

Firmenich



**PERFORMANCE &
SUSTAINABILITY REPORT**

Pathways 2017

A REPORT CREATED BY OUR PEOPLE

OUR COVER: A LEGACY OF SUSTAINABILITY FOR A MORE SUSTAINABLE FUTURE

The idea of using a 19th-century engraving as a basis for current design is probably as old as design itself. The craftsmanship and the sheer output of those steel engravers who created the original illustrations are sobering to contemplate. Sometimes completely straightforward, sometimes romantic, they show us what was known about the appearance of things: real, mystical, practical, ancient, new, preposterous, scientific, or sacred. And, in the case of the origin of the plate that I used for this cover illustration, encyclopedic in the truest sense.

Originally published in 1851 in the *Iconographic Encyclopaedia of Science, Literature, and Art*, this work was based on the famed *Bilderatlas*, by Friedrich Arnold Brockhaus. I found a copy of the more recent edition in a bargain bin at a bookstore, in New York City, in the autumn of 1986. I was captivated by both the completeness of the subject matter, as well as the delicacy and precision of the engravings. Of the 500 meticulously detailed plates in *The Complete Encyclopedia of Illustration*, I chose to use Plates 58 and 59 – “Various Aromatic Plants of Economic Importance: Ornamental, Edible and Medicinal” – as the concept and the foundation for my illustrated reinterpretation on the cover of this year’s sustainability report.

Using a variety of mediums, including color pencil, watercolor, tempera paint, marker, and pen, I used the engraved illustration like a page taken from a master coloring book. The concept was to show how the science of botany can inspire a variety of executions – from classical art techniques to more modern graphic interpretations – just as it does for us in our world of inspiring fragrance and flavor creation. The subject matter of the illustration itself bridges the importance of these plants in the global economy and the

worlds of health and beauty, and hygiene and nutrition. More than a means of creating a colorful metamorphosis, it is a design to emphasize transition, creativity, and the message of *Pathways to Positive*.

Mikel Cirkus, Global Director, Conceptual Design, Firmenich



© Mikel Cirkus

OUR COLLEAGUES' BOUNDLESS CREATIVITY

As a family-owned company with a heritage spanning 122 years, we know that people are the heart of everything we do. In fact, the success of our products is based on our people’s passion, innovative thinking, and sustainability focus.

This is our 12th published sustainability report. We issue this report annually to share our sustainability work with our stakeholders. While numerous colleagues build this report each year, this year we decided to go a step further to make this document truly a report of “Our People”. This year, a wide cross section of Firmenich colleagues wrote it in its entirety, and its cover as well as all pictures were either taken by or feature our colleagues. For example:

- Wildflowers by Heather Landfield, Strategic Innovation Marketing Associate, Firmenich. “In capturing the scene, I wanted the viewer to feel as if they were immersed in an entire field of purple flowers.” [p. 10]
- Sunrise in Dubai by Emmanuel Frenck, VP Global Account, Firmenich. “When day and night meet in a city born in the desert... The sun rises and pushes the night away before throwing its burning rays on the skyscrapers.” [p. 18]
- Endless Opportunities by Jennifer Luzes, Global Innovation Foresight Manager, Firmenich. “From the top of the Eiffel Tower, there is endless opportunity and possibility, even beyond what the eye can see.” [p. 24]
- Ajanta Caves by Christine Spilka, Perfumer Trainee, Firmenich. “Inside the Ajanta Caves in India, two workers converse, almost oblivious to the stunning valley backdrop.” [p. 30]
- A Better Future by Matthieu Sueur, Deep Roots Team, Firmenich. “Through our responsible sourcing initiatives, we aim to preserve the planet and create a better world for future generations.” [p. 36]

OUR WORLD

Firmenich is the world's largest privately-owned company in the fragrance and flavor business. Founded in 1895 and headquartered in Geneva, Switzerland, Firmenich has created many of the world's best-known perfumes and flavors enjoyed every day by people around the world.

As a business-to-business company, our impact and governance matters to our customers. And, as a family company, we have always integrated sustainability into our business strategy. Since signing the International Chamber of Commerce Business Charter for Sustainable Development in 1991, our commitment to corporate

and environmental responsibility has remained unwavering. We aim to drive our industry towards sustainable practices as we continue to carry out our sustainability strategy around five pillars: Ethics and Excellence; Environment and Resources; Innovation, Science, and Society; Partnerships; and People and Communities.

Our financial results and sustainability initiatives are reported, following the Global Reporting Initiative (GRI) Standards, on a fiscal-year basis ending June 30. In this report, all references to "FY17" relate to the 12 months that ended June 30, 2017.

No. 1
Privately owned
company in the flavor
and fragrance industry

No. 1
In Fine
Fragrance

4.4%
growth (vs. FY16)

7,000
employees

25
manufacturing sites

4
R&D
centers

3.34bn
Swiss francs (CHF)
in sales

**Integrated Perfumery
and Ingredients Division**

- Home Care
- Body Care
- Fine Fragrance
- Ingredients

Flavor Division

- Sweet Goods
- Beverages
- Savory

5
Sustainability
pillars

7
new offices in FY17

**Ethical Business
Award 2017**

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CHAIRMAN AND CEO LETTER



From left to right: Patrick Firmenich, Chairman of the Board; Gilbert Ghostine, CEO.

A YEAR OF STRATEGIC ACHIEVEMENTS

Fiscal year 2017 (FY17) was a year of strategic achievements for Firmenich.

With steady growth and breakthrough innovation across all our business units, Firmenich recorded 3.34 billion Swiss francs (CHF) in net sales, an increase of +4.4% in CHF versus the previous year.

Taking our legacy of excellence forward, we evolved our Board of Directors, starting with the appointment of Patrick Firmenich as Chairman of the Board and Barbara Kux as Vice-Chair. We also welcomed two new board members: Richard Ridinger, CEO of Lonza, and Pierre Bouchut, COO of Ahold Delhaize.

ADVANCING OUR LEADERSHIP IN INNOVATION AND CREATION

Firmenich's growth was fueled by leading innovation and creativity in many ways this year.

In line with the United Nations Sustainable Development Goals (UN SDGs) and our commitment to the United Nations Global Compact's 10 principles, we put our innovation to work to address key societal challenges, such as hygiene and sanitation, health and nutrition, and climate change.

To address today's sanitation crisis, we successfully launched breakthrough technologies that effectively counter malodor, in partnership with the Bill & Melinda Gates Foundation, to reinvent toilets at the base of the pyramid.

To enable responsible nutrition solutions, we advanced our leading taste modulation technologies to reduce sugar, salt, and fat without compromising on taste. We estimate that our solutions removed 100,000 metric tonnes of sugar, equivalent to 500 billion calories, from our customers' food and beverage brands this year.

Gaining traction with our pioneering bio-based ingredients, we reached significant growth with our latest molecule Ambrox® Super, building on the success of Clearwood®. Beyond their unique olfactive profiles, these molecules deliver optimized environmental performances.

WORLD-CLASS CREATORS

Strengthening our prestigious circle of world-class creators, we proudly appointed two perfumers, Nathalie Lorson and Tony Reichert, as Master Perfumers, recognizing their iconic body of work and legacy in developing our next generation of talent.

Our creativity was further celebrated by the industry this year when Harry Frémont was honored with the Fragrance Foundation's Lifetime Achievement Award. In France, our Perfumer Fabrice Pellegrin was named Perfumer of the Year by CosmétiqueMag for his best-selling creations and mastery of our natural ingredients.

EXCELLENCE IN NATURALS

Recognizing our leadership in responsible sourcing in Indonesia, we were honored to receive the country's Presidential Award, acknowledging our positive impact in enhancing the livelihoods of patchouli farming communities.

We acquired a majority stake in Essex Laboratories this year to lead in natural mint solutions. With a common commitment to responsible sourcing, we combine our unique innovation to deliver top-quality sustainable and traceable mint.

To build the most sustainable and traceable value chain for our natural ingredients, we hosted our third Naturals Together event in Singapore. Working hand in hand with our partners at the source, key experts, and customers, we harvest our most pristine ingredients from nature sustainably.

LEADING IN ENVIRONMENTAL MANAGEMENT

We advanced our leadership in environmental management this year, achieving industry-leading ratings from agencies that rank companies' environmental performance. With EcoVadis, we ranked in the top 1% of all companies, while with CDP, we joined its "A List" for the third consecutive year, and were named Best Supply Chain Company in the "Switzerland, Germany, and Austria" region. Confirming our commitment to combating climate change, we participated in the Marrakech COP22 and signed the Cancun Business and Biodiversity Pledge.

Our commitment to environmental sustainability was evidenced by the launch of our new cutting-edge Léman Perfumery Plant in Geneva. While the building and implementation of the manufacturing site came with numerous challenges, it is today fully operational with a 90% compounding automation rate, optimized environmental footprint, and 100% use of renewable energy. Also, in partnership with the local government in China, we hosted the groundbreaking of our new flavor plant in Zhangjiagang, designed to operate according to the highest sustainability standards.

SHAPING SUSTAINABLE LIFESTYLES

As co-chairs of World Business Council for Sustainable Development (WBCSD)'s Sustainable Lifestyles Cluster, alongside Procter & Gamble, we played an active role in the ReNEWW House project. We also joined FReSH, the Food Reform for Sustainability and Health initiative, launched at the World Economic Forum in Davos. Furthermore, as a founding member of the Toilet Board Coalition (TBC), we contributed to the pledge of US\$15 million to support innovative *sanipreneurs* who are reinventing the business model of toilets across India and Africa.

We were acknowledged for our leadership in responsible business with the Better Society Network's Ethical Business Award 2017 and the Swiss Chamber of Commerce People Focus Award in Singapore. The WBCSD also distinguished Dr. Bérangère Magarinos-Ruchat, our Vice President Sustainability Partnerships, with its Leading Women Award, for advancing the UN SDGs.

TAKING OUR LEGACY FORWARD

We are all very proud of how we lived up to our legacy in FY17, a year of many strategic achievements.

Our performance was driven first and foremost by the trust of our customers. It was fueled by our industry-leading investment in world-class research and creativity, where we can make the biggest difference for our customers and society. It was brought to life by the breadth of our creative talent, as well as the passion and commitment of all our colleagues around the globe.

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

On behalf of the Board and Executive Committee, we would like to thank all of Firmenich's 7,000 colleagues for their efforts, energy, and the successes that you will read about in this Performance and Sustainability Report.

Warmest regards,



Patrick Firmenich
Chairman of the Board



Gilbert Ghostine
Chief Executive Officer



From left to right: Mr. Michel Firmenich, Mr. Richard Ridinger, Dr. Antoine Firmenich, Ms. Barbara Kux (Vice Chair), Mr. Patrick Firmenich (Chairman), Ms. Karen Jones, Dr. Ajai Puri, Mr. Pierre Bouchut and Mr. André Pometta.



Executive Team. From left to right: Mr. Eric Nicolas (Group Chief Finance Officer, Corporate Vice-President Strategy and Global Services), Ms. Mieke Van de Capelle (Chief Human Resources Officer), Mr. Bhavesh Shah (Chief Purchasing Officer), Ms. Jane Sinclair (General Counsel and Secretary of the Board), Mr. Gilbert Ghostine (CEO), Prof. Geneviève Berger (Chief Research Officer), Mr. Armand de Villoutreys (President Perfumery and Ingredients Division), Mr. Christopher Millington (President Flavor Division), Mr. Boet Brinkgreve (Chief Supply Chain Officer).

“Firmenich’s growth was fueled by leading innovation and creativity this year, as we put our experts to work to solve some of the world’s greatest societal challenges.”

MILESTONES ALONG OUR PATHWAYS TO POSITIVE



JOINT VENTURE

with Essex Laboratories, world leader in natural mint solutions



TWO "FIRMENICH NEXT GENERATION" RESEARCH PROGRAMS

in Neurosciences at Stanford University, U.S., and the EPFL, Switzerland



LIFETIME ACHIEVEMENT AWARD

honoring Master Perfumer Harry Frémont



NAMED CDP "SUPPLY CHAIN LEADER"

across Germany, Austria, and Switzerland



PARTNERSHIP

with Jalalli Agarwood in Bangladesh to sustainably harvest high-quality oud

500 bn

CALORIES

of sugar removed from food and beverage products in 2016



ILSI EUROPE

elected Dr. Benjamin Smith, Firmenich VP Toxicology and Scientific Services, to join their Board of Directors



WBCSD'S LEADING WOMEN AWARD

given to Bérangère Magarinos-Ruchat, Vice President Sustainability Partnerships



NATURALS TOGETHER EVENTS

in Singapore and Indonesia



JOINED SHIFT'S BUSINESS LEARNING PROGRAM

focused on human rights



ACHIEVED ZERO WASTE TO LANDFILL

in 44% of our manufacturing sites



RENEWABLE ENERGY

powered the electricity needs of seven manufacturing sites



JOINED THE SUSTAINABILITY CONSORTIUM

to create more sustainable products



HYGIENE AND SANITATION FOR ALL

with breakthrough malodor control technologies



RECOGNIZED BY BETTER SOCIETY NETWORK FOR ETHICAL BUSINESS

with its 2017 Ethical Business Award



LAUNCHED LEMAN PERFUMERY PLANT

90% automation – 30% increased capacity
30% water reduction – 20% energy reduction
100% renewable energy

A YEAR IN REVIEW

Consistent macroeconomic trends over the past year (such as demographic changes, disposable income growth, and urbanization) continue to support our long-term prospects. Short-term political and economic uncertainties, however, lead to slower growth across mature and emerging markets, which affects our entire industry. These political and economic uncertainties, combined with climate change, also affected sourcing of natural raw materials, with limited quantities and high prices for some, such as vanilla. Our customers' world also continues to change rapidly with digitalization, fast-growing local companies challenging global brands, and significant mergers and acquisitions.



Joyce Pereira, Perfumery Trainee, Firmenich.

R&D PERSPECTIVES

Firmenich consistently delivers forward-thinking solutions that meet consumer needs because our innovation community (comprising a cross-functional blend of scientists, perfumers, flavorists, and application specialists) rely on proprietary knowledge and ingredients developed by our own teams.

In FY17, our R&D achieved:

- Breakthrough performance in malodor control to improve consumers' lives in the developed world and to foster health and wellness in developing countries.
- Completion of our malodor research project with the Bill & Melinda Gates Foundation and a visit from Bill Gates and other members of the Foundation to our Corporate Research Laboratories in Geneva.
- Cutting-edge processes for new and supply-critical biotech and natural ingredients.
- Programs to improve traditional methods for making natural flavor and perfumery raw materials.
- Leading position in the "white biotechnology" space with the development of a new proprietary process for Ambrox®, a renewable ingredient now free of previous supply limitations.
- Steady progress in natural taste enhancers and modulators, in line with our health and wellness ambitions.

Perspectives on the Future: A Responsible and Sustainable Portfolio of Ingredients

Firmenich products touch the lives of billions of people every day, in developed and emerging countries alike. In products like hand soaps or washing-up liquids, fragrance can make the act of washing enjoyable, increase frequency and, therefore, improve health. Without fragrance, research shows that usage (such as hand washing and latrine use) drops.¹

While consumers may be drawn to products and fragrances with increasing naturality, availability and price of many natural raw materials may limit the use of natural fragrance. Science can play a critical role in meeting consumer expectations while preserving natural resources. To this end, Firmenich is committed to using biodegradable ingredients, strenuous toxicology standards, and green chemistry. As a result of our efforts, the health and environmental impact of our ingredients is outstanding.

Synthetic ingredients can bring social, environmental, and economic benefits with their low environmental impact, and can make health and hygiene products more appealing and affordable for vulnerable communities.

Our science-driven and nature-inspired solutions play a critical role in our balanced portfolio of ingredients, alongside botanicals.

¹ http://www.firmenich.com/en_INT/company/news/World-Toilet-Day-2016.html



A YEAR IN REVIEW – CONTINUED

PERFUMERY AND INGREDIENTS PERSPECTIVES

Firmenich is committed to advancing innovation and creativity so our fragrances sustainably meet consumers' needs. With our new Perfumery and Ingredients Division, we will be even more creative and agile in offering the widest and richest palette of sustainable fragrances to our customers and their consumers.

In FY17, our Perfumery business:

- Consolidated our leadership in Fine Fragrance with strong growth in Europe and emerging regions.
- Had a soft start but rebounded in the last quarter fueled by a strong pipeline across all clients.
- Strengthened our leadership in technologies with cutting-edge encapsulates for Laundry and Body Care products, new malodor control technologies, and a superior cooling modulator in Oral Care.
- Celebrated our world-class creativity with Harry Frémont receiving the Fragrance Foundation's Lifetime Achievement Award, making Firmenich the recipient of three out of five of these awards to date. In France, Firmenich Perfumer Fabrice Pellegrin was named Perfumer of the Year for his best-selling fragrance Azzaro Wanted and his mastery of our Naturals palette.
- Won an industry-leading 23 awards from the Fragrance Foundation in the U.S. and its partner organizations worldwide.
- Named two Perfumers, Nathalie Lorson and Tony Reichert, as Master Perfumers, recognizing their iconic work and legacy in developing talent.

- Further diversified our responsibly sourced Naturals with 17 active responsible sourcing projects.
- Designed creation and development centers and offices of the future in Singapore, UK, Mexico, Spain, and South Korea.
- Closed the year with the announcement of the acquisition of Agilex Fragrances, a premier fragrance company in North America's middle-market.
- Appointed Armand de Villoutreys as President, Perfumery and Ingredients, to advance our excellence across both businesses.

Perspectives for the future:

- Extend our market share in Perfumery and Ingredients, capitalizing on our core competencies.
- Accelerate the deployment of encapsulation and pro-fragrance delivery technologies to sustain our market leadership.

INGREDIENTS PERSPECTIVES

Pioneering extraordinary flavor and fragrance ingredients is at the heart of Firmenich. Our ingredients are the cornerstone of our creativity and the foundation of our lasting success. With the most sophisticated techniques, our scientists explore the structure of nature's own molecules, reproduce their purity in the laboratory, and apply their expertise to invent new ones. Each year Firmenich works on thousands of potential new molecules, and introduces the best four to six new ingredients in our flavor and perfumery palettes.

In FY17, our Ingredients business:

- Posted solid growth driven by both historic products and new ingredients, sustained by an increasing demand for natural specialties.

- Developed new biodegradable synthetic ingredients, which reinforced our leadership in discovering, manufacturing, and launching new ingredients.

Perspectives for the future:

- Breakthrough processes and green chemistry as drivers of sustainability.
- Natural ingredients and nature-inspired molecules to satisfy increasing global demand while ensuring the most sustainable and traceable supply chains of nature's precious resources.





FLAVOR PERSPECTIVES

Our sensory and consumer insight methods decode the preferences that are essential to understanding and building creative flavor design. With representation on all major flavor industry associations around the world, we are committed to staying ahead of the compliance and regulatory issues that impact our customers' businesses. In this way, we go beyond customer expectations by helping them navigate the dynamic global regulatory landscape. This is why we are *Preferred Beyond Taste!*

In FY17, our Flavor business achieved:

- Increased sales globally and across all three segments: Beverage, Sweet Goods, and Savory.
- Growth in multiple Beverage categories including special soft drinks and hot drinks, with sustained demand for fruity tonalities and brown notes.
- Increased sales in Sweet Goods led by Dairy and Bakery & Cereal. Because of our deep experience, we continue to be the preferred choice of consumers in brown notes, vanilla, and nut flavors.
- Greater interest in, and demand for, natural mint tonalities in Sweet Goods applications, from sweets and gums to ice cream and candy, where we have leveraged our recently acquired global leading expertise in mint from Essex.
- Solid global growth in the Savory market, as we remain our customers' partner of choice in protein, noodles, and soups, as well as in the food service channel.
- Success in reducing wastewater, decreasing the amount of raw materials used, as well as improving cycle time and productivity across our flavor sites.
- Launch of an enriched vanilla palette with sustainable and cost-effective natural tonalities.

- Growth of our natural flavors capabilities and portfolio, including in key tonalities such as vanilla, citrus, and mint, as well as in seafood. In the U.S., we strengthened our USDA natural flavors (for Savory) and our organic portfolio (for Sweet Goods and Beverage).

Perspectives for the future:

- Advances in green protein, as we actively work with global experts to catalyze a system shift to more sustainable protein production and consumption. Firmenich is the only flavor company involved in the Protein Challenge 2040, a coalition led by Forum for the Future that brings the meat, plant, and alternative protein industries together to shape sustainable protein solutions.
- Meeting growing consumer demand for natural, healthier, traceable, and sustainable products. We can help our customers improve their products' nutritional value while maintaining consumer preference.

2017 Flavor of the Year: Cucumber

Firmenich predicts a bright future for cucumber. In addition to its healthy, clean taste, the natural notes of cucumber reflect the new consumer preferences for products that offer a sense of well-being and refreshment in a busy, stressful world. "I love working with cucumber and find its adaptability inspiring," says William Moldt, Senior Flavorist. "Our customers never tire of its fresh, green and juicy notes, and there is really no limitation on what we can create with cucumber."

OUR SUSTAINABILITY STRATEGY

MATERIALITY ANALYSIS

At the end of 2014, we conducted a materiality assessment with the think tank Forum for the Future. This exercise helped us identify the sustainability issues most material to Firmenich and our stakeholders, as well as inform our long-term sustainability strategy.

Firmenich conducted in-depth interviews with company personnel, global business partners, customers, and external experts in critical areas such as chemistry, nutrition, global health, climate change, and regulatory affairs. Forum for the Future analyzed the interviews and conducted additional research to identify relevant material factors.

Each year, we review our materiality matrix, reassessing all material aspects and adjusting as needed. In FY17, we surveyed internal and external stakeholders, including employees, shareholders, customers, nongovernmental organizations (NGOs), suppliers, academia, and government personnel. This survey provided us with a clear vision of the current and future sustainability issues most material to Firmenich.

Following this engagement, we posted the materiality matrix at www.firmenich.com. The identified issues are covered in this report.

STAKEHOLDER ENGAGEMENT

At Firmenich, our internal and external partners have always been involved in defining, prioritizing, and implementing our sustainability strategy. Our main stakeholders include shareholders, employees, customers, suppliers, industry associations, NGOs, social entrepreneurs, academia, and government.

We engage directly and indirectly with our partners throughout the year, and set goals to further strengthen our engagement with each stakeholder group.

GLOBAL SUSTAINABILITY PERSPECTIVES

As the world's largest privately-owned flavor and fragrance company, we supply numerous ingredients and compounds to global, regional, and local consumer goods companies. Through innovation, leading delivery systems, and ecodesign products, as well as our focus on health and wellness, and hygiene and sanitation, our sustainability achievements positively affect our customers, improve our business, and reduce our impact on the natural environment.

As a leader in sustainability, Firmenich collaborates with global think tanks, universities, NGOs, and governments on numerous sustainability issues. This effort gives us unique insights on current and future sustainability trends, which help us design better flavors, fragrances, and ingredients.

Some 2017 global sustainability trends in our industry include:



TRANSPARENCY



INNOVATION



SDGs



NUTRITION



SUSTAINABLE LIFESTYLE



SANITATION AND HYGIENE



SYSTEM THINKING



SCIENCE-BASED GOALS



RESOURCE DEPLETION AND CLIMATE CHANGE

OUR FIVE PATHWAYS TO POSITIVE

Starting 122 years ago, our sustainability journey has achieved tangible change for the long-term interests of employees, local communities, customers, and the environment.

Our sustainability strategy, anchored in the SDGs, is focused on initiatives that are relevant to our Fragrance, Flavors, and Ingredients businesses. While keeping our 2020 sustainability targets unchanged, we have slightly evolved our strategy to further integrate our sustainability pathways into our business.





ETHICS AND EXCELLENCE

Raise the bar to ensure
the highest standards
of governance

OUR PATHWAY

Companies are key to promoting sustainable economic growth and peaceful and inclusive societies.

At Firmenich, we hold ourselves to a high standard of excellence by embedding ethics throughout our value chain, respecting human rights and biodiversity, and ensuring the quality and safety of our products.

We plan to provide this standard through our *Pathways to Positive Goals* for 2020 and beyond, providing a benchmark of ethics and excellence for the next generation.

Our ambitious strategy actively supports the following SDGs:

SUSTAINABLE DEVELOPMENT GOALS



OUR 2020 GOALS

- Audit and validate human rights across the Firmenich value chain
- Be the first flavor and fragrance house with a transparent supply chain via CDP (formerly Carbon Disclosure Project)
- Lead the industry in operationalization of the Nagoya Protocol
- Further improve our excellent product quality
- Maintain a best-in-class legal compliance program

OUR RESULTS

- ✓ Started training and engaging key strategic purchasing colleagues, and joined Shift's¹ Business Learning Program
- ✓ Asked 49 suppliers to report carbon and water impacts
- ✓ Created an internal biodiversity organization, conducted a portfolio due diligence, and started designing an integrated management system
- ✓ Achieved 20.7% quality improvement in our Customer Product Quality (CQI) – or product defects per 1,000 sales order lines
- ✓ Further strengthened our internal organization

¹ Shift is the leading center of expertise on the UN Guiding Principles on Business and Human Rights.

ETHICAL GOVERNANCE

UNITED NATIONS GLOBAL COMPACT (UNGC)

2008

Signed the UNGC in 2008.



2011

A UNGC Switzerland board member since 2011.



The UNGC is a collaborative platform in which companies commit to align strategies and operations with 10 guiding principles on human rights, labor, environment, and anti-corruption, and take action to advance societal goals. Firmenich signed the UNGC nine years ago and has sponsored the Foundation for the Global Compact since 2011. We report our progress on the 10 UNGC principles in this report.

Firmenich chaired the board of the Global Compact Network Switzerland from 2011 to 2016. In February 2017, our CEO, Gilbert Ghostine, joined like-minded Swiss CEOs in the first Swiss Global Compact Dialogue, called "Let's Make the Global Goals Local Business," to share how Firmenich applies the Global Goals across our business.



LEGAL COMPLIANCE AND BUSINESS INTEGRITY

2020

Goal: Implement a best-in-class legal compliance program.



As a family-owned company, we know that shared values are essential to success. To that end, we continue to build processes, tools, and guidelines to achieve excellence daily, reflecting our deep sense of responsibility.

In FY17, our Business Integrity Program was built on five pillars: leadership, risk assessment, standards and control, training and communications, and oversight. We further trained our General Managers on legal compliance and formalized the reporting process between our local operations and our Corporate Ethics Committee.

THE FIRMENICH FUNDAMENTALS

The Firmenich Fundamentals (Customers, People, Creativity, Sustainability, and Legacy – see IBC) delineate the values that have been the foundation of our culture and identity for more than 120 years. The Firmenich Fundamentals guide our every action, enabling us to remain true to ourselves and make a difference in an ever-changing world.



Firmenich CEO, Gilbert Ghostine, joined like-minded Swiss CEOs in the first Swiss Global Compact Dialogue.

ETHICAL VALUE CHAIN

To reach our goal of designing the most sustainable and creative flavors and fragrances, we collaborate with our suppliers to create an ethical, transparent, and sustainable supply chain.

THE FIRMENICH SOCIAL ACCOUNTABILITY STANDARDS

Percentage of our raw material spend purchased through suppliers that have confirmed their compliance with these requirements:

FY16	90%
FY17	97%

In 2007, we established the Firmenich Social Accountability Standards through which we comply with national laws, International Labour Organization (ILO) conventions and recommendations, and the UN's Universal Declaration of Human Rights. Critical areas of focus include child labor, forced labor, health and safety, freedom of association and collective bargaining, discipline, discrimination, working hours, and wages.

To support our goal of fostering an ethical and transparent supply chain, we asked our suppliers and subcontractors to formally confirm their acceptance of our Supplier Code of Business Conduct and Social Accountability Standards. In FY17, suppliers representing 97% of our raw material spend have confirmed their compliance with these requirements.



Top: At Firmenich, the success of our products is based on our people's passion, innovative thinking, and sustainability focus. Bottom left: Thays Tanaka, Fragrance Development Manager, Firmenich. Bottom right: Fernando Pereira, Production Operator, Firmenich and Fagne Nunes, Production Operator, Firmenich.

ETHICAL VALUE CHAIN – CONTINUED

GLOBAL SUPPLIERS AUDIT PROGRAM

Number of raw material, packaging, and toll-manufacturing suppliers audited in FY17:

85 Low-to-medium risk suppliers audited by a third party. 

79 Higher-risk suppliers audited by Firmenich. 

Beyond asking our suppliers to formally commit to our Social Accountability Standards, we conduct regular audits at our suppliers' facilities. If a supplier does not meet our standards, we will put in place action plans to help the supplier meet them.

In FY17, we deployed our new, extended Global Supplier Audit Program, which now combines audits conducted by a Firmenich auditor (for higher-risk suppliers) and assessments led by a third party (for low-to-medium-risk suppliers).

In FY17, we audited 164 global suppliers of raw materials and packaging, as well as toll manufacturers, to assess their compliance with our Global Supplier Excellence Program and our quality, health, safety, security, and environmental requirements.

NATURALS TOGETHER

16 Of the world's best natural ingredient producers work together with Firmenich and our customers to foster sustainability in the Naturals supply chain. 

Firmenich hosted its third signature "Naturals Together" event in Singapore, building on the success of its New York and Paris programs. Bringing together 16 leading natural ingredient producers, the three-day event focused on the importance of responsible sourcing and best practices with smallholder farmers to shape a sustainable future for the Naturals supply chain.

CDP SUPPLY CHAIN

2020 Goal: Become the first flavor and fragrance house with a transparent supply chain via CDP. 

49 49 suppliers were asked to share their water and carbon impact via CDP. 

In FY16, we were the first in our industry to join the CDP Supply Chain program to support our suppliers' climate and water disclosure through CDP.

In early FY17, 49 suppliers representing more than 65% of our spend were asked to publicly share their water and climate change performance on the CDP platform. We also asked nine suppliers to report their potential impact on deforestation via CDP Forestry.





BIODIVERSITY

2020

Goal: Lead the industry in the Nagoya Protocol.



FY17

Signed the Cancun Business and Biodiversity Pledge at the COP13 Convention on Biological Diversity.



In December 2016, Firmenich signed the Cancun Business and Biodiversity Pledge at the COP13 Convention on Biological Diversity, held in Mexico. Through this pledge, the signatories agree to nurture biodiversity across their ecosystems and preserve it sustainably for the well-being of present and future generations.

To further protect biodiversity, we created an internal Nagoya governance mechanism in FY16. In FY17, a cross-divisional biodiversity steering committee – composed of 10 senior executives and supported by a third-party independent expert – completed a comprehensive Nagoya diagnosis, trained Firmenich colleagues, conducted workshops with clients, and started developing a biodiversity management system.

UNION FOR ETHICAL BIOTRADE (UEBT)

The UEBT is a nonprofit association that promotes “Sourcing with Respect” for ingredients that come from biodiverse sources. Ethical BioTrade advances sustainable business growth, local development, and biodiversity conservation. The platform developed a set of business practices that follow the Ethical BioTrade Principles and Criteria and contribute to ethical sourcing of biodiversity. Firmenich has been a UEBT trading member since March 2014.

ECOVADIS

1%

Scored in the top 1% of all suppliers assessed on their sustainability performance; Firmenich is a leader in the flavor and fragrance industry.



For the third consecutive year, Firmenich received a gold rating from EcoVadis – a collaborative platform that enables companies with global supply chains to measure and report sustainability performance across 150 sectors and 99 countries. EcoVadis evaluated Firmenich’s sustainability performance following 21 criteria that cut across the environment, labor, fair business, and sustainable procurement practices.

EcoVadis analyzed Firmenich’s sustainability policies, initiatives, and results, according to the international CSR standards of the GRI, UNGC, and ISO 26000. In 2017, EcoVadis assessed more than 30,000 companies in 110 countries covering 150 purchasing categories, and Firmenich scored in the top 1% of all suppliers assessed on their sustainability performance.

THE SUSTAINABILITY CONSORTIUM (TSC)

The Sustainability Consortium (TSC) is a global nonprofit organization working to transform the consumer goods industry by helping leading companies define, develop, and deliver more sustainable products using a science-based, metrics-driven approach. Firmenich joined TSC in 2017 and benefits from engaging with other members – including manufacturers, retailers, corporations, and NGOs – on complex sustainability issues.

ETHICAL VALUE CHAIN – CONTINUED

HUMAN RIGHTS

2020

Goal: Audit and validate human rights across the Firmenich value chain.



FY17

Joined Shift's BLP program on human rights.



Increasingly, governments and NGOs, as well as customers and consumers around the world, are asking global businesses to demonstrate due diligence on human rights risks in their supply chains. At Firmenich, we strive to be as transparent as possible in our value chain.

In November 2016, we attended the UN Forum on Business and Human Rights in Geneva, which focused on how to effectively embed human rights in the rules and relationships that drive the global economy, examining the roles and responsibilities of states, businesses, and financial institutions.

In January 2017, we conducted a constructive dialogue with a Swiss Human Rights NGO to share best practices.

To strengthen our approach to human rights and effectively implement the UN Guiding Principles on Business and Human Rights into our policies and practices, we participated in the Business Learning Program of Shift, the leading center of expertise on the UN Guiding Principles of Business and Human Rights, with a focus on human rights risks in our supply chain.

UN Guiding Principles on Business and Human Rights

The UN Guiding Principles are a set of guidelines for states and companies to prevent, address, and remedy human rights abuses committed in business operations. To hold businesses accountable, the Guiding Principles require companies to establish a policy that upholds their responsibility to respect human rights. This policy should include a due diligence process that identifies, prevents, mitigates, and accounts for problems that may impact human rights, as well as processes for remediating any adverse human rights impacts they cause or to which they contribute.

In FY16, we organized a workshop in Geneva, Switzerland, with Shift's support and guidance, to build our internal capacity on business and human rights, including the introduction of tools to help us identify and prioritize potential human rights risks. In FY17, to uphold our commitment to transparency and human rights across our value chain and continue engaging relevant internal functions, we further trained and engaged our responsible sourcing team on the UN Guiding Principles and appropriate methodologies for their implementation.

This year, Firmenich also joined Shift's Business Learning Program, which encourages collaboration among several global companies to create leading practices for implementing the UN Guiding Principles. In June, we attended the Program's workshop in Cambridge, Massachusetts, to better understand how to balance the tension between scale and impact in human rights due diligence processes.



ETHICAL PRODUCTS

LEADING IN PRODUCT QUALITY

2020

Goal: Set the standard for product quality.



20.7%

Quality improvement achieved in FY17.



To reach our goal of leading the industry in product quality, we focus on preventing issues and continuously strengthening our quality control and analytical capabilities throughout our products' life cycles.

In FY17, supported by a capital investment of CHF 4.57 million, Firmenich exceeded our goal for Customer Quality Index (CQI) – product defects per 1,000 sales order lines – with a 20.7% improvement from last year, reaching a CQI rate of 1.11.

FY16	FY17
<1.4 CQI rate [99.8% of customer sales orders defect-free]	1.11 CQI rate [99.88% of customer sales orders defect-free]

FOOD SAFETY

In FY17, Firmenich:

- Won two food safety awards
- Completed 16 food safety and quality projects
- Celebrated Global Handwashing Day in 20 manufacturing sites
- Deployed Global Allergen Awareness Training with a specific focus in the Asia-Pacific region
- Maintained FSSC 22000 (Food Safety System Certification) in 20 manufacturing sites

TOXICOLOGY

Firmenich's Toxicology and Scientific Services group continues to collaborate with academia to improve our knowledge of product safety and strengthen our commitment to sustainability. Over the last year, we continued our efforts in the field of "Green Toxicology" with our work on animal testing alternatives^{1,2}, including the investigation of new, higher-tiered, nonanimal techniques for assessing genotoxic potential.³ We are also working closely with the Research Institute for Fragrance Materials (RIFM) and Creme Global to further the use of the Creme-RIFM model within the Industry's safety testing program and better understand the uncertainties of aggregate exposure to fragrance ingredients.^{4,5}

- 1 Canipa et al (2017). A quantitative *in silico* model for predicting skin sensitization using a nearest neighbours approach within expert-derived structure – activity alert spaces. *Journal of Applied Toxicology*, February 28: DOI 10.1002/jat.3448
- 2 Wahler, J. et al. The BlueScreen™ assay in combination with DEREK structural alerts to predict the genotoxic potential for fragrance materials. Poster Presentation, Society of Toxicology 56th Annual Meeting, Baltimore, Maryland, USA, March 12 – 16, 2017. [Page 415.]
- 3 Williams, G.M. et al. Testing of flavor and fragrance materials in turkey egg genotoxicity assay (TEGA) and comparison of the results *in ovo*, *in vitro* and *in vivo*. Poster Presentation, Society of Toxicology 56th Annual Meeting, Baltimore, Maryland, USA, March 12 – 16, 2017. [Page 302.]
- 4 Safford, B. et al (2017). Application of the expanded Creme RIFM consumer exposure model to fragrance ingredients in cosmetic, personal care and air care products. *Regulatory Toxicology and Pharmacology*, 86, June 2017:148–156
- 5 Comiskey, D. et al (in press). Integrating habits and practices surveys to estimate aggregate exposure to fragrance materials in soaps, cosmetics and air care products. *Regulatory Toxicology and Pharmacology*, Available online 27 May 2017: DOI 10.1016/j.yrtph.2017.05.017

An aerial photograph of a city skyline at sunset. The sky is a mix of deep blue and golden yellow, with scattered white clouds. In the foreground, there are several large industrial or commercial buildings, parking lots filled with cars, and a multi-lane highway. In the distance, a dense cluster of skyscrapers is visible against the horizon, with the tallest one being particularly prominent. A large green bar spans the bottom of the image, containing text.

ENVIRONMENT AND RESOURCES

Reduce and positively impact our environmental footprint and maximize efficiency

OUR PATHWAY

Firmenich is firmly committed to leading the industry in sustainability by minimizing our environmental footprint and maximizing efficiency.

We acknowledge that climate change presents a threat to our planet and are taking steps to mitigate our contribution, build adaptive capacity, and drive change.

We are addressing these critical environmental issues by efficiently managing our water use and wastes, reducing greenhouse gas emissions, and setting ambitious science-based targets.

Our goal is to preserve the planet for the generations to come, and our projects support the following SDGs:

SUSTAINABLE DEVELOPMENT GOALS



OUR 2020 GOALS

- Reduce absolute Scope 1 and 2 CO₂ emissions by 20%*
- Reduce the rate of water use in stressed areas by 25%*
- Improve our waste efficiency rate by 15%*
- Ensure all of our manufacturing sites can claim zero waste-to-landfill
- Eliminate R22 from our global manufacturing refrigerant inventory
- Obtain 100% of electricity for Level 1 sites from renewable sources or offsets

*These results are in comparison with our FY15 baseline.

OUR RESULTS

- ⬇️ 9.3% in FY17*
- ⬇️ 6.9% in FY17*
- ⬇️ 5.9% in FY17*
- ⬇️ 44% in FY17*
- ⬇️ 32% in FY17*
- ✅ 61% of electricity from renewable sources in FY17

ENVIRONMENTAL PERFORMANCE

In FY17, we continued to deliver exemplary environmental performance and improved on all of our six 2020 environmental targets, compared to our FY15 baseline. We remain fully committed to, and focused on, important environmental challenges such as climate change, water conservation, and waste management, and we will strive to be a leader in shaping a more environmentally sustainable approach to manufacturing.

Roadmap of our 2020 Environmental Targets

2020 Target	Results in FY17	Changes in FY17	Comment
Reduce absolute Scope 1 and Scope 2 emissions by 20%	130,917 tonnes	↓9.3% in FY17 vs. FY15 ↓4.7% in FY17 vs. FY16	On track
Reduce the rate of water use in stressed areas by 25%	6.7 m ³ /tonne of production	↓6.9% in FY17 vs. FY15 ↓10.7% in FY17 vs. FY16	On track
Improve our waste efficiency rate by 15%	31.8 kg/tonne of production	↓5.9% in FY17 vs. FY15	On track
Ensure 100% of our manufacturing sites can claim zero waste-to-landfill	11 out of 25 sites	44% in FY17 vs. 28% in FY15	In FY17, the proportion of waste to landfill has fallen to 5.9% from 6.3% in FY16.
Eliminate R22 from our global manufacturing refrigerant inventory	8 sites out of 25 sites are R22 free	32% of Level 1 sites R22-free No change in FY17 vs. FY16	Although the number of sites that are R22-free has not changed since FY16, many sites are still actively reducing their R22 inventory.
Obtain 100% electricity for Level 1 sites from renewable sources or offsets ¹	61% of electricity from renewable sources	+19% in FY17 vs. FY15 No change in FY17 vs. FY16	While there is no change from last year, Firmenich signed new renewable contracts in FY17 which will deliver significant improvement in FY18.

OUR GLOBAL PROJECTS

Manufacturing Sites	Energy	Emissions	Waste	Water
Geneva (Meyrin), Switzerland	✓			✓
Geneva (La Plaine), Switzerland	✓		✓	✓
Louvain-la-Neuve, Belgium	✓			✓
Grasse, France				✓
Anaheim, California, U.S.			✓	✓
Newark, New Jersey, U.S.		✓		✓
Lakeland, Florida, U.S.	✓			
Princeton, New Jersey, U.S.	✓			
New Ulm, Minnesota, U.S.	✓	✓		✓
São Paulo, Brazil	✓		✓	
Bogotá, Colombia	✓		✓	
Buenos Aires, Argentina	✓			✓
Shanghai, China	✓	✓		✓
Dahej, India	✓			
Ibaraki, Japan	✓			
Singapore			✓	
Karawang, Indonesia	✓			

¹ A Level 1 site is any manufacturing site with more than 50 employees. Offices, labs, joint ventures, and tolling operations are excluded.

CAPITAL SPEND

In FY17, Firmenich spent almost CHF 5.6 million on projects aimed at reducing our environmental footprint.

Project focus	Number of projects
Renewable energy projects (photovoltaic and hot water, wind, and biomass)	13
Energy reduction and measurement	17
Waste reduction	8
Water reduction	11
R22 elimination	5

CDP SUPPLY CHAIN LEADERS

We have participated in the CDP Supply Chain Climate Change reporting program for eight years. In 2016, we achieved a "Leadership A" climate change ranking and, for the third consecutive year, CDP listed Firmenich on the Supplier Climate A List, which identifies the company as a world leader in taking action against climate change.

This year, we were also awarded the distinction of being CDP's Supply Chain leader (#1 position) in Germany, Austria, and Switzerland. CDP also ranked Firmenich among the top 2.5% of suppliers assessed for excellence in greenhouse gas management.

These achievements and honors reflect our deep commitment to environmental management and motivate us to continually improve our efforts to mitigate climate change.

² For Level 1 sites.

CO₂ AND ENERGY

2020

CO₂ and energy-related goals: Reduce Scope 1 and 2 CO₂ emissions by 20% by 2020, compared with our FY15 baseline, and source 100% of our electricity² from renewable sources or through purchasing offsets of renewable energy generated elsewhere in the electricity grid.

9.3%

Reduction in our Scope 1 and 2 CO₂ emissions compared with FY15.



61%

Of electricity sourced from renewables.



In FY17, we reduced our CO₂ emissions by 4.7% vs. FY16, and by 9.3% vs. our FY15 baseline, and we are well on the way to achieving our 2020 goal. Sixty-one per cent of the electricity used at our Level 1 sites is from renewable sources – a 19% increase vs. FY15. With two U.S. manufacturing sites (Port Newark and Princeton) recently signing renewable electricity contracts, we now operate seven plants solely with renewable electricity. We are well on our way to achieving our 2020 CO₂ emission and renewable energy goals.

Major projects to reduce emissions include the construction of a biomass boiler in Dahej, India, and solar power projects in New Jersey and Florida, U.S.

Biomass Boiler in Dahej, India

We are currently constructing a renewable solid fuel boiler to replace the gas-fired boilers at our plant in Dahej, India. This is scheduled for completion in December 2017.

The boiler will burn briquettes made from agricultural waste (lentil, rice husks, etc.), and is considered to have zero reportable Scope 1 and 2 CO₂ emissions, according to the Greenhouse Gas Protocol.

We estimate the project will reduce our reportable CO₂ footprint by 2,800 tonnes per year. This is approximately 2% of our global Scope 1 and 2 CO₂ emissions (FY15 base year).

SCIENCE-BASED TARGETS TO MITIGATE CLIMATE CHANGE

273

Firmenich is one of 273 companies to have committed to science-based targets.



We have made a commitment to setting science-based targets (SBTs) to reduce greenhouse gas (GHG) emissions. The consensus in the scientific community is that these ambitious reduction targets – to keep global warming well below 2°C compared to pre-industrial temperatures – are necessary to mitigate the worst impacts of climate change.

We are working with external specialists to model our emissions and set goals that will reduce our absolute Scope 1 and 2 GHG emissions by 69% by 2050. While the targets are ambitious, we are already on track to cut GHG emissions by 20% by 2020. We are also engaging with suppliers to address emissions in our value chain.

When we purchase electricity, we seek vendors with the ability to supply electricity from 100% renewable sources. Contracts have already been signed for our sites in Alesund, Norway; Thirsk, UK; Geneva, Switzerland (2 sites); Louvain-la-Neuve, Belgium; Princeton and Port Newark, New Jersey, U.S. We are actively exploring similar opportunities around the world.

SCOPE 3

Our Scope 3 emissions (from purchased raw materials, downstream transportation and distribution, operational waste, business travel, and commuting) were 667,658 tonnes of CO₂e in FY17, an 8% change from FY16. Approximately half of this increase is due to a change in methodology.

WATER AND WASTE

OUR WATER IMPACT

2020	Goal: Firmenich plans to reduce the rate of water use in water-stressed areas by 25% ¹ .	
10.7%	Water use reduction in our locations designated as water-stressed compared to FY16.	

Projects to reduce water use in water-stressed locations include the reclamation of wastewater in Shanghai, China, and the elimination of a single-pass cooling water system in Anaheim, California.

Elimination of Cooling Water in California

In Anaheim, California, a site targeted for water conservation, we have begun to eliminate the use of a single-pass cooling water system and replace it with two different closed-loop cooling systems. We estimate this will reduce total water consumption by 19% based on the 2016 baseline.

Reclamation of Wastewater in Shanghai, China

In FY17, we continued to build on the successful project to recycle wastewater from the perfumery spray dryers at our Shanghai site, one of our higher water-stressed locations. An additional tank was added at the site and is dedicated to collecting and recycling spray dryer wash water, which can be reused to produce new batches of the same perfumery product.

This project reduces water consumption by approximately 200 metric tonnes a year and hazardous waste generation by the same amount, as this water was previously disposed of as hazardous waste.

CDP WATER PROGRAM

2nd	CDP Water ranked Firmenich second out of 35 companies in our industry group.	
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As participants in the CDP Water Program in FY17, we were awarded a ranking of Leadership A-, and in our industry activity group (Chemicals), we ranked second out of 35 companies. Our score reflects our positive actions in corporate water stewardship, including our ambitious 2020 water reduction goal and the successful implementation of the Water Access, Sanitation, and Hygiene (WASH) program at our manufacturing sites.

WASTE IMPACT

2020	Goal: Improve our waste efficiency by 15% and ensure all of our manufacturing sites can claim zero waste-to-landfill.	
5.9%	Improvement in our waste efficiency rate (compared with FY15).	
44%	Of our manufacturing sites claimed zero waste-to-landfill – a 16% improvement since FY15.	
5.9%	Of our waste was sent to landfill in FY17.	

Projects that contributed to these improvements include the recycling of solvents in Singapore and landfill reduction in Anaheim, California.

Solvent Waste Reduction in Singapore

Recognizing that our use of solvent for cleaning perfumery equipment has increased, we developed a program to recycle the solvent rather than disposing of it as hazardous waste. Working together with the quality department, the project team is implementing plans to recycle the used solvent without compromising product quality. This innovative project is estimated to reduce the disposal of this hazardous waste by approximately 90% (18 tonnes) a year.

Landfill Reduction in California

In Anaheim, California, we are sending nonhazardous waste from dust collectors and unusable product to an energy-from-waste (EfW) facility, rather than to landfill. Currently, we send 24% of our site's nonhazardous process waste for energy recovery; we plan to reach 100% by 2020.

The EfW facility burns the waste in special boilers that ensure complete combustion, to recover energy as steam and electricity. This is used to help power the community in which the facility operates. The boilers are fitted with state-of-the-art pollution control equipment to remove and filter emissions, preventing their release into the environment. The result is cleaner energy and a reduction in waste-to-landfill.

¹ Six of our manufacturing sites are in areas where water stress is higher (although they still rank as moderately stressed on a global scale), and an additional four sites are in less water-stressed areas (but of potential concern).

THOUGHT LEADERSHIP IN ENVIRONMENTAL SUSTAINABILITY

THE FIRMENICH INGREDIENTS INDEX

413

Ingredients.



93%

In volume of a typical Firmenich perfumery compound.



50

New flavor ingredients analyzed in FY17.



Firmenich understands that the way we source and manufacture many of our products – and how they are used – has environmental repercussions that matter deeply to our clients. As a supplier to the largest consumer goods companies and leading luxury brands, we strive to be as transparent as possible in offering the best product with the smallest environmental impact.

To uphold this commitment to transparency, we developed the Firmenich Ingredients Index, which analyzes the impacts of more than 400 key ingredients throughout their life cycles. The goal is to improve measured impacts each year.

By measuring and reporting, the Index has produced quantifiable data on the environmental and health impacts for each of our key ingredients.

In FY17, we expanded the number of flavor ingredients included in the Index and are in the process of analyzing more than 50 flavor ingredients. We also started working with GreenCircle Certified, LLC to begin an independent certification.

Through the pursuit of this certification, we aim to demonstrate to our customers how we measure our ingredients' life cycles and how we can improve our processes to continually reduce our impact.

CDP'S FORESTS PROGRAM

Comprising 31% of the land area on our planet², forests house people and wildlife, produce oxygen, and provide basic livelihoods for over one billion people. Forests also play a vital role in mitigating climate change, as they absorb emitted carbon dioxide. For all these reasons, deforestation is a major global issue that threatens our environment.

Addressing deforestation is also important to our business success, and engagement with our supply chain on deforestation management is a priority.

The CDP, which helps companies and investors manage this risk and continue the transition to a low-carbon economy, has created a standardized and widely recognized reporting system to make measuring impacts efficient and easy. In FY17, we started participating in CDP's Forests Program and asked nine suppliers to join as well. Together, we will gather information on managing the risks linked to deforestation, with the goal of mitigating our environmental impact. We will share our results in FY18.

² <https://www.worldwildlife.org/threats/deforestation>





INNOVATION, SCIENCE, AND SOCIETY

Reach the next level
of scientific excellence

OUR PATHWAY

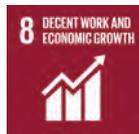
At Firmenich, we pride ourselves on fostering a culture of innovation, which stems from our continued investment in research and development.

We are recognized as a leader in the industry for our breakthrough science and innovation. As such, we plan to build on our innovation to reach the next level of scientific excellence and inspire and encourage the next generation of scientists.

From creating safe, quality products to improving health and hygiene in developing countries, our scientists are essential to the success of our sustainability initiatives.

Our initiatives echo the following SDGs :

SUSTAINABLE DEVELOPMENT GOALS



OUR 2020 GOALS

- Improve quality of life through nutrition, hygiene, and sanitation
- Develop sustainable and cost-effective flavor and fragrance ingredients and technologies
- Deliver malodor control systems to home care consumer products for base of the pyramid consumers
- Strive for leadership in environmental assessment of our ingredients and technologies
- Accelerate go-to-market through co-innovation partnerships

OUR RESULTS

- ✓ The Toilet Accelerator – launched by the Toilet Board Coalition which was co-founded by Firmenich – named finalist at Fast Company’s 2017 World Changing Ideas Awards
- ✓ Decreased organic hazardous waste production for several key ingredients
- ✓ Trained the sanitation community on our malodor control technologies developed with the Bill & Melinda Gates Foundation
- ✓ Analyzed 50 more flavor ingredients in the Firmenich Ingredients Index
- ✓ Introduced new proprietary process for Ambrox[®], a renewable ingredient now free of previous supply limitations

LEADING IN RESEARCH: GREEN CHEMISTRY AND GREEN ENGINEERING

2020

Goal: Develop sustainable and cost-effective flavor and fragrance ingredients and technologies.



A new distillation column used in the manufacturing of Hedione® allowed us to:

- ↑ yield by 5%
- ↓ organic hazardous waste by 280 tonnes/year
- ↓ e-factor to reach 0.31¹

Revisiting Isospirene® with green engineering successfully led to:

- ↑ yield by 50%

By making two Galbanum ingredients from one intermediate, we achieved:

- ↓ e-factor by 60%
- ↓ hazardous materials

By improving the key transformation of our muguet note Lilyflore®, we observed:

- ↑ productivity by 330%
- ↓ hazardous solvent

Our R&D work is deeply engaged in sustainability when designing new molecules or reinventing new manufacturing processes of legacy ingredients.

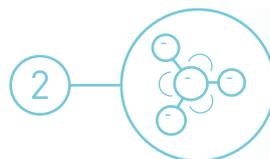
During FY17, the Firmenich chemistry development team implemented green chemistry principles in several of our key processes. Green chemistry is an approach to chemistry designed to maximize efficiency and minimize hazardous effects on human health and the environment.

¹ The e-factor is defined as the number of kilograms of waste generated to obtain a kilogram of product.

12 Principles of Green Chemistry



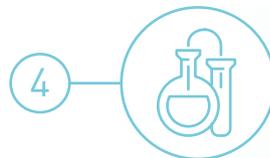
Waste Prevention – Plan ahead to prevent the accumulation of waste rather than cleaning up and treating waste.



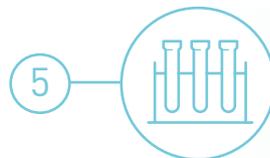
Atom Economy – Design synthetic methods to incorporate all materials used in the process into the final product.



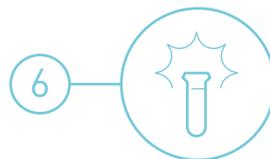
Less Hazardous Chemical Syntheses – Design synthetic methods to use and generate substances that minimize toxicity to human health and the environment.



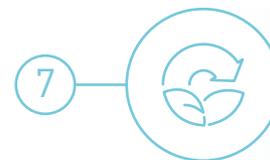
Designing Safer Chemicals – Design the most effective chemical products while minimizing their toxicity.



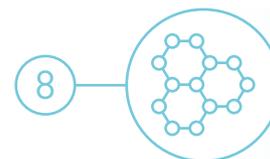
Use of Safer Solvents – Choose the safest solvent available and minimize the required amount.



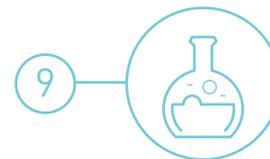
Design for Energy Efficiency – Choose the most energy efficient synthetic process, by avoiding heating, cooling, and long reaction times.



Use of Renewable Feedstock – Use renewable raw material or feedstock whenever practical.



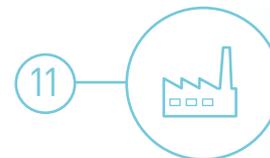
Reduce Derivatives – Minimize or avoid using temporary derivatives, if possible, which require additional reagents and generate waste.



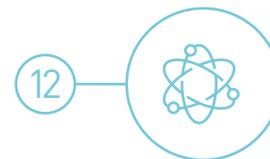
Catalysis – Choose catalytic reagents, as opposed to stoichiometric reagents, to increase selectivity, minimize waste, and reduce reaction times and energy demands.



Design for Degradation – Design chemical products so they break down into innocuous substances that do not persist in the environment.



Real-time Analysis for Pollution Prevention – Develop analytical methodologies for real-time, in-process monitoring and control before formulating hazardous substances.



Inherently Safer Chemistry for Accident Prevention – Design chemical processes that are safer and inherently minimize the risk of accidents.

Our use of green chemistry principles is an essential part of developing new molecules and new chemical routes, as well as preserving and enhancing our existing ingredients.

Chemical engineers are able to implement green chemistry principles without changing the chemistry. This is referred to as green engineering.

Chemists and chemical engineers in our R&D community, in collaboration with our manufacturing personnel, have made positive strides in green chemistry and engineering (GC&E) to improve the environmental impact of our products.

A key outcome of GC&E is yield improvement, resulting in more valuable products made with fewer raw materials and less energy.

Five molecules that our scientists have recently developed using green chemistry principles are Hedione®, Isospirene®, two Galbanum notes, and Lilyflore®.

- For Hedione®, chemists focused on waste prevention, identifying impurities generated along the process responsible for yield losses. A process engineer was able to design a new distillation column to remove these impurities, which improved Hedione®'s yield by 5% and eliminated 280 tonnes of organic hazardous waste per year.

- Isospirene®, a fruity cassis note molecule, is another example of process intensification. A team of chemists and chemical engineers, with a focus on energy efficiency, drastically simplified the production process and, as a result, successfully increased yield by 50%.
- By overhauling the chemical process of our key Galbanum ingredients, our chemists simplified the synthetic routes so that we can now produce two separate ingredients from a single, common intermediate. Additionally, they implemented novel, cutting-edge catalytic technologies, which suppress the use of reagents and solvents and led to a 60% decrease of the e-factor. This corresponds to a reduction of 600 tonnes/year of waste.
- By improving two key steps in the synthesis of our muguet note Lilyflore®, our chemists were able to fulfill several green chemistry principles: suppress the use of hazardous solvents, and increase the productivity by 330% by using a novel, highly reproducible chemical process.

Firmenich will continue to invest in green chemistry in areas such as organo- and metallo-catalytic chemistry, in order to devise cleaner processes, extract the most out of the raw materials, reduce hazardous waste, and minimize the energy required to transform the materials.



Frank Fei Zhang, Scientist, Firmenich.

MALODOR CONTROL

2020

Goal: Improve quality of life through nutrition, hygiene, and sanitation.



OUR WORK ON MALODOR CONTROL

Aligned with our 2020 Pathways to Positive target to improve quality of life through nutrition, hygiene, and sanitation, our Malodor Control Project aims to unravel the mysteries of malodor – as olfaction (sense of smell) is one of the least understood of all the senses. In fact, malodor plays a role in the lack of latrine use in developing countries and, as a result, they face economic, social, and cultural challenges due to lack of sanitation.

To address these problems, organizations are coming together to tackle the technological, psychological, and business challenges.

In this context, Firmenich is reaching out to potential partners to help translate our prototypes – including such products as bleach powders, air fresheners, and cleaning products – into real, affordable solutions for base of the pyramid consumers.



From left to right, Gilbert Ghostine, CEO Firmenich; Patrick Firmenich, Chairman, Firmenich; Bill Gates, Co-Chair Bill & Melinda Gates Foundation.

THE TOILET BOARD COALITION

2.4bn

2.4 billion people still lack access to sanitation¹.



2017

The Toilet Accelerator named a World Changing Idea Finalist in Fast Company's 2017 World Changing Ideas Awards.



Firmenich is a founding member of the Toilet Board Coalition (TBC), a business-led public-private partnership, launched in 2014, that includes multinational corporations, development expert NGOs/IGOs, sanitation entrepreneurs, and investors. The TBC connects large and small companies and ensures close collaboration between all sectors to accelerate the business of sanitation and achieve universal access to sanitation before 2030.

The Toilet Accelerator, launched by the TBC in 2016, is a program that works with promising sanitation business models with the potential to overcome current barriers to access, use, and adherence at scale. More than toilets alone, the accelerator supports commercially viable businesses operating at every stage in the sanitation value chain.

In FY17, Firmenich continued its active role on the TBC's Steering Committee by enlisting a core team of our colleagues to coach *sanipreneurs* (sanitation entrepreneurs) and train the sanitation community on our malodor control technologies developed with the Bill & Melinda Gates Foundation – in alignment with the TBC's role as an advocacy platform aiming to generate a global sanitation movement.

Firmenich's collaboration with the TBC complements our research on malodor. The TBC helps us identify partners to ensure our new technologies will widely reach base of the pyramid consumers, particularly in India. In FY17, we supported two strategic feasibility studies with the TBC: on sanitation and digitalization, and on sanitation and circular economy.

¹ <http://www.un.org/sustainabledevelopment/water-and-sanitation>

SUSTAINABLE FLAVORS ENHANCING HEALTH AND NUTRITION

2020

Goal: Improve quality of life through nutrition, hygiene, and sanitation.



FY17

Joined the Food Reform for Sustainability and Health program led by the WBCSD and the EAT Foundation.



GREEN PROTEIN

The Protein Challenge 2040 led by Forum for the Future

In 2014, Firmenich joined the Protein Challenge 2040, a multidisciplinary innovation forum led by Forum for the Future, one of the world's leading think tanks on sustainable development. The program aims to reinforce protein as a crucial part of a sustainable food system, shift the conversation from "good" and "bad" protein to a balance of sustainable protein, propel action and increase investment in sustainable solutions, and influence policy across the system for greater sustainability.

In order to drive action to help achieve the 2040 goals, three innovation areas and six pilot projects were chosen.

PROJECT FRESH WITH THE WBCSD

In FY17, Firmenich worked with the World Business Council for Sustainable Development (WBCSD) and the EAT Foundation to help launch FReSH, the Food Reform for Sustainability and Health program, thereby reinforcing our commitment to accelerate change in global food systems.

FReSH is designed to catalyze a shift towards a healthier and more sustainable food model. The program was launched at the EAT Stockholm Food Forum in June 2016, bringing together 25 companies from the private sector that have the potential to enact transformational change in food systems all over the world. The program focuses on the following work streams:

1. **Developing guidelines** on healthy and sustainable diets, taking into account social and environmental considerations.
2. **Food production adjustments, including formulations** that help consumers achieve healthy and sustainable diets.
3. **Food consumption reorientation** to strengthen demand for healthy and sustainable diets.
4. **Improvement of food sourcing** and **reduction of food loss and waste**.
5. **Measuring, reporting, and communicating** progress.

SWISS SCIENCE INDUSTRIES – NUTRITION GROUP

The Association for Swiss Industries was created to foster a strong culture of innovation in Switzerland in order to maintain the country's number one global position in innovation, as ranked by the World Economic Forum's Global Competitiveness Index.

Firmenich, Nestlé, Bayer, DSM, and Lonza are the five industry members of the Nutrition Working Group, formed in 2014. The group's mission is to promote sustainable lifestyles for the Swiss people. The two main areas of focus: collaborating in the private sector to ensure greater availability of healthier food and meals, and encouraging individuals to favor balanced diets.

As an industry member from the Nutrition Working Group's inception, we are helping to drive the dialogue between industry members, policy makers, and consumers to help support the Swiss Nutrition Strategy: "With the Swiss Nutrition Strategy, the government aims to promote a varied and balanced diet. People who eat a healthy diet are less susceptible to noncontagious diseases and have a better chance of staying healthy." In FY17, important progress has been made to bring the industry and policymakers closer together.

Firmenich has also been involved in several consumer awareness campaigns, such as supporting nutrition education in school through the program, "Simply Science", which aims to make science accessible to children.

PARTNERSHIPS

Work together with the world's leading experts and academic institutions



OUR PATHWAY

Multistakeholder partnerships are key to tackle the complex challenges and systemic changes needed to foster sustainable economies.

A core component of Firmenich's success in sustainability has been collaborating and partnering with the world's leading experts and academic institutions.

It is our goal to utilize these multistakeholder partnerships to create innovative solutions for positive systemic change.

Our unique partnerships approach supports the following SDGs :

SUSTAINABLE DEVELOPMENT GOALS



OUR 2020 GOALS

- Collaborate with at least 10 leading academic institutions on sustainability innovation
- Develop sustainability projects with 50 customers globally
- Extend our innovative base of the pyramid consumer insight program from India to Africa
- Generate gold standard carbon credits through collaborative investments

OUR RESULTS

- ✔ Conducted collaborative research, teaching and mentoring with six leading universities
- ✔ Partnership with the ReNEWW house project
- ✔ Built our base of the pyramid methodology into a collaborative social enterprise with the Naandi Foundation and academic partners
- ✔ Continued to play an active role in the Livelihoods Carbon Fund governance to monitor positive outcomes of carbon projects

SHARING EXPERTISE IN PARTNERSHIPS

STRATEGY

At Firmenich, we have always nurtured a culture of constant learning. In order to continuously build on our sustainability expertise and fast track our positive impact, we partner with best-in-class individuals and organizations. We also collaborate regularly with our external sustainability council – in May FY17, the council was hosted by our CEO and executive committee members in Geneva.

As the Sustainable Development Goal 17 suggests, sustainable development will only be met through collaboration. Partnering is at the heart of our sustainability journey. Our long-time partners challenge us and help us thrive. Our strategy is to carefully select and evaluate a limited number of strategic partners using the ambitions of our Pathways to Positive framework as a filter.

2020

Goal: Collaborate with at least 10 leading academic institutions on sustainability innovation.



FY17

Collaborated with St. Gallen, Switzerland; The Wharton School of the University of Pennsylvania, U.S.; Science Po Paris, France; HEC, France, among others.



PARTNERING WITH ACADEMIA

Firmenich is driven by science. Collaborating with academic institutions is critical to delivering the highest level of scientific excellence for positive change. Traditionally, we focus on natural sciences, but we also recognize the increasing importance of social sciences for our business. And, of course, we understand the importance of engaging directly with future sustainability leaders, to share our passion, ensure their commitment to a sustainable future, learn from them, and listen to their vision of a sustainable business and society.



Our Firmenich offices in Brazil.

For the past three years we have collaborated with the St. Gallen Institute of Management in Switzerland and the “Sustainability as a Strategic Opportunity” class led by Barbara Kux, a Firmenich board member. Through this course, students gain professional experience and work closely with leading global companies to find innovative solutions to key sustainability challenges. In FY17, we worked on a project with five students for three months. The students visited our Naturals Center of Excellence in Grasse, France, and conducted extended interviews with a wide range of Firmenich experts. Their research focused on the risks and opportunities around natural trends in the Home Care and Body Care market.

Firmenich is collaborating with Professor Djordjija Petkoski from the Legal Studies and Business Ethics Department at the Wharton School of the University of Pennsylvania, U.S. In FY17, Firmenich taught two classes in business ethics. In addition to

our involvement in the class, Professor Petkoski also wrote a case study on Firmenich’s commitment to sanitation and our work with the Bill & Melinda Gates Foundation and the Toilet Board Coalition. This year, we partnered with Wharton and the World Bank as Jury Members of the Partners in Action competition aimed at identifying the best young professionals’ initiatives to positively impact the SDGs.

Firmenich is also regularly invited to present at Sciences Po Paris, in the Philanthropy and Social Investing course conducted by Judith Symonds. In FY17, Firmenich’s class focused on improving the understanding of public-private partnerships and sharing systemic changes needed to address current and future sustainability challenges. We also led the writing of a case study – with Science Po’s research faculty – on our inclusive business model and the integration of visually impaired people in our sensory panels. [More information on our inclusive sensory panels can be found on page 40.]

SUSTAINABLE LIFESTYLES

FIRMENICH NEXT GENERATION

In keeping with our efforts to encourage innovation and promote sustainable change, we continue to support leading academic institutions to help solve global sustainability issues.

Massachusetts Institute of Technology, U.S.

Firmenich created a Professorship Fund at the Massachusetts Institute of Technology (MIT), a permanent part of the University's endowment since 1979. This professorship, given in honor of Dr. Roger Firmenich and Dr. Georges Firmenich, reflects our commitment to educating and inspiring the next generation of chemists.

Over the years, the Firmenich Professorship Fund has expanded to include a senior professorship and a senior faculty member. As part of this new addition, Professors Jeremiah A. Johnson and Jeffrey Van Humbek were selected for three-year professorships, both of which commenced January 1st, 2015.

Stanford University, U.S.

Firmenich's endowment at Stanford, established in 2015, helps support faculty members who are starting their careers in the field of sensory neurosciences or the field of environment and sustainability, and encourage their academic work and research. Xiaoke Chen, an Assistant Professor in the Biology department at Stanford, was the first recipient of the Firmenich Next Generation Fund. With this funding, Chen aims to further his research on how sensory information and physiological state integrate to drive decisions and behaviors.

EPFL, Switzerland

Firmenich's grant at the Ecole Polytechnique Fédérale de Lausanne aims to encourage breakthrough science and support the next generation of scientists by enabling the school to recruit an assistant tenure track professor in neurosciences.

2020

Goal: Develop sustainability projects with 50 customers globally.



FY17

Partnership with the ReNEWW house project.



Firmenich's vision is to create systemic change, serve as a leader in our industry and beyond, and make sustainability a primary focus for businesses worldwide. By communicating our initiatives, sharing our experiences, and creating leading platforms for change, we are actively bringing sustainability to the forefront of our industry.

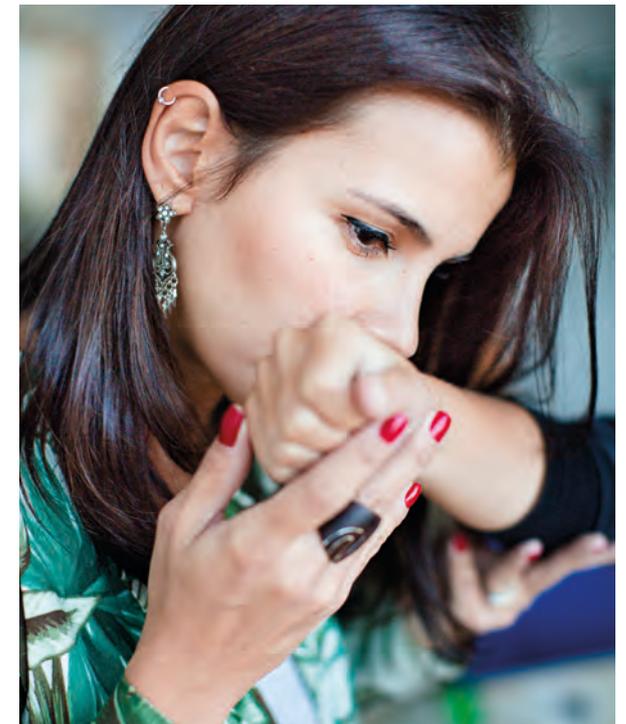
This year, we engaged a number of our customers in our sustainability efforts. This collaboration has been essential to our success, enabling us to innovate for sustainable growth.

One example of our commitment to such partnering is our work in the Sustainable Lifestyles cluster, convened by the World Business Council for Sustainable Development (WBCSD) and co-chaired by Firmenich CEO, Gilbert Ghostine. The overarching goal of the Sustainable Lifestyles cluster is to develop solutions that enable, inspire, and engage individuals toward more sustainable lifestyles: if nine billion people are to live well within planetary boundaries, we must explore new infrastructures, technologies, business models, and individual behaviors.

In 2016, we participated in a new collaboration focused on the "sustainable lifestyles of the future" specifically the Whirlpool ReNEWW House (Retrofit Net-Zero Energy Water Waste), a live-in laboratory on Purdue University's campus in Indiana, U.S. The ReNEWW house is a 1920s three-bedroom home that has been extensively retrofitted and refurbished to be as energy and water efficient as technically possible.

It operates as a live-in research lab and sustainable living showcase. Along with our partners, we leverage our expertise and work together at the house to accelerate the development of new sustainable lifestyles that are smart, healthy, and enjoyable.

During the summer of 2016, the partners initially focused on exploring a range of lifestyle activities around the use of water and energy. They plan to focus on food and diet in the fall of 2017, aiming to develop sustainable, desirable, and enjoyable solutions.



Renata Ferraz, Senior Fragrance Development Manager, Firmenich.

PARTNERING FOR SOCIAL INNOVATION

BASE OF THE PYRAMID CONSUMER INSIGHT

2020

Goal: Extend our innovative Consumer Insight program from India to Africa.



FY17

Firmenich, Naandi, and HEC Paris integrated the Shared Senses methodology into a social business called AZAO.



Firmenich and the Naandi Foundation have been collaborating since 2011 and have jointly developed the Shared Senses and Sensibilities Methodology, a breakthrough market research approach for low-income consumers. Our objective was to design and implement alternative market research methodologies to better understand low-income consumers in India.

In FY17, Naandi and a professor from HEC Paris, a leading French business school, created AZAO, an independent social business, and offered Firmenich colleagues who designed the Shared Senses program a seat on AZAO's advisory committee.

AZAO works side by side with corporations, institutions, and NGOs to bring innovative solutions to social issues. Beyond consulting services, AZAO also manages a specialized training module and a research unit dedicated to base of the pyramid strategies, which will help Firmenich tackle challenges of sanitation and nutrition models for the lowest-income populations.

In FY17, with AZAO, we conducted a qualitative and quantitative study on low-income consumers' usage and attitude towards sanitation in Pune, India. Twenty-five students of the Mahindra Pride School of Pune were recruited and trained to conduct more than 300 interviews.

The results were presented at the Annual Meeting of the Toilet Board Coalition in Amsterdam, in February 2017. The quality of the results was especially useful to the *sanipreneurs* who very often do not have the ability to conduct consumer insight studies.

FRUIT JUICE CSR

Firmenich has been an active member and sponsor of the Juice CSR Platform since its inception in 2013. The Juice CSR Platform is a sustainability initiative for the fruit juice industry, which aims to support, guide, and inspire stakeholders to integrate corporate social responsibility (CSR) throughout the supply chain. The platform facilitates collaboration among all sector and supply chain stakeholders to address sustainability-related opportunities, challenges, and concerns.

Firmenich is the only flavor house associated with the European Fruit Juice Association (AIJN) Sustainability Expert Group, which helped to launch the Juice CSR platform. In 2015, we became a board member of this multistakeholder, global organization focused on increased sustainability in the fruit juice industry.

Many of our flavors, like citrus, are often created with by-products from the juice industry. By collaborating and sharing knowledge with juice industry stakeholders, we are working to ensure the sustainability of certain crops and flavors central to our operations. Our approach is threefold: strive to create more efficient production methods, focus innovation on the future when we may need alternative solutions, and support increased sustainability throughout the juice sector.

In FY17, the Juice CSR Platform focused on three supply initiatives: identifying hotspots in the orange supply chain in Brazil and the apple supply chain from Poland (the Platform wrote an inventory report on CSR issues in Poland's apple supply chain), and fostering dialogue with pineapple processors in Thailand.

By continually working with the Juice CSR Platform, we hope to extend our impact beyond the flavor and fragrance industry and create positive systemic change. We recognize that to truly achieve scale, we must utilize our multistakeholder partnerships to inspire, innovate, and support sustainable practices.

GOLD STANDARD CARBON CREDIT

2020

Goal: Generate gold standard carbon credits through collaborative investments.



FY17

Nine ongoing projects.



Through our investment in Livelihoods Funds, Firmenich seeks to create mutual value for smallholder farmers, businesses, and society as a whole. The Livelihoods Funds attract investors from companies and institutions committed to sustainability, which includes offsetting their carbon footprint and transforming their fragile farming supply chains. Investors share knowledge and experiences to generate sustainable solutions for development in rural communities.

Firmenich is, with Danone, the only company to have invested in both Livelihoods-operated funds.

"The Shared Senses approach fills one of the most urgent needs of strategies aiming at emerging customers: accurately understanding their aspirations and creating products based on their preferences and not on preconceived ideas. This approach's motto is, as one says in India, 'Nothing for me without me'."

— David Menasce, Academic Director of the Innovation and Social Business Major at HEC Paris, AZAO CEO

Partnerships

Performance and Sustainability Report 2017
Firmenich

The Livelihoods Carbon Fund (LCF) has nine ongoing projects delivering tangible results. These projects seek to improve the livelihoods (revenues, health, and empowerment) of one million people by planting 130 million trees and equipping 120,000 households with efficient cook stoves. They will also help mitigate climate change by sequestering about 10 million tonnes of CO₂ over 20 years.

Launched in 2015, the Livelihoods Fund for Family Farming (L3F) will invest € 120 million over 10 years, to convert 200,000 farms to sustainable agricultural practices and positively impact the lives of two million people. Projects are currently being designed in Africa, Asia, and Latin America.

In November 2016, Firmenich attended the United Nations Climate Change Conference (COP22) in Marrakech and spoke at a panel organized by the Livelihoods Fund. In Marrakech, we reconfirmed our commitment to combating climate change and demonstrated how we are putting the Paris Agreement into action. Our presence at COP22 builds on our participation at last year's United Nations Climate Change Conference (COP21), where we announced our industry-leading environmental goal to become carbon neutral.



In Madagascar, Firmenich has been partnering with its local supplier on sustainability initiatives since 2007.



PEOPLE AND COMMUNITIES

Use the knowledge, skills and talent of our people and communities for a positive impact



OUR PATHWAY

As a family business, we deeply value our talented workforce and seek to utilize their diverse backgrounds as sources of innovation and forward thinking.

We strive to make positive contributions to society and across our value chain, pledge to empower women and youth, and support the next generation of smallholder farmers by improving their livelihoods and investing in their future. Our initiatives support the following SDGs:

SUSTAINABLE DEVELOPMENT GOALS



OUR 2020 GOALS

- Sustain and further improve our industry-leading safety performance by maintaining a total recordable case (TRC) rate below 0.25
- Formalize a program to further integrate people with disabilities throughout our business
- Certify all Firmenich sites for gender pay equality
- Build 40 responsible sourcing projects with smallholder farming communities
- Create a Firmenich Sustainability Academy to train 100% of our workforce on social and environmental topics
- Extend our apprenticeship program to all geographic regions

OUR RESULTS

- ✓ TRC of 0.21 (-16% vs. FY16)
- ✓ Inclusive sensory panels in three countries
- ✓ Assessed 23 Firmenich affiliates covering 90% of our total workforce
- ✓ 40% target met
- ✓ Trained Firmenich colleagues on sustainability and identified scaling-up learning solutions
- ✓ Seven apprentices graduated and hired from our program in four countries in FY17

EXCELLENCE IN HEALTH AND SAFETY

WORLD-CLASS SAFETY PERFORMANCE

2020	Goal: Improve our industry-leading safety performance by maintaining a TRC rate below 0.25.	
10.4	Investment CHF 10.4 million	
0.21	Total recordable case (TRC) (-16%)	
0.09	Lost time case (LTC) (-10%)	

In FY17, our TRC and LTC rates fell by 67% and 40% against our rolling five-year baseline (FY12).

During FY17, a total of 18 manufacturing sites achieved a full year with zero recordable injuries with five achieving over one million exposure hours injury free. During this period, we also invested CHF 10.4 million in new projects to further improve safety and enhance our fire protection systems.

Our safety performance and TRC rate are now amongst the best in our industry. However, the absence of injuries is not the best indicator of the presence of safety. In the next financial year, we will focus on safety management and performance reporting, particularly in the areas of process safety, incidents with serious potential, and site and personal security.

SAFETY CULTURE ROADMAP

Maintaining world-class safety performance is a critical measure of our management performance and can only be achieved by establishing and maintaining a world-class safety culture. Together, our compliance and supply chain teams have developed a comprehensive safety culture roadmap, to help engage employees and build a strong case for safety culture change. As a pilot, 10 sites completed baseline surveys to measure the maturity and resilience of their safety culture. Our North American sites also collaborated with DuPont to conduct a more detailed Safety Perception Survey. To support this program, we have also documented and shared the most effective management practices that support an enhanced safety culture. These tools will be made available to all Firmenich production facilities to further develop and promote a company-wide safety culture.

SUPPLY CHAIN SAFETY INITIATIVES

In addition to the Safety Culture Team, we have established additional supply chain teams focused on:

- Optimizing safety tools – to maximize the benefits of existing safety initiatives and tools
- Serious injuries and fatalities – to define proactive initiatives to prevent serious incidents
- Forklifts and industrial trucks – to document best practices
- Drum handling – to standardize approved best practices
- Equipment failure – to better understand and remediate equipment-based incidents

- PPE management – to improve the choice, use, and management of PPE
- Competencies and induction – to develop an inventory of safety competencies

FIRE PROTECTION

15	CHF 15 million invested in four years.	
48%	Improvements in 48% of production facilities.	

FY17 was the fourth year of our global fire protection capital investment program, designed to upgrade fire and flood protection at our manufacturing sites, adopt measures beyond local code requirements, and reach industry best practices. In FY17, we invested an additional CHF 1.3 million in nine facilities to improve fire protection and minimize risks.

LABORATORY CHAMPIONS

Our laboratory safety program is designed to manage the risks faced by our 1,200+ laboratory workers around the world. We have now trained 116 Lab Safety Champions and have created a laboratory safety network to share best practices and improve laboratory incident communication. Our new laboratory safety intranet site is used to register laboratory employees, and share best practice and training materials including our soon-to-be updated Laboratory Safety Guide. Each laboratory, with the support of their Lab Champion, will be required to conduct a self-audit against the new guide requirements and must develop a comprehensive action plan to address opportunities to improve performance.

ENGAGING EMPLOYEES AND COMMUNITY

FOSTERING A CULTURE OF DIVERSITY AND INCLUSION

40%

Our female colleagues represent 40% of our global workforce.



33%

Of our senior management are women.



It makes solid business sense to foster a culture that mirrors the diversity of our world and encourages different points of views. Studies on gender diversity, for example, show that companies with a higher proportion of women on senior management teams outperform market peers. With the gender gap not expected to change until 2186, according to the World Economic Forum¹, decisive action is needed if we are to accelerate this opportunity.

At Firmenich, we are actively nurturing our culture of inclusiveness and diversity across all levels of the company. This starts with our Executive Committee, represented by eight nationalities and with a third of its membership female. Globally, our female colleagues represent 40% of our global workforce and 33% of our senior management.

We are committed to going beyond just closing the gender gap by embedding key diversity performance indicators directly into our programs and processes. We have also formed a compelling range of leadership trainings, cross-generational programs, and succession planning, which focuses on the development and growth of emerging market talent.

GENDER EQUAL PAY

2

Two sites certified under Gender Equal Pay Principles.



Firmenich supports equity and fairness in compensation for similar jobs and performance. A state-driven study on gender-equal pay in Switzerland ranked us in the top-tier as an equal-pay employer in Switzerland, with endorsement from the Swiss Confederation certifying we operate according to Gender Equality Pay Principles.

A second study, conducted on our second-largest campus worldwide in Princeton, New Jersey, U.S., revealed similar results. In FY16, we began reviewing our compensation structure globally, using the same external methodology or relying on local governmental certifications when available. Continuing this analysis in FY17, we carefully benchmarked compensation to be consistent with market standards and individual performance, and we globally reviewed all compensation data to be sure that our pay practices reflect our commitment to gender pay equity.

Of the 23 affiliates that were studied, 70% showed no significant (<5%) disparity in pay between men and women for similar roles. During the recruitment and salary review processes, gender pay equality is taken into account to ensure we move toward our target of equal pay for equal roles and performance.

¹ <https://www.weforum.org/press/2016/10/beyond-our-lifetimes-prospects-for-workplace-gender-equality-slip-to-2186>



ENGAGING EMPLOYEES AND COMMUNITY – CONTINUED

INTEGRATING VISUALLY IMPAIRED PANELISTS IN OUR SENSORY PANELS

20

Visually impaired people hired and trained in two years.



In 2014, the Sensory team at Firmenich Mexico wanted to foster an inclusive workforce while developing sensory capabilities. To this end, they built an inclusive sensory panel – a group of trained testers who assess products on the basis of taste, smell, or feel.

Sensory panels at Firmenich Mexico were comprised of Firmenich employees from various functions who would dedicate a few hours per week on panel work. In order to develop capacity while putting the Firmenich Fundamentals into action, Firmenich Mexico partnered with Comité Internacional ProCiegos to train and hire visually impaired sensory panelists.

Following the success of the Mexican panel, our London and Mumbai Sensory teams set up similar programs, working with the Middlesex Association for the Blind in the UK and the College of Fragrance for the Visually Impaired in India. Both teams hired their first visually impaired panelists in 2016. Our Singapore and Geneva Sensory teams are currently building similar inclusive panels. From FY14 to FY17, 20 visually impaired people have found employment in one of Firmenich’s inclusive sensory panels around the world.

INTRODUCING I AM FIRMENICH

This year we introduced the *I am Firmenich* campaign, an engaging video series that brings to life the world-class creativity, expertise, and passion of our colleagues. A true snapshot of Firmenich’s diversity and inclusiveness, the videos feature colleagues from all age groups, regions, cultures, and businesses telling their unique stories about why they chose to join Firmenich and how they uniquely contribute to the company’s success in their daily work. Supporting global recruitment initiatives, the *I am Firmenich* video series is showcased on our careers page to provide potential candidates with authentic insights into our culture and the passion of the people of Firmenich.

MILLENNIALS @ FIRMENICH

Developing our talent is a key focus of our overall strategy. With millennials representing 62% of all new hires worldwide, we are committed to developing our next generation of professionals, who will play a significant role in driving our long-term success.

This year, Firmenich championed a Millennials Community, which was designed, produced, and executed by millennials for millennials. The three goals of this initiative are:

- Ensure active participation of millennials in key strategic initiatives sponsored by our Executive Committee
- Inspire our millennial talent and make Firmenich the place where millennials choose to be
- Increase collaboration and drive our business with millennial consumers in mind

ONE YOUNG WORLD

6

Firmenich colleagues met in Ottawa.



1,300

Young leaders.



190

Countries.



For the first time, Firmenich sent a group of millennials to experience “One Young World”, an annual global leadership event for young leaders under 30 years of age. During the four days in Ottawa, our six colleagues joined 1,300 young leaders from global and national companies, NGOs, and universities representing more than 190 countries. Together, they shared innovative ideas on pressing world issues, spanning human rights, global business, education, and the environment. The delegates had the privilege of being listened to and coached by an inspiring set of world leaders.



In FY17, Firmenich sent a group of millennials to experience “One Young World”, an annual global leadership event for young leaders.

TELL US HOW YOU FEEL SURVEY

Our “Tell Us How You Feel” survey (a biennial employee engagement survey issued to all colleagues) helps us shape our company’s future and ensures ongoing professional fulfillment for employees worldwide. This year, more than 80% of our colleagues participated in the survey, representing an impressive 5,300 voices. We are proud that our employee engagement level continues to increase – now at 7.2 up 0.2 compared to FY15, positioning Firmenich as a “High Performing Company” according to global industry benchmarks.

This positive result is a testament to our culture of inclusiveness and reflects our strong sense of:

- Confidence in our 2020 strategy
- Alignment with the Firmenich Fundamentals across everything we do
- Unparalleled focus on customer engagement
- Collaboration and commitment to best-practice sharing

Of the 43 Firmenich affiliates, 85% reported engagement scores superior to country-specific industry benchmarks, indicating that Firmenich colleagues are more engaged than employees from other companies in those countries.

Our millennial talent had slightly higher engagement scores compared to other generations, while all generations showed similar growth in engagement compared to our 2015 survey.

FIRMENICH 4 SOCIETY

Building on our commitment to join our sustainability platform and the communities where we source around the world, we have introduced a new, nonmonetary recognition program called Firmenich 4 Society to bring to life the values of our company. Leveraging our employees’ individual skills and interests, Firmenich 4 Society offers all of our colleagues the opportunity to be a force for good by contributing directly to our sustainability and community efforts.

Firmenich 4 Society projects cover two main themes:

- Firmenich Social Entrepreneurship – helping local businesses with an entrepreneurial spirit
- Deep Roots Program – sourcing our natural ingredients in the most ethical and sustainable way

Employees recognized under this program will be given the opportunity to visit one of our sustainability initiatives and work with our local partners on a variety of projects (e.g. teaching at the Firmenich School in Haiti, working at a health clinic in Madagascar, etc.)



September 2016 marked the 12th anniversary of our Community Day event.

COMMUNITY DAY 2016

2,648	Colleagues.	
107	Projects in FY17.	
+10%	Projects in FY17 vs. FY16.	

September 2016 marked the 12th anniversary of our Community Day event. This year, 2,648 employees volunteered in 107 projects across 48 sites worldwide.

Projects included:

- Supplying about 200 bags to Partage, the Geneva food bank that collects food and hygiene products for 53 charities within the Canton of Geneva. The bags consisted of a remarkable 780 kilograms of food and hygiene products that truly made a difference to the local community.
- Engaging 43 colleagues from our North American team to restore the wetlands in Newark Bay in New Jersey. Participants planted native shrubs and trees, created tidal trails, and built bird sanctuaries.
- Raising funds to purchase hundreds of LED lamps and nonperishable foods for two Brazilian institutions that assist disabled children in the community.
- Hosting an exhibition of artisanal products made by underprivileged women in India to raise funds for the NGO Women’s India Trust, a charitable organization that empowers disadvantaged women through education, training, and employment.
- Creating an entertaining sensory experience – a perfumery workshop – where disadvantaged primary school children in Shanghai learned through the senses of smell and taste.

“I am happier and I have something to do. I really have a bit of my self-confidence back. [Working at Firmenich] brings me out and gives me something to look forward to.”

— London panelist

RESPONSIBLE SOURCING PROJECTS

Firmenich is taking a further step in our responsible sourcing program with a company commitment to engage in an impactful program: Deep Roots 2020.

In FY15, we set targets for our Deep Roots 2020 Strategy:

40	Build 40 responsible sourcing projects.	
100k	Reach 100,000 beneficiaries directly through our projects.	
20	Work with 20 key suppliers in our Naturals Together strategic platform.	
50	Involve 50 suppliers in a continuous improvement program.	
100	Impact 100 supply chains.	

Overall program	FY17	FY20
Production Facilities at Source	2	5
Naturals Together Partners	17	20
Deep Roots Projects	17	40
Deep Roots Beneficiaries	53,050	100,000

In FY17, we established a structured and global responsible sourcing organization to establish a physical presence on the ground at all our Deep Roots projects. These colleagues collaborate locally with our suppliers, producers, smallholder farmers, NGOs, and governments to develop responsible sourcing programs more easily and conduct regular in-person assessments to make sure they are on track.

The Deep Roots team, along with their sourcing partners, constantly share experiences, challenges, and best practices to move toward more sustainable supply chains. In February 2017, the team met in Grasse, France, to discuss local certifications, our renewed commitment to the Union for Ethical Biotrade (UEBT), and the human rights assessment of our Naturals supply chain.



Firmenich Deep Roots team works with Styrox harvesters from Honduras to build responsible sourcing programs.

Case study: Ylang

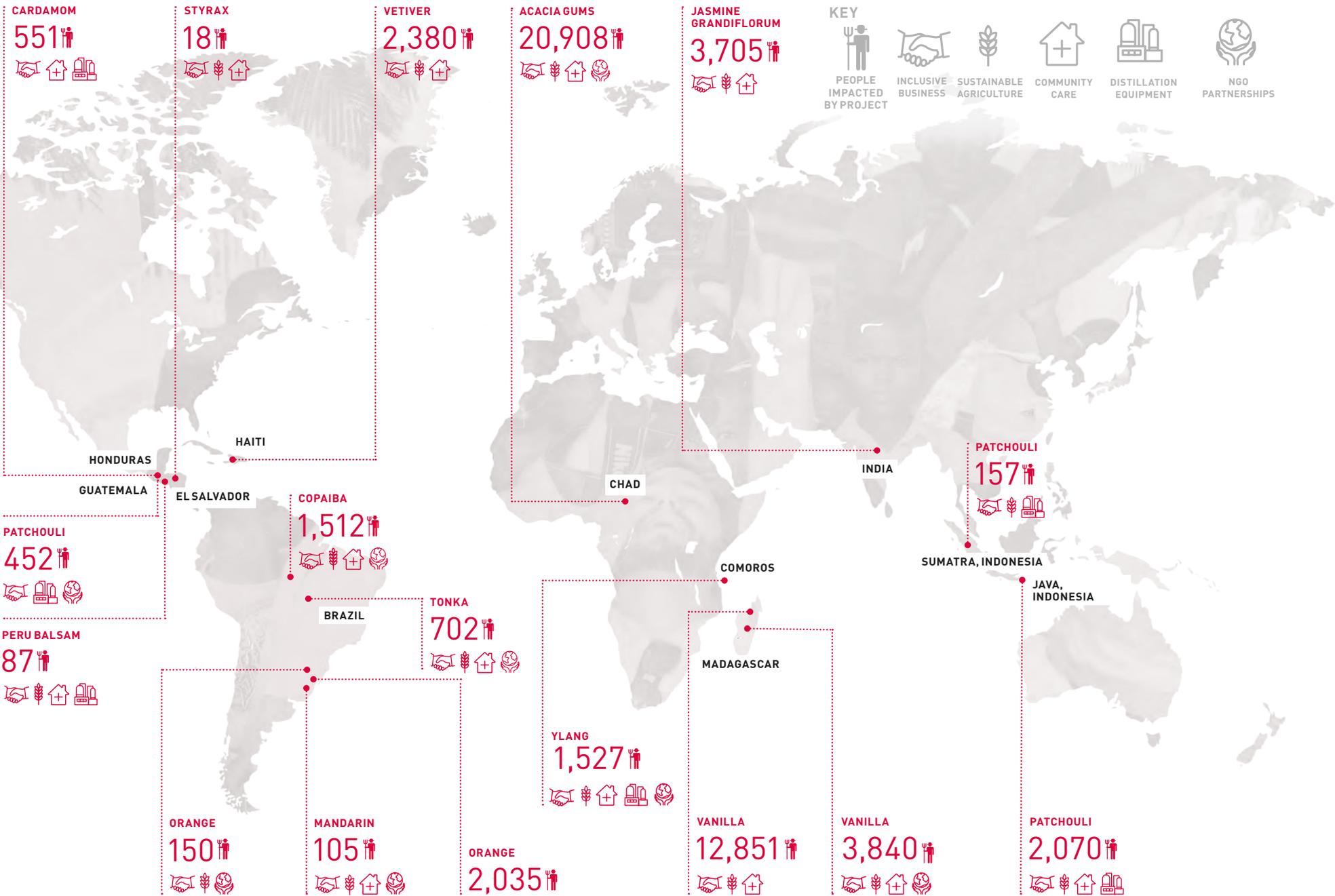
In FY17, Firmenich partnered with a client, a supplier, and an NGO to enhance the livelihoods of smallholder Ylang farmers, distillers, and pickers in the Comoros Islands, off the southeast coast of Africa. This collaboration aims to enhance Ylang sustainability and profitability, ensure full traceability, and improve the livelihoods of all value-chain actors, especially female pickers and distillers.

The Ylang flower serves as an important resource for local livelihoods and is essential to the perfumery palette. Ylang and spices are the main exports for the Union of Comoros, an archipelago ranked 160th on a scale of 186 of the Human Development Index. This archipelago produces the best Ylang oils, which are commonly used in fragrances, cosmetics, and aromatherapy.

The fragile Ylang supply chain is facing several challenges, including lower production volumes, adulteration increases, producer and worker impoverishment, and water scarcity. Our joint project, supported by the Enhancing Livelihoods Fund, focuses on:

- Establishing 14 cooperatives
- Renovating 40 alembics
- Training 144 workers
- Planting and distributing 26,000 trees
- Creating health programs benefiting 712 farmers

With funding provided by a client partner, two female-owned cooperatives will be created and equipped with innovative energy-efficient distillation equipment and a new and improved remuneration system for 200 female pickers.



ABOUT THE REPORT

This is our 12th annual sustainability report; as with the previous reports it covers the past fiscal year (FY17) starting on July 1, 2016 and ending on June 30, 2017. It follows our 2016 annual sustainability report. We have chosen to separate the GRI elements from our sustainability report. Our online GRI report, also assured by SGS, can be found at www.firmenich.com.

This report and our previous reports have all been fully assured by a third party in order to maintain a level of truthfulness and ensure that all the information, data and stories have not been embellished and are exactly how they have been implemented/observed/calculated. This level of assurance helps us make sure that we report only the facts and that we are protected from falsehoods and misinformation, whether intentional or unintentional.

The Materiality boundaries of this report are based on the materiality analysis published in our 2015 report and updated in FY17. The boundaries of this report cover the global operations of the Firmenich Group, including affiliates in 32 countries and both manufacturing and nonmanufacturing locations. In the report we refer to our 25 manufacturing sites. The environmental, workplace and HR data reported, unless otherwise indicated, covers all operations owned or controlled by the group (including production sites, sales offices, laboratories, administrative office or combinations of such facilities). The employee data is reported for both fixed and temporary headcount. 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. Any changes in data reporting below a 5% threshold are deemed not material to this report unless they are found to be of sufficient importance to our management team; in these cases the explanation for the variation will be detailed.

EXTERNAL VERIFICATION

Nature and scope of the assurance/verification

SGS Société Générale de Surveillance SA was commissioned by Firmenich to conduct an independent assurance of the Firmenich Performance and Sustainability Report 2017. 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, excluding the pages 1 to 3 and the section "A Year in Review" contained in pages 5 to 7, since these sections reflect opinions and market analysis.

The information in the Firmenich Performance and Sustainability Report 2017 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 Firmenich Performance and Sustainability Report 2017. 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 the evaluation of content veracity. 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; original data has not been assured at site level. 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 organization, its subsidiaries and stakeholders.

The assurance team was assembled based on their knowledge, experience and qualifications for this assignment, and comprised auditors with Lead Quality, Environmental and SA8000 Auditor and experience in the flavors 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 Performance and Sustainability Report 2017 is accurate, reliable and provides a fair and balanced representation of Firmenich sustainability activities in financial year ending 2017.

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

Signed for and on behalf of SGS Société Générale de Surveillance SA - Geneva, September 2017

Stéphane ROMBALDI
SGS Société Générale de Surveillance SA
Certification & Business Enhancement
WWW.SGS.COM



CUSTOMERS



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

- Our customer intimacy is unique as we partner with our customers to transform their ambitions into reality.
- We anticipate consumers' desires continuously reinventing the world of taste and smell.
- We deliver value through innovative products and services, placing decision-making as close as possible to our customers.

PEOPLE



Our people are the heart of our Company. They are recognized for their **passion, talent and commitment**.

- We strictly maintain the highest levels of personal integrity and ethical behavior.
- We value diversity and create an environment in which each colleague is empowered and encouraged to grow, enabling us to shape our future with confidence and imagination.
- We unite the finest talents and nurture an entrepreneurial team spirit to attain our strategic goals.

CREATIVITY



Creativity is our **essence**.

- We create fragrances and flavors that inspire moments of pleasure and delight for consumers worldwide.
- We lead our industry in research and innovation, constantly driving incremental and breakthrough winning ideas and technologies.
- We apply our creativity to improve all parts of the business.

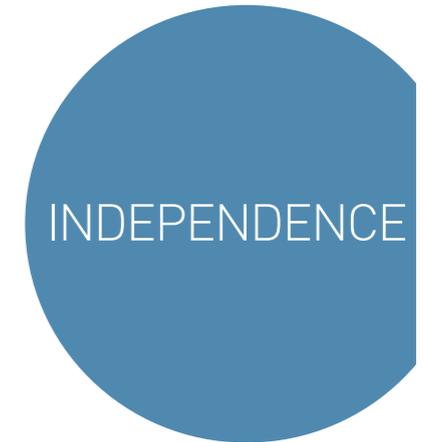
SUSTAINABILITY



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

- We practice a sustainable business model for the well-being of present and future generations.
- We engage all our partners to build a responsible, sustainable and traceable value chain.
- We strictly comply with all regulatory requirements and strive to achieve the highest international standards on quality, safety and the environment.

LEGACY



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.



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