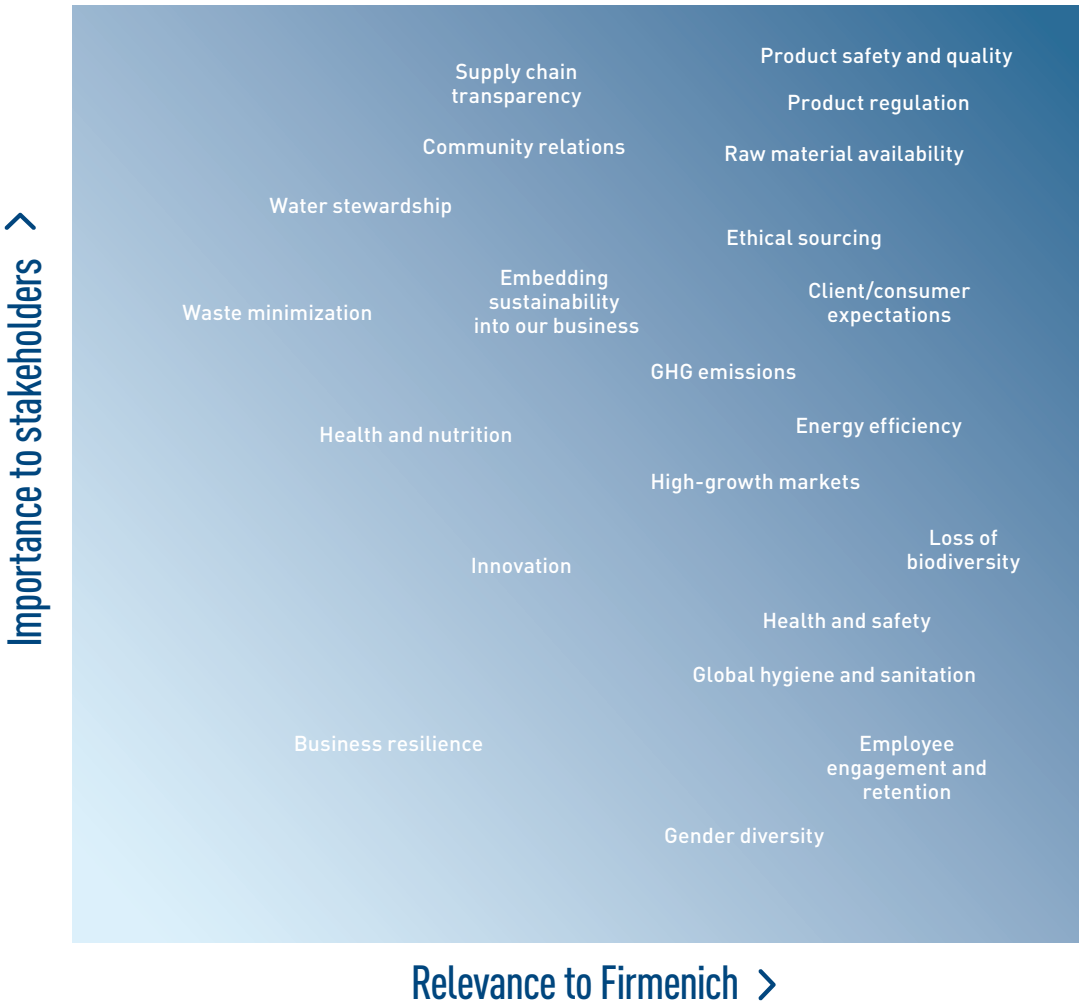
Our Sustainability Partners 44  
Partnering with Stakeholders 45  
Engaging Our People 51  
Touching Hearts and Minds 54

About This Report 56  
External Verification 57  
Our Performance in Numbers 58  
GRI Index Table 60  
Validations 61

# MATERIALITY ANALYSIS

The Global Reporting Initiative identifies material topics as “topics that have a direct or indirect impact on an organization’s ability to create, preserve or erode economic, environmental and social value for itself, its stakeholders and society at large.” In FY14, Firmenich worked in partnership with Forum for the Future to conduct a materiality assessment for its business. This exercise helped us identify the sustainability issues most material to Firmenich and its stakeholders, and serves to help inform our sustainability strategy in the future.

Firmenich conducted in-depth interviews with company personnel, global business partners, clients and external experts in critical areas such as chemistry, nutrition, global health and regulatory affairs. Forum for the Future analyzed the interviews and conducted additional research to identify relevant material factors. Selected factors were further evaluated by a multi-stakeholder workshop and a review committee to verify their overall materiality and their relative importance to Firmenich and external stakeholders. These factors are presented in the matrix below.



More information on materiality can be found at [www.globalreporting.org](http://www.globalreporting.org)



.....  
*Our Fragrance Development Managers collaborate  
with our Perfumers and our clients on scents that will delight consumers.*

*(Xiaodan Yin, Fragrance Development Manager)*



GOVERNANCE

GREEN

GROWTH

GROUPS

# GOVERNANCE

.....  
*Leveraging Our Independence*

*"At dawn, on a deserted beach in Sardinia stretching for miles, our footprint in the sand, soon to be erased by the mounting tide, reminds us that our impact on nature should be as fleeting as our imprints on this beach." - Russell James*



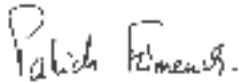


**AS A  
SIGNATORY OF  
THE UN GLOBAL  
COMPACT,**

we are  
committed to  
transparent and balanced  
reporting that highlights  
our successes,  
challenges and areas of  
improvement

# 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.**

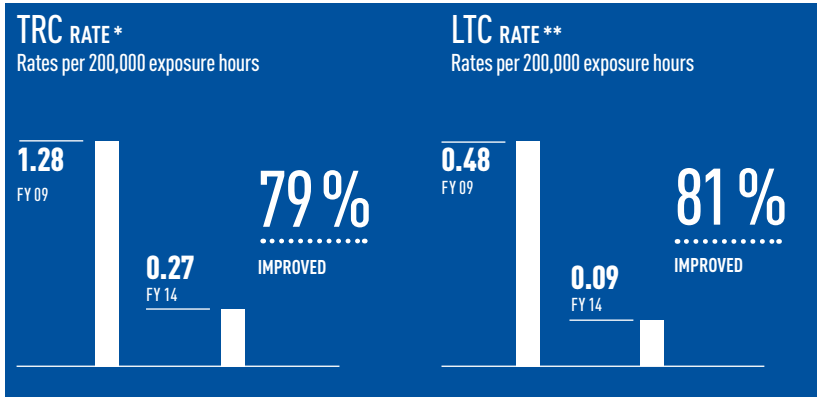
- We are a family-owned company, committed to our independence.
  - We take a long-term view of our business.
  - We pursue a policy of financial strength, profitable growth and return on assets.
-



# HEALTH & SAFETY

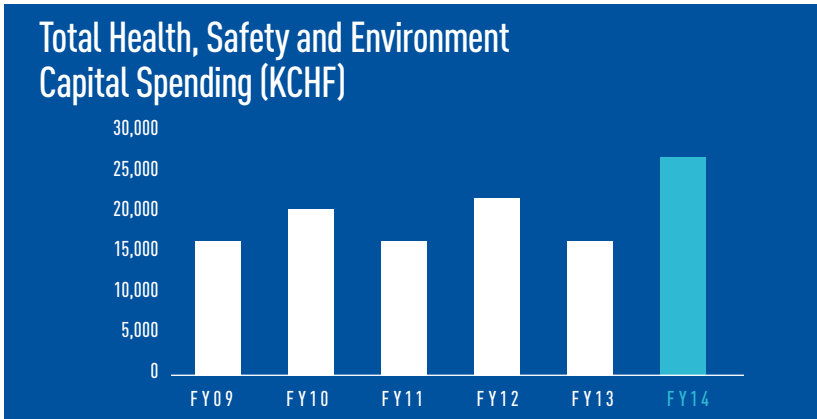
## Our Performance

In FY14, we achieved an improvement in our health and safety performance for the ninth consecutive year, with a Total Recordable Case (TRC) rate of 0.27, an improvement of 37% over FY13 (0.43). This is our strongest recorded reduction, representing a 79% improvement against our five-year rolling baseline (FY09–FY14). Lost Time Case (LTC) rates also improved by 36%, from 0.14 in FY13 to 0.09 in FY14 (an 81% improvement against FY09). Over half of our manufacturing sites (13 out of 25) remained TRC-free during FY14, and three quarters (19 out of 25) remained LTC-free.



\* 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 = 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 is for full-time permanent and temporary employees (supervised contractors). Each year, we revalidate our data, making any necessary corrections retrospectively and reporting the corrections.



Firmenich significantly increased its capital spending on health, safety, environment and sustainability during the past year. Overall, CHF 27 million was spent, a 51% increase from last year and a 43% increase from the previous five-year average.

## Projects to Improve Health and Safety (H&S)

Examples of FY14 projects to improve workplace H&S include:



**Geneva, Switzerland; Lakeland, Florida and Newark, New Jersey, U.S.:** Improved local exhaust ventilation (LEV) for volatiles and powders to control exposure potential.

**Shanghai, China:** Installed advanced LEV, along with an advanced technology thermal oxidation system to control internal air quality, odor and external emissions to air.

**Castets, France; Shanghai, China; Princeton, New Jersey and St. Louis, Missouri, U.S.:** Improved fire-detection equipment and sprinkler systems in four manufacturing sites.

**Ålesund, Norway; Geneva, Switzerland; Princeton, New Jersey and Anaheim, California, U.S.:** Installed automatic bag filling and unloading systems and other equipment to improve ergonomics.





*New ingredients plant in Kunming, China, (to be completed in FY15)*

## Health & Safety Case Studies

### Construction Safety in China and Indonesia

Construction projects require a high degree of safety control due to the presence of many high hazard activities. Dangers to workers can include heavy vehicles, excavation processes, potential falls, moving equipment, manual handling, noise and chemicals. Despite these ever present hazards, the construction projects for the new ingredients plant in Kunming, China, and the flavor site in Karawang, Indonesia, have exemplary safety records. In both projects, challenges were addressed through rigorous contractor training, strict safety rules, daily inspections, regular safety meetings, safety audits and recognition programs for good practices. The Kunming project (to be completed in FY15) has now exceeded 900,000 man-hours without a Lost Time Case (LTC); and the Karawang project (now finished) achieved 500,000 worker hours without a single recordable accident.



*Safety barrier, California, U.S., 2014*

### Managing Industrial Trucks

Industrial trucks are essential tools in the manufacturing environment, but they present a challenge as they travel with considerable momentum. Firmenich has introduced more rigorous controls at several sites in the U.S., Brazil, Switzerland and China, including permanent safety barriers and swing-arm gates on busy routes; speed limiters; rerouting and one-way traffic systems; and behavioral safety systems where trucks slow or stop near pedestrians.

### Update on the Occupational Hygiene Monitoring Program

In FY14, Firmenich's air quality and personal exposure monitoring project (first reported in FY13) was extended globally. Evaluations were carried out in nine manufacturing sites (in India, Latin America and Asia) and two laboratories in Geneva. A total of 535 additional personal exposure samples were analyzed for 92 different volatile organic compounds (VOCs), as well as powder/dust exposure. Since project inception, more than 1,000 exposure samples have been tested (almost a third of the total potentially exposed workforce).

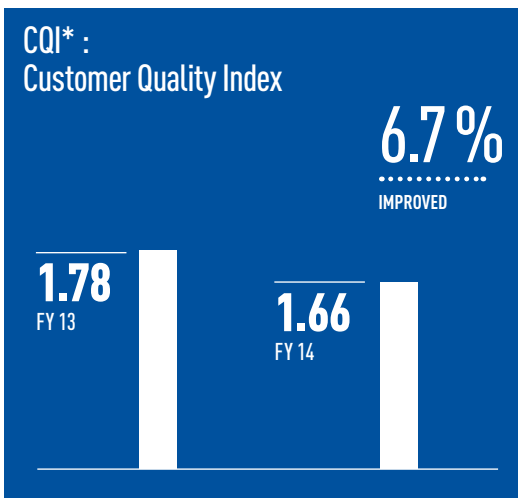
The samples were compared against national Occupational Exposure Limits (OELs) and Derived No Effect Levels (DNELs), using the most conservative value for comparison. More than 95% of samples analyzed were found to be below 10% of the accepted OEL/DNEL limit, which is generally considered safe. Where samples exceeded the 10% threshold, action plans will be established to further improve local air quality. In parallel, occupational health audits were undertaken at our sites to evaluate performance in Occupational Health and Hygiene. Eleven audits were completed in FY14.

### Update on Hazardous Area Classification

In 2014, Firmenich expanded the third-party auditing program of the hazardous area zoning in our manufacturing facilities, which was started in 2012. This zoning aims to manage ignition sources in areas where flammable liquids are processed, to prevent fire and explosions. Six audits were successfully completed in four geographic regions, and auditors' recommendations are in the process of being implemented.

# QUALITY PERFORMANCE

Firmenich has a long history of outstanding product quality. During the two past years, considerable efforts have been made to further improve product quality in all of our manufacturing sites. We have seen an overall annual improvement of 6.7% in our product quality (FY14 CQI at 1.66 vs. FY13 CQI at 1.78).



\* Note: This data shows the total number of non-conformances per thousand sales order lines shipped.

A variety of different programs have contributed to these overall performance improvements including:

- **QI6 Program in Flavors**  
Focused effort including audits, root cause analyses and development of corrective actions to address the most common and important quality problems at the six largest flavor manufacturing sites.
- **QC Sensory Skills Program (Flavors and Perfumes)**  
Comprehensive initiative to raise the qualifications and competence of our quality control evaluation teams.
- **Customer-Focused Initiatives**  
Collaboration with selected customers to create greater alignment with analytical and sensory methods, product specifications and to review customer expectations.
- **Capital Investments**  
Investment of more than CHF 2.10 million in FY14 to improve analytical capabilities.
- **Incident Investigation and Root-Cause Analysis**  
Application of the new investigation and root-cause analysis procedures (see below) and development of comprehensive programs to prevent the recurrence of common issues.

## Incident Investigation and Root-Cause Analysis

Our management and employees have long been diligent in reporting, investigating and addressing Quality, Health, Safety and Environmental (QHSE) incidents, but a recent review of "repeat" problems suggested that in some cases we could further investigate to uncover the root cause(s). Therefore, in FY14 we developed a more rigorous investigation process for all QHSE incidents.

This continuous improvement tool comprises a new, more comprehensive incident investigation and root-cause analysis procedure to help identify causal factors and associated root causes. Core to this approach is the development of a Causal Factor Chart to determine the correct sequence of events leading up to the incident. It allows investigators to more thoroughly review the evidence to identify intermediate or technical causes, which leads to the true root cause of the incident.

We have also developed new training tools and courses as well as a common database to improve the effectiveness, quality and consistency of investigations allowing easier identification of the root cause of every problem, and helping prevent their re-occurrence. Training in the new procedures and systems has already started in the U.S. and will be rolled out globally in all divisions in FY15.

# STAKEHOLDER ENGAGEMENT



## Firmenich Sustainability Council Meeting 2014

From left to right, bottom to top:  
Dr. Rodney Irwin (WBCSD), Stephanie Draper (Forum for the Future), Patrick Firmenich (CEO, Firmenich), Dr. Aileen Ionescu-Somers (IMD), Dr. Dajian Zhu (Tongji University), Guillaume Taylor (Quadial), Manoj Kumar (Naandi Foundation), Johanna Levy (Firmenich), David Shipman (Firmenich), Dr. Bérangeère Magarinos-Ruchat (Firmenich), Neil McFarlane (Firmenich), Johan Firmenich (Firmenich).  
Not pictured: Marc Pfitzer (FSG)



## Our Two New Council Members

Dr. Rodney Irwin, Director of Reporting and Investment, WBCSD, and Dr. Dajian Zhu, Professor in the School of Economics & Management, Head of Department of Public Policy and Management, and Director of Institute of Governance for Sustainable Development, Tongji University, Shanghai

## Sustainability Council

Members of the Firmenich Sustainability Council are amongst our key sustainability stakeholders. Created in 2007, the Sustainability Council comprises long-tenured members with extensive sustainability backgrounds. The Sustainability Council acts as a sounding board for Firmenich, monitoring emerging sustainability trends and assessing our sustainability strategy. In February 2014, our Sustainability Council meeting in Geneva was joined by Firmenich CEO, Patrick Firmenich, and members of his executive team. Firmenich teams presented our sustainability update and most recent achievements on sanitation, and later exchanged with the Council on sustainability performance indicators and materiality analysis. At this meeting, we welcomed two new Council members: Dr. Dajian Zhu, Professor in the School of Economics & Management, Head of Department of Public Policy and Management, and Director of Institute of Governance for Sustainable Development at Tongji University in Shanghai, who is helping us better capture the fast-growing interest in sustainability in China; and Dr. Rodney Irwin, Director of Reporting and Investment at the World Business Council for Sustainable Development (WBCSD), who will guide us toward more effective reporting practices.

## Ensuring an Ethical Supply Chain

### SEDEX

Firmenich has been a member of the Supplier Ethical Data Exchange (SEDEX) since 2008. In 2014, Firmenich started to collect and analyze ethical data (labor standards, health and safety, environmental performance and business ethics) from suppliers through SEDEX in addition to reporting our own ethical performance. This data, combined with SEDEX risk-assessment tools and our supplier risk-assessment protocols, helps the company prioritize supplier audits.

About 175 supplier sites are now registered on the SEDEX platform. In FY15, we will set comprehensive targets for supplier registration and will use the SEDEX website to track and communicate our own and suppliers' progress.

### EcoVadis

EcoVadis is a collaborative platform that allows companies with global supply chains to measure and report their sustainability performance. We started using EcoVadis in 2009 to better track our performance, improve our sustainability programs and communicate our commitment to a more sustainable supply chain.

### Sharing Our Values with Suppliers

Firmenich hosted our fourth annual supplier summit in FY14. Our top executives met with strategic suppliers and communicated our updated requirements, including product-specific lifecycle data on the materials we purchase. This data is included in our Sustainability Index (see page 22). In total, close to 40 suppliers have been asked to provide product-specific data and, in the longer term, we intend to engage suppliers in a continuous improvement program that will reduce the environmental footprint of our products.

### 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.



# GOING BEYOND COMPLIANCE

## Our Code of Conduct

The Firmenich Code of Conduct is designed to help our employees make ethical decisions in their day-to-day work within the company. It clearly delineates what is expected of all of us at Firmenich, is based on our Fundamentals and covers ethical points, such as conflicts of interest, antitrust, harassment, confidentiality, governance and political and community activities. Our employees' adherence to our Code of Conduct has ensured that Firmenich has had no legal actions for anticompetitive behavior, antitrust or monopoly practices at any time in our history, and no monetary fines or nonmonetary sanctions for noncompliance in these areas.

## Our Global Trade Compliance Project

Globalization has increased trading opportunities around the world, leading to a higher number of national and regional trade control laws. Penalties for noncompliance can be serious and include blocked or confiscated shipments, surcharges, fines, suspended trade licenses and even imprisonment. In FY14, Firmenich established the Global Trade Compliance, an internal project with the purpose of:

- Improving our understanding of the complex framework of regulations
- Ensuring compliance with restrictions and trade controls
- Verifying that we provide correct information and documentation
- Paying the correct duty and taxes on goods
- Improving the flow of raw materials and finished products around the world

IN 2008,  
WE LAUNCHED OUR  
CODE OF CONDUCT



©Anael Dang



Our Code of Conduct can be found at [www.firmenich.com](http://www.firmenich.com)

# AWARDS



## 2013 British-Swiss Chamber of Commerce Award

Firmenich won the 2013 British-Swiss Chamber of Commerce Corporate Social Responsibility Award for its contribution to business in the United Kingdom and Switzerland. The judges highlighted Firmenich's innovative work on products of natural origin and the company's business model, which consistently focuses on social issues and increasingly involves alternative energy.

## Firmenich Became a Charter Member of the Campbell Institute

As the 2012 winner of the Robert W. Campbell Award for Business Excellence through Environment, Health and Safety Management, Firmenich has been recognized for building and sustaining a successful organization with Environment, Health and Safety (EHS) at the core, and participates in collaborative initiatives with the Campbell Institute to promote EHS efforts around the world. Our company joined together with other leading companies by becoming a Founding Charter Member of the Campbell Institute and by entering the Institute's Advisory Committee. Firmenich was honored to present CEO Ellen J. Kullman of DuPont the 2013 Robert Campbell Award.

## Firmenich Indonesia Wins the Jean-Marc Bruel Award for Health, Safety and Environmental Excellence

Our manufacturing sites in Karawang and Cileungsi were awarded the Jean-Marc Bruel Award for Health, Safety and Environmental Excellence in 2013, in recognition of their dedication to safety and their outstanding performance in an emerging economy.



## Other Awards

Firmenich's environmental, health and safety performance was recognized during FY14:

### 🌐 Port Newark, New Jersey, U.S.

Commissioner's Continued Excellence Award for accumulating consecutive hours of work without a Lost Time Injury from January 18, 2006, until December 31, 2013.

### 🌐 New Ulm, Minnesota, U.S.

OSHA's Voluntary Protection Programs (VPP) Safety Award recognizing successful job-related injury and illness prevention.

### 🌐 Anaheim, California, U.S.

- City of Anaheim Green Business of the Year Award
- Million Work Hours Award (for one million hours without a Lost Time Injury)
- Exceptional Safety Performance Award (celebrating above-average performance)

### 🌐 Princeton, New Jersey, U.S.

New Jersey Business Industry Association (NJBIA) 2013 Award for Excellence in Environmental Quality highlighting Firmenich's work on renewable energy and carbon reduction.



.....  
*Our Flavorists and Laboratory Managers  
test our new product innovations.*

*(Debbie Lu, Application Laboratory Manager, Savory)*



GOVERNANCE

GREEN

GROWTH

GROUPS

# GREEN

*Reducing Our Footprint*

*"These pebbles, shot on a Haitian beach, remind me of the river stones used and hand-carved by Haitian artisans into unique, exquisite heart-shaped paperweights." - Russell James*



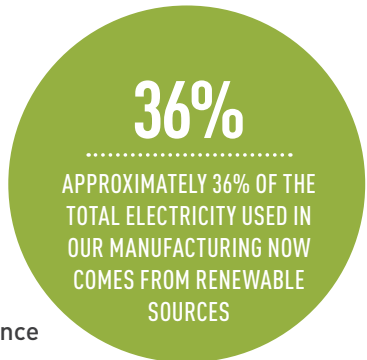


OUR  
ENVIRONMENTAL  
SUSTAINABILITY  
INDEX

will help us  
better communicate  
ingredient and product  
environmental performance  
to our customers and identify  
where and how impact  
reductions can be made



# OUR ENVIRONMENTAL PERFORMANCE



In FY14, improvements were made in all seven environmental performance indicators reported when compared with a rolling five-year baseline. Compared with FY13, we also improved our environmental performance in seven of the eight indicators reported.

	FY13	FY14	Annual Change (%)		FY09 vs. FY14 Change (%)	
Total Energy Use (GJ/t)	11.3	10.0	-11.5%	↓	-7.4%	↓
Scope 1 and 2 CO <sub>2</sub> Emissions (Kg/t)	822	713	-13.3%	↓	-4.7%	↓
VOC (Kg/t)	1.3	1.2	-7.7%	↓	-40.0%	↓
Total Water Use (m <sup>3</sup> /t)	23.8	23.0	-3.4%	↓	-18.7%	↓
Process Water Use (m <sup>3</sup> /t)	7.5	7.4	-1.3%	↓	-23.7%	↓
Hazardous Waste * (Kg/t)	79.4	80.2	+1.0%	↑	-7.1%	↓
Waste to Energy ** (%)	32.3	32.9	+1.9%	↑	N/A	
Waste to Landfill (%)	8.3	7.8	-6.0%	↓	-23.5%	↓

\* Note Hazardous Waste (kg/t) for FY13 excludes the "one-off" hazardous waste generated by the December 2012 fire at our warehouse in Argentina, as these are considered exceptional (data is however reported in the absolute hazardous waste figures on page 58 at the end of the report).

\*\*This indicator was first introduced in 2011

These improvements bring us closer to meeting the environmental, strategic sustainability goals we set for 2015. However, some of the changes are small and illustrate how difficult it is to achieve continuous year-on-year improvement as we approach our ambitious and aggressive targets. Some of the innovative projects implemented in FY14 to improve our environmental performance are described in detail in the Environmental Case Study section of this report (see page 23).

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

Total energy use has decreased by 11.5% against FY13, and by 7.4% against the five-year rolling baseline (FY09 vs. FY14). Scope 1 & 2 CO<sub>2</sub> emissions have also declined by 13.3% and 4.7% against FY13 and FY09 (rolling five-year) baselines, respectively.

Our FY14 Scope 3 (indirect) greenhouse gas emissions are shown, for selected relevant categories, below:

## Scope 3: Relevant Indirect Greenhouse Gas Emissions

	FY14 CO <sub>2</sub> e Tonnes <sup>1</sup>
All Purchased Raw Materials Used in Products Manufactured by Firmenich	416,256
Transportation of Sold Goods	40,184 <sup>2</sup>
Waste Generated in Operations	10,020 <sup>3</sup>
Business Travel	5,321 <sup>4</sup>
Employee Commuting	30,083 <sup>5</sup>
<b>Total Reported Scope 3 Emissions</b>	<b>501,864</b>

Our total reported Scope 3 emissions for FY14 were 501,864 tonnes CO<sub>2</sub>e. This is almost 3.7 times greater than our Scope 1 and 2 emissions combined. Upstream emissions, from purchased goods, account for almost 80% of this total. We will seek ways to influence our suppliers to help reduce this component of our overall carbon footprint. We will also further evaluate our Scope 3 emissions in the coming years to improve the accuracy of reporting, and better understand which other categories are most relevant to report, where impacts are highest and which are most suitable to target for improvement.



Electric car charging station at one of our Geneva sites (2014)

<sup>1</sup> CO<sub>2</sub>e is based on CO<sub>2</sub>, N<sub>2</sub>O, CH<sub>4</sub> emission data

<sup>2</sup> Based on purchase data for transportation

<sup>3</sup> 82% of total waste mass accounted for

<sup>4</sup> Based on business air travel only

<sup>5</sup> Based on the number of employees and on average travel distance



Energy use and emission reductions have been achieved through a range of measures, including:

- **Renewable energy generation projects:**  
In FY14, we implemented five new solar-power projects (in China, Colombia, India, Mexico and the U.S.; see Highlights of Our Global Environmental Sustainability Efforts, page 26). To date, we have implemented a total of 23 projects, including 14 photovoltaic projects, three solar lighting projects and six solar water-heating projects. 68% (17 out of 25) of our manufacturing sites now generate renewable solar energy.
- **Purchase of renewable energy:**  
21 out of 25 (84%) of our manufacturing sites have a renewable energy component in the electricity they source. Approximately 36% of the total electricity used in our manufacturing now comes from renewable sources.
- **Energy reduction projects:**  
In FY14, we implemented energy/CO<sub>2</sub> reduction projects (in Belgium, China, India, Switzerland, the United Kingdom and the U.S.; see Highlights of Our Global Environmental Sustainability Efforts, page 26). These initiatives include heat recovery projects, electrical efficiency improvement projects, use of variable-frequency drive motors on utility equipment, installation of LED lighting and installation of electrical power charging points for green vehicles.

All of our manufacturing facilities either generated renewable energy on-site or purchased electricity that included a renewable energy component, from external power generation companies. In 2014 alone, we spent more than CHF 2.5 million on energy efficiency and renewable energy generation projects. Together these projects reduced CO<sub>2</sub> emissions by an estimated 3,500 tonnes during the year. We will continue to work on driving our energy consumption and CO<sub>2</sub> emissions down through renewable energy and energy conservation initiatives.

### CDP (formerly Carbon Disclosure Project)

Firmenich participates in the CDP Supply Chain Leadership Collaboration program. This is the sixth year that Firmenich has reported Scope 1 and Scope 2 CO<sub>2</sub> emissions with the CDP and the first year that we have reported selected Scope 3 emissions (see page 18 for details). In FY13\*, Firmenich scored 76 on disclosure, up from 74 in FY12 (the average CDP supply chain leadership collaboration score in 2013 was 49). In FY13, Firmenich's performance band also improved to B (from performance band D in 2012).

\* Note: Because the reporting cycle for CDP is out of sync with the publication of the Firmenich Sustainability Report, Firmenich is only able to publish its CDP score for the year prior to publication.



**100%**  
OF OUR MANUFACTURING FACILITIES EITHER GENERATED RENEWABLE ENERGY OR PURCHASED ELECTRICITY THAT INCLUDED A RENEWABLE ENERGY COMPONENT

Solar panels in Castets, France (2014)

CDP works to disclose the greenhouse gas (GHG) emissions of major corporations. CDP reviews the range and quality of data reported and awards a Carbon Disclosure Leadership Index (CDLI) score. This indicates the scope, quality and completeness of reporting. Companies are also assessed and ranked in a performance band that takes account of reported actions that contribute to climate change mitigation, adaptation and transparency (performance scores are expressed as bands A, A-, B, C, D, E, with A as the highest possible score).

The average CDP supply chain leadership collaboration performance band in 2013 was C. Additionally, in FY14 we started including water and supply chain reporting as part of our commitment to CDP.

### Volatile Organic Compounds (VOCs)

Based on a five-year rolling baseline, VOC emissions have been reduced by 40%, a considerable improvement compared with FY09. VOC emissions in FY14 also improved 7.7% when compared to the previous year. During this period we implemented a number of individual projects to reduce these emissions. See the China RTO and Concentrator case study (page 23) and the Highlights of Our Global Environmental Sustainability Efforts (page 26).

40%

REDUCTION  
IN VOCs  
SINCE FY09

### Water Use

Our Process water usage fell significantly (23.7%) in FY14 when compared to the FY09 five-year rolling baseline. The annual improvement over FY13 is 1.3%. A focus on process water use is important to Firmenich, as reducing it can have a significant positive impact on the management of critical water resources in catchment areas. As our process water can ultimately become effluent that needs to be treated, reductions can also have a positive impact on the receiving environment (effluent generated per kilo of production reduced by 1.2% in FY14 when compared to FY13). Our total water usage rate (including process water, non-contact cooling water, which is returned, within legally permitted limits, at a slightly higher temperature and with little or no impact to the environment, and domestic water), also improved when compared to both the five-year rolling baseline (18.7% reduction) and prior year FY13 (3.4% reduction).

In FY14, we also undertook a water sensitivity analysis to help us understand our water use in the context of water availability and other associated risks relating to water stress.

Our site in Shanghai, China, is identified in our water sensitivity analysis as having a “High Baseline Water Stress,” which is predicted to become “Severely More Stressed” by 2025. Site management is aware of the issue and has established water conservation as a high priority. The site has improved water metering to better evaluate water consumption throughout. As a result, several areas were identified where significant losses were occurring and immediate remedial work undertaken. Other water saving initiatives, implemented in recent years, have included installation of high pressure clean-in-place (CIP) systems that have been shown to reduce cleaning water consumption by 80%; as well as improvements to spray drier cooling water controls, which are estimated to reduce total spray drier water consumption (cooling, process and building sanitary water) by 23% (approximately 1,800 m<sup>3</sup> per year). The site continues to monitor water use to confirm that savings are sustainable and will present more quantified performance data in the coming years.

In FY14, several other sites in Switzerland, France, Brazil and the U.S. also implemented water use-reduction projects (see the Highlights of Our Global Environmental Sustainability Efforts, page 26, and the Brazil Water Saving Case Study, page 23).

As a consequence of these and other efforts we anticipate meeting our 2015 Strategic Sustainability Goal of reducing the water usage rate by 15% (against a 2010 baseline). We will continue to update our water sensitivity analysis and will use it to inform water reduction initiatives when we establish our new environmental objectives from FY15 onwards.

### Waste

Hazardous waste disposal decreased by 7.1% when compared against FY09 (five-year rolling baseline), but increased slightly by 1.0% when compared with FY13. This is despite initiatives to recycle and reuse hazardous wastes (see page 24). Wastes diverted to energy increased by 1.9% in FY14 compared with FY13 (no data was obtained in FY09, so the five-year rolling baseline comparison cannot be made). Waste to landfill decreased by 6% compared with FY13, and by 23.5% compared with FY09. During the last five years, 29.6% of the total waste stream was recycled.

### Scorecards

In FY14, Firmenich embarked on a second year of its environmental scorecard initiative, encouraging environmental improvement from our largest suppliers. The scorecards help us collate and evaluate environmental performance data, including energy used, waste produced, water used and GHG emissions. Additional questions cover improvement projects, fines and management systems.

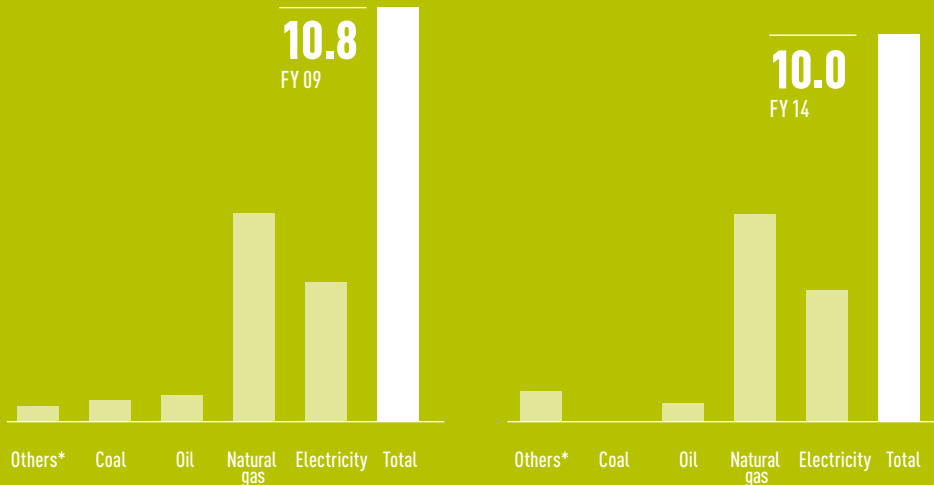
This year, more than 30 scorecards were received from suppliers and analyzed. In FY13, the performance evaluation was based mainly on the completeness of the environmental Core Measure information. This year, scores incorporated additional reporting factors, such as the scope of reporting and the inclusion of information for optional measures. In FY15, the scoring will include progress achieved in the reported measures as well as management and improvement factors, such as sustainability initiatives, implementation of an Environmental Management System and data protocol.

### Update on Certifications

As part of our ongoing commitment to certify all of our manufacturing sites against OHSAS 18001 and ISO 14001 by 2015, our site in Anaheim, California, has recently been certified to both standards. We have now achieved 43 out of the 50 certifications expected by FY15 and the company intends for all remaining sites to be certified within the next year.

# Energy

GJ/t of production



**7.4%**

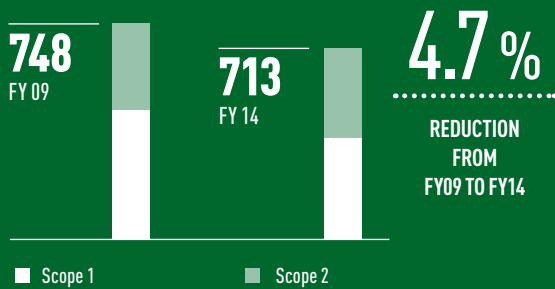
REDUCTION FROM FY09 TO FY14

\* (Purchased Steam, LPG, Renewable Generated Onsite, Incinerating Waste, Biofuel (wood), Indirect Heat Purchased)



## CO<sub>2</sub> Emissions

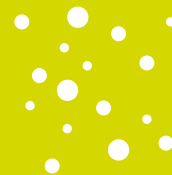
kg/t of production



## VOC Emissions

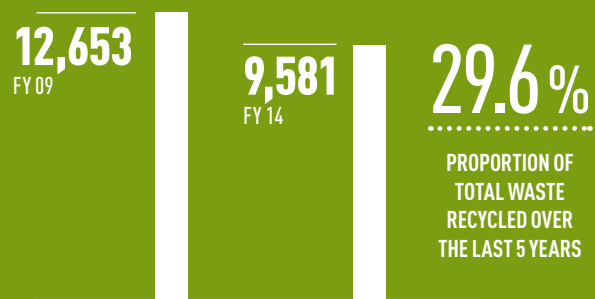
kg/t of production

kg/t of production



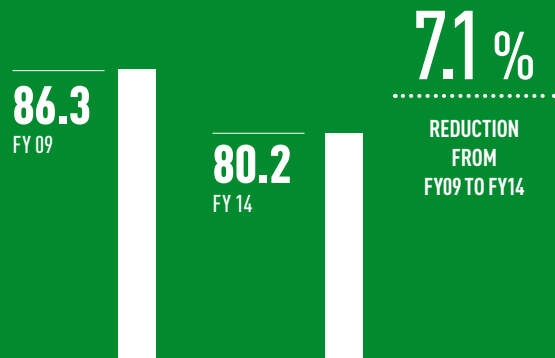
## Recycled Waste

Tonnes



## Hazardous Waste

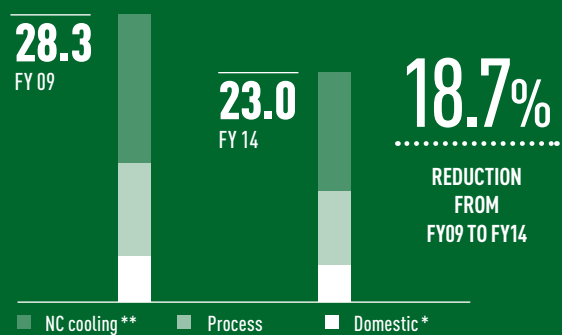
kg/t of production



## Total Water Usage

m<sup>3</sup>/t of production

m<sup>3</sup>/t of production



\* Domestic = sanitary + gardening

\*\* NC -cooling = noncontact cooling water - defined as 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.



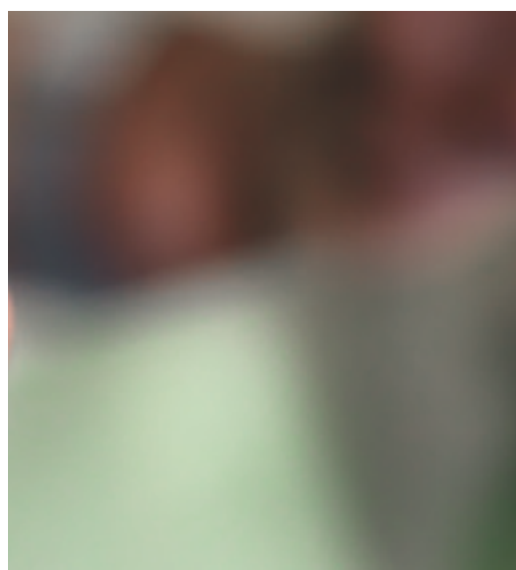
# ENVIRONMENTAL SUSTAINABILITY INDEX

FIRMENICH  
CURRENTLY WORKS  
WITH  
**39**  
SUPPLIERS  
ON THE INDEX

GENERATED  
SUFFICIENT DATA  
FOR  
**63%**  
OF A TYPICAL PERFUMERY  
COMPOUND



©Anael Dang



## The Firmenich Environmental Sustainability Index

The Firmenich Environmental Sustainability Index is a pragmatic method of modeling, measuring and reporting a range of important environmental indicators associated with the sourcing, manufacturing use and disposal of fragrance and flavor ingredients. It helps identify which life cycle stages and impact areas are most important, and allows different ingredient scores to be compared. An index score of "1" means that the production of one metric ton of the ingredient has the same impact on the environment as an average global citizen in one year.

This year, we built on the work of previous years and incorporated comments and advice from the external critical review panel that took place in FY13 to further refine and extend the scope of the Index. This included re-analyzing

data for 93 of the internally produced ingredients reported in FY13 to further improve data consistency and quality. We are also working with 39 suppliers to obtain data for an additional 210 externally sourced raw materials. Currently, we have sufficient data to calculate index values for 63% (by volume) of a typical Firmenich perfumery compound.

The scope of the index has also been extended to natural ingredients and now includes impacts arising from the use of non-biogenic carbon molecules in the calculation of climate change impacts. As a potential next step, we will consider how to use individual ingredient data to better model and report on index values for our final compounded products. Ultimately, this work will help us better communicate ingredient and product environmental performance to our customers and identify where and how impact reductions can be made.

# ENVIRONMENTAL CASE STUDIES

**1,550**  
ESTIMATED ANNUAL  
REDUCTION IN TONNES  
OF CO<sub>2</sub> IN THE COMING  
YEARS AT OUR THIRSK,  
UK, PLANT

## **São Paulo, Brazil**

### **Reducing Water Consumption**

Our perfumery plant in Brazil reduced water consumption in manufacturing, laboratories and hygiene areas through measures including water flow reducers; trigger-operated high-pressure nozzles, movement sensors for hand wash basins, a steam pressure washer and a lock for the water valve. This reduced water wasted during cleaning operations when taps and valves were left on and water flows were unrestricted. This simple and low-cost project epitomizes water and energy-saving projects being implemented around the world by relying as much on behavioral change as on technology.

### **Waste Recycling**

Two waste streams from our São Paulo site in Brazil, which could be sent for incineration or landfill, are diverted for composting and used to make organic fertilizers. The waste comprises plant biomass and sugar, flour and flavor. Through composting, we minimize emissions to air, soil and groundwater (from incineration and landfill). A total of 1,677 tonnes of waste (57% of total wastes produced) were diverted to composting in FY14.

## **Thirsk, UK**

### **Energy Reduction**

In FY14, several new energy projects were implemented at our flavors plant in Thirsk to help reduce CO<sub>2</sub> emissions and improve the site's competitiveness and profitability. Capital investment projects were implemented to convert fuels used in manufacturing processes from Liquefied Petroleum Gas (LPG) and oil to natural gas, thus reducing energy costs and CO<sub>2</sub> emissions. Simultaneously, several operational efficiency changes substantially reduced energy and CO<sub>2</sub> emissions generated by two manufacturing processes by 37% and 45%. Extrapolating this data for FY14 gives an estimated annual reduction in CO<sub>2</sub> emissions of approximately 1,550 tonnes.

## **Shanghai, China**

### **First Flavor and Fragrance Company to Use Concentrator and RTO Technology in China**

In FY14, Firmenich invested approximately CHF 6.0 million to upgrade the ventilation systems to improve air quality in manufacturing and associated warehouse areas. The project has just been completed, and the commissioning data shows that air quality and odor control have considerably improved.

## **Geneva, Switzerland**

### **Solvent Recovery Reduces Raw Materials and Wastes**

In FY14, our ingredients plant in Geneva implemented a project to re-use and recycle more than 70% of a waste generated from an existing process. The waste was previously sent off site for incineration. This project reduces the consumption of raw materials and generation of waste and creates fiscal savings. Other benefits include a reduction in transport by external tanker deliveries and internal movements of industrial trucks.



37%

REDUCTION IN OUR  
DATA CENTER ENERGY  
CONSUMPTION  
SINCE 2010

### **Kunming, China**

#### **First Company to Conduct Exit EIA in Yunnan Province**

After 18 years of operation and in line with the government strategy regarding site development, the decision was made to move our Kunming chemical ingredient site located in Yunnan Province, China. Firmenich commissioned an Exit Environmental Impact Assessment (EIA), not mandatory under Chinese law. This was the first Exit EIA conducted in the province. The study evaluated soil and groundwater samples at different locations, and was subject to a professional independent review by an environmental expert and government representatives. No contamination was detected, demonstrating the effectiveness of the environmental protection measures adopted during the site's history.

### **Geneva, Switzerland**

#### **Green IT**

Global CO<sub>2</sub> emissions attributed to information technology (IT) worldwide are estimated at between 2% to 2.5% of total CO<sub>2</sub> emissions. The Firmenich Information Services (IS) Division has put in place a Green IT Strategy to reduce its ecological footprint. The strategy is based on three pillars:

- **Manage Lifecycle:**  
Obsolete equipment is reused (45%), refurbished (25%) or recycled (30%).
- **Save Energy:**  
Data center energy is managed through removal of obsolete applications and optimizing server virtualization. Energy consumption has been reduced by 37% since 2010.
- **Develop Social Behavior:**  
A green printing initiative was launched in 2013. More than 1,700 people were trained on new measures to avoid unnecessary printing, saving paper (an estimated 96,000 sheets in one year) and energy.

### **Focus on India**

#### **Wealth from Waste**

Several important and innovative science-based projects have been implemented at our Ingredient and Perfumery manufacturing site in Gujarat, India, to create "Wealth from Waste." Together, these projects have reduced the volumes of hazardous waste sent off-site from 1,102 metric tons (MT) in FY12 to 335 MT in FY14. The initiatives have also reduced waste management expenses. Initially costing CHF 242,000 in FY12, this program has saved CHF 365,130 in FY14 (sale of by-products and avoided costs in fuel purchase). These initiatives include:

- **Conversion of Waste into By-Products:**  
Historically several waste streams were disposed off-site because they were not suitable for recycling. However, after carefully analyzing and characterizing these wastes, and obtaining permission from the regulatory authorities, Firmenich identified organizations that would re-use these wastes as inputs in their processes.
- **Use of Waste Solvents:**  
After the success of the by-product project above, we found that some waste isopropyl alcohol could be reused and recycled back into the process. The project has now been scaled up, and the site has reduced consumption of fresh alcohol by 74% in the last 12 months.
- **Generation of Steam from Waste Incineration:**  
An on-site hazardous waste incineration plant was built in 2012, and a waste heat recovery boiler (WHRB) was successfully commissioned in 2013. Today, this equipment produces almost 25% of the total steam consumed on-site and significantly curbs light diesel oil (LDO) and natural gas consumption for the main boiler, while reducing overall CO<sub>2</sub> emissions.

#### **Save Energy**

At Dahej, simple energy conservation projects have resulted in cutting CO<sub>2</sub> emissions by almost 400 tonnes per year.





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*Our Perfumers test new creations for the perfect alchemy.*

*(Frank Voelkl, Perfumer)*

# HIGHLIGHTS OF OUR GLOBAL ENVIRONMENTAL SUSTAINABILITY EFFORTS

## 1 Photovoltaic solar energy projects

**Anaheim, California, U.S.; Dahej, India:**

Installed photovoltaic projects to generate electricity.

## 2 Solar-powered lighting projects

**Bogota, Colombia; Toluca, Mexico:**

Installed photovoltaic panels to directly power new, high-efficiency external lighting.

## 3 Solar water heating

**Kunming, China:**

Built solar water-heating project to reduce electricity/fuel consumption.

## 4 Electric vehicle charging stations

**Geneva, Switzerland; Princeton, New Jersey, U.S.; Castets, France:**

Added electric vehicle charging stations to encourage employees to use low-emission vehicles.

## 5 LED lighting

**New Ulm, Minnesota; Anaheim, California; St Louis, Missouri, U.S.; Geneva, Switzerland; Louvain-La-Neuve, Belgium; Dahej, India:**

Switched to LED lighting to reduce electricity consumption.

## 6 Heat recovery systems and change in equipment use

**Thirsk, UK:**

Installed equipment to recover waste heat from processing; changed shift patterns and consolidated orders to avoid cold starts, reduce cleaning and cut energy use.

## 7 Heat recovery systems

**Geneva, Switzerland:**

Implemented a variety of projects to recover heat from ventilation, cleaning-in-place (CIP) systems and from a compressor.

## 8 Heat recovery boiler

**Dahej, India:**

Added heat recovery boiler, which generates valuable steam from the incinerated hazardous waste streams.

## 9 Equipment installations and upgrades

**Newark, New Jersey; Anaheim, California, U.S.:**

Upgraded and modified equipment to reduce power use and/or electrical distribution losses.



## 10 Variable frequency drives on utility equipment

**Port Newark, New Jersey, U.S.; Geneva, Switzerland; Shanghai, China; Dahej, India:**

Installed variable frequency drive motors on utility equipment to better match power use to demand.

## 11 Downstream metering

**Geneva, Switzerland; Castets, France; Singapore:**

Implemented downstream meters to better monitor electricity, water and gas consumption.

## 12 Natural gas line installation

**Dahej, India:**

Replaced existing fuel (e.g., diesel oil) with natural gas to reduce CO<sub>2</sub> emissions.

### 13 Advanced ventilation systems

#### Shanghai, China:

Upgraded ventilation systems to reduce VOC and odor emissions, the first system of its kind in our industry in China and the first use of air concentrator technology at Firmenich.

### 17 Reducing water loss and preventing contamination

#### Shanghai, China:

Renovated underground collection tanks and piping for wastewater, fire water and rainwater.



### 14 Innovative scrubber

#### Newark, New Jersey, U.S.:

Installed a scrubber using treated plant wastewater to reduce VOC air emissions from raw material storage tanks.

### 15 Improved wastewater treatment

#### Ålesund, Norway:

Installed a new wastewater treatment system for treating process water discharged to the ocean.

### 16 Reduced water use

#### São Paulo, Brazil; Geneva, Switzerland; Castets, France; St Louis, Missouri, U.S.:

Implemented a range of projects to reduce process and cleaning water use.

### 18 Solvent recovery

#### Geneva, Switzerland; Dahej, India:

Installed solvent recovery systems and implemented reuse of solvents to reduce raw material consumption and hazardous waste disposal.

### 19 Waste recycling

#### São Paulo, Brazil:

Composting organic solid wastes to create bio-compost soil improver.



GOVERNANCE

GREEN

GROWTH

GROUPS

# GROWTH

.....

*Creating Sustainable Products*

*"In Western Australia, passing through a dirt road, with a clear blue sky, incredible light, and lush vegetation, capturing the Australian landscape's uniqueness, and thinking about our duty to preserve the beauty of nature for the generations to come." - Russell James*





**FIRMENICH  
INVESTS AROUND 10%  
OF ITS REVENUE  
IN R&D,**

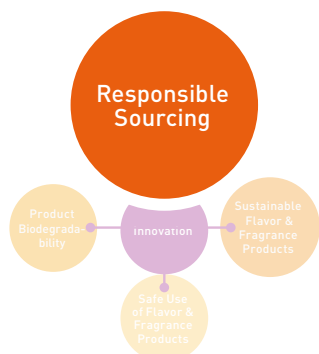
reflecting  
its continuous desire  
to understand, share  
and sublimate  
the best that nature  
has to offer

# RESPONSIBLE SOURCING



## Assessment of Sustainability Risks in Our Procurement of Naturals

In May 2014, the Firmenich innovation center in naturals, located in Grasse, France, became a member of the Union for Ethical BioTrade (UEBT). UEBT promotes “Sourcing with Respect” of natural ingredients and encourages sustainable business growth, local development and biodiversity conservation. As a member of UEBT, Firmenich Grasse will implement a biodiversity management system for the sourcing of plant materials and use a risk-based approach to strengthen sourcing practices in specific, prioritized supply chains. The site will report annually on its membership requirements and will be independently audited to confirm adherence with UEBT standards. Through this membership that encompasses our entire naturals portfolio, Firmenich responds to the growing concerns of consumers regarding the ethical sourcing of natural ingredients.



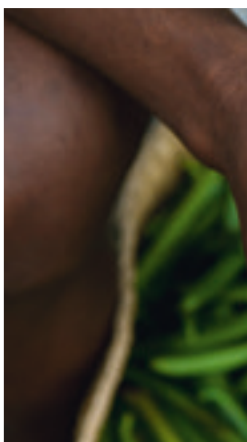
By engaging, building capacity and supporting our suppliers of natural raw materials around the world, Firmenich manages supply chain risks, secures a long-term focus on key agricultural products and works to ensure fair pricing for suppliers. We create Growth opportunities for the communities we source from.

## Responsible Sourcing of Naturals

### Vanilla in Madagascar

In FY14, in a collaborative effort with our local supplier, Firmenich implemented several projects to provide ongoing support to the 1,352 vanilla growers in the Savanille Cooperative in Antsirabe Nord, Madagascar, including two new drinking water wells (in addition to the 40 completed last year), three tree nurseries for cash crop diversification and reforestation, and financial support for a new medical dispensary. Firmenich has also started an ambitious partnership with its local partner to further benefit the farming community in Antsirabe Nord and:

- Improve vanilla farming, harvesting and curing practices to increase yield and quality
- Educate farmers and their families
- Empower local women
- Foster crop diversification and environment protection



Vanilla in Madagascar





We will report progress on these initiatives in our next Sustainability Report.

### Vanilla in Uganda

This year marks our eighth consecutive year of sustainable vanilla sourcing in Uganda. During the last 12 months, we have helped our growers in several important areas:

- **Income generation:** A total of 2,300 farmers were trained in improved crop production through 22 workshops held in vanilla-farming communities. Twenty-two radio programs were broadcast to inform farmers about crop management, disease control, vanilla prices and correct harvest times. Sweet potato vines were distributed to 62 farmers and cassava stems to five farmers to help diversify their farming activity and improve family diets.
- **HIV/AIDS, malaria:** In FY14, 1,275 farmers (up from 855 in FY13) attended HIV and malaria workshops, which were held at the same time as crop management training to reduce stigmatization, and were offered testing and counseling. 3,300 malaria bed nets were distributed to households, with a focus on women and children.
- **Microfinance, Village Savings and Loan Associations (VSLA):** 26 additional micro-finance groups were formed this year, bringing the total number of groups formed since 2009 to 221. These groups have approximately 6,630 members (70% of which are women). All members have income-generating projects, and 56% of members have started new income-generating projects with their VSLA savings.
- **Eco-friendly practices:** 16,091 timber and fruit trees were distributed to the farming communities. An additional 8,435 trees were planted at our processors' farms to offset carbon emissions from processing. Coffee has been introduced in the tree nursery as it grows well with vanilla and provides additional income to vanilla farmers.
- **CSR awareness:** Firmenich, with support from the Danish government, is hosting a conference on sustainability in the food industry for Danish and other European food companies in September 2014. A publication on sustainable vanilla is being produced and will be launched at the conference.

## PALM OIL

FIRMENICH NOW ONLY SOURCES ROUNDTABLE ON SUSTAINABLE PALM OIL (RSPO)-CERTIFIED DIRECT PALM OIL FOR ALL ACTIVE AND NEW PRODUCTS.

### Update on Palm Oil

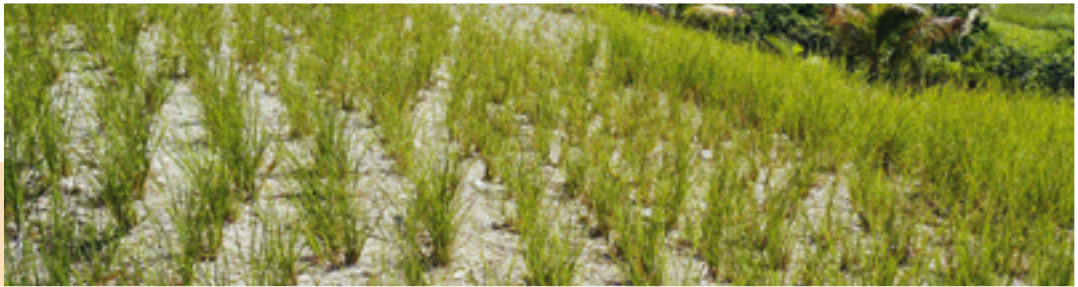
Firmenich is committed to the sustainable sourcing of palm oil. In 2011, Firmenich turned this commitment into action by issuing a Palm Oil Sustainability Position Statement pledging to only use palm oil and palm kernel oil derived from sustainable sources in its products by 2015.

Firmenich now only sources Roundtable on Sustainable Palm Oil (RSPO)-certified direct palm oil for all active and new products. For palm oil derivatives, we are validating sourcing partners of sustainable palm oil derivatives. We have also introduced new non-palm-derived items (coconut, rapeseed) to replace some palm oil derivatives. With these initiatives, we are on track to reach our goal to only source sustainable palm oil and palm kernel oil by 2015.

### Vetiver in Haiti

Since 2010, Firmenich has been engaged in an innovative multi-stakeholder collaboration with the Swiss Agency for Development and Cooperation (SDC) and local organizations to source sustainable vetiver (a tropical grass used to make fragrant oil) from the Débouchette farming community in Haiti. In 2014, we signed an agreement with our vetiver supplier and the SDC to implement an innovative project focused on:

- **Fair Trade vetiver:** Firmenich committed to buy Ecocert ESR (Fair Trade)-certified vetiver. Through the fair trade premium, Firmenich will help the Débouchette vetiver cooperative to implement a variety of community projects with the support of a full-time local Firmenich employee hired in FY14.



Vetiver field in the Débouchette region, South of Haiti (2013)

- **Collaboration with the Débouchette farming communities:** In addition to our work with the cooperative, we continue to support the local school that we built in 2012. In 2013, Paris- and Geneva-based employees donated more than 1,000 books to the school, and in March 2014 we inaugurated the school library.
- **Renewable energy:** Firmenich has been working with the Swiss Federal Institute of Technology in Lausanne (EPFL), the Swiss government and international technical experts to install industrial biomass boilers for vetiver distillation by 2015. They will use vetiver roots and leaves as fuel and should reduce reliance on fossil fuels, curb CO<sub>2</sub> emissions and create new revenue-generating activities for the farming community.
- **Economic opportunities for women:** We have conducted research with the SDC to better understand the needs and aspirations of women in the Débouchette region. Major issues identified include bank services and loans, and these will be addressed through future projects.

#### Tonka Beans and Copaíba Oil from Brazil

Firmenich continues to support communities in the Amazon through our responsible sourcing program for tonka beans (a flowering-tree seed) and copaíba oil (extracted from the resin of the copaíba tree) used to make fragrance.

- **Copaíba oil:** In FY13, Firmenich purchased 45.7% of our copaíba oil directly from local producers and hopes to increase this to 60% by the end of FY15. In FY14, we helped one of these communities purchase radio communication equipment to stay in contact with other communities and, in FY14–FY15, we are sponsoring the organic and fair trade certification of the crop from these communities to further improve farmers' incomes.
- **Tonka beans:** For the second year, we are directly sourcing tonka beans from the Kayapó indigenous communities and hope to increase our collaboration to meet 50% of our needs from these communities by 2015.



“The discussions and the partnership around the vetiver project with Agri-Supply and Firmenich gave me a deeper understanding of the social and economic structures in Haiti and the mode of operation of this particular value chain. In Haiti, the change of market structures and hence development is not possible without the inclusion of private business enterprises. Public-private cooperation is an interesting challenge that requires adaptation in the mode of functioning of all the partners, including us as a development agency, thus contributing to a process of sustainable transformation of the global economy.”

— Edita Vokral, Swiss Ambassador to Haiti from 2011 to 2014

**50%**  
 OF OUR TONKA BEANS  
 WILL BE SOURCED  
 FROM THE KAYAPÓ  
 COMMUNITIES BY 2015

**Patchouli in Indonesia**

Firmenich undertook a detailed review of our patchouli (a bushy herb of the mint family) sourcing in Indonesia, including a baseline analysis to better understand the sustainability challenges to the Indonesian patchouli supply chain, as well as opportunities to engage with local communities. Key issues identified include price volatility, lack of secure income, small impact of patchouli on overall farmers' revenues (the crop represents about 25% of their revenues) and too many supply chain intermediaries. Working with our long-term local partner, a leader in Indonesian essential oils, we started a pilot project in FY14 with 200 farmers using a shorter patchouli supply chain to improve farmers' income and we ensured fair prices. These efforts should increase revenues for farmers by 50% while allowing full product traceability.

**Patchouli in Guatemala**

Firmenich established small farming operations, in collaboration with our exclusive local supplier and with one of our clients. In FY14, we developed a project to help 150 farmers in two communities to farm and harvest patchouli as a secondary source of income. We will receive their first production of patchouli oil next year.

**Jasmine Joint Venture**

In 2014, Firmenich signed a joint venture agreement with Jasmine Concrete Exports PT Ltd. (Chennai, India), a family-owned enterprise and the leader in Indian floral extracts and natural specialties for the fragrance, flavor and cosmetics industries. Through this unique partnership, Firmenich is moving into vertical integration in a country that offers the world's largest and most remarkable variety of naturals. With an outstanding reputation, built over 15 years in the industry, Jasmine Concrete Exports PT Ltd. has become India's undisputed leader in extracts of flowers and other naturals. The company operates two highly efficient manufacturing facilities in Tamil Nadu, India, and has been enjoying constant growth and success since its founding. This major new partnership is fully aligned with Firmenich's naturals strategy, which focuses on excellence in sourcing, innovation and production. It also complements the production capabilities of our Naturals Innovation Center in the South of France.

*Armand de Villoutreys (President, Perfumery Division), Harry Fremont (Master Perfumer) and Raja Palaniswamy (Co-founder Jasmine Concrete)*



"The big trend in fine fragrance is the demand for authentic, quality products. Our partnership with Jasmine Concrete is absolutely in line with this trend and brings us the sourcing and production of three of the most important among flowers, which are also my absolute favorite flowers. In addition, this collaboration opens doors to the extraordinary across all varieties, including spices, woods and mint available in India."

—Harry Fremont, Master Perfumer



# SUSTAINABLE PRODUCTS AND STRATEGY IN OUR PERFUMERY DIVISION



Firmenich's Perfumery Division's ambition is to continue being the reference and preference for our clients around the world, creating and capturing value with our clients and their consumers. In FY14, Firmenich was asked by one of our fine fragrance clients to directly contribute to their sustainability strategy and training, while also advising another client on its new responsible sourcing charter as a selected strategic supplier. Our Perfumery Sustainability Strategy aims to:

- Increase responsibly sourced naturals in the perfumer palette
- Create "eco design" fragrances
- Support sustainable consumer lifestyles
- Build a better life for local communities

## A Responsible Perfumer Palette

Consumers are paying more attention to where product ingredients originate and how they are sourced, and an olfactive palette including responsibly sourced ingredients can lead to the creation of more sustainable products. Firmenich has set high standards of excellence and ethics in naturals and develops these products with the same business ambition as our molecules, using the finest naturals ingredients with the most recent innovation and optimized production capabilities. Our joint venture with India-based Jasmine Concrete PT Ltd. illustrates our vertical integration model and strengthens our leadership in naturals. It also complements our innovation and high-technology site in Grasse, France, with extraction and distillation sites in southern India and provides our perfumers with new sources of inspiration from India's diverse and high-quality natural ingredients.

Pierre-Alain Blanc,  
Master Perfumer



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## Eco Design

According to the official definition by the European Commission, eco design “implies taking into account all the environmental impacts of a product right from the earliest stage of design.”

Following this framework, we introduced a new ingredient, Clearwood™, in FY14. A breakthrough and the result of 10 years of R&D, Clearwood™ is our first white biotechnology<sup>1</sup> ingredient to be added to the perfumer’s palette. It offers an important new woody building block to our perfumers and limitless possibilities for creation in a sustainable way. Versatile with warm, woody and creamy notes of patchouli, Clearwood™ illustrates our leading position in white biotechnology, in the fragrance and flavor industry.

Every year, Firmenich introduces new ingredients to the perfumer’s palette. In our 2010 Sustainability Report, Firmenich committed to develop biodegradable ingredients and introduced our “Green Gate” concept to ensure that new ingredients are biodegradable and will not accumulate in the environment. We fully met this ambitious goal, and in FY14 we developed two new ingredients that we fully expect to be classified as “readily biodegradable,” the very highest category when it comes to speed and ease of biodegradation: one is our new flagship ingredient Clearwood™, while the other is a new floral olfactive note. Both of these ingredients are expected to be used in perfumes across various product categories.

<sup>1</sup> White biotechnology is biotechnology applied to industrial processes. White biotechnology tends to consume less in resources than traditional processes.



“Clearwood™ is easy to use in creation especially for very transparent fragrances because it has all the warm, woody and creamy notes of patchouli with much less of the earthy, medicinal, camphorated notes. It is the substantive heart of patchouli.”

—Pierre-Alain Blanc, Master Perfumer

### Sustainable Lifestyles

In the past year, we have observed a strong reinforcement of the “sustainable lifestyle” movement, with many of our perfumery clients taking on a leadership role. This transformative trend will help shape the perfumery industry’s future with noticeable implications not only in home care and body care products, but also in fine fragrance products through the “sustainable luxury” concept.

In FY14, we conducted many presentations for our clients, sharing insights on consumer behavior, sustainable consumption and sustainable luxury, and presenting long-term scenarios on the future of perfumery. We also started working with the World Business Council for Sustainable Development (WBCSD) on “sustainable lifestyle,” one of the nine priority areas defined by its platform, Action2020, that sets the agenda for 2020 and beyond. Firmenich and WBCSD collaborated on an expert panel in Brazil (see page 50) and will continue our cooperation in FY15.

3

INVOLVED IN THREE GLOBAL SANITATION PARTNERSHIPS, FIRMENICH IS TAKING A LEADERSHIP POSITION ON WASH IN OUR INDUSTRY

1st

PART OF THE FIRST EVER INTERNATIONAL TOILET DAY

#### Base of Pyramid (BoP) Consumers

In FY14, we continued our award-winning work with base of pyramid (BoP) consumers in India, started in 2011. We conducted three tests in Chennai, Kanchipuram, Pune, Rajgurunagar, Patna, Masoudi, Mohali and Dera Bassi, on home care and body care products. To conduct these tests, Firmenich hired and trained approximately 140 students from the BoP to interview fellow BoP consumers in the same communities. We gathered insights in categories like detergent and oral care to be leveraged to develop product solutions that will better appeal to these consumers.

*As one rural interviewee said, "Finally, my say matters. I too can speak my mind!" While the impact remains small, the project seemed to empower local communities.*



#### WASH (Water, Sanitation and Hygiene)

In 2011, nearly 100 stakeholders from more than 50 organizations came together to develop a common set of sustainability principles on water, sanitation and hygiene, which became the WASH Sustainability Charter. That same year, the Bill and Melinda Gates Foundation (BMGF) launched the Reinventing the Toilet Challenge, to bring sustainable sanitation solutions to the 2.5 billion people worldwide who don't have access to safe, affordable sanitation. Firmenich took an industry leadership position on WASH in 2012, and initiated its relationship with the BMGF on malodor control research. The issue of malodor is now fully recognized as a major obstacle to increasing toilet usage. Olfactive solutions can improve people's lives in that context.

Firmenich's collaboration with WASH involves both our research and development team on malodor research, and our sustainability team on leading cross-sector partnerships supported by the WBCSD and by the Stone Family Foundation. Firmenich is also engaging with nonprofit and for-profit organizations to find sustainable business models to make sanitation solutions affordable and accessible to the largest number of communities. Upon invitation of the BMGF, we participated, in March 2014, in the Reinvent the Toilet Fair: India, where we deepened our knowledge of the progress of different projects and technologies. Firmenich also believes in advocacy for sanitation and we participated in the first International Toilet Day at the United Nations in New York in 2013 and signed the WASH at the Workplace pledge with the WBCSD in June 2014 (see page 45).

*"Traditional approaches to market research are not always well suited for the low-income segment and often deliver flat results on preferences. Often, traditional interviewers have low or no empathy for low-income consumers."*

*—Jerôme Jallat, Vice President Global Perfumery Consumer Insights*



# SUSTAINABLE PRODUCTS AND STRATEGY IN OUR FLAVOR DIVISION

## Reshaping Innovation to Meet Consumer Needs in an Era of Global Growth

One of our major milestones was launching our restructured approach to flavor innovation. We created three new platforms to focus our innovation efforts: Health and Nutrition, Natural and Sustainable, and Breakthrough Cost Innovation. These platforms capture and capitalize on the continued consumer demand for healthier and more nutritious food and beverages; the growing public interest and awareness in the sustainability of natural products; and the increasing and significant emphasis food and beverage manufacturers place on cost efficiency.

### Health and Nutrition

The growing population in both mature and high-growth markets is creating an increased need for readily available, affordable and nutritious food. Our Health and Nutrition platform focuses on meeting this need, which includes the current push for calorie, sugar and salt reduction, as well as emerging challenges, such as protein availability and other nutritional shortages.



©Anaël Dang

Aurelie Ayache,  
Laboratory Technician



### Advancing the Health and Nutrition Dialogue through Collaboration

As part of our continued commitment to health and nutrition, we were a sponsor for the conference *Consumer Behavior and Food Science Innovations for Optimal Nutrition* hosted by The Sackler Institute for Nutrition Science at the New York Academy of Sciences.

This conference explored how consumer behavior can be analyzed and utilized to advance healthy and sustainable nutrition, and featured speakers from academia, governments, corporations, start-ups and nonprofit organizations.

The event was organized by a multidisciplinary Scientific Organizing Committee, including leading researchers from the fields of agriculture, food and nutrition. A Firmenich Flavors Innovation team member specializing in health and nutrition innovations, who is also a member of the Sackler Institute's Technology and Innovation in Agriculture, Food and Nutrition Working Group, participated on this committee. This Group also hosted a similar and successful conference on sustainable proteins in December 2013.

Firmenich's participation in the Working Group underscores our commitment to helping our customers innovate for a healthier world.

"Firmenich has shown a great deal of leadership in their dedication to working on improving the health and nutrition of today's food system through their innovation and expertise."

—Dr. Howard Moskowitz, Psychophysicist, Market Researcher and Member of the Scientific Organizing Committee

1st

FLAVOR HOUSE EVER  
TO RECEIVE MSC  
CERTIFICATION FOR  
SEAFOOD FLAVORS  
AND INGREDIENTS

ONLY

FLAVOR HOUSE MEMBER  
OF FRUIT JUICE CSR

### **The Natural and Sustainable Innovation Platform**

The Natural and Sustainable platform addresses the growing consumer demand for clean labeling and minimally processed food, and works to develop new and innovative ways to help customers meet these requirements. Another area of focus is “green proteins,” which looks at alternative protein sources, namely in response to the need for increased food security in a world with a growing population, and to work to minimize the environmental impact of the current sources of animal protein.

### **The Breakthrough Cost Innovation Platform**

The Breakthrough Cost Innovation platform focuses on new technologies, processes and approaches to offer more efficient value across our entire flavor portfolio. Through this focus, we can deliver more value to customers and consumers through a more sustainable supply chain with less waste, reduced energy consumption and higher efficiency.

*Citrus is a key tonality  
for the flavor industry*



## Sustainable Food Systems

### **Citrus**

This year, we became a member of Fruit Juice CSR, a group supported by the European Commission, comprised of public and private organizations that promote and advocate for a more sustainable value chain within the juice industry (see page 45). We are also looking at ways to protect citrus trees against Asian citrus psyllids, insects that carry the disease that causes greening. Doing so would allow for the planting of new trees that could potentially be protected against greening.

As the gap widens between the growth of the citrus flavor market and the availability of citrus fruit for processing, we must look at new ways to innovate to help mitigate supply and price volatility. In this regard, we are making innovation investments to help secure the supply of great tasting citrus flavors at reasonable cost. We are looking at citrus alternatives, exploring new citrus varieties and creating more efficient processing techniques. For example, through our proprietary Solescence® method, we are able to maximize our processing to produce 100% yield with no loss.

### **Supporting the Cocoa Industry**

*Chocovision* is a bi-annual event hosted by Barry Callebaut, one of the world’s largest chocolate suppliers. The event, which brings together key stakeholders from the cocoa industry, focuses on addressing the most pressing issues facing the industry. For the second time, Firmenich sponsored the event. In addition, we gave a presentation, “Flavor Innovation to Support a Better Life,” which examined the role that a flavor house can have in helping the chocolate industry meet the needs of the future consumer, including improving the health and nutrition of chocolate products.

### Sustainable Seafood Flavors

In FY14, we became the first flavor house to ever receive Marine Stewardship Council (MSC) certification for seafood flavors and ingredients. We received certification to the MSC's Chain of Custody standard for our seafood flavors produced from North Atlantic codfish, saithe and haddock.

This certification verifies that any MSC-labeled product originates from fisheries that are certified to the MSC standard for being well-managed and sustainable. The certification signifies that the fishery of origin operates in a manner that keeps fish stocks, other marine life and ecosystems healthy. It also indicates that the fishery of origin has made efforts to minimize its environmental impact, abides by all local, national and international laws and operates under the guidance of accepted scientific findings to ensure sustainable use of marine resources.

The Firmenich seafood facility in Ålesund, on the west coast of Norway and with access to fish from the North Atlantic and the Barents Sea, processes 10,000 tons of seafood raw materials annually. These raw materials are largely by-products from the seafood industry. Through sophisticated biotechnological processes, we convert the by-product, which had previously been disposed into the sea, to create seafood extracts and flavors, such as codfish, shrimp, lobster, crab, squid and other popular seafood tonalities used in soups, stocks, sauces and ready-to-eat meals.

By minimizing by-products from the seafood industry, and maximizing the value created from the marine resources, we continue to help meet the market demand for seafood flavors without adding an extra burden on fish stocks.



### Building Sustainable Processes

Manufacturing our products and technologies has an impact on the environment through our water and energy consumption, and our waste generation. In FY14, we found new ways to reduce the impact of one of our key encapsulation technologies, Durarome®, by using less water, less energy and by releasing fewer volatile organic compounds (VOCs) during production, in addition to reducing cycle times by 70% and increasing yields by more than 5%. This new approach was implemented at our newest Durarome® plant, which was officially inaugurated in FY14 in Karawang, just outside of Jakarta, Indonesia. We plan to roll out and improve the manufacturing process at our other Durarome® facilities around the world, and to continue lowering our environmental impact across our entire portfolio of encapsulation technologies.



# PRODUCT SAFETY



Firmenich is dedicated to the development of new approaches and tools for the safety assessment of our fragrance and flavor products and technologies. Our focus is to develop solutions to current and emerging product safety issues. Firmenich has worked closely and collaboratively with competitors and clients to help develop the new Research Institute for Fragrance Materials (RIFM) Safety Criteria Document aiming at providing transparent and robust safety data on all fragrance materials used by the industry.

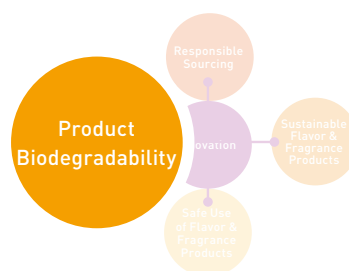
Firmenich is also working with the industry to improve safety assessment methodologies for flavor products and ingredients, including the development of risk assessment approaches. In FY14, our experts' work on assessing the risk of genotoxic materials in food was published in Food and Chemical Toxicology.

Our teams are actively researching innovative toxicity testing methods in light of animal testing bans and fully support the concept of "Green Toxicology." One of our early pilot works in the field of genotoxicity screening has led to a more extensive program at RIFM. Firmenich is also refining and looking at further application of this assay to better understand genotoxic carcinogens mode of action and improve the selection and development of new materials. We are also looking at alternative approaches to follow-up on materials that could potentially test positive on such screenings and participate in a program with New York Medical College to test flavor and fragrance materials.

## Fragrance Allergens in Cosmetic Products

Firmenich welcomes new regulations to improve product safety and protect consumers, and we are pleased to partake in these important discussions and negotiations. Firmenich is participating, through the International Fragrance Association (IFRA), in the ongoing European Union dialogue regarding the regulation of fragrance allergens in cosmetic products. IFRA has proposed a long-term working plan (the International Dialogue for the Evaluation of Allergens, or IDEA) that will help us scientifically define and determine which allergens and their indirect sources require specific control by the industry. Working with clients and other suppliers through IFRA, Firmenich is helping to build a predictive model to improve industry-wide management of allergens. We are also involved in public consultation with the European Union Commission over the development, scope and implementation of the new regulations, which are likely to include restrictions and bans on selected materials, and increased labeling of potentially allergenic ingredients. Key factors in this debate are the development of practical controls while maintaining the highest levels of safety for consumers.

# PRODUCT BIODEGRADABILITY



An ingredient is considered as biodegradable when natural microorganisms, such as bacteria and fungi (that can be found in wastewater treatment stations), convert it into harmless materials, like biomass, carbon dioxide and water.

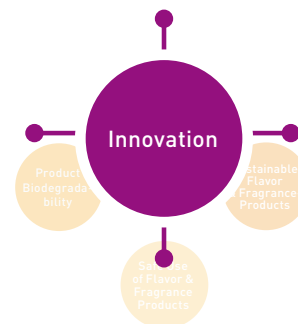
Firmenich scientists (and our partner organizations) routinely use standard screening, including those certified by the Organization for Economic Cooperation and Development (OECD), to determine our ingredient biodegradability. Such tests were used to demonstrate the biodegradability of our new biotech product Clearwood™ (see page 35).

However, scientists need to further analyze these tests and their results: recent research by our microbiologists showed that another established ingredient, Romandolide® (an acyclic musk), although previously shown to be clearly biodegradable, only partially biodegraded under certain test conditions. To investigate further, our analytical scientists developed a more sensitive methodology to follow the fate of the metabolic intermediates (present in very low concentrations) over time. As a result of this work, we now have a greater understanding of the microbial metabolic processes that result in biodegradation and can track biodegradation where there is incomplete mineralization to carbon dioxide and water.

Another problem with the screening test methods used by regulators is that they rarely reflect the real-life ingredient concentrations normally found in wastewater treatment stations or other watercourses. Real-life concentrations are likely to be much lower. A recently published study involving Firmenich scientists (and undertaken by the University of Lausanne) has shown a "proof of principle" for what could constitute a completely new, and potentially more sensitive way of studying biodegradation, at realistic test concentration.

Firmenich will continue its important work in this critical area, to further advance scientific knowledge and use it to improve "in-silico" tools (e.g. computer simulation tools) developed by international expert groups who advise regulatory bodies and government agencies around the world.

# INNOVATION AND R&D: LEADING IN CATALYTIC CHEMISTRY AND BIOTECHNOLOGY



Our drive for cleaner, better manufacturing processes is based on two strategic activities: biotechnology and catalytic chemistry. In FY14, we made outstanding progress in both domains:

Firmenich scaled up new processes for several different established ingredients, using a variety of new manufacturing techniques, including replacement of stoichiometric reducing agents, use of new catalytic technologies and the elimination and substitution of some solvents (like tetrahydrofuran, THF). These new processes have improved process safety and decreased waste production.

Using a Firmenich-patented catalytic process, our synthetic chemists have developed and produced a new soft, floral ingredient to add to the perfumer's "palette." This ingredient is not only biodegradable, but also has an extremely low product to waste ratio (also named environmental factor or E factor) of 4.1.

Thanks to the efforts of our biochemists and partners, we successfully scaled up and launched Clearwood™, a new woody note, on the perfumery ingredient market. This ingredient is highly biodegradable and derived from uniquely biogenic carbon (sugar) by fermentation. It is the first in a new family of renewable ingredients that we expect to market in the coming years.

At the research level, Firmenich scientists continue to maintain our reputation and edge in the domain of catalysis, with two publications in the prestigious scientific journal *Angewandte Chemie*.<sup>1,2</sup>



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<sup>1</sup> Unexpected Role of Anionic Ligands in the Ruthenium-Catalyzed Base-Free Selective Hydrogenation of Aldehydes. Dupau, Philippe; Bonomo, Lucia; Kermorvan, Laurent. *Angewandte Chemie, International Edition* (2013), 52(43), 11347-11350

<sup>2</sup> Asymmetric Hydrogenation of Ketones with H<sub>2</sub> and Ruthenium Catalysts Containing Chiral Tetradentate S<sub>2</sub>N<sub>2</sub> Ligands. Patchett, Ruth; Magpantay, Iris; Saudan, Lionel; Schotes, Christoph; Mezzetti, Antonio; Santoro, Francesco. *Angewandte Chemie, International Edition* (2013), 52(39), 10352-10355

GOVERNANCE

GREEN

GROWTH

GROUPS

# GROUPS

.....

*Embracing Our People  
and Communities*

*"This Haitian artisan makes her living selling her unique, handmade crafts to travelers and tourists alike. Through craft-making or through farming, many Haitians depend on their hands for their livelihoods. In 2010, Firmenich and Nomad Two Worlds made a commitment through the Clinton Global Initiative to develop ten fragrances in partnership with Indigenous and marginalized communities in Haiti, the Amazon, Australia and the United States." - Russell James*

*Photo credit: Murray Hall and Paola Ambrosi De Magistris for Studio Russell James*

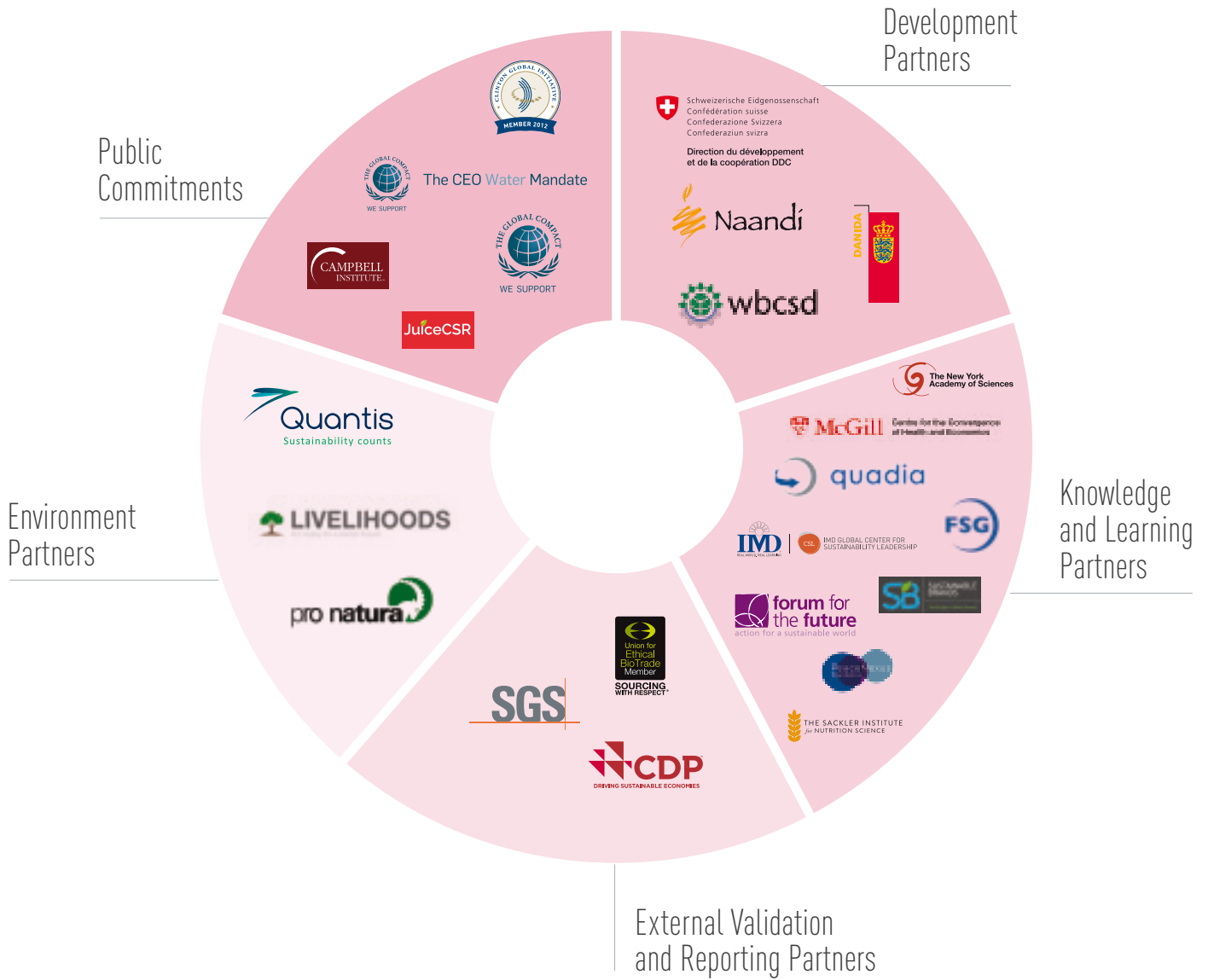




5 NEW  
PARTNERSHIPS

1,964 participants in  
Community Day

# OUR SUSTAINABILITY PARTNERS



# PARTNERING WITH STAKEHOLDERS

We engaged with partners from governments, nongovernmental organizations, start-ups and universities as well as with our suppliers and clients. Partnering across sectors allows us to replicate best practices, while capitalizing on specific and valuable expertise in social, economic and environmental issues.

## Forming New Institutional Partnerships

Every year, as we address different material issues, we engage with new partners and experts. In 2014, we highlight our collaboration with five partners:

### World Business Council for Sustainable Development (WBCSD)

The WBCSD is a CEO-led organization of about 200 members from more than 35 countries and 20 major industrial sectors. This group of forward-thinking companies encourages the global business community to create a sustainable future for companies, society and the environment, and launched Action2020, a sustainability agenda for the business community. Firmenich is the sole fragrance and flavor company represented at WBCSD and collaborates on two main issues: sanitation and inclusive business models for low-income consumers. In June 2014, Firmenich signed the WASH (Water Access, Sanitation and Hygiene) at the Workplace pledge and committed to implement access to safe water, sanitation and hygiene at the workplace at an appropriate level for all employees in all premises under our control within three years.

### Fruit Juice CSR Platform

The Fruit Juice CSR Platform is a business-driven sustainability initiative specifically established for the fruit juice industry. The platform is co-initiated by the European Fruit Juice Association (AIJN) and endorsed and co-funded by the European Commission. The objective of the platform is to inspire and support the European fruit juice industry to integrate corporate social responsibility throughout fruit juice supply chains. As a leader in citrus, Firmenich is the only flavor house engaged in the platform. In that context, we attended the first Sustainability Day at the 2013 Juice Summit in Brussels and are participating in the adaptation of New Rural Horizon (an expert system to support continual improvement of agricultural production) for the citrus value chain (see additional information page 38).



More information about WASH at the Workplace can be found at:  
[www.wbcSD.org/washatworkplace.aspx](http://www.wbcSD.org/washatworkplace.aspx)





WE UNDERSTAND THE IMPORTANCE OF OUR ROLE IN SUPPORTING INITIATIVES IN THE COMMUNITIES WHERE WE OPERATE

Joseph Scott, TechnoChef



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### Sustainable Brands

Sustainable Brands (SB) is a learning, collaboration and commerce community of more than 348,000 sustainable business leaders from around the globe. SB aims to empower more brands to prosper by leading the way to a better world. SB's team produces content, events and other learning solutions designed to inspire, engage and equip the business community to profitably innovate for sustainability.

### Zermatt Summit

As a family company, our approaches are very much aligned with the Zermatt Summit's objectives. This international platform brings together business leaders, senior policy makers and non-governmental organizations to put people, mankind and the common good at the center of our globalized world. We have been involved in the Zermatt Summit's advisory committee since 2013, and in 2014 were asked to join the jury of the European competition, Social and Business Co-Creation: Collaboration for Impact, organized by Ashoka and the Zermatt Summit Foundation. The jury reviewed 338 cutting-edge projects from 34 different countries.

### Pro-Natura

In addition to our global sustainability partnerships, we believe that it is important to engage with local initiatives in the communities where we operate. In 2014, we pledged to financially support the Allondon Center, run by the non-profit environmental conservation organization Pro-Natura Geneva. Firmenich has been operating in this community throughout its history. The project, to be inaugurated in 2015, comprises a National Center for Nature, a restaurant that finances the Center's operating costs and a unique meeting space.



## Consolidating Our Existing Institutional Partnerships

In 2014, we also reinforced some of our international and Swiss-based partnerships.

### Livelihoods Fund

In 2013, Firmenich became an investor of the Livelihoods Fund, whose mission is to support the efforts of poor rural communities in the developing world to restore their natural ecosystems, which improves their food security, increases their revenues and raises their livelihoods. The Livelihoods Fund is an investment fund supported by socially responsible, private sector companies committed to reducing their environmental footprint. Since its creation in 2011, the fund has already planted more than 130 million trees in Senegal, India, Kenya, Indonesia and Burkina Faso.

### Swiss Government

Since 2012, the Swiss Agency for Development and Cooperation (SDC), from the Swiss government, has been our partner in Haiti. In 2014, we furthered our collaboration: the Swiss ambassador attended our two workshops in Haiti and was fully involved in the vetiver project design, implementation and monitoring (see page 31-32).

Firmenich also actively engages with the Swiss government on defining the Swiss position on the Sustainability Development Goals of the United Nations, which will replace the Millennium Development goals in 2015.

### Global Compact Network Switzerland

In 2008, Firmenich committed itself to the ten Principles of the United Nations Global Compact and started chairing the Swiss network in 2011. This year, we played an instrumental role in transforming the network by creating more synergies with the Swiss government.

## ENGAGING WITH OUR INDUSTRY

Firmenich actively participates in fragrance and flavor industry associations in all of the major markets we serve, including in the four following leading associations:

### 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.



## Academics and Leaders of Tomorrow

Firmenich collaborates with leading academic institutions, sharing sustainability learning's and helping to develop future leaders.

### Sustainability Case studies with Wharton and IMD

*The Wharton School, University of Pennsylvania*

In 2014, Professor Djordjija Petkoski from the Wharton School of the University of Pennsylvania conducted a case study on Firmenich's low-income consumers in India.



Dr. Petkoski is a lecturer and senior fellow at the Wharton School, University of Pennsylvania. He serves as an adviser and consultant to the World Bank, the Organization of American States and other development organizations, and is the founder and managing director of Global CDL.

“Through a holistic consumer insight initiative, utilizing innovative methodologies and surveys, a cross-functional Firmenich team was able to develop and implement new ways of engagement with the low-income market segment. In partnership with the Naandi Foundation, the fastest-growing social enterprise in India, the team trained and coached young adults from local low-income families as interviewers. Being part of the targeted communities helped the interviewers conduct non-intrusive dialogues with consumers.

As a result, Firmenich developed a better understanding of low-income consumers' lifestyles, cultures, household dynamics and relationships, patterns of behavior and preferences. Getting deeper consumer insight is critical in creating affordable and impactful perfumes for products that lead to healthier and happier lives, and higher self-esteem of low-income consumers.

The next challenge for the Firmenich team is how to best identify, systematize and evaluate the new business opportunities generated by its holistic consumer insight initiative and how to best capture the new insights in order to bring new strategies to internal and external clients. This is in line with Firmenich's vision to remain an industry leader in sustainability and to co-create value with its clients.”

—Professor Djordjija Petkoski

### IMD

Our longtime Sustainability Council member, Dr. Aileen Ionescu-Somers, conducted a case study on our work on the Haitian vetiver value chain, in partnership with Peace Nexus. In FY14, IMD also hosted the CSL Learning Platform Roundtable Leading Value Chains towards Long-Term Stretch Goals, where we presented our Haiti experience.



3

OFFERING SCHOLARSHIPS  
TO THREE LEADERS OF  
TOMORROW AT YABA  
COLLEGE, NIGERIA

28

WORKING WITH 28 LEADERS  
OF TOMORROW AT THE  
UNIVERSITY OF ST. GALLEN,  
SWITZERLAND

“This year, IMD business school’s Global Center for Sustainability Leadership (IMD-CSL), in collaboration with Swiss-based Peace Nexus Foundation and Firmenich, is writing a teaching case study focused on Firmenich’s 2010 Clinton Global Initiative commitment to work with Haitian vetiver farmers to ensure sustainable production of vetiver oil. Firmenich can share invaluable learning from managing this complex base-of-the-pyramid business model with its array of multi-stakeholder relationships and partnerships. Firmenich has anchored community trust and resilience while securing vetiver supply in a challenging business context by creating a robust, sustainable local economy around vetiver production. Given increasing challenges around raw material supply, this is invaluable learning for any company.”

— Dr. Aileen Ionescu-Somers, Director,  
IMD-CSL Learning Platform, and  
Firmenich Sustainability Council member

### Working with Students at St. Gallen University

From March to May 2014, Firmenich participated in the seminar “Exploring Sustainability as a Strategic Opportunity,” held by the University of St. Gallen in Switzerland. Part of the Master’s Degree in Strategy and International Management (ranked the No. 1 Master in Management program globally by the *Financial Times*), this class uses real-life business cases to help students understand and address sustainability concerns. Three student teams worked on Firmenich projects, visited our headquarters and worked under the supervision of our sustainability team. Patrick Firmenich, CEO, was personally involved throughout the project and attended the students’ presentations.

### Yaba College of Technology

In 2011, we signed a collaboration agreement with the Department of Food Science at the Yaba College of Technology, in Lagos, Nigeria, to establish an application laboratory within the Food Science and Technology department of the college. This allowed us to create food and beverage samples and concepts, and develop a better understanding of the Nigerian consumers’ taste preferences, while also serving as a training environment for students enrolled at the college. We initiated a Firmenich scholarship program as part of the partnership, and sponsor top students in the department in their final year of study, covering tuition fees and expenses. In May 2014, the first recipients of the scholarship graduated from the college.



IMD GLOBAL CENTER FOR  
SUSTAINABILITY LEADERSHIP



### A Chemistry Legacy: Dr. Roger and Dr. Georges Firmenich

In 1979, Firmenich endowed a chair at the Massachusetts Institute of Technology (MIT) in honor of Dr. Roger and Dr. Georges Firmenich on the occasion of their retirement from Firmenich. For more than 30 years, this professorship has provided vital faculty support in the Department of Chemistry at MIT reflecting our long-term commitment to teaching and research for future generations of chemists. The Firmenich Professorship Fund has grown significantly over the years and now provides a senior professorship and a senior faculty member.

90+

CLIENTS HOSTED FOR  
A SUSTAINABLE LIFESTYLE  
ROUNDTABLE



## Partnering with Our Clients

Our foremost sustainability partners are our clients. This year, the Firmenich Executive Board and our CEO hosted more than 90 perfumery and flavor clients in São Paulo, Brazil, for a roundtable on “Sustainable Lifestyle.” The event moderator, Dr. Marcelo de Andrade, co-founder and partner at Earth Capital Partners and recipient of the 1997 George and Cynthia Mitchell International Prize, led a rich and lively panel discussion with three Brazilian thought leaders, all involved in sustainability projects with Firmenich: Maria Cecilia Wey de Brito, CEO of World Wildlife Fund (WWF) Brazil; Andrea Fasanello, President of Moda Fusion; and Pablo Barros, CEO of Eight Sustainability and senior consultant to the Brazilian Business Council for Sustainable Development. These experts brought valuable insights on sustainable lifestyle to our clients and the Firmenich Executive Board.

“For me, sustainability is a journey that the 6,300 Firmenich people around the globe take every day. It is a journey that needs inspiration, where we are constantly evolving and need to engage everyone, including our partners, our suppliers and in particular you, our clients.”

— Patrick Firmenich, CEO, Firmenich



# ENGAGING OUR PEOPLE

## Building Excellence and Sharing Expertise

### Building Excellence

The Firmenich Fundamentals guide our every action, enabling us to remain true to ourselves and make a difference in an ever-changing world. They form an integral part of our unique identity and the foundation of our past and future success (see page 8). As part of our global strategy, we have started a cultural transformation to go beyond these Fundamentals and also systematically reach excellence in execution and process. To meet these expectations and foster sustainable growth, we have equipped the organization with new capabilities, delivered a program focused on senior leaders and middle management as change agents, and optimized our performance, reward and recognition programs. We have also developed an appropriate communication strategy to support our programs and further drive behavioral change.

### Sharing Expertise: Launch of Firmenich Wave

In FY14, our 6,300 employees welcomed our enterprise social network, "Firmenich Wave." This sharing platform allows global teams to connect and work together in an organized, intuitive and productive way. As an example, the first business project started on the Wave brought the biggest sales in three years for the team in charge. Beyond being a powerful business tool, the Wave also provides a platform for our employees to share their expertise, easing the transition for new employees and allowing informal, expertise-based, cross-continent and cross-division collaborations. With the Wave, Firmenich is building a new knowledge-sharing culture that will transform our company.

## Diversity

### Senior Female Leader Development Program

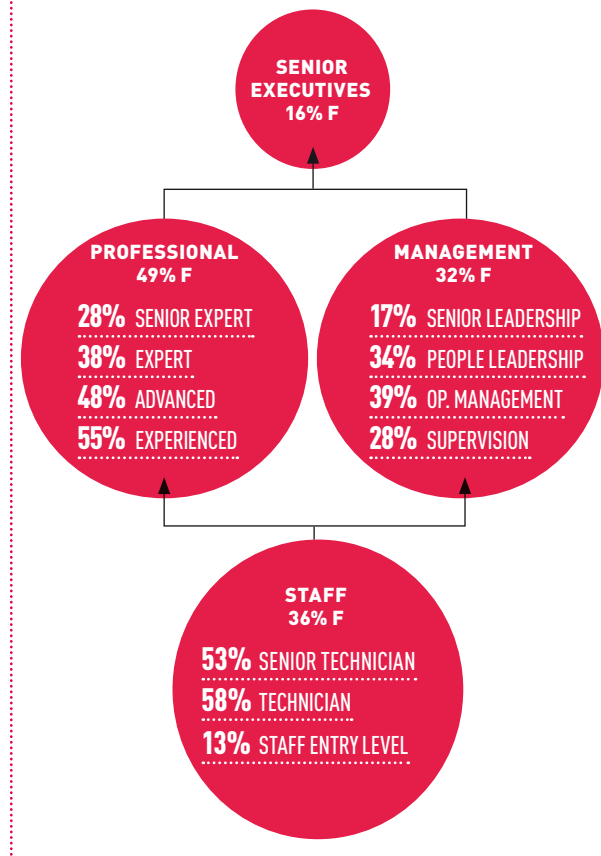
In FY14, Firmenich implemented a global development program aimed at our senior female talent, to strengthen career management plans and increase company-wide visibility. Each of these high-potential participants is mentored by one of our top managers and supported by a virtual network, allowing experience sharing, best practices and success stories. This program was extremely well received across the organization, not only by high-potential female executives, but also by their direct managers and their mentors.

### Gender Equal Pay Certification in Geneva

Confirming our commitment to equity and fairness in compensation, our Geneva headquarters this year entered a Swiss government initiative, named "Dialogue on Equal Salary," supporting equal pay across genders. This initiative originally set up by social partners and Switzerland's Federal Office for Gender Equality, part of the Federal Office of Justice, aims to encourage firms to apply Gender Equal Pay principles.

After a full analysis of our total compensation, we received the endorsement by the Swiss Confederation that we operate according to Gender Equal Pay principles. By joining this initiative, we officially confirmed that at Firmenich "women and men receive equal pay for work of equal value."

### Female Presence at Main Career Levels of the Firmenich Career Ladder (in %)





**FIGHTING AGAINST  
YOUTH UNEMPLOYMENT  
IN EUROPE**

**Firmenich Joins Nestlé Alliance for YOUth**

In FY14, Firmenich made a commitment to the Nestlé Alliance for YOUth program. This ambitious project aims at bringing together private companies, European institutions and national governments to fight against youth unemployment. On June 23, 2014, Firmenich, Nestlé and 13 other global partners convened in Lisbon, Portugal, to mark another milestone for the Nestlé Alliance for YOUth program.

Youth unemployment is one of the most prevalent issues in modern society. Today in Europe, 23.5% of young adults are unemployed, reaching 36.1% of the youth population in Portugal, 43.3% in Italy, 53.5% in Spain and 56.9% in Greece.

In June 2014, Firmenich, along with industry leaders from Axa, Ernst&Young, Facebook, Google, Publicis, Salesforce, Twitter, among others, and political leaders, including the President of the European Commission, José Manuel Barroso; the Prime Minister of Portugal, Pedro Passos Coelho; and the Deputy Director-General for Education and Culture at the European Commission, Xavier Prats Monné, signed the "European Alliance for Apprenticeships" to promote apprenticeship in Europe.

Another example of Firmenich's commitment to fight youth unemployment is the collaboration with 11 universities in four countries (Indonesia, Brazil, China and India) and the hiring of 65 young interns in a pilot program in our High Growth Markets.

**Training**

**Leadership, Development and Mentoring**

In 2013, we introduced two new global leadership and development programs. To date, more than 120 employees have been trained on project management and more than 220 employees have benefited from our new communications program. In parallel, we continue to run our Leadership Development programs.

This year has seen the development of several mentoring programs at Firmenich, including two in our Purchasing Division aimed at executives and key talent. In FY14, our High Growth Market mentoring program, which paired 37 mentors and 37 mentees, was a success and will be extended next year. In Geneva, we further developed our cross-company mentoring, which involves seven international Geneva-based companies in a program in which female mentees from Firmenich are mentored by senior leaders from international companies based in Geneva.



*Our perfumery training programs further the knowledge of our younger and promising perfumers.*

*(Yunan Cheng, Junior Perfumer)*



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*Gena Surplis, Account Associate*

# TOUCHING HEARTS AND MINDS

## Community Day

While our sustainability work has become more and more integrated into our mainstream business, we maintain our heritage of global philanthropic work and our support for local communities in which we operate. In September 2013, we celebrated our ninth annual Community Day with more than 135 projects aimed at empowering women, helping children and protecting nature. These projects were simultaneously conducted in 46 of our affiliates, engaging 1,964 participants. Community Day 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:

- **IN SWITZERLAND:**

- Firmenich female executives shared career paths, success stories and challenges with women getting back into the workforce at a "café/emploi," an informal career event held at a café.
- Our experts partnered with the Cansearch Foundation (first research platform focused on pediatric oncology-hematology in Geneva) and taught some fascinating aspects of flavors and fragrances to children with cancer at the Geneva University Hospital.

- **IN FRANCE:**

Employees collected clothes, food and child-care articles for a single parent association.

- **IN SWITZERLAND AND FRANCE:**

Firmenich teams collected educational books to create a library at the Haiti school that Firmenich opened in 2012.

Community Day at Firmenich in FY14



- **IN THE PHILIPPINES:**

Employees donated school supplies, furniture and equipment to support the Help Overcome Poverty through Education, Employment, Empowerment, Event (HOP-E) organization.

- **IN THE UNITED STATES:**

Nearly 100 senior leaders from the global flavor division lent their hands to help Lunch Break, a soup kitchen and food pantry in Red Bank, New Jersey, that serves families and children in areas still recovering from Hurricane Sandy.

- **IN BRAZIL:**

Firmenich teams volunteered at organizations supporting women with cancer.

## The Firmenich Foundation

Charitable giving is embedded in our history. We believe that profitable companies have a social obligation to invest in their local communities and the world community. The Firmenich Charitable Foundation was created in 2010 to primarily support our philanthropic efforts. In 2013\*, we contributed to more than 61 organizations. The Firmenich Charitable Giving Program has three priority areas:

- Working to cure cancer
- Providing improved access to nutrition and hygiene to those in need
- Supporting local communities where our facilities are located and where we source natural raw materials.

\* Unlike the Firmenich Group, our Charitable Foundation reporting is done on a calendar year, not a fiscal year.

Our Executive Management Team cooked lunch for all Geneva employees as part of an Employee Appreciation Day







*Angelique Cassin, Marketing and Business Development Manager*

# ABOUT THIS REPORT

## Report Boundaries

This is our ninth annual sustainability report. It follows our 2013 report and contains a full year of data based on fiscal year 2014 (FY14) from July 1, 2013 to June 30, 2014. The report covers global operations across the Firmenich Group, including affiliates in 28 countries as well as our manufacturing sites and non-manufacturing locations.

We focus on key activities and achievements that we believe are of interest and value to our major stakeholder groups, which include our clients, our employees, our shareholders, our suppliers, our partners (NGOs, industry associations...) our Sustainability Council and the communities that we serve and interact with.

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

The Firmenich Board of Directors comprises four internal members and five external members. The board includes representatives of 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, shareholders, suppliers, partners and Sustainability Council), the Board of Directors and the Executive Team.

The Firmenich Code of Conduct is a document designed to help our employees make ethical decisions 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 anti-competitive behavior, or for antitrust or monopolistic practices in this reporting period, and incurred no monetary fines or nonmonetary sanctions for noncompliance in these areas.

We review each of our production sites on a yearly basis for risk to child labor, forced labor and human rights and freedom of association in accordance to the 10 Principles of UN Global Compact with the help of the SEDEX protocols. All of our production sites review and update the online Self-Assessment Questionnaire (SAQ) and have an Ethical audit carried out every two or three years.

To highlight our performance, the previous year's data and rolling five-year data are included in this report. Some of this 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.

During FY12, a project of several years to roll out SAP in our business ended. This has enabled us to further improve the accuracy of our reporting with the result that we were able to extract more precise production figures in FY13 and FY14 rather than relying on local site data. Consequently, we have also amended the FY13 production data used in last year's report. This means that some reported FY13 data used in the FY14 report may differ from previous publications, these changes are within 5% and therefore not considered material.

This reporting period sees the following changes at our sites: we have closed our Safety Harbor, Florida location, we have moved our Kunming, China site to a new location (the site had no activity while the move was in progress), and we have opened a new site in Karawang, Indonesia.

## Scope of This Report

We have applied the Global Reporting Initiative's (GRI) principles of materiality to this report, which states: "Information in this report should cover issues and indicators that would substantially influence the decisions of the stakeholders using this report." 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 25 performance indicators.

This report is independently verified by SGS (see page 57), 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 (UNGCC), for the CEO Water Mandate (COP-Water) as well as for the UN Women's Empowerment Principles.



The Firmenich Group – [www.firmenich.com](http://www.firmenich.com)  
Contact: [global.sustainability@firmenich.com](mailto:global.sustainability@firmenich.com)

# EXTERNAL VERIFICATION

## SGS Société Générale de Surveillance SA report on sustainability activities in the Firmenich Sustainability Report for 2014

### 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 2014. 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 2014 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 2014.

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 Sustainability Communications Assurance 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 2014 is accurate, reliable and provides a fair and balanced representation of Firmenich sustainability activities in financial year ending 2014.

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. Due to the changes in the production volume data collation process, the performance results reporting in FY13 has been affected. However in the assurers' opinion it is not of a significant magnitude and will not impact on the ability of the reader to use the information in decision making.

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 2014 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.

**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 indicators are included in the report.

#### Strengths

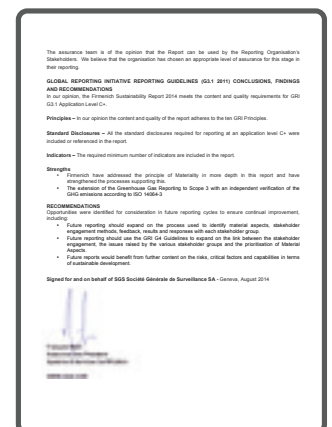
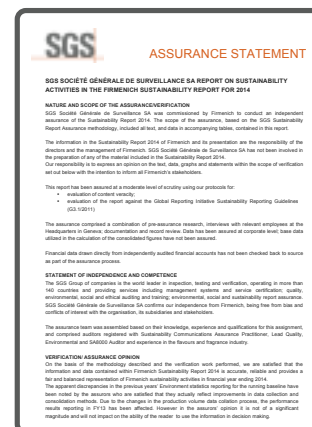
- Firmenich have addressed the principle of Materiality in more depth in this report and have strengthened the processes supporting this.
- The extension of the Greenhouse Gas Reporting to Scope 3 with an independent verification of the GHG emissions according to ISO 14064-3

### Recommendations

Opportunities were identified for consideration in future reporting cycles to ensure continual improvement, including:

- Future reporting should expand on the process used to identify material aspects, stakeholder engagement methods, feedback, results and responses with each stakeholder group.
  - Future reporting should use the GRI G4 Guidelines to expand on the link between the stakeholder engagement, the issues raised by the various stakeholder groups and the prioritisation of Material Aspects.
  - Future reports would benefit from further content on the risks, critical factors and capabilities in terms of sustainable development.
- Signed for and on behalf of SGS Société Générale de Surveillance SA - Geneva, August 2014

François Marti, Executive Vice President  
Systems & Services Certification  
WWW.SGS.COM





# OUR PERFORMANCE IN NUMBERS

PERFORMANCE	KPI	FY13	FY14
ENERGY (GJ)	Direct Energy (own source)	1,380,466.45	1,174,246.04
	Indirect Energy: purchased (inc. electricity, steam, etc.)	751,407.15	729,779.32
	<b>Total Energy</b>	<b>2,131,873.60</b>	<b>1,904,025.36</b>
CO <sub>2</sub> EMISSIONS (TONNES)	Scope 1: Direct Energy Source	86,971.71	70,756.06
	Scope 2: Indirect Source	68,250.98	64,844.23
	<b>Total CO<sub>2</sub> Emissions</b>	<b>155,222.69</b>	<b>135,600.29</b>
<b>WASTE GENERATION AND DISPOSAL (TONNES)</b>			
HAZARDOUS (HZ) WASTE*	Incinerated (without heat recovery)	2,823.47	3,012.55
	Incinerated (with heat recovery)	13,845.29	11,227.17
	Land-filled	578.42	41.28
	Other	966.03	974.35
	<b>Total Hazardous Waste</b>	<b>18,213.21</b>	<b>15,255.35</b>
NONHAZARDOUS (NHZ) WASTE	Incinerated (without heat recovery)	809.52	967.24
	Incinerated (with heat recovery)	1,867.90	1,395.12
	Land-filled	2,594.72	2,428.26
	Other	182.61	235.60
	<b>Total Nonhazardous Waste</b>	<b>5,454.75</b>	<b>5,026.22</b>
EFFLUENT WASTE	Incinerated	1,905.97	2,527.85
	Land-filled	731.41	505.92
	Other	5,340.79	5,437.43
	<b>Total Effluent Treatment Waste</b>	<b>7,978.17</b>	<b>8,471.20</b>
TOTAL WASTE (HZ & NHZ)	Total	<b>31,646.13</b>	<b>28,752.77</b>
	Total Incinerated and Land-filled	<b>25,156.70</b>	<b>22,105.39</b>
TOTAL RECYCLED WASTE (TONNES)		12,176.25	9,580.68
EFFLUENT DISCHARGE (m <sup>3</sup> )	Direct Discharge - with On-Site Treatment	634,541.28	645,158.86
	COD - Direct Discharge with On-Site Treatment (tonnes)	531.34	237.05
	Discharge to Off-Site Municipal Wastewater System	653,258.73	636,672.41
	COD - Discharge to Off-Site Municipal Wastewater System (tonnes)	2,859.05	2,333.95
TOTAL EFFLUENT (m <sup>3</sup> )		1,287,800.01	1,281,831.27
TOTAL COD (TONNES)		3,390.39	2,571.00
WATER (INPUT) (m <sup>3</sup> )	Municipal	1,111,395.80	1,149,872.70
	Ground	141,182.00	89,512.63
	<b>Municipal and Ground</b>	<b>1,252,577.80</b>	<b>1,239,385.33</b>
	Surface	3,350,146.00	3,167,919.00
	<b>Total</b>	<b>4,602,723.80</b>	<b>4,407,304.33</b>
OTHER (TONNES)	NOx tonnes	125.69	74.17
	SOx tonnes	153.84	55.24
	VOC tonnes	247.50	234.50
PRODUCTION QTY (TONNES)		188,763.31	190,225.46

\* Hazardous Waste for FY13 includes the "one-off" hazardous wastes generated by the December 2012 fire at our warehouse in Argentina.

PERFORMANCE	KPI	FY13	FY14
<b>EMPLOYEE DATA</b>			
INCIDENTS	Lost Time Injury (LTI)	10	6
	Total Recordable Cases (TRC)	30	19
	Lost Time Injury Rate (LTIR)	0.14	0.09
	Total Recordable Injury Rate (TRIR)	0.43	0.27
	Fatalities	0	0
LOST TIME INJURY (LTI) BY REGION	Europe	2	3
	India, Middle East & Africa	0	1
	Latin America	2	0
	North America	3	1
	North Asia	3	0
	South & East Asia	0	1
TOTAL RECORDABLE CASES (TRC) BY REGION	Europe	10	6
	India, Middle East & Africa	3	1
	Latin America	6	5
	North America	6	4
	North Asia	4	1
	South & East Asia	1	2
LOST TIME INJURY (LTI) BY GENDER	Male	9	6
	Female	1	0
TOTAL RECORDABLE CASES (TRC) BY GENDER	Male	26	17
	Female	4	2

# GRI INDEX TABLE

GRI INDICATOR	REPORTED	LOCATION
1.1	Fully	1
1.2	Partial	4, 30 and 41
2.1	Fully	Cover Page, 3 and 5
2.2	Fully	34-41
2.3	Fully	www.firmenich.com/m/company/about-us/profile/facts-figures/
2.4	Fully	2, 56 and www.firmenich.com/t/locate/index.lbl?locate=euro
2.5	Fully	inside back cover and www.firmenich.com/m/company/about-us/profile/facts-figures/
2.6	Fully	1, 2 and 56
2.7	Fully	www.firmenich.com/t/locate/index.lbl and www.firmenich.com/m/company/about-us/profile/facts-figures/
2.8	Fully	www.firmenich.com/m/company/about-us/profile/facts-figures/
2.9	Fully	56 and www.firmenich.com/m/company/about-us/profile/facts-figures/
2.10	Fully	Inside front cover and 14
3.1	Fully	56
3.2	Fully	56
3.3	Fully	56
3.4	Fully	56
3.5	Fully	56
3.6	Fully	56
3.7	Fully	56
3.8	Fully	56
3.10	Fully	56
3.11	Fully	56
3.12	Fully	60
3.13	Fully	57
4.1	Fully	56 and www.firmenich.com/m/company/about-us/profile/management/
4.2	Fully	www.firmenich.com/m/company/about-us/profile/management/
4.3	Fully	www.firmenich.com/m/company/about-us/profile/management/
4.4	Fully	56

GRI INDICATOR	REPORTED	LOCATION
4.12	Fully	1 and 45-50
4.13	Fully	Inside front cover, 1, 40 and 45-50
4.14	Partial	4, 12 and 56
4.15	Partial	4, 12 and 56
4.16	Partial	4, 12, 42-54 and 56
4.17	Partial	4 and 12
EC1	Partial	Firnews 2014
EN3	Fully	58
EN4	Fully	58
EN8	Fully	58
EN16	Partial	58
EN17	Partial	58
EN20	Fully	46
EN21	Fully	46
EN22	Fully	58
EN26	Partial	18-27, 30-41 and 58
LA1	Fully	www.firmenich.com/m/company/responsibility/additionalGRIdata/index.lbl
LA2	Fully	www.firmenich.com/m/company/responsibility/additionalGRIdata/index.lbl
LA4	Fully	www.firmenich.com/m/company/responsibility/additionalGRIdata/index.lbl
LA7	Partial	59
LA13	Fully	56, Firnews 2014 and www.firmenich.com/m/company/responsibility/additionalGRIdata/index.lbl
HR5	Fully	1, 56 and www.firmenich.com/m/company/responsibility/social-accountability/index.lbl
HR6	Fully	1, 56 and www.firmenich.com/m/company/responsibility/social-accountability/index.lbl
HR7	Fully	1, 56 and www.firmenich.com/m/company/responsibility/social-accountability/index.lbl
HR10	Fully	1, 12-13, 30-34, 56 and www.firmenich.com/m/company/responsibility/social-accountability/index.lbl
SO1	Fully	44-54
SO5	Partial	40 and 56
SO6	Partial	56
SO7	Fully	56
SO8	Fully	56
PR1	Fully	22

REPORT APPLICATION LEVEL	C	C+	B	B+	A+
REPORT EXTERNALLY ASSURED	<b>G3 PROFILE DISCLOSURES</b>	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 on all criteria listed for Level C plus: 1.2 3.9, 3.13 4.5 - 4.13, 4.16 - 4.17	Same as requirement for Level B	
	<b>G3 MANAGEMENT APPROACH DISCLOSURES</b>	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>	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	●	●			●	●	●
	Ålesund, Norway	●	●	●	●	●		●
	Geneva (Meyrin), Switzerland	●	●	●	●	●	●	●
	Geneva (La Plaine), Switzerland	●	●			●	●	●
	North Yorkshire, UK	●	●	●	●	●	●	●
	Louvain-la-Neuve, Belgium			●	●	●	●	●
	Grasse, France	●	●	●	●	●	●	●
NORTH AMERICA	Anaheim, California, U.S.	●	●		●	●	●	●
	Newark, New Jersey, U.S.	●	●		●	●	●	●
	Lakeland, Florida, U.S.	●	●		●	●	●	●
	Princeton, New Jersey, U.S.	●	●		●	●	●	●
	New Ulm, Minnesota, U.S.	●	●		●	●	●	●
	St. Louis, Missouri, U.S.	●	●	●	●	●	●	●
	São Paulo, Brazil	●	●	●	●	●	●	●
LATIN AMERICA	Bogotá, Colombia	●		●	●			●
	Buenos Aires, Argentina	●	●	●	●		●	●
	Toluca, Mexico	●	●	●	●		●	●
	Shanghai, China	●	●	●	●	●	●	●
ASIA PACIFIC	Dahej, India	●	●	●			●	●
	Daman, India	●	●	●	●	●	●	●
	Citeungsi, Indonesia	●	●	●	●	●	●	●
	Kunming, China	●	●				●	●
	Ibaraki, Japan			●	●			●
	Singapore	●	●	●				●
	Karawang, Indonesia			●	●	●	●	
TOTAL CERTIFICATIONS	FY14	22	21	17	20	18	21	24
	FY06	0	2	11	11	11	10	0

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



