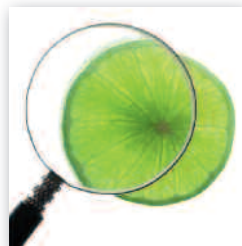


Givaudan<sup>®</sup>

# Sustainability

THE GIVAUDAN FACTS



# Sustainability

THE GIVAUDAN FACTS

## Givaudan at a glance

As the leading company in the fragrance and flavour industry, Givaudan develops unique and innovative creations for its customers around the world.

HEADQUARTERS

Vernier, Switzerland



Our fragrances and flavours are used in many products, ranging from fine fragrances to fabric, personal and household care products as well as soft drinks, ready made meals, dairy and sweet goods.

Our business operates with two divisions, the Fragrance Division and the Flavour Division, which are supported by integrated functions such as Purchasing, Finance, Human Resources, Communications and IT.

Givaudan commits significant investments into cutting-edge research and development programmes as well as consumer understanding insights to remain the leading innovator in the industry.

We strive to continuously expand our industry leadership by anticipating and responding to the expectations of our shareholders, customers, employees, suppliers, as well as the environment, and the community at large.

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## Sustainability

# Message from the CEO



**Gilles Andrier**  
CHIEF EXECUTIVE OFFICER

WELCOME TO OUR INAUGURAL SUSTAINABILITY REPORT. ALTHOUGH WE HAVE BEEN FOCUSING ON OPERATING A SUSTAINABLE BUSINESS MODEL FOR MANY YEARS, WE HAVE NOW PUT AN OVERARCHING FRAMEWORK IN PLACE TO BETTER COORDINATE OUR EFFORTS AND DRIVE SUSTAINABILITY PRINCIPLES RIGHT ACROSS OUR ORGANISATION AND BEYOND. THIS WILL BE A JOURNEY WITH HIGH ASPIRATIONS BUT WE HAVE MADE SIGNIFICANT PROGRESS IN 2009.

Sustainability defined: meeting the needs of the present, without compromising the ability of future generations to meet their own needs.

UN Brundtland Commission, 1987

Declining natural resources, coupled with an increasing population, are real challenges we are facing, and we all need to do our part in addressing them. As an innovator and market leader, as well as being the industry's largest purchaser of raw materials, we have a responsibility to shape and lead the sustainability approach in the flavours and fragrances industry.

In creating this framework, over the past eighteen months, we have been working in partnership with sustainability experts at The Natural Step International (TNSI), a not-for-profit organisation. Using their science-based approach we now have a strong vision of where we want to go in place. By collecting and analysing our existing sustainability data, the process of developing long-term aspirations, backed by short- and mid-term goals and targets is now well underway. In February 2010 we became a registered signatory of the United Nations Global Compact corporate responsibility initiative.

Despite the fact that we already have many sustainability initiatives at various stages of development and implementation, this is a long journey. Like any business that takes sustainability seriously and realistically, we know that we don't have all the answers but we are

asking the right questions in order to find sustainable solutions – both within our business and with customers and suppliers. From research and creation to the supply chain and shipping of our products, we can make an important impact.

We are committed to open and honest sustainability reporting and all the data we have collected so far is outlined in this report. We will also share with you – for example – the details of some of our sustainability projects, such as building a school in the Laos province of Phongsali and initiating a community-based programme to ensure a fair-trade supply of vanilla from Madagascar. The next step is for us to develop specific targets for the programme for the coming months and years, which will be published in next year's Sustainability Report.

We will be reporting this data year-on-year, and, where there are improvements to be made, we will be working hard to achieve them. We can't do this on our own: partnership is important at every stage. I would urge everybody reading this report, who has an interest in our Sustainability Programme, to help contribute to its development in order to make a lasting difference to our industry and the survival of our planet.

THE NATURAL STEP INTERNATIONAL (TNSI) HAS DEVELOPED FOUR SCIENTIFICALLY-BACKED PRINCIPLES. IT BELIEVES, IN A TRULY SUSTAINABLE SOCIETY, NATURE IS NOT SUBJECT TO:

1

Increasing concentrations of substances extracted from the Earth's crust (heavy metals, fossil-based fuels)

2

Increasing concentrations of substances produced by society (PCBs, CFCs, etc.)

3

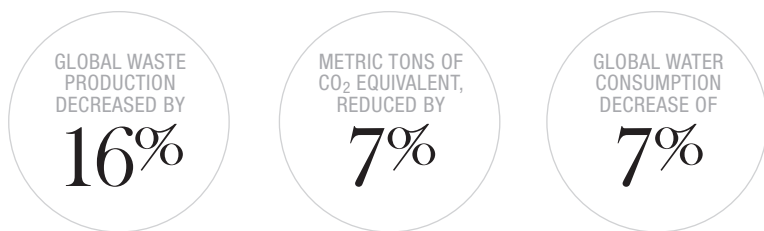
Degradation by physical means (deforestation)

4

And in that society people are not subject to conditions that systematically undermine their capacity to meet their needs

# Sustainability Highlights

Our 2009 sustainability highlights include:



“Overall, we believe that Givaudan is in the process of integrating a comprehensive and proactive approach to sustainable business, and through this, is demonstrating leadership in its marketplace for sustainable development.”

**David Cook**

EXECUTIVE AMBASSADOR, THE NATURAL STEP INTERNATIONAL

**Adding** new ingredients to our growing list of biodegradable fragrance ingredients

**Building** a school in the North Laos province of Phongsali to serve 11 local villages

**Ensuring** a fair-trade supply of vanilla from Madagascar by initiating a community-based programme

**Initiating** Green Teams to assist with site-specific sustainability projects

**Launching** our ‘Zero is possible’ safety awareness programme

**Partnering** with our customers to tackle health issues through salt, sugar and fat reduction

**Publishing** scientific papers promoting the development of in-vitro methods of testing ingredient skin sensitisation as an alternative to animal testing

**Working** with our customers, suppliers and competitors to ensure the global industry supports the highest standards of safety and regulatory science

And, in early 2010, we are proud to have become a signatory of the United Nations Global Compact corporate responsibility initiative

## Sustainability

# Introducing our programme



DRIVING SUSTAINABLE BUSINESS PRACTICES IS ALREADY AT THE HEART OF WHAT WE DO. OUR NEW SUSTAINABILITY PROGRAMME HAS ENABLED US TO COORDINATE ALL OUR CURRENT SUSTAINABILITY-RELATED ACTIVITIES INTO A STRUCTURED FRAMEWORK WITH A CLEARLY-DEFINED PROCESS GOING FORWARD.

**Joe Fabbri**

GLOBAL HEAD OF HUMAN RESOURCES AND  
CHAIR OF THE GIVAUDAN SUSTAINABILITY  
PROGRAMME

## The Givaudan Sustainability process

1

Gather quantitative and qualitative sustainability information from across our business and publish our inaugural *Sustainability Report*

2

Use the Report data as a baseline for core environmental Key Performance Indicators across all locations – historically this data was only collected for manufacturing sites

3

Analyse our data, compare best practices, identify potential progress and reductions

4

Share our sustainability targets for the next three years in our next *Sustainability Report* published in March 2011

The most exciting part of producing our first sustainability report is that we are now beginning to appreciate, for the first time, just how many sustainability initiatives we already have in place at Givaudan. A significant number of our customer projects currently underway have at least one sustainability angle. I have selected some of our highlights below:

We are supporting our clients with a range of complex sustainability-related issues across all aspects of the product life cycle – from sustainable sourcing to tackling obesity with sugar and fat replacement.

Back in the early 1990s our Fragrance Division started the first in-house biodegradation testing programme in the industry. Ours is now the largest fragrance environmental database resource in the industry, and an invaluable resource for our researchers, perfumers and customers.

We are working on the sustainable sourcing of Vanilla beans from Madagascar by working directly with farmers to protect and enhance long-term supply.

Our location-specific Green Teams are now in place looking at how each of our sites can operate more sustainably. Meanwhile our operations team is

working on reducing carbon and waste through optimising manufacturing processes and research into efficient order patterns.

Meanwhile, in terms of external initiatives, since August 2008, our manufacturing sites have participated in the SEDEX, the Supplier Ethical Data Exchange – a non-profit membership organisation for businesses committed to the continuous improvement of the ethical and responsible practices in their supply chains and covers human rights, child labour, labour standards, business integrity and environmental matters. In 2010 we will be running a pilot trial with some of our own suppliers, encouraging them to become signed SEDEX members.

We also started participation in the Carbon Disclosure Project in 2007 – the first ever independent global standardised programme for reporting a company's potential risk to climate change and related greenhouse gas emissions to institutional investors – and we have been participating ever since. And five of our sites also hold ISO 14001 certification.

This inaugural Sustainability Report summarises some of our most exciting projects, and I look forward to sharing more with you as our Sustainability Programme develops even further.

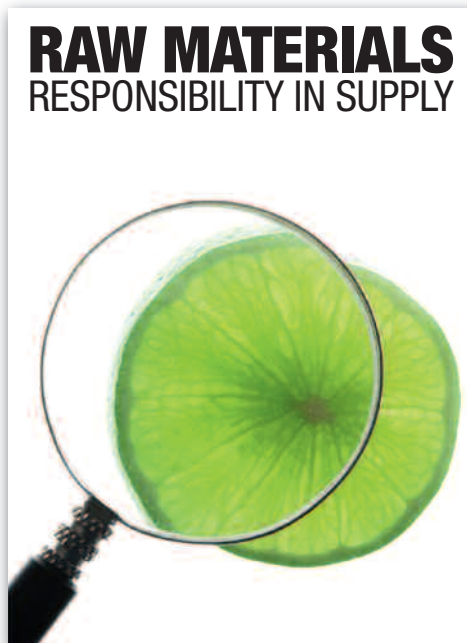
## Sustainability

# The five pillars of our Sustainability Programme

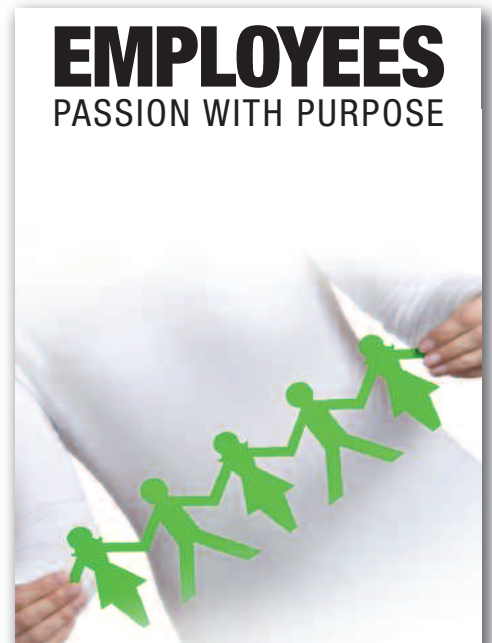
WITH ADVICE AND SUPPORT FROM OUR SUSTAINABILITY PARTNER, TNSI, CROSS-FUNCTIONAL TEAMS FROM BOTH OUR FLAVOUR AND FRAGRANCE DIVISIONS HAVE DEVELOPED A CHALLENGING AND LONG-TERM SUSTAINABILITY VISION BASED ON FIVE PILLARS. THE PILLARS COVER OUR ENTIRE PRODUCT LIFE CYCLE FROM THE SOURCING OF RAW MATERIALS THROUGH TO THE END-OF-LIFE OF OUR CUSTOMERS' PRODUCTS.

Here we outline our ultimate pillar visions and aspirations. We realise that these are challenging and that we will not be able to achieve everything on our own. So we will break down these aspirations into achievable steps to take us in the right direction.

Pages 8-21 give an overview of our sustainability achievements for each pillar. Our full performance data for Operations can also be viewed on page 22.



### **RAW MATERIALS** RESPONSIBILITY IN SUPPLY



### **EMPLOYEES** PASSION WITH PURPOSE

#### VISION

We source materials in ways that preserve our environment, stimulate the development and well-being of communities and safeguard an efficient use of precious resources.

We attract, develop and retain talented, creative professionals who feel passionate and proud of the work done in our company and who are empowered to contribute to a sustainable society.

#### ASPIRATIONS

- Source materials that can be sustained by nature
- Provenance and footprint of raw materials are known
- Suppliers selected and audited on sustainability performance
- Offer support to suppliers
- Committed to preserving biodiversity and culture

- An attractive place to work for everyone
- Healthy work/life balance for all employees
- A representative workforce
- Educated and empowered to contribute to a sustainable society
- Community engagement
- Responsible, transparent and accountable in everything we do

## **INNOVATION AND DEVELOPMENT**

DELIVERING SUSTAINABLE CREATIONS



Givaudan leads in creating consumer preferred flavours and fragrances that are designed and developed in line with sustainability principles in order to satisfy current and future needs.

- 100% sustainable by design
- Smart sustainable creation
- Number 1 partner on delivering sustainable solutions
- Innovation focuses on engaging the senses to contribute to health, hygiene and wellness for a crowded, equitable planet

## **OPERATIONS**

DRIVING OPERATIONAL EXCELLENCE



We continuously drive operational excellence without compromising the environment or the health and well-being of our employees and the communities in which we operate.

- Zero waste
- Zero carbon
- Zero incidents
- Exemplary water stewardship
- Regarded as a good neighbour
- Most efficient product packaging and distribution

## **CUSTOMERS AND MARKETS**

PRODUCT IMPACT



We actively engage with our customers to ensure that all of our products promote the health and well-being of people and preserve our planet. We do this by encouraging our business partners to support our goals throughout the complete life cycle of their products.

- No negative impact in customers' products throughout the sustainability life cycle
- Customers with a common vision
- Socially responsible products and services
- Informed consumers

# RAW MATERIALS RESPONSIBILITY IN SUPPLY



AS THE WORLD'S LARGEST BUYER IN THE FLAVOUR AND FRAGRANCE INDUSTRY, WE RECOGNISE THAT WE HAVE AN ETHICAL AND COMMERCIAL RESPONSIBILITY IN THE SUPPLY CHAINS IN WHICH WE OPERATE. WE HAVE THE ULTIMATE ASPIRATION TO SOURCE MATERIALS IN WAYS THAT PRESERVE OUR ENVIRONMENT, DO NOT COMPROMISE THE ONGOING WELL-BEING OF COMMUNITIES AND WHICH SAFEGUARD AN EFFICIENT USE OF PRECIOUS RESOURCES.

Using over 14,000 different ingredients in our flavour and fragrance products, from more than 50 countries, it is critical that we have a deep understanding of our raw materials supply chains. It is also fundamental that we identify, and mitigate, potential risks to their continued and sustainable supply. Therefore we are undertaking a thorough assessment of our ingredients and suppliers to ensure we address the risks, while being able to maintain full compliance with our own high standards of quality, innovation and stable product supply.

Currently, in the case of most of our chemical raw materials there are no commercial or environmentally-sustainable alternatives to petroleum-derived feedstocks. As a result, our goal is preferably to source from suppliers with sustainability programmes in place, who are working to monitor and reduce their carbon emissions.

We have a rigorous vendor selection process based on their compliance with social accountability principles and specific onsite audits. We visit our suppliers on an ongoing basis and take immediate action if we have any ethical or environmental concerns.

In addition, since August 2008, the majority of the Givaudan manufacturing sites have participated in the Supplier Ethical Data Exchange (SEDEX) – a non-profit membership organisation for businesses committed to the continuous improvement of the ethical and responsible practices in their supply chains.

SEDEX covers human rights, child labour, labour standards, business integrity and environmental matters. Givaudan is currently a 'B' member, providing information for our chosen customers. In 2010 we will be running a pilot with 30 of our own suppliers, encouraging them to participate in partnership with us.

We have also recently become a signatory of the United Nations Global Compact corporate responsibility initiative. In addition to signing up to principles regarding human rights, labour, environment and anti-corruption, the Global Compact encourages signatories, such as Givaudan to join in partnership with their suppliers, and other stakeholders, to reach common sustainable development goals.

As well as ensuring long-term availability of the natural ingredients we use, Givaudan's Innovative Naturals™ programme is also focused on finding new naturals that might bring additional revenue to our source suppliers. The programme, which is a strategic, sustainable and concerted effort to enrich the palette of our perfumers with new and exclusive naturals, has four areas of focus:

1. The sourcing of organic raw materials: we now have nine organic certifications from ECOCERT for ingredients as diverse as lavender from Bulgaria and basil from Egypt
2. Ethical sourcing: ensuring the supply chain's long-term sustainability through dedicated projects
3. Orpur™: a special Givaudan portfolio of 100% pure and natural materials with a consistent and certified olfactive quality
4. Biosciences and new naturals: using 'green chemistry' based on enzymes, yeast, bacteria and fungi to create new olfactory profiles.



## School secures future supply of benzoin

BENZOIN RESIN IS A WIDELY USED INGREDIENT IN FINE FRAGRANCES. IT IS COLLECTED FROM WILD TREES IN REMOTE PARTS OF NORTHERN LAOS. TO HARVEST THE RESIN, A FARMER SLASHES THE BARK OF THE STYRAX TONKINENSIS TREE, COLLECTING THE RESULTING RESIN 'TEARS' WHICH SEEP OUT.

Faced with the threat of a rural exodus from the sourcing area, due to a lack of secondary schools, which would threaten the future supply of benzoin, we partnered with Agroforex, a Laos-based producer and exporter of pharmaceutical and aromatic plants. Working with Agroforex, we built a school in the North Laos province of Phongsali to serve 11 local villages. One class has already started and, in the future, we hope to provide education for more than 100 teenagers from villages across the region.



Givaudan is also participating in a programme launched by Agroforex for the long-term management of the forest ecosystem. This includes a technical course for village communities, which is focused on improving Styrax tree planting and benzoin collection. New qualities of raw materials, including organic beeswax and organic red ginger oil, as well as other benzoin-based products, have been discovered through this initiative – providing additional revenue streams for the local community.



## Fair-trade vanilla

TO ENSURE THE LONG-TERM, SUSTAINABLE, FAIR-TRADE SUPPLY OF VANILLA FROM MADAGASCAR, WE ARE INITIATING A COMMUNITY-BASED PROGRAMME IN THE COUNTRY. ONE ELEMENT OF THE INITIATIVE WILL INVOLVE IMPROVING THE EDUCATION INFRASTRUCTURE IN THE AREAS WHERE VANILLA BEAN PRODUCTION IS ONE OF THE MAIN SOURCES OF INCOME.

We have also employed the services of a specialist agronomist to advise the local communities on sustainable vanilla and rice production. The programme will be rolled out to five villages during 2011 – and 14 villages by 2014. We look forward to sharing an update in next year's *Sustainability Report*.

SUSTAINABLE PRODUCTION  
PROGRAMME FOR  
**14 VILLAGES**  
BY 2014

# EMPLOYEES

PASSION WITH PURPOSE



AS THE LEADING EMPLOYER IN OUR INDUSTRY, WITH A WORKFORCE OF AROUND 8500 EMPLOYEES, WE ATTRACT, DEVELOP AND RETAIN SOME OF THE BEST PEOPLE IN THE INDUSTRY. PROVIDING OUR COLLEAGUES A SAFE AND HEALTHY WORKING ENVIRONMENT, WHERE PEOPLE CAN BE GIVEN THE OPPORTUNITY TO APPLY THEIR TALENT AND SUCCEED AND GROW IN THEIR ROLES, IS IMPORTANT TO US. IT'S ALSO ESSENTIAL THAT OUR EMPLOYEES FEEL PASSIONATE AND PROUD OF WHAT THEY DO, AND ARE EMPOWERED TO CONTRIBUTE TO A SUSTAINABLE SOCIETY.

Last year saw the implementation of our global Human Resources (HR) strategy to ensure that our priorities for our people are fully aligned with our growing business and commercial demands. This includes a focus on topics such as sustainable staffing strategies, by looking at internal and external recruitment and employee mobilisation; overhauling our processes backed by excellent systems for day-to-day HR administration tasks; as well as a special focus on developing our people.

The challenging economic environment in 2009 did not jeopardise the importance we placed on the development of our people. Our individual development planning process focused on helping employees develop their skills and competencies to perform their current roles, as well as preparing them for future opportunities. This was comprehensively carried out and the solutions to the development needs included on-the-job development as well as other learning solutions.

Over the past two years we have implemented an online learning resource centre which is focused on delivering learning solutions to employees at their desks, making learning efficient, interactive and driven by the pace at which the individual wants to learn. It also reduces the need for unnecessary travel. In 2010 we plan to introduce an e-learning module focused on our approach to sustainable development which all employees can access.

Our behavioural-based safety awareness programme, called '*Zero is possible*', was also launched in 2009. Its aim is to foster an even stronger culture in which every employee is acutely aware of their own safety and the safety of the people around them. More information is contained within the Operations section of this report.

But the most exciting and rewarding development for us has been our new Green Teams grass-roots initiative. Starting at some sites by the initiatives of our colleagues, the concept of the Green Teams is now spreading across the organisation and is actively supported by our management.

By forming a Green Team, each one of our 82 locations will be empowered to take local ownership of the Givaudan sustainability vision. The teams are made up of around 10 employees from different functions and responsibility levels. The members work together to identify local sustainability issues and opportunities, including: community support; energy saving; waste and waste water saving; effective work processes and sustainable development education initiatives. The local Green Teams develop their own defined action plan, including timescales and predicted outcomes.

## The achievements of our various site Green Teams in 2009 include:

### Energy savings

- LED lamps installed in factory road lights in Jigani, India, resulted in a 71% energy cost reduction
- Using stand-by management and timers in Shanghai, China, saved 100 kWh of energy per night

### Waste reduction

- Waste has been reduced in the São Paulo, Brazil site from 60.88 g/kg produced in 2008 to 45.26 g/kg in 2009
- Raising awareness about paper consumption in Argenteuil, France has achieved a 33% reduction in paper consumption

### Water saving

- The addition of water meters and leak point detection in Shanghai, China has saved six million litres of water per month, from an overall monthly usage of 30 million litres

### Sustainable sourcing

- Our Vernier plant in Switzerland has become the first manufacturing facility in Europe to adopt sustainably sourced wood pallets from managed forests as part of a site-wide initiative to conserve paper and wood products

### Sustainability awareness

- Bromborough, UK, held an awareness week for all employees and contractors involving various external agencies and companies to promote waste minimisation and recycling, water saving, energy reduction and public transport
- Sant Celoni, Spain, now produces a quarterly newsletter 'Apunts de Sostenibilitat'
- Argenteuil, France, and New York, US, have distributed mugs to all staff to avoid the use of plastic cups for drinking water, coffee or tea
- As a result of a 'Consciencia Verde' awareness-raising programme at Malvinas in Argentina, over 700 kilos of paper have been collected for recycling



## Malvinas shows its green conscience

THE 'GREEN CONSCIENCE' INITIATIVE WHICH STARTED IN 2009 AT OUR MALVINAS PLANT IN ARGENTINA HAS BEEN DELIVERING SOME IMPRESSIVE RECYCLING RESULTS.

Since April 2009, the workforce of 60 people has been collecting paper, cans and plastic items for a recycling collection organised by the local hospital – which cleans and sorts the materials on behalf of a local charity. Over 700 kilos of paper have been collected for recycling so far. Additionally, 300 plastic bottles and over 5,500 plastic caps were despatched for recycling in 2009.

Industrial waste for recycling, such as wooden pallets, is separated by material type and stored in a designated area inside the warehouse for collection by a waste recycling company. Since this scheme began, 1,112 pallets have been collected for recycling.

The Green Team aims to build on these results to achieve even higher recycling rates in 2010 and extending the materials covered to include glass and batteries.

**5,500**  
BOTTLE CAPS SENT  
FOR RECYCLING

**50%**  
REDUCTION IN  
WASTE WATER  
TREATMENT  
PLANT SLUDGE

## Innovation and behaviour change at Vernier

IN 2009 OUR VERNIER PLANT IN SWITZERLAND BECAME THE FIRST MANUFACTURING FACILITY IN EUROPE TO ADOPT SUSTAINABLY SOURCED WOOD PALLETS FROM MANAGED FORESTS AS PART OF A SITE-WIDE INITIATIVE TO CONSERVE PAPER AND WOOD PRODUCTS.

Givaudan's request also paid dividends for the pallet supplier: being the first PEFC-accredited pallet supplier in Europe has attracted several new big brand clients since certification.

Phosphorous-rich waste water is now also being exported to a nearby waste water treatment plant, where it is being used as a replacement for bought-in phosphorous; and following a successful two-year trial, in 2010 new state-of-the-art equipment will enable a 50% reduction in sludge from the treatment plant.

The Green Team has involved the workforce of 850 people directly in an ongoing programme of contributing sustainable ideas and following them through with action. Sustainable sourcing of food and drink ingredients has begun in the staff restaurant; and following three years of negotiation, a new bus route now connects the plant with the centre of Geneva, the airport and airport railway station, providing the infrastructure for a significant reduction in car journeys.



# INNOVATION AND DEVELOPMENT

DELIVERING SUSTAINABLE CREATIONS



WITH THOUSANDS OF FLAVOURS AND FRAGRANCES BEING DEVELOPED AT GIVAUDAN EACH YEAR, IT IS CRITICAL TO OUR LONG-TERM SUCCESS THAT WE HAVE SUSTAINABLE AND EFFICIENT RESEARCH AND CREATION PROCESSES IN PLACE. OUR GOAL IS TO BE ABLE TO CREATE CONSUMER-PREFERRED FLAVOURS AND FRAGRANCES, DESIGNED AND DEVELOPED IN-LINE WITH SUSTAINABILITY PRINCIPLES, TO SATISFY CURRENT AND FUTURE NEEDS.

Our ultimate aspiration in this area is to work in partnership with our customers to ensure that sustainability is considered right from the start of a product development journey – with a long-term goal to have 100% of our new products ‘sustainable by design’.

On a practical level, this might involve: minimising waste in the development of a product; using less water and energy; or targeting the use of renewable and sustainable ingredients and bio-chemistry; making more concentrated products, using fewer raw materials; or simply exploring the use of bulk containers for regular, large orders which can then come back to us for refilling for a specific customer.

We are also working with our customers to develop products specifically tailored for demanding sustainability-focused markets and have many examples of this already taking place in Givaudan. We invested 8% of our sales in research last year developing new proprietary technologies to ensure that our experts have all the means necessary to create industry-leading flavours and fragrances, which also meet the health, safety and wellness requirements of our customers, regulatory bodies and society at large.

We are partnering with our customers on many projects to tackle obesity and other health issues. To address salt, sugar and fat reduction goals, as part of our proprietary TasteSolutions™ programme, we have – through our unique CulinaryTrek™ and TasteTrek™ initiatives – investigated and analysed traditional cooking techniques, from a variety of cuisines globally. This research helps us to explore new avenues to reduce salt, sugar and fat in consumer products, without compromising on the taste.

We have focused particularly on the ‘delicious taste’ and ‘balance’ of umami and kokumi, which are found in artisanal, Japanese cooking ingredients and dishes, and can be used to create natural molecules for a variety of health and wellness applications. We have now discovered seven new molecules under this evaluation – one of which was introduced commercially in 2009.

Looking at sugar replacement, Rebaudioside-A (Reb-A), the newly discovered, naturally-derived molecule from the leaves of the Stevia plant offers high-intensity sweetness without any calories. Unfortunately it also has a lingering, bitter aftertaste. However, through the development of our patented ‘masking’ technology, we can now make Reb-A sweetened products acceptable to consumers. This helps customers reduce sugar in

their products and will be instrumental to the successful launch of several natural, low- or no-calorie carbonated soft drinks, iced teas, flavoured waters, juice drinks and sports and functional beverages.

Another market-leading innovation has been our Fragrance Division’s understanding of skin sensitisation issues. We are the only fragrance supplier to publish scientific papers promoting development of in-vitro methods of testing ingredient sensitisation. We aim to be the key contributor from the fragrance industry to in-vitro testing, resulting in safer fragrances and molecules as a result. This work has been critical following the 7th amendment of the EU cosmetic directive, which banned the use of animal tests for ingredients – for skin irritation, from 2009, and for skin sensitisation, from 2013.

Following the concept of the 3Rs (Reduce, Refine, Replace) we now have several tests implemented and evaluated, and two key test systems under further investigation to help us predict the likelihood of allergy issues from fragrance materials.

We are also working with our customers to research ‘compaction’ which involves using fragrance delivery technologies to create the same fragrance effect with less raw materials, and therefore less raw material volume.

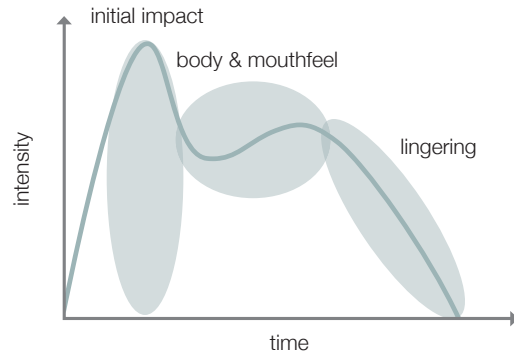
## Assault on salt

EATING TOO MUCH SALT IS WELL KNOWN TO LEAD TO HIGH BLOOD PRESSURE, TRIPLING THE CHANCES OF HEART DISEASE AND THE LIKELIHOOD OF HAVING A STROKE. WITH REGULATIONS TIGHTENING AND WITH HEALTH AND WELLNESS CONCERNS FORCING A WORLDWIDE SHIFT IN THE FOOD INDUSTRY, GIVAUDAN IS WORKING TO SOLVE THIS SALT CHALLENGE – OFFERING CONSUMERS GREAT TASTE AND REDUCED SODIUM LEVELS.

Our approach is focused on asking what makes food taste great. As part of our TasteSolutions™ programme, we have developed a ‘salt curve’ – a visual representation of the taste effects of sodium chloride over time. Rather than simply trying to replace salt, we have been working to assess the role it plays in a product. Then, a flavour is created which builds back those important taste aspects of the salt curve needed to satisfy and drive consumer preference when sodium levels are reduced.

This deep knowledge of food science and sensory understanding has enabled our flavourists to develop solutions for customers’ products from soups and sauces, to snacks and meat, as well as for cereals and bakery. In addition to meeting regulatory and cost constraints, our work has included natural flavours, which can also be allergen- and MSG-free or kosher and halal, if required.

Our technology also enables us to develop flavours that, unlike most other companies’ alternatives, do not rely on the use of potassium chloride, if the customer prefers not to use it.



Recreating the key taste dimensions of salt with Givaudan's TasteSolutions™



## Breaking down the fate of fragrances

BIODEGRADATION IS THE BREAKDOWN OF ORGANIC SUBSTANCES BY MICRO-ORGANISMS AND IS A KEY PROCESS FOR THE REMOVAL OF SUBSTANCES FROM THE ENVIRONMENT. AMONG MANY OTHER FACTORS, WE RECOGNISED THE IMPORTANCE OF THE BIODEGRADABILITY OF FRAGRANCE INGREDIENTS AND ESTABLISHED THE FIRST IN-HOUSE BIODEGRADATION TESTING PROGRAMME IN THE EARLY 1990S.

In the Ecotoxicological Laboratory in Vernier, our scientists work to international standards to measure the ability of a substance to breakdown into its different components. Thanks to our extensive testing programme, we have the necessary information on biodegradation profiles of ingredients, supporting our perfumers and customers on the creation of biodegradable fragrances.

Building upon Givaudan's historic data, our Regulatory Affairs & Product Safety (RAPS) environmental team have, over the last two years, reviewed external ingredient information in the Research Institute Fragrance Material (RIFM) database to identify suitable materials, before testing either the ingredient or its component parts.

Recent additions to the Perfumer palette include a number of Givaudan captives and specialties, such as Florymoss, Frutonile and our ethically-sourced Tonka, all classified as non-persistent. The analysis covers both natural and synthetic ingredients. Complex natural substances are difficult to test in standard biodegradation tests and, through our unique capabilities, we are leading the industry in this field.

# OPERATIONS

DRIVING OPERATIONAL EXCELLENCE

DELIVERING OPERATIONAL EXCELLENCE IS AT THE HEART OF WHAT WE DO, AS WE ARE RESPONSIBLE FOR PRODUCING AND DELIVERING HUNDREDS OF THOUSANDS OF TONNES OF FLAVOUR AND FRAGRANCE PRODUCTS EVERY YEAR. WE CONTINUOUSLY DRIVE OPERATIONAL EXCELLENCE, WITHOUT COMPROMISING THE ENVIRONMENT OR THE HEALTH AND WELL-BEING OF OUR EMPLOYEES AND THE COMMUNITIES IN WHICH WE OPERATE.

With 33 manufacturing locations operating in every region of the world, it's critical that we monitor and consistently track our environment, health and safety performance. This year, for the first time, we are also measuring the same performance of our office and laboratory locations to ensure they meet the same high standards. The results are highlighted in the following pages of this report.

But measurement alone is not enough. Doing business in a world of resource constraints and ever-changing social expectations requires constant rethinking of the way we operate our facilities. Uncompromising safety, health and environmental performance are a fundamental pre-requisite as we strive to run our operations in a sustainable manner.

Our ultimate sustainability goals and aspirations link closely to the TNSI principles outlined in page 3 of this report and focus on the following key areas.

**Incidents:** through our 'Zero is possible' safety awareness programme, our aim is to foster an even stronger culture in which every employee is acutely aware of their own safety and the safety of the people and the environment around them. At some sites, 'Zero' is indeed already possible: at the end of 2009, our Lakeland, USA-site

operated for one calendar year without an OSHA<sup>1</sup> recordable injury and hasn't had one for 544 days.

**Carbon:** our focus is on reducing carbon emissions. We are determined to achieve year-on-year improvements, with an end goal of zero carbon emissions. In 2007, we started our participation in the Carbon Disclosure Project – the first independent global standardised programme for reporting to institutional investors a company's potential impact on climate change.

**Waste:** our philosophy encourages the redesign of resource life cycles so that waste generation is minimised, with any unavoidable waste products being reused or recycled. In practice, this process involves, for example, creating commodities out of traditional waste products. We do this at our manufacturing plant in Pedro Escobedo, Mexico, where the reuse of waste as a fuel for the site has reduced fossil fuel usage by 25% since 2007.

**Water stewardship:** achievable through more efficient water usage and also looking at our water and waste water from an overview perspective. Our Carthage manufacturing facility in Cincinnati, USA, for example, now saves 400 cubic metres of water per day (about two-thirds of the total water requirement) and significantly reduced its

water discharge, following the installation of a water recirculation system in its vital air emission scrubber systems.

**Regarded as a good neighbour:** we believe in actively listening to the needs and concerns of our neighbours in all communities in which we operate, while designing our processes to minimise noise and odour emissions. In our Barneveld location, in The Netherlands, odour emission in the community was successfully reduced by the replacement of an existing biofilter through a combination of scrubber and plasma reactor technology. In addition to fewer odour complaints, the new technology also resulted in a reduced environmental impact because of lower energy and water consumption.

**Most efficient product packaging and distribution:** our plans include working with our purchasing and logistics departments to ensure that our packaging and distribution is becoming as efficient as possible. For example, improvements have already been achieved at our Jaguaré site in São Paulo, Brazil, which has reduced logistics CO<sub>2</sub> emissions by decreasing delivery frequency and maximising raw material packaging dimensions in partnership with a customer.

<sup>1</sup> OSHA = Occupational Safety & Health Administration of the United States Department of Labor.

COMMITTED  
TO BEING A  
**GOOD**  
NEIGHBOUR



## Community projects in Mexico

AS A LARGE EMPLOYER IN THE REGION, OUR CUERNAVACA SITE IN MEXICO HAS A SUPPORTIVE RELATIONSHIP WITH THE LOCAL COMMUNITY.

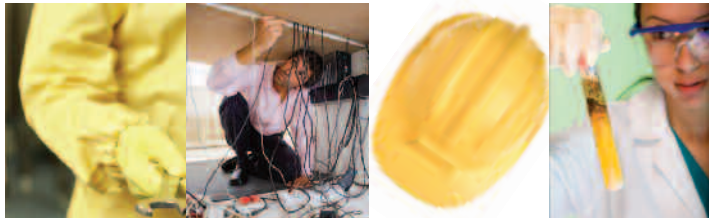
With projects ranging from Red Cross blood donation and tree-planting, to helping to clear rubbish from the Fuentes River, there are many examples of our commitment to being a good neighbour. Education is an important part of the programme: local students are invited to visit and tour the facilities, and our soccer field has been shared for many years with the local sports club. Our family open day had a special 'Environmental' stand. We have also donated containers to the local school for waste segregation.



## Zero is possible



LAUNCHED IN JUNE 2009, 'ZERO IS POSSIBLE' IS A BEHAVIOURAL-BASED SAFETY AWARENESS PROGRAMME. THE AIM IS TO FOSTER AN EVEN STRONGER CULTURE IN WHICH EVERY EMPLOYEE IS ACUTELY AWARE OF THEIR OWN SAFETY AND THE SAFETY OF THE PEOPLE AROUND THEM.



The programme has included a series of one-day safety leadership training courses, attended by over 700 employees with specific line management responsibilities. At the end of this programme cycle, training will be organised for all employees. The global roll-out is scheduled for completion at the beginning of 2011.

The aim of the programme is to significantly reduce our work-related Lost Time Injury Rate, which measures the number of lost time work-related incidents per 200,000 worked hours from 1.0 in 2009.

As one of the training delegates said: *"the most important outcome for all trainees was that everybody has an even better awareness for safety."*

FUEL COSTS  
**REDUCED**  
BY  
**\$175,000**

## Turning waste into energy at Pedro Escobedo

OUR PEDRO ESCOBEDO SITE IN MEXICO BEGAN EVALUATING ITS WASTE EMISSIONS AND WASTE DISPOSAL COSTS IN 2007, WITH A VIEW TO REDUCING ITS MANUFACTURING BY-PRODUCTS AND THEIR IMPACT ON THE ENVIRONMENT.

An open working relationship was established with the environmental authorities from the outset and this led to a pilot project to reuse the plant's own waste solvents as a fuel source.

During the course of 2009 the proportion of recycled fuel used in the boilers grew significantly and the plant recycled 713 tonnes of organic waste. Consumption of heavy fuel oil was reduced by 11.5% compared with 2008 (equating to 175,000 USD) and CO<sub>2</sub> emissions were reduced by 10%.

Building on the success of substituting heavy fuel oil with organic waste, the target at the Pedro Escobedo site for 2010 is to use all of its organic waste as a fuel source.

## Waste

ON OUR JOURNEY TOWARDS ZERO WASTE, WE TRY TO AVOID USING PRODUCTION PROCESSES THAT CREATE HAZARDOUS WASTE IN THE FIRST PLACE, AND WE ALSO AIM TO MINIMISE THE TOTAL AMOUNT OF WASTE WE SEND TO LANDFILL.

During the reporting year, our global waste decreased by 16%. Hazardous waste decreased by 24%, and we reduced, by close to half, the proportion of this that is sent to landfill. Our non-hazardous waste was reduced by 9%. This difference was partially due to a reclassification of our waste water treatment sludge in our Spanish plant from hazardous to non-hazardous waste.

The total non-hazardous waste decreased 9%, with an increase of 5% of the landfilled portion, due to the above mentioned change of classification from our Spanish operation.



### Waste not, want not

In Dübendorf, Switzerland, Givaudan became a partner in a local bio-gas plant project. We are supplying our waste, derived from natural materials, for the production of combined heat and electricity – helping to create a useful resource from our waste and supporting a local sustainable energy project. We agreed with the project initiators to pay a fixed-price for the handling of our waste, helping them achieve secure revenues for their energy project.



## Inorganic gas emissions



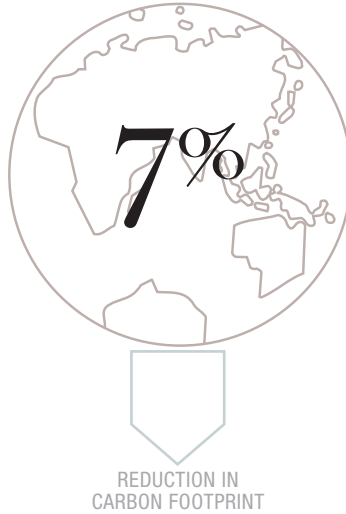
SULPHUR DIOXIDE (SO<sub>2</sub>) AND NITROGEN OXIDES (NO<sub>x</sub>) ARE THE INORGANIC EMISSIONS WE REPORT ON A REGULAR BASIS. THESE OCCUR DURING THE COMBUSTION OF FOSSIL FUEL.

SO<sub>2</sub> emissions are mainly derived from the use of heavy fuel oil. Its quantity decreased by 12% as one of our main locations found ways to partially replace heavy fuel oil by other fuel sources. Nitrogen oxide emissions fell by 4%, partially due to replacing light fuel oil for natural gas in our Swiss operations.



# Energy and its CO<sub>2</sub>-related emissions

IT IS OUR COMMITMENT TO MAKE FURTHER PROGRESS IN APPLYING THE REPORTING GUIDELINES OF THE GREENHOUSE GAS (GHG) PROTOCOL. OUR AIM IS ZERO EMISSIONS. WE WILL GET THERE BY OPTIMISING OUR PROCESSES AND TO MOVE TO CLEANER AND RENEWABLE ENERGY SOURCES OVER TIME.



The amount of energy produced from our own energy sources, or from sources controlled by the company (known as Scope 1 sources in the GHG Protocol) were reduced by 8% over the reporting period. Energy purchased from external providers, such as electricity and steam (known as Scope 2 sources), was reduced by 7%. The carbon footprint, expressed in metric tons of CO<sub>2</sub> equivalent, was also reduced by 7%.

## Saving Euros by saving energy

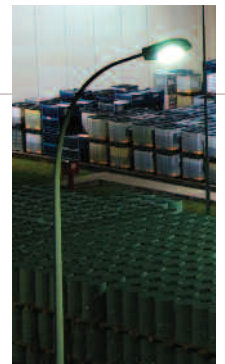
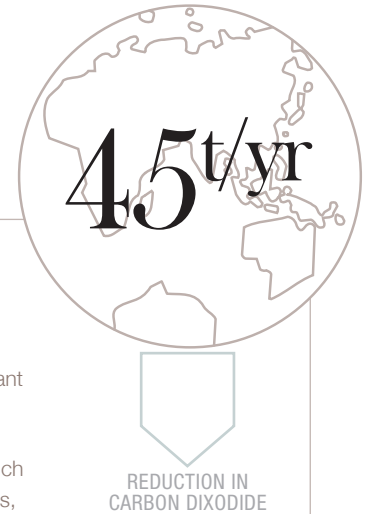
When it comes to saving energy, every little helps. Our Dortmund site in Germany will now save 38,400 kWh of electricity per year, after modifying four of its existing air compressors, as well as 31,500 kWh of energy by replacing warehouse lighting bulbs with LEDs – an overall yearly cost saving of approximately €7,000.

It has also installed attendance detectors for some lights which switch off when certain floors and rooms are not in use.



## Turning down the lights

A project to reduce energy consumption in our Sant Celoni plant in Spain has added environmental benefits. By replacing external mercury-based light bulbs with much more efficient sodium vapour lamps, the plant has saved about €10,000 annually, and achieved a reduction in CO<sub>2</sub> of 45 t/year, as well as a significant reduction in light pollution.





## Emergency response tested to the limits

In November 2009, our East Hanover plant in the US simulated an explosion of an ammonia tank caused by an unknown individual. Working closely with external official bodies including the local fire department, police, and other governmental organisations, the team acted out the events that might follow, testing response times and procedures to deal with a range of issues, including contaminated personnel.



## Safety



A GREAT DEAL OF ATTENTION HAS BEEN PLACED ON OCCUPATIONAL SAFETY THROUGH OUR 'ZERO IS POSSIBLE' PROGRAMME. THE FACT THAT GIVAUDAN IS TALKING SAFETY ON A DAILY BASIS MAKES IT MORE VISIBLE THROUGHOUT THE ENTIRE ORGANISATION.

We have an ambitious target to bring down the lost time incident rate (incidents after which an employee is away from work for a day or more) to close to zero in a short period of time.

We started a global multi-phase safety programme in 2009, when more than 700 employees in leadership functions took part in training in the management aspects of behavioural safety.

A global analysis of reported safety incidents over the years highlighted some certain inconsistencies due to different definitions being used across the organisation are now being addressed. We are placing a particular emphasis on harmonising incident definitions and safety working practices, as well as increasing employee awareness and understanding of the various ways in which the company aims to improve safety.

We are paying particular attention to identifying the root causes of incidents. Our employees are being encouraged to become even more aware of any working practices that might potentially lead to an incident and report these to their line manager.

By these various measures we are convinced that we will be able to transform our culture and reach our ambitious target of achieving world-class safety standards within the next three years.

## Smaller packs mean safer handling

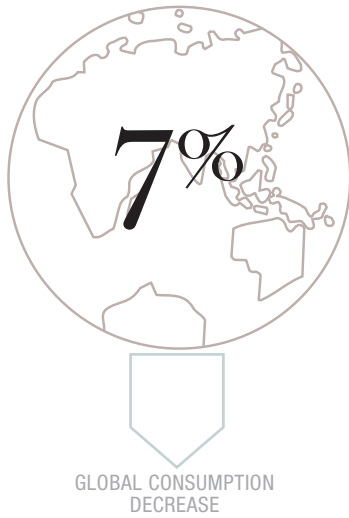
70%

PACK SIZES CHANGED

30%

CHANGING  
2010

Manual handling of unique and non-standard pack sizes was identified as one source of potential injury in our Australian business. The team highlighted that we were buying some non-standard pack sizes which we could not handle easily. The suppliers were contacted and now 70% of the pack sizes have been changed to suit our mechanical lifting gear, with the remaining 30% expected to be changed in early 2010. This is a good example of how a country specific situation can be addressed and how communication and working in partnership with suppliers can take us to our 'Zero is possible' target.



# Water

WATER IS ONE OF THE ELEMENTS ON WHICH GIVAUDAN IS PLACING A STRONG LONG-TERM EMPHASIS. IT IS A BASIC RESOURCE FOR HUMANITY AND WE ARE CONSCIOUS OF ITS GLOBAL SCARCITY. THROUGH VARIOUS WATER-SAVING INITIATIVES, WE WERE ABLE TO REGISTER A GLOBAL CONSUMPTION DECREASE OF 7%.

More than half our total water consumption takes place in our multi-purpose plant in Vernier, Switzerland. Water is pumped from the nearby river, 80% is used as cooling water and returned directly to the river under strict quality criteria (including temperature limits). The remaining 20% is used for cleaning purposes (vessels, areas of work etc). After use, this water is sent to our own internal waste water treatment plant before also being returned to the river. Our treatment plant is also cleaning some waste water from the local community.

An extensive leakage repair programme in one of our UK locations, together with significant reductions which were realised in our locations in China (see page 11) and the US, have all contributed to the decreased overall water consumption. The installation of water meters and new water pipes have resulted in savings to date of six million litres per month in our Shanghai factory.



# Non-production sites

IN 2009, FOR THE FIRST TIME, WE ASKED OUR NON-PRODUCTION LOCATIONS (COMMERCIAL SITES, LABORATORIES AND CREATION CENTRES) TO REPORT ON SOME ASPECTS OF THEIR OPERATIONS – NAMELY THE NUMBER OF INCIDENTS, ENERGY AND WATER CONSUMPTION AND THE HANDLING OF DIFFERENT WASTE STREAMS. ABOUT 15% OF OUR TOTAL WORKFORCE IS BASED ON THESE NON-PRODUCTION SITES.

As one might expect for first-time reporting, it is not easy to draw firm conclusions as the data reported is difficult to validate, incomplete, or was not always readily available in situations where space is rented as part of a bigger building.

In comparison with the data for the manufacturing locations, the reported water consumption is about 1.5% and for energy about 4%, of which three-quarters is electricity. The quantity of hazardous waste disposed of is small (0.12% compared to production total) and most likely originating from sampling and laboratory activities. The total quantity of reported non-hazardous waste was 1.8%, in comparison, and it is good to see that around 80% of this is recycled.

The above reported figures show that while our non-production sites only have a small contribution to Givaudan's environmental footprint, it is significant enough to justify more thorough verification and detailed analysis.

# CUSTOMERS AND MARKETS PRODUCT IMPACT



OPEN AND COMMITTED ENGAGEMENT WITH OUR CUSTOMERS, NGOS AND CONSUMERS ON COMMON GOALS REGARDING THE HEALTH AND WELL-BEING OF PEOPLE AND PLANET IS THE ONLY WAY WE WILL SUCCESSFULLY PROGRESS ON OUR SUSTAINABILITY JOURNEY. THIS JOURNEY HAS STARTED BUT WE STILL HAVE SOME WAY TO GO AND WE LOOK FORWARD TO PLAYING A MORE ACTIVE ROLE IN THIS AREA IN THE FUTURE. THIS RANGES FROM THE UPFRONT DESIGN OF PRODUCTS TO WORKING IN COLLABORATION WITH OUR CUSTOMERS TO SUPPORT SUSTAINABILITY GOALS THROUGHOUT THE LIFE CYCLE OF THEIR PRODUCTS.

We are strongly committed to participating in discussions both within the fragrance industry and with governments and regulatory bodies through our active participation in the International Fragrance Association (IFRA). Our experts contribute to all aspects of IFRA's work and are present on the IFRA Board, the Executive Committee, the Scientific Committee, the Environmental Task Force and the Communications Working Group. We are also strongly active within the Research Institute for Fragrance Materials (RIFM) and the Fragrance Materials Association (FMA). Our in-house environmental experts are also members of the European Centre for Ecotoxicology and Toxicology of Chemicals (ECETOC), the leading EU cross-industry body promoting chemical safety.

In addition, European Union regulation concerning the Registration, Evaluation, Authorisation and restriction of Chemicals (REACH) came into force on 1st June 2007. The regulation requires the registration of fragrance materials produced in quantities over 1,000 tonnes per year by the end of 2010. REACH replaces a number of European Directives and Regulations with one single system. We completed our pre-registrations in line with the original deadline set by the European Chemicals Agency (ECHA).

Flavour safety is taken equally seriously at Givaudan and we feel it is fundamental to demonstrate leadership in the industry. It is vital that many of our management, regulatory and safety experts are deeply involved in shaping international policy to seek harmonised best practice. The influential and collaborative roles that our experts play in key bodies, including IOFI (International Organisation of the Flavour Industry), FEMA (Flavour & Extract Manufacturers Association of the USA) and JFFMA (Japanese Food Additives and the Flavour and Fragrance Materials Association), are a sign of this. Dialogue with governing organisations like the FDA (US Food & Drug Administration), EFSA (European Food Safety Authority) and WHO (World Health Organisation) is clearly a responsibility for all players in our industry and one that we readily embrace.

This teamwork and leadership has recently provided a major breakthrough, as the Codex Alimentarius Commission (Codex) of the World Health Organisation has adopted the world's first standardising guidelines on flavour safety, based on scientific principles developed with major input from our industry.

These new guidelines not only ensure safety, but establish a regulatory platform where the

highest standards of sound science are applied to flavour safety, allowing multinational customers to follow one harmonised standard. They also facilitate our customers' ability to sell their flavoured products worldwide, allowing them to function as global consumer brands. Crucially, the new code is backed by the WHO, World Trade Organisation and Codex whose combined mission is to protect the health of consumers, ensure fair-trade practices and set global food trade standards.

Additionally, continuous efforts are made, through the same vehicles, to ensure the intellectual property of the industry is safeguarded, enabling sustained flavour industry innovation.

As well as health and well-being, we are also helping our customers satisfy consumer demand for ethical and fair-trade products. Our Givaudan Innovative Naturals™ programme is committed to ensuring ethical sourcing of key natural ingredients. In one of our latest initiatives, we are now sourcing vanilla sustainably from Madagascar. Please see the Raw Materials section of this report for more details. And our expertise in the organics field has resulted in nine organic certifications from ECOCERT, one of the largest organic certification organisations in the world, for ingredients as diverse as lavender and basil.

## Natura – a customer with a common vision

LEADING BRAZILIAN MANUFACTURER OF SKIN CARE, COSMETICS, PERFUME AND HAIR CARE PRODUCTS, NATURA, IS AT THE FOREFRONT OF COMBINING ETHICS, TRANSPARENCY, OPEN COMMUNICATION AND SUSTAINABLE DEVELOPMENT WITH DAY-TO-DAY BUSINESS.

With our common vision on sustainability, we have established a collaboration well beyond the traditional customer-supplier relationship.

Having been selected as an important fragrances delivery partner for Natura's sustainable business goal, common initiatives include:

- Working with Natura to pioneer the development of Brazilian Biodiversity oils
- Supporting the creative development of new products to ensure minimal environmental impact, such as biodegradable and compact fragrances which require fewer ingredients, less packaging, warehousing and distribution
- Participation in various sustainability events promoted by Natura, including a media roundtable alongside the customer and representatives from an Amazonian community, to explain the crucial role of the supplier in producing a sustainable product.



“With a strong company focus on protecting our natural environment, it is vital to Natura that our fragrances supplier is equally committed to sustainability and understands our long-term goals. Givaudan has been a true partner in this process and an active participant in our sustainable development commitments. We look forward to our relationship becoming even stronger in the future as we continue along our shared journey towards sustainability.”

Marcos Vaz, Sustainability Director, Natura.



## Customer helps drive efficient logistics

ACTING IN A SUSTAINABLE WAY IS NOT JUST ABOUT CONSIDERING THE PRODUCT ITSELF, BUT IS ABOUT REDUCING ENVIRONMENTAL IMPACTS RIGHT ACROSS THE SUPPLY CHAIN.

At our Jaguaré site in São Paulo, Brazil, we have reduced carbon dioxide (CO<sub>2</sub>) emissions in the logistics area after working closely with a key customer.

We agreed joint actions in areas where there were direct impacts on CO<sub>2</sub> emission. For example, maximising the dimensions of raw material packaging and decreasing the frequency of trucks delivering raw materials from three times to once per week.

The successful programme illustrated the benefits of having both parties agreeing and committing to common goals.

REDUCING  
EMISSIONS OF  
**CO<sub>2</sub>**

# Performance data

Key Performance Indicators		2008	2009	08/09 (%)	Trend
Energy [gigajoules]	Direct energy: own sources *	1,901,153	1,756,329	-8%	▼
	Indirect energy: purchased electricity and steam	916,377	855,467	-7%	▼
	<b>Total energy</b>	<b>2,817,530</b>	<b>2,611,796</b>	<b>-7%</b>	<b>▼</b>
CO <sub>2</sub> emissions [tonnes]	Scope 1 emissions: from direct energy sources	121,408	111,290	-8%	▼
	Scope 2 emissions: from indirect energy sources	115,690	110,027	-5%	▼
	<b>Total CO<sub>2</sub> emissions</b>	<b>237,098</b>	<b>221,317</b>	<b>-7%</b>	<b>▼</b>
Waste [tonnes]	Incinerated	14,855	11,296	-24%	▼
	Hazardous waste				
	Landfilled	1,299	706	-46%	▼
	Recycled	4,915	3,915	-20%	▼
	<b>Total hazardous waste</b>	<b>21,069</b>	<b>15,917</b>	<b>-24%</b>	<b>▼</b>
Non-hazardous waste	Incinerated	5,293	3,897	-26%	▼
	Landfilled	6,345	6,632	5%	▲
	Recycled	10,780	9,940	-8%	▼
	<b>Total non-hazardous waste</b>	<b>22,418</b>	<b>20,469</b>	<b>-9%</b>	<b>▼</b>
	<b>Total waste</b>	<b>43,487</b>	<b>36,386</b>	<b>-16%</b>	<b>▼</b>
Water [quantity used, m <sup>3</sup> ]	Total water **	7,682,938	7,116,843	-7%	▼
Other data	Nitrogen oxides (NO <sub>x</sub> ) [tonnes]	97	93	-4%	▼
	Sulphur dioxide (SO <sub>2</sub> ) [tonnes]	413	364	-12%	▼
	Chlorofluorocarbon inventory [kilograms]	12,550	14,820	18%	▲
	Chlorofluorocarbon loss-replacement [kilograms]	1,284	1,418	10%	▲
	EHS investments [CHF million]	22	13	-41%	▼
	EHS expenses [CHF million]	49,3	44,3	-10%	▼
Incidents	Lost time injury (LTI)	68	77	13%	▲
	Medical treatment (MT)	36	29	-19%	▼
	Restricted work case (RWC)	25	29	16%	▲
	Total recordable (TR)	129	135	5%	▲
	Lost time injury rate (LTIR)	0.86	1.0	16%	▲
	Total recordable injury rate (TRIR)	1.64	1.76	7%	▲
	Worked hours	15,734,929	15,341,093	-3%	▼
Production	Production quantities			-0.43%	▼

\* includes natural gas, light fuel, heavy fuel and liquid petroleum gas

\*\* includes sanitary, cooling and process water

# Givaudan's approach to Sustainability

## About this commentary

THE NATURAL STEP INTERNATIONAL HAS WORKED WITH GIVAUDAN SINCE 2008 AS AN EXTERNAL NGO PARTNER. THIS REVIEW HAS BEEN CONDUCTED BY ADVISORS FROM THE NATURAL STEP WITH KNOWLEDGE OF GIVAUDAN'S BUSINESS.

### Recognition of the Sustainability Imperative

With increasing sustainability related business pressures, the imperative of sustainable development within the Flavours and Fragrances industry is clear and mounting. It is our view that Givaudan sees the systemic nature of the problem, and the opportunity that sustainable development represents. As an upstream supplier of ingredients which end-up in consumer products, one of Givaudan's greatest challenges is to source its raw materials sustainably. The company can then support a whole-of-value-chain design of products that allows nature to 'close the resource loop' at the end of a product's life. The company has recognised the need for a new approach, building on past progress, which will support delivery of Givaudan's long term aspirations in a more sustainable way.

### Leadership and Commitment

Leadership for sustainable development requires understanding the full effect of business decisions, clear aims for addressing problems upstream and integration of sustainability thinking throughout the organisation and business model. Based upon interviews with key personnel in global leadership positions, master-classes with Givaudan's leadership board and a series of strategy workshops with cross-functional teams, it is our view that Givaudan is showing leadership and commitment to doing business in a more sustainable way. We commend them for seeking external views, engaging in external initiatives and encouraging sustainability activities to flourish, even in the midst of economic downturn. These are hallmarks of a company taking its sustainability responsibilities seriously.

### Vision and Strategy

Organisations truly committed to sustainability will base vision and strategy on science-based

principles of a sustainable society. The Natural Step has acted as a 'critical friend', and provided Givaudan with such principles. Establishing a vision within these constraints allows an organisation to begin with success in mind – a clear picture of the company's value proposition, activities and role within a sustainable society. Decisions and strategies are then viewed from the perspective of a sustainable future and their enabling potential, rather than as a response to today's unsustainable global situation. This approach is leading Givaudan to look at the full impact of their products in a new way. It is an ambitious scope where responsibility is defined by what is needed for sustainability and what is material to the company.

### Organisational Capacity and Implementation

Great plans are only useful when they result in great actions; strengthening capacity for sustainable development across the organisation is now paramount. It is promising to see the formation and activation of Givaudan's internal sustainability teams. We look forward to seeing how activities in each business function are supporting the pillars and ultimate aspirations of the new sustainability vision, particularly through progress toward mid-term targets, and future reporting against key metrics.

### Products and Services

Managing the footprint and full life cycle of Givaudan's products is complex. Business to business is pre-eminent here, leading to some distance between Givaudan and end-users of its products. Nevertheless the company must give attention to sustainable sourcing of raw materials, and design for dispersive product use with regard to the needs of people and planet. No organisation can be sustainable alone and

Givaudan has a number of unique and promising programmes to build upon with customers and suppliers. We applaud Givaudan for basing its product sustainability assessments on a full life cycle perspective using sustainability principles. We believe this will allow for robust evaluation and communication of sustainability performance.

### Future steps?

Ongoing effort is needed in order to deliver improved sustainability and business performance. Moving forward we would like to see the development of additional tools, resources and incentives for integration of sustainability within all aspects of daily decision-making for all employees. This next level of integration should be a priority. We would also like to see Givaudan further develop data on the sustainability performance of its products and processes. For example, perceptions and reality concerning the performance of synthetic and naturally-derived products need to be addressed. This in turn can support clearer and more confident communication with customers, as they increasingly demand better sustainability performance.

Overall we believe that Givaudan is in the process of integrating a comprehensive and proactive approach to sustainable business, and through this, is demonstrating leadership in its marketplace for sustainable development.

### David Cook

Executive Ambassador,  
The Natural Step International

### Richard Blume

Senior Advisor,  
The Natural Step International



*The Natural Step is an international not for profit organisation dedicated to sustainable development. The Natural Step acts as a catalyst for society, bringing about systemic change by giving decision-makers a common, science-based understanding of sustainability, and a framework to make decisions in a genuinely sustainable way. [www.thenaturalstep.org](http://www.thenaturalstep.org).*

# Givaudan<sup>®</sup>

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