

2016 Sustainability Report



Givaudan

engage your senses



About this report



G4 – 28-33

Sustainability lies at the heart of Givaudan's business model, driving responsible growth and creating new opportunities for shared success.

In view of this, the Company is moving towards an integrated reporting strategy. In the coming years, sustainability information will be integrated into the Annual Report to demonstrate how non-financial capitals contribute to Givaudan's growth and development.

The 2016 report represents a step on this journey. For the first time, some of the GRI indicators are published in the Annual Report only and so for the full picture of Givaudan's sustainability activities it is necessary to read both reports. The GRI Content Index Table and the navigation in this document will show where the answers to each indicator can be found.

This report covers the sustainability activity of Givaudan's wholly-owned companies for the year to December 2016. The results are presented in accordance with the 'Core' option of the Global Reporting Initiative's G4 Sustainability Reporting Guidelines. The GRI materiality disclosure service verified that the General Standard Disclosures G4 – 17 to G4 – 27 were correctly located both in the GRI Content Index (pp. 79–81) and in the text of the report. External assurance is provided by Ernst&Young LLP (pp. 82 – 83).

This Sustainability Report also serves as our annual Communication on Progress (COP) regarding Givaudan's commitment to the UN Global Compact principles. For more information see the principles of the UN Global Compact (p. 78) and G4 Content Index (pp. 79 – 81).

Givaudan reports on sustainability once a year; the previous report was published in March 2015.

Comments and questions can be sent to global.sustainability@givaudan.com

Table of contents

Performance highlights 2016	01
Profile disclosures	05
Strategy and analysis	07
Organisational profile	15
Ethics and integrity	20
Reporting process	21
Stakeholder engagement	23
Identified material aspects and boundaries	26
Environment	31
Eco-efficiency	33
Products and services	39
Transport	41
Supply chain	43
Procurement practices	45
Child labour	52

Labour practices	53
Labour/management relations	55
Occupational health and safety	56
Diversity and equality	59
Society	61
Local communities	63
Anti-corruption	65
Product responsibility	67
Customer health and safety	69
Product and service labelling	71
Appendix	73
Performance indicators – environmental	75
Performance indicators – restatement table	77
The principles of the UN Global Compact	78
G4 Content Index	79
Independent Assurance Statement	82
Overview of annual publications	84

Performance highlights 2016

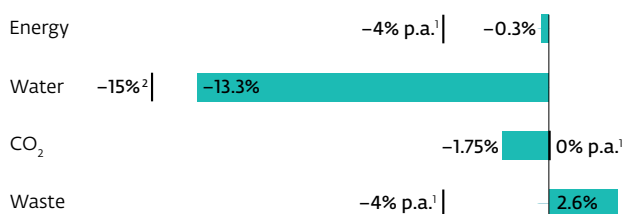
We made significant progress in 2016 in our strategy of 'Responsible growth. Shared success.' and are setting new standards on the road to greater sustainability.

Highlight achievements



Eco-efficiency targets and results 2016

Eco-efficiency performance in %



■ Status as of 31 December 2016 | Target

¹ Target set in 2015 for 2020

² Target set in 2009 for 2020

Renewable electricity and LTI rate targets



■ Status as of 31 December 2016 | Target

¹ Target set in 2016 for 2025

² Target set in 2009 for 2020

Sustainability ratings

Carbon Disclosure Project



In 2016, Givaudan achieved an overall ranking of A- at the Leadership level and is a country leader for Switzerland in CDP's newly introduced scoring system for 2016.

EcoVadis



Our 2016 assessment achieved a gold level rating score of 70/100 and positions us in the top 2% of suppliers completing the EcoVadis assessment.

Sourcing

Responsible Sourcing Policy publication

Showing strengthened commitment to our Responsible Sourcing programme, we became the first in the industry to publish a Responsible Sourcing Policy, which covers supply chain aspects of health and safety, social, environmental and business integrity, and will enable us to help our customers respond to consumer demand for greater transparency in these areas.

10 years of ethical sourcing

We celebrated the 10th anniversary of our ethical sourcing initiative. The initiative began through partnerships with local producers and communities from which we source strategic natural raw materials. This approach allows us to secure the most fragile natural supply chains and support those local communities on which we depend.

NATEMA

We inaugurated a natural processing plant in Madagascar for the local production of natural ingredients. By processing natural raw materials locally rather than exporting them non-processed, the NATEMA joint venture will contribute to creating added value directly in Madagascar. The plant will eventually leverage our local expertise and capabilities to process additional natural ingredients from Madagascar's rich biodiversity and from neighbouring countries.

Innovation

10 years of TasteTrek® Citrus

We celebrated 10 years of TasteTrek® Citrus, a milestone in our expertise in citrus, a flavour embedded in many foods and beverages. Some of our strengths in citrus have been built through a partnership with the University of California, Riverside. We also launched our Global Citrus Flavour Collection, bringing together for the first time citrus flavours developed around the globe.

Green chemistry in action

In Fragrances, three new captive molecules reinforce our success in the muguet family and provide perfumers with answers to existing and future restrictions on certain white floral molecules. One of these captives was launched in 2016, Nympheal™, and is 'safe by design' and a possible replacement to Lilial with the potential of becoming a 'blockbuster'.

Sustainability partners



BROUGHT TO YOU BY THE CLIMATE GROUP
IN PARTNERSHIP WITH CDP



Find out more

www.givaudan.com/sustainability

Profile disclosures

A high-level view of Givaudan's strategy and governance related to sustainability, and context for other sections in this report.

In this section:

Strategy and analysis	07
Organisational profile	15
Ethics and integrity	20



Strategy and analysis

G4 – 1: Leadership statement

Givaudan made great progress during 2016 in pursuit of its core strategy of ‘Responsible growth. Shared success.’

In this first year of our five-year roadmap to 2020, we have achieved some important milestones on our journey towards greater sustainability and to help our customers meet the demands of an evermore socially and environmentally aware consumer base. We continued to innovate and develop products that have clear sustainability benefits and purpose, have pushed forward our work in sustainable sourcing practices and performed well against tough new targets for cutting greenhouse gas emissions.

Looking back over the year, we would like to draw attention to some of the key sustainability achievements in these areas.

Innovating in sustainability

One of the innovation highlights of 2016 was the celebration of 10 years' work on our TasteTrek® Citrus project, part of a foundational exploration programme to discover new ingredients and varieties that have never been used before in flavour creation. TasteTrek® Citrus was launched at the University of California, Riverside's Citrus Variety Collection, which includes more than 1,000 varieties. We have invested USD 1 million to help preserve this exceptional biodiversity for generations to come.

Sourcing for shared value

Meanwhile, we have further developed our capabilities and performance in sustainable sourcing through three key practices: Responsible Sourcing, Sourcing at Origin and supporting Communities at Source.

In October, we launched our Responsible Sourcing Policy, a first for the flavour and fragrance industry. The policy covers supply chain aspects of health and safety, social, environmental and business integrity, and will enable us to help our customers respond to consumer demand for greater transparency in these areas.

Our drive to source strategic natural ingredients directly from the point of origin is improving the long-term security of

supply, both in terms of quantity and quality. We are also building processing capabilities at origin to create value. In September we opened Natural Extracts Madagascar (NATEMA), a joint venture with a local company to process clove leaf oil sourced by Givaudan's direct collection network.

In 2016, we also celebrated the 10th anniversary of our ethical sourcing initiative. Givaudan began this pioneering work by establishing partnerships with local producers and local communities from which we source strategic natural raw materials. The move towards natural ingredients has stimulated a new era of innovation at Givaudan. While this has led to a new range of products and enriched the palette of ingredients we can offer our customers, it has also enabled us to secure the most fragile natural supply chains and support those local communities on which we depend.

Leading the response to climate change

Eco-efficiency is another area in which Givaudan has developed an excellent track record in previous years, and 2016 was no exception. We proved ourselves to be an industry leader once again as we announced in October that we achieved an overall ranking of A- at the Leadership level of the CDP's newly introduced scoring system, which is designed to encourage companies to be more ambitious in their response to climate change. We were also ranked as a country leader for Switzerland. Givaudan met the full criteria for the first three out of four levels in 2016 and is committed to fully achieving the newly defined Leadership level.

Engaging our employees

We believe that inspiring our 10,476 employees to take action is the most effective way to reach our sustainability goals. With this in mind, we carried out our second Employment Engagement Survey in 2016, and achieved an impressive 80 per cent response rate. The results will help us develop Givaudan further as a great place to work, where our employees have the opportunity to make an impact on the world and contribute to our success.

Rising to meet future challenges

Looking forward, Givaudan is working hard to address what we see as the major global trends that will affect our customers and our business.

As we know, consumers are increasingly concerned by issues of climate change, the scarcity of resources and the need to reduce waste. Meanwhile, our customers and their brands are



Gilles Andrier,
Chief Executive Officer

under intense pressure to grow. At Givaudan, we believe that innovation with purpose is the key to addressing those concerns and unlocking the potential for growth. While we must continue to work to reduce the environmental impact of our activities, we must also create new products that demonstrate a social benefit to consumers.

Thanks to our expertise in green chemistry and techniques such as biocatalysis Givaudan is able to make products high in purity and yield, using less energy and fewer hazardous materials. We will continue to develop our capabilities in this area and seek to apply them at every opportunity in the future.

Water scarcity is another global problem that will have implications for our business and the world as a whole. The World Economic Forum's 2016 risk report forecasts a potential 40% shortfall between global demand and available supply by 2030. Following a detailed analysis of water performance and risk indicators in 2015, the next step for Givaudan is to develop a global water strategy that includes local action plans, with priority actions for high-risk sites. A new standard on water management is being developed and will be part of our environment, health and safety (EHS) directives and standards.

As already indicated, the reduction of our overall environmental impact remains a strategic priority. While Givaudan has established strong targets for the reduction of Scope 1 and 2 emissions as defined by the Greenhouse Gas Protocol Corporate Standard, we are working on setting Scope 3 targets that we will announce in 2017.

As part of this drive Givaudan has committed to buying electricity that is only generated from renewable sources. Givaudan has therefore a target of buying 100% green electricity by 2025.



Joe Fabbri,
Head of Global EHS and Sustainability

Looking back on 2016, it has clearly been an important year for recognising progress, consolidating our strategies and establishing targets for the future. Givaudan is leading the industry and setting new standards on the road to greater sustainability. This will enable responsible growth and shared success for our customers and key stakeholders, and of course will help to protect our planet.

Gilles Andrier
Chief Executive Officer

Joe Fabbri
Head of Global EHS
and Sustainability

G4 – 2: Key impacts, risks and opportunities

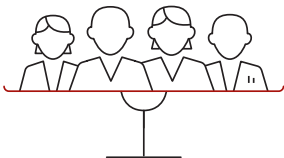
As a global company, we face many evolving sustainability challenges as well as numerous opportunities that may affect our business. These challenges and opportunities are formally captured in our materiality matrix (p. 26). Consequently, our Sustainability programme is based on a five-pillar approach which extends across the full lifecycle of our business.

These pillars provide us with an overarching framework to drive sustainability principles right across, and beyond, our organisation in five crucial areas. For each area, our teams have developed a challenging set of aspirations which clearly show our desired end goal. The journey to get there will take a considerable amount of time, but our commitment is long term.

Five sustainability pillars



Procurement



Employees



Innovation and
development



Operations



Customers
and markets

Procurement

Our vision

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

Our commitments

- Expanding our Sourcing at Origin scope to ensure security of supply
- Expanding our Communities at Source projects to make a positive impact on the communities from which we source
- Working with our suppliers to conduct regular reviews of our portfolio throughout our key value chains to contribute to our customers' increasing supply chain requirements
- Dealing ethically and respecting human rights within our sphere of influence wherever we do business

Our impact

CHF **2,500** million

Annual procurement spend

>10,000

Raw materials
purchased
annually

>2,000

Raw materials
suppliers

15,000

Indirect materials
and
services suppliers

Our KPIs and progress in 2016

Communicate with all suppliers about procurement requirements related to responsible sourcing

The newly published Responsible Sourcing Policy was sent to a selection of more than 300 suppliers engaged in our responsible sourcing processes. At the end of 2016, more than 50% of the recipients had acknowledged the policy.

Reach 100% of audit compliance for our direct suppliers by 2020

In 2016, we surpassed our 2015 objective to have 200 of our top 400 suppliers registered with Sedex. In total, 307 key raw material suppliers are now registered with Sedex. These suppliers represent over 70% of our raw material spend.

In 2016, we worked to ensure that audited suppliers had closed all open non-conformities. At the end of 2016, our compliance rate was 52%.

Assess raw material supply chains from our direct suppliers to primary producers

In 2016, we replaced the Global Vendor Expectations document with our new Responsible Sourcing Policy, which defines the requirements not only for our direct suppliers but also for all intermediary suppliers down to the farm level.

We started the assessment of 15 raw material families and performed our first field visit. This work will be expanded in the coming years.

Continue to develop and expand Sourcing at Origin initiatives to improve the long-term supply security of strategic natural ingredients

In September 2016, Givaudan inaugurated a plant for processing natural ingredients, Natural Extracts Madagascar (NATEMA), in Madagascar. NATEMA will process clove leaf oil from our collection network into derivatives that will be used in our flavour and fragrance creations.

For more information see page 48.

Continue to identify and support communities from which we source key natural raw materials through social and environmental projects

Our project pipeline has continuously evolved and expanded since 2008.

For more information see pages 48-50.

Other key achievements

In January 2016, we published a Givaudan position statement on palm oil in which we highlight our ambition to eliminate deforestation from our supply chain and create positive difference for workers, farmers and local communities. Givaudan is committed to source its palm oil, palm kernel oil and their derivatives in a way that is traceable to known certified sources.

In February 2016, we published a position statement regarding biodiversity and the Nagoya Protocol. Givaudan supports the terms of the Convention of Biological Diversity, being the conservation of biological diversity, the sustainable use of the components of biological diversity and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources.

Trends, risks and opportunities

- The world population is projected to increase by more than one billion within the next 15 years, reaching 8.5 billion in 2030. Beyond this it is expected to increase to 9.7 billion in 2050¹. Consequently global demand for material resources is increasing. Humanity currently needs the regenerative capacity of 1.6 earths to provide the goods and services we use each year². This growth will place intense pressures on ecosystems and the supply of natural resources. With its presence in the countries of origin, Givaudan aims to secure the supply and quality of key natural ingredients through working directly with producers and suppliers and to foster local value creation.
- Globally, more people live in urban areas and are ageing rapidly: 54% of the world's population resides in urban areas and 25% of the population

in all regions except Africa will be aged 60 or over by 2050³. An accelerated rural exodus brings an additional challenge to the growing and sourcing of natural feedstock. Givaudan supports the local communities that produce our key ingredients through a range of health, education, environmental and agricultural projects.

- Poor job quality remains a pressing issue worldwide. Vulnerable employment accounts for 1.5 billion people, or over 46% of total employment. In both Southern Asia and sub-Saharan Africa, over 70 % of workers are in vulnerable employment.⁴ Through responsible sourcing, Givaudan drives compliance in the way it sources products, helping its suppliers achieve high standards in health and safety as well as social, environmental and business integrity.

¹ UN – Department of Economic and Social Affairs – World Population Prospects: The 2015 Revision: http://esa.un.org/unpd/wpp/Publications/Files/Key_Findings_WPP_2015.pdf

² WWF Living Planet Report 2014: http://www.panda.org/about_our_earth/all_publications/living_planet_report

³ UN – World Cities Report 2016: <http://wcr.unhabitat.org/wp-content/uploads/sites/16/2016/05/WCR-%20Full-Report-2016.pdf>

⁴ ILO – World Employment Social Outlook 2016: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_443480.pdf

Employees

Our vision

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

Our commitments

- Work together with our local communities on projects and causes that benefit the communities where we work
- Engage employees in making a positive difference
- Embrace diversity throughout our organisation and create an engaged and inclusive workforce
- Reduce incidents by strengthening workplace environment, safety behaviour and awareness
- Extend the reach of annual performance and development discussions, enabling our people to get feedback and discuss their career goals
- Develop visionary, inspiring and challenging leaders who will achieve our ambitious targets and ensure our future success

Our impact

10,476

Full-time employees

98

Local communities¹

Our KPIs and progress in 2016

Continued rollout of the Leadership Senses programme courses 'Begin' and 'Evolve'. New launch of the last two levels: 'Grow' and 'Enhance'

In total, approximately 180 employees attended the Leadership Senses courses in 2016.

For more information visit our [website](#).

Investing in Green Team network and collaboration

The 2016 Executive Committee Green Team Awards were distributed in each of the three award categories:

- manufacturing site: Cycling for charity (p. 64)
- commercial site: Project Poshan (p. 64)
- eco-efficiency project: Green Chemistry (p. 35).

Increase the representation of women in our senior leadership positions

The percentage of women in Givaudan's senior leadership positions increased to 22.7% in 2016, an improvement on the previous year.

Continue the effective practices we have in place to foster and encourage diversity in our teams and ways of working across the world

In 2016, we appointed a Talent&Diversity Programme Manager, responsible for developing processes and driving different global, regional and functional initiatives around talent management and diversity. The recommendation for the Givaudan approach to diversity and inclusion will be finalised in Q1 2017.

Lost time injury (LTI) rate below 0.1 by 2020

Our LTI rate is reduced by 65% against our 2009 baseline. It has decreased by 14% since 2015.

All populations in scope of annual performance and development discussions by end 2016

At the end of 2016, 7,924 employees used our 'Engage' platform for their annual performance and development plans.

Build partnerships with non-profit organisations and work on charitable themes: blindness, family nutrition, supporting local communities

We provided continued support for charitable commitments (pp. 63 – 64).

Other key achievements

In September 2016, we ran our second global Employee Engagement Survey. There was an 80% response rate, which meant CHF 86,700 was raised for the Givaudan Foundation.

Feedback from the survey confirmed that:

- our strengths from the 2013 survey continued as strengths in 2016. We will continue to build on our strengths within the Engagement, Strategic Alignment, Continuous Improvement and Working Environment categories, which remain strong and are well above global high performing benchmarks.
- we have made strong improvements in each of the three priority areas identified in 2013: Collaboration, Career and Inclusiveness. This includes an improvement in the inclusiveness category of 4% compared to the 2013 survey.

Trends, risks and opportunities

- Across the world, a worker dies from a work-related accident or disease every 15 seconds. Also every 15 seconds, 153 workers have a work-related accident.² This is why at Givaudan, we have clear strategies on safety and security at work.
- Visible leadership by the chief executive and top management in supporting women in management is proven to be one of the most important levers for progress in achieving gender diversity in a corporate context. This includes concrete and symbolic actions by top management and, in many cases, the establishment of a position or department to lead diversity efforts. Regular communication by senior management on gender equality is found to be critical.³
- Strong partnerships with our people are important for our success. There are two areas on which we focus: The first area is employee engagement. Creating a stimulating and engaging workplace is vital for our success, driving the achievement of our 2020 ambitions and enabling our people to achieve their goals. We measure our progress in this area through our employee engagement surveys. In 2016, we completed our second Employee Engagement Survey, which offers all employees the opportunity to have their say. The second area of focus is the development of our people. This is achieved through technical development programmes and job rotations. We therefore have clear strategies on how to develop, attract and retain the best talents of all genders.

¹ Local communities are persons or groups of people living and/or working in any areas that are economically, socially or environmentally impacted (positively or negatively) by the organisation's operations. The local community can range from people living adjacent to operations through to isolated settlements at a distance from operations which may experience the impacts of these operations.

² ILO: Safety and health at work: <http://www.ilo.org/global/topics/safety-and-health-at-work/lang--en/index.htm>

³ World Economic Forum's Global Gender Gap Report 2016: http://www3.weforum.org/docs/GGGR16/WEF_Global_Gender_Gap_Report_2016.pdf

Innovation and development

Our vision

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.

Our commitments

- Ensure Givaudan products are safe for people and the environment when used as intended
- Full regulatory compliance of all products
- Ensure our products are not persistent in the environment after their use
- Reduce animal testing and develop alternative test methods
- Promote health and wellness through our products
- Do more with less, promoting innovative design based on concentrated quality and compacted fragrances
- Apply green chemistry principles

Our impact

CHF 400 million

Invested in R&D in 2016, 8.6% of revenue

Our KPIs and progress in 2016 Flavour Division and Fragrance Division compliance with European REACH registrations as they become applicable in 2018

We are working to ensure all ingredients within our scope of REACH are registered by the deadline of 2018. Our internal programme covers all our manufactured ingredients and we have a dedicated cross-functional team in place to ensure suppliers have registered ingredients we purchase. For purchased ingredients considered high risk we conduct registration ourselves.

KeratinoSens® to become a globally recognised standard in-vitro test for assessing skin sensitisation, with validation from the Organisation for Economic Co-operation and Development (OECD)

After the OECD validated and adopted our KeratinoSens® test method in February 2015, the methodology continued to be rolled out, and is now used by more than 40 laboratories globally. A further review has been published in ATLA, a leading journal in alternatives to animal testing. In 2016 the ECHA (European Chemicals Agency) released new guidance on skin sensitisation testing, placing non-animal methods including KeratinoSens® as first choice options, and allowing animal testing only in specific cases.

Other key achievements

- A new captive, Nympheal™, was launched in 2016. Nympheal™ is an olfactive replacer for Lilial and an example of green chemistry in action.
- Using green chemistry principles, we demonstrated continued progress with Process Mass Intensity (E-factor reduction) across process development.
- Givaudan joined the EU ROBOX Consortium Programme which aims to identify and engineer robust enzymes and demonstrate their industrial use, which will lead to new green chemical processes.
- The acquisition of Induchem in 2015 has reinforced Givaudan's capabilities in white biotechnology, specifically in biocatalysis.
- The Givaudan Ecotoxicology Laboratory in Vernier commissioned a GC-MS (Gas Chromatography coupled with Mass Spectroscopy) in 2016. This will enable metabolite identification and enhance our understanding of biodegradability pathways.
- Using our green technology expertise, Neurophroline™ won gold in the active ingredients category of the in-cosmetics® Innovation Zone awards in Paris in April 2016.

- Givaudan has implemented an in vitro test to replace acute toxicity tests for fish and applied it for the first time to fragrance chemicals. Good predictivity was achieved and was presented at the 2016 SETAC (Society for Environmental Toxicology and Chemistry) North America meeting in November 2016.
- Our Flavour Division celebrated 10 years of TasteTrek® Citrus. Since the first trek at University of California, Riverside (UCR) in 2006, dozens of treks have been run with UCR, the Sylvio Moreira Citrus Centre in São Paulo, Brazil, and the Oscar Tintori collection in Tuscany, Italy; as well as in Argentina, China, India and Japan. The Company donated USD 1 million to establish the Givaudan Citrus Variety Collection Endowed Chair to support and maintain UCR's Citrus Variety Collection, helping to preserve biodiversity for generations to come.

Trends, risks and opportunities

- The market for health and wellness products is expanding due to growing consumer and government awareness of the obesity epidemic and other nutrition-related diseases such as diabetes.
- Climate change and resource depletion demand a proactive business response.
- Introduction of bans for the use of animal testing (e.g. EU Cosmetics Directives).
- Development of products which are more efficient to make, have fewer negative by-products, and minimise impact on the environment.
- Increasing number of 'brands with purpose' in the marketplace; brands with an additional perspective linked to social and/or environment.
- Increasing regulations for the flavour and fragrance industry, e.g. laws deriving from the Nagoya Protocol.

Operations

Our vision

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.

Our commitments

- We continuously drive operational excellence, focusing on eco-efficiency for energy, carbon emissions, incinerated and land-filled waste, and municipal and groundwater at our manufacturing sites
- In 2015, after successfully delivering for five years on our targets and meeting some ahead of schedule, we announced a strengthening of our 2020 eco-efficiency targets
- We have committed to 100% Renewable Electricity (RE100) and to adopting Science-Based Targets

Our impact

39	383,353	401,687	112,586
Production sites ^{1,2,3,4}	tonnes production sites ^{1,2,3}	Inbound shipments in 2016 ³	Outbound shipments in 2016 ³

Our KPIs and progress in 2016

Energy consumption

- 4% reduction, per tonne of product, year on year on average
- 0.3% reduction in energy consumption (baseline 2015)

Water use

- 15% reduction, per tonne of product, by 2020 (for municipal and groundwater) (baseline 2009)
- 13.3% reduction in municipal and groundwater use

Direct and indirect⁵ CO₂ emissions

- stabilise our absolute carbon footprint
- 1.75% reduction in direct and indirect CO₂ emissions (baseline 2015)

Total weight of incinerated and land-filled waste by type and disposal

- 4% reduction, per tonne of product, year on year on average
- Our total weight of incinerated and land-filled waste increased by 2.6% (baseline 2015)

100% renewable electricity by 2025

- 48.4% of all electricity purchased in 2016 was produced from renewable sources

Trends, risks and opportunities

- Climate change remains a major global issue that directly impacts others. Released in March 2015, the conclusions of the IPCC Climate Change 2014 Synthesis Report confirmed that impacts from recent climate-related extremes – heat waves, droughts, floods, cyclones and wildfires, for example – reveal significant vulnerability and exposure of some ecosystems and many human systems to current climate variability. Impacts of such climate-related extremes include alteration of ecosystems and disruption of food production and water supply.⁶
- The Paris Agreement reinforced the need to keep global warming below 2°C through the ambitious efforts of all nations, and called on companies to demonstrate leadership on climate actions.
- The Morocco conference of 7 – 18 November 2016 demonstrated that the implementation of the Paris Agreement is underway and the constructive spirit of multilateral cooperation on climate change continues.
- Fossil fuel markets are likely to become more volatile and unpredictable because of higher global energy demand as well as changes in consumption patterns.
- It is predicted that by 2030, global demand for water will exceed supply by 40%. Business will be subjected to water shortage, water quality decline and water price volatility.⁷

¹ Givaudan completed the Spicetec acquisition in 2016.

² Spicetec manufacturing data are not included in this report. This data will be included for the full year in our 2017 report.

³ A shipment is defined as the transport of raw materials or products between our suppliers and Givaudan sites, between Givaudan sites, and from Givaudan sites to our customers.

⁴ Please refer to page 30 for the definition for production sites in scope for the 2016 Sustainability Report.

⁵ Indirect CO₂ emissions relates to purchased energy and not energy used by others e.g. our raw materials suppliers.

⁶ IPCC Climate Change 2014 Synthesis Report: http://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_All_Topics.pdf

⁷ World Economic Forum water initiative: <http://www3.weforum.org/docs/Media/TheGlobalRisksReport2016.pdf>

Customers and markets

Our vision

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 lifecycle of their products.

Our commitments

- Foster stakeholder partnerships to make progress together
- Collaborate to create responsible supply chains
- Drive value for customers through superior products and services
- Engage with customers to develop new technologies for healthier and sustainable products
- Dialogue with stakeholders on priorities

Our impact

>6,000

Customers

>35,000

Briefs received every year

Our KPIs and progress in 2016

Establish joint initiatives to further progress towards Givaudan sustainability targets and those of our partners

Givaudan became a member of the World Business Council on Sustainable Development.

We are a recognised member of the American Cleaning Institute's sustainability programme in North America.

Our partnership with the Natural Resource Stewardship Circle (NRSC) focuses on initiatives around vetiver, ylang ylang, palm oil and styrax.

Givaudan partnered with TFT (The Forest Trust) to develop our Responsible Sourcing Policy and supply chain assessment mechanisms.

We support an IFRA-IOFI initiative to set up an industry sustainable development charter.

As an active member of AIM-PROGRESS, Givaudan is part of a dedicated working group on the updated SMETA protocol, which is expected in early 2017. In October 2016, Givaudan attended an AIM-PROGRESS meeting and supplier workshop in Bangkok to promote responsible sourcing.

All Givaudan manufacturing sites to be SMETA compliant

At the end of 2016, 34 of our production sites were SMETA compliant and 35 registered on SEDEX.

Other key achievements

At the corporate level, we again achieved gold status for EcoVadis online assessment, placing us in the top 2% of EcoVadis suppliers.

Givaudan participated in an expert panel at the RSPO European meeting in Milan.

Givaudan's position statement on Biodiversity and Nagoya was presented at an NRSC meeting.

We maintained our CSPO Mass Balance certification and segregated ingredients certification for palm-derived ingredients in European Flavours sites.

Our European Flavours manufacturing sites are all RSPO Mass Balance supply chain certified.

Our Naarden manufacturing site still holds the UTZ coffee certification.

Trends, risks and opportunities

- Many organisations are working together in groups and forums to make a positive impact on sustainability aspects. These include AIM-PROGRESS, NRSC and The Sustainability Consortium. For example, AIM-PROGRESS is a forum of consumer goods manufacturers and suppliers assembled to enable and promote responsible sourcing practices and sustainable production systems.
- Organisations are increasingly seeking to understand the impact of their full supply chains and are requesting suppliers to provide data on environmental and social aspects.

Organisational profile

G4 – 3, G4 – 5 and G4 – 7: Organisation's name, location and ownership

Givaudan SA, the parent company of the Givaudan Group, with its registered corporate headquarters at 5 Chemin de la Parfumerie, 1214 Vernier, Switzerland, is a 'société anonyme', pursuant to art. 620 et seq. of the Swiss Code of Obligations. It is listed on the SIX Swiss Exchange under security number 1064593. The Group has subsidiaries, none of which is publicly listed. Information on Givaudan SA's significant shareholders as per art. 20 Swiss Stock Exchange Act can be found at: www.six-swiss-exchange.com

The Swiss Stock Exchange Act can be found at: www.six-swiss-exchange.com

More detailed financial information about the scale of our organisation and our operational structure is available in our 2016 Annual Report.

🔍 For more information:
www.givaudan.com/media/corporate-publications

G4 – 4: Primary brands, products and services

🔍 For more information on our brands and products please see: www.givaudan.com/flavours
www.givaudan.com/fragrances

G4 – 8: Markets served

Mature markets represent 55% of the annual sales and include North America, Western Europe and Japan. High growth

markets account for 45% of our annual sales in Asia Pacific, Latin America, Eastern Europe and the Middle East.

Sales in high growth markets are driven by the rising consumer demand from an increasing urban middle class. In both high growth and mature markets, increasing demand for health and well-being products, such as lower salt, sugar and fat in food, and anti-ageing effects in cosmetics are a stimulating potential for growth. Through targeted investment, we focus our efforts on best serving our customers and maximising our growth opportunities.

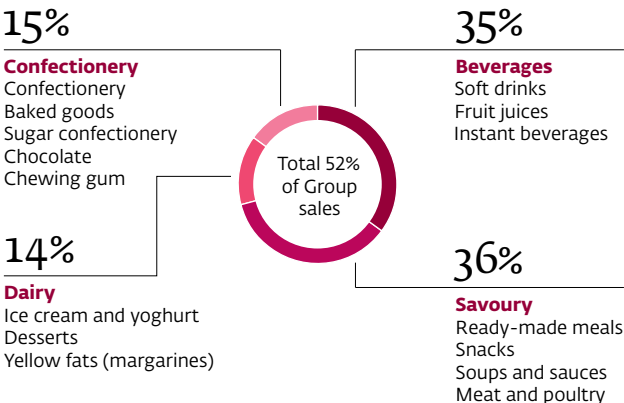
We are active in over 100 countries and have sites and branches in 49 countries. More information on our global presence is available in our [2016 Annual Report](#) in the Appendix section.

G4 – 6: Countries of operation relevant to sustainability topics

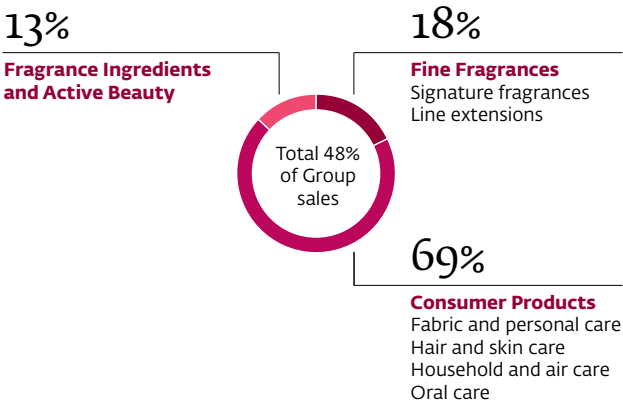
We have principal companies of the Group that are fully owned unless otherwise indicated (percentage of voting rights). A list of these principal Group companies can be found in the Annual Report 2016, on page 174 of the Financial Report.

We have 39 production sites in 19 countries. Details about our sustainability activities in Argentina, Comoros, France, Hungary, India, Indonesia, Madagascar, Mexico, the Netherlands, Spain, Switzerland, Thailand, and the United Kingdom are included in this report.

Sales breakdown by division Flavours

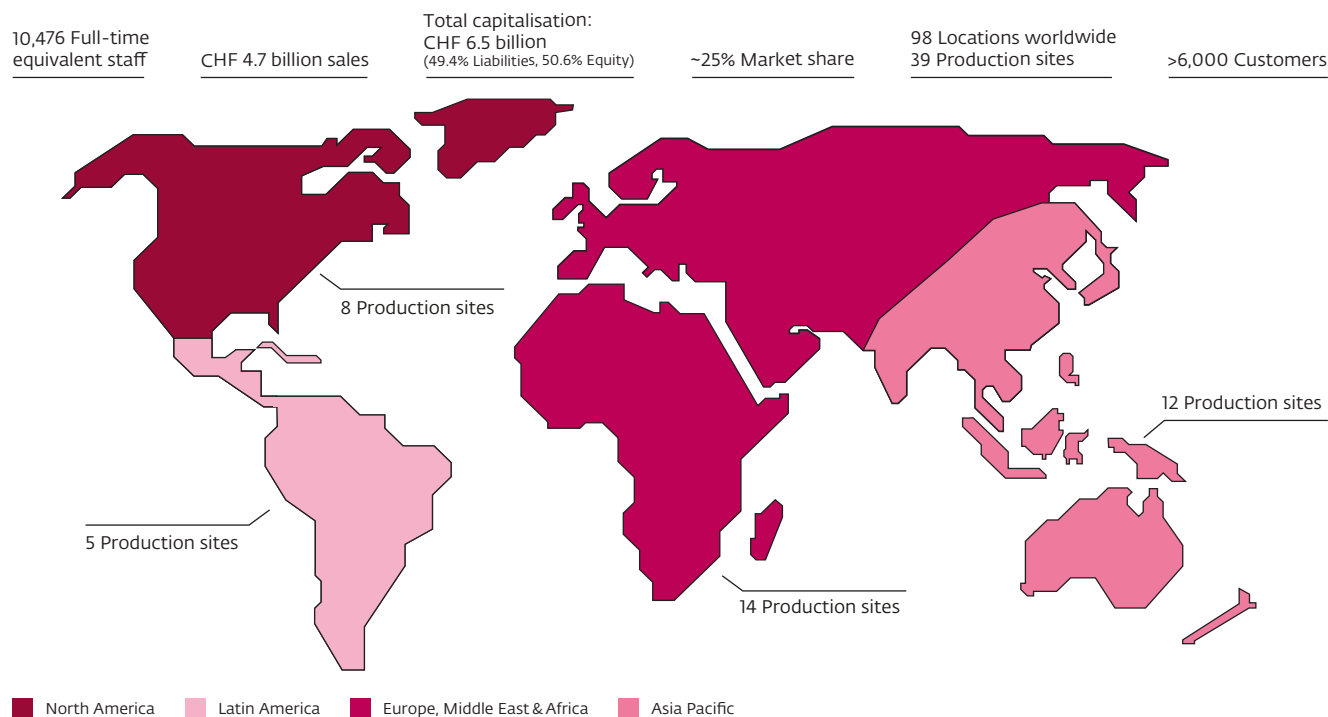


Sales breakdown by division Fragrances



G4 – 9: Scale of the organisation

As at 31 December 2016



G4 – 10: Employees¹

By employment type

	Full-time – women	Full-time – men	Part-time – women	Part-time – men	Total – women	Total – men
Asia Pacific	1,091	1,416	8	4	1,099	1,420
Europe, Middle East & Africa	1,591	2,929	137	29	1,728	2,958
Latin America	461	879	4	0	465	879
North America	789	1,392	5	0	794	1,392
Total	3,932	6,616	154	33	4,086	6,649

By employment contract

	Permanent – women	Permanent – men	Temporary – women	Temporary – men	Total – women	Total – men
Asia Pacific	1,079	1,396	20	24	1,099	1,420
Europe, Middle East & Africa	1,669	2,893	59	65	1,728	2,958
Latin America	464	878	1	1	465	879
North America	794	1,392	0	0	794	1,392
Total	4,006	6,559	80	80	4,086	6,649

¹ As at 31 December 2016.

G4 – 11: Employees covered by collective bargaining agreements¹

	Collective agreement in %
Yes	28%
No	72%

¹ As at 31 December 2016.

G4 – 15: Endorsement of sustainability initiatives

We endorse and participate in a number of external global commitments and initiatives that promote sustainable business practices:

The United Nations Global Compact

The United Nations Global Compact (UNGC) is a strategic policy initiative for businesses that are committed to aligning their operations and strategies with 10 universally accepted principles in the areas of human rights, labour, environment and anti-corruption. Givaudan committed to the principles of the UNGC in February 2010.

We measure our progress towards sustainability against the principles of the UNGC. As a signatory to the UNGC we use this Sustainability Report as our annual Communication on Progress (COP).

For more information: www.unglobalcompact.org

CDP

CDP (formerly the Carbon Disclosure Project) is an international, not-for-profit organisation providing the only global system for companies and cities to measure, disclose, manage and share vital environmental information.

Through CDP we demonstrate Givaudan's commitment to action relating to carbon emissions reduction, both in theory and in practice.

We aim to communicate our strategic direction, motivation, goals, development and progress relating to sustainability with our stakeholders in a transparent way. As part of our CDP Climate Change submission, we report annually on greenhouse gas emissions, energy use and the risks and opportunities associated with climate change.

Since we began participating in CDP Climate Change in 2007, we have disclosed our greenhouse gas emissions every year, in addition to our reduction strategy and performance for both the investor and supply chain surveys.

In 2016, Givaudan achieved an overall ranking of A- at the Leadership level and is a country leader for Switzerland in CDP's newly introduced scoring system for 2016.

The new CDP scoring consists of four levels representing steps a company moves through as it progresses towards environmental stewardship: Disclosure, Awareness, Management and Leadership. Givaudan met the full criteria for the first three levels in 2016 and is committed to fully achieving

the newly defined Leadership level in keeping with its 2020 strategy of 'Responsible growth. Shared success.'

For more information follow this [link](#).

Givaudan also participated in the CDP Water and achieved an overall ranking of B at the Management level. In line with its objective to measure and reduce water usage, the Company is implementing a water stewardship programme.

Finally, Givaudan participated in the CDP Supply Chain for Climate Change and Water following customer requests, in which we were ranked A- and B respectively.

For more information see pages 33 – 34.

The Global Reporting Initiative

The Global Reporting Initiative (GRI) is the leading global standard, and the standard most widely adopted, for sustainability reporting. The GRI guidelines have been designed to align with other prominent standards, including: the OECD guidelines for multinational organisations; ISO 26000; the United Nations 'Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework'; and the UNGC's 'Ten Principles'. We started using the GRI guidelines in our 2010 Sustainability Report.

For more information:

www.globalreporting.org/Pages/default.aspx

G4 – 16: Membership of strategic associations

We engage in a series of strategic collaborations with relevant organisations and partners to support and inform our work on the most material sustainability issues. Collaboration across our supply chain, as well as with other businesses and non-profit organisations, is important: the more we do, the quicker we drive sustainable solutions. Particular organisations we have engaged with over the past year include:

AIM-PROGRESS

AIM-PROGRESS is an association of consumer goods companies seeking to enable and promote responsible sourcing practices and sustainable production systems.

Relevance to material issues:

- responsible sourcing
- workplace safety
- transparency
- diversity
- stakeholder dialogue.

We have been an active member of AIM-PROGRESS since 2012. Through this membership we are enhancing our supplier and customer partnerships to help create a more responsible supply chain.

In October 2016, Givaudan attended an AIM-PROGRESS meeting in Thailand focused on the promotion of responsible sourcing practices.

A workshop was held, with more than 360 suppliers representing 150 companies, to share best practice for the implementation of responsible sourcing in their supply chains. This was done by focusing on four high priority issues: forced and migrant labour, overtime working hours, grievance mechanisms and discrimination.

🔍 For more information: www.aim-progress.com

Supplier Ethical Data Exchange

The Supplier Ethical Data Exchange (Sedex) is a not-for-profit membership organisation dedicated to driving improvements in responsible and ethical business practices in global supply chains. Givaudan engages with Sedex once for the assessment of its production sites and again for the assessment of its suppliers.

Relevance to material issues:

- responsible sourcing
- traceability
- transparency
- workplace safety.

The registration of production sites on Sedex is an ongoing process related to acquisitions and the opening of new production sites. To ensure high standards of these sites, we are committed to begin the registration process on Sedex soon after an acquisition has been announced or a new facility has been commissioned.

The registration of Induchem, acquired in 2015, is expected in 2017. At the end of 2016, 35 Givaudan production sites were registered on Sedex, had completed the Sedex Self-Assessment Questionnaire (SAQ) to share information with customers, and were audited against SMETA. Givaudan, which has been an active user of the Sedex platform since 2008, reviews and updates the SAQ each year.

In 2016, Givaudan attended the Sedex conference and joined the Sedex Stakeholder Forum (SSF) to contribute to the new version of SMETA's audit protocol to be launched in 2017.

We fully support our suppliers' engagement with Sedex; today, 322 suppliers are on Sedex, with 298 SAQs completed; 201 suppliers have been audited and 52% are fully compliant.

For more information on our approach to supplier engagement and capacity building, see page 45 – 51.

🔍 For more information: www.sedexglobal.com

Natural Resources Stewardship Circle

The Natural Resources Stewardship Circle (NRSC) is a group of leading industry organisations in beauty, flavours and fragrances taking collective action to reduce their impact on biodiversity, taking into account the social and economic development of local communities.

Relevance to material issues:

- community support
- transparency
- responsible sourcing.

Givaudan engages in several working groups with the objective of transforming practices in different supply chains for the better. In 2016, we led the NRSC working group on palm oil in partnership with The Forest Trust. By engaging with our suppliers we worked on a more in-depth understanding of traceability and risk all along the complex palm oil supply chain.

🔍 For more information: www.nrsc.fr

Roundtable on Sustainable Palm Oil

The Roundtable on Sustainable Palm Oil (RSPO) is an international multi-stakeholder organisation and certification model to advance the production, procurement, finance and use of sustainable palm oil products.

Relevance to material issues:

- responsible sourcing
- transparency
- traceability.

Givaudan joined the RSPO in 2011 to promote the production and use of sustainable palm oil. As members, we continue to support the aim of sustainable production of palm oil and palm oil derivatives.

Our ultimate objective is to obtain all of our palm oil and palm oil derivatives from certified traceable sources once they become technically and commercially available.

This supports our commitment to eliminate deforestation from our supply chain, to address key issues such as traceability and to create a positive difference for workers, farmers and local communities.

Givaudan's annual Communication on Progress (COP) is available on the RSPO website.

🔍 For more information:

www.rspo.org

www.rspo.org/members/882/Givaudan-SA

GreenPalm

GreenPalm is a certificate trading programme designed to tackle the environmental and social problems created by the production of palm oil. The programme was adopted by Givaudan in 2011 as an efficient solution for supporting RSPO-certified palm because it bypasses the supply chain. In this way, GreenPalm offers the opportunity to support sustainability to a much wider audience.

Relevance to material issues:

- responsible sourcing
- transparency.

In 2016, 100% of Givaudan's palm oil derived ingredients were covered by GreenPalm certificates, unless already sourced Mass Balance or Segregated. In 2017, we will transition to the new RSPO 'book and claim' scheme, RSPO Credits.

Until global volumes of segregated sustainable palm oil increase significantly, and until entire supply chains from refiners through to end users can switch to only using segregated sustainable palm oil, there will remain a need to offer 'book and claim', especially for products that use complex derivatives of palm oil.

Givaudan's GreenPalm, 'book and claim' certificates are available on the GreenPalm website.

🔍 For more information:

www.greenpalm.org/the-market/redeemed-certificate-owners
www.greenpalm.org

American Cleaning Institute

The American Cleaning Institute (ACI) is an association which aims to support the sustainability of the cleaning product and oleo chemical industries.

Relevance to material issues:

- eco-efficiency.

Givaudan has been an ACI member since 2012 and is a recognised member of the ACI sustainability programme in North America.

🔍 For more information: www.cleaninginstitute.org

EcoVadis

EcoVadis aims at improving environmental and social practices of companies by leveraging the influence of global supply chains. EcoVadis' reliable ratings and easy-to-use monitoring tools allow companies to manage risks and drive eco-innovations in their global supply chains.

Relevance to material issues:

- responsible sourcing
- sustainable innovation
- eco-efficiency
- corporate governance.

Our 2016 assessment achieved a gold level rating score of 70/100 and positions us in the top 2% of suppliers completing the EcoVadis assessment.

Givaudan completed the EcoVadis CSR assessment for the first time in 2008 and received the silver recognition level. In 2013, we received the gold recognition level, which was reconfirmed in 2015 and 2016.

🔍 For more information: www.ecovadis.com

French Alliance for Sustainable Palm Oil

The French Alliance for Sustainable Palm Oil is an association of French companies with the objective of developing the use of sustainable palm oil, which prevents deforestation and respects the needs of local populations.

Relevance to material issues:

- responsible sourcing
- transparency
- traceability.

Three years after the founding of the French Alliance for Sustainable Palm Oil, a gathering of environmental NGOs, experts and public authorities took place in April 2016 to assess the degree to which the alliance is honouring its commitments. At this meeting a presentation was given by a Givaudan representative on 'How can stakeholders be united toward the common goal of "zero deforestation"?'.

🔍 For more information:

www.stop-deforestation.org
www.huiledepalmedurable.org

World Business Council for Sustainable Development

The World Business Council for Sustainable Development (WBCSD) is a global, CEO-led organisation of over 200 leading businesses and partners working together to accelerate the transition to a sustainable world, by focusing on the maximum positive impact for shareholders, the environment and societies.

Relevance to material issues:

- corporate governance
- economic performance
- sustainable innovation
- stakeholder dialogue
- eco-efficiency.

Givaudan recently joined the WBCSD after a review of its ongoing stakeholder engagement assessment, with a desire to be part of a broader business network of likeminded companies.

🔍 For more information: www.wbcsd.org

Ethics and integrity

G4 – 56: Organisation’s values and principles

In March 2016, the Board of Directors approved Givaudan’s new ‘Principles of Conduct’, which form the code of conduct for the Givaudan Group and replace the previous ‘Principles of Business Conduct’ of 2000/2009.

The new principles are organised in three categories: Legal&Ethical Business Dealings, Responsible Corporate Citizenship and Protecting Givaudan’s Assets.

The new Principles of Conduct include a statement on Givaudan’s respect of Human Rights and our impact on local communities. In detail, the principles address the following topics:

Legal&Ethical Business Dealings	Compliance with the Law and Givaudan Policies
	Bribery and Corruption
	Gifts and Entertainment
	Competition Law
	Insider Dealing
	Conflicts of Interests
	Ethical Conduct
Responsible Corporate Citizenship	Human Rights
	Preserving the Environment
	Diversity and Fair Treatment
	Fair Employment Standards and Safe Work Environment
	Child Labour
Protecting Givaudan’s Assets	Fraud against Givaudan
	Open Communication
	Protection of Confidential Information and Trade Secrets, Intellectual Property
	Conduct in Research, Development, Application and Creation

The implementation of the principles (‘How we live the Principles’) states the responsibilities for ethics and integrity and the channels for reporting violations (including the compliance helpline). It underlines each employee’s responsibility for compliance with the principles. It also confirms that Givaudan strives to do business with business partners that adhere to high ethical standards. These ethical rules for dealings with business partners are further detailed in Givaudan’s [Responsible Sourcing Policy](#).

The Principles of Conduct have been translated into all major Company languages. New compliance training on the Principles of Conduct is being developed and will be rolled out starting in 2017. Compliance training on the previous Principles of Business Conduct was provided in all Company languages until 2016.

The Principles of Conduct (in all 14 Company language versions) can be downloaded [here](#).

Reporting process

Mechanisms and importance of stakeholder engagement that strongly influence our material issues and strategic priorities.

In this section:

Stakeholder engagement	23
Identified material aspects and boundaries	26



Stakeholder engagement

G4 – 25: Basis for identification and selection of stakeholders with whom to engage

Givaudan has been developing specific tools for several years to support stakeholder dialogue and interaction with the various stakeholder panels at both global and local levels. In 2010, we began a process of reviewing and evaluating the diverse stakeholder engagement initiatives that exist across our Company. The starting point was the identification of all of our stakeholder groups. Following an internal survey and subsequent analysis, our primary sustainability stakeholders are listed in section G4 – 24.

We split our external engagement in two categories:

- engagements with reporting or certification organisations
- engagement with multi-stakeholder organisations.

We continuously monitor the relevance of our stakeholder engagement through a two-stage assessment: firstly, through stakeholder mapping and secondly through an in-depth analysis.

Stakeholder mapping

For each direct engagement with an external organisation we check alignment according to several dimensions:

- relevance with our stakeholder groups
- relevance with key issues in our materiality matrix
- relevance with the five pillars of our Sustainability programme.

Engagement in-depth analysis

We then look at every current or potential external engagement against several criteria and we then take decisions about our engagement.

Our criteria are:

- local or global engagement
- membership criteria and membership fees
- participating customers and suppliers
- participating competitors
- participant profiles
- type of sessions
- size of groups
- impact on our Sustainability programme pillars
- risks and benefits.

Based on the above we decide to pursue a current engagement or engage with new organisations; we then suggest actions to be taken within the engagement for the next three years.

For example, we joined the WBCSD in 2016 after following the process outlined above.

G4 – 24 and G4 – 26: Stakeholder groups engaged by Givaudan and approach to stakeholder engagement

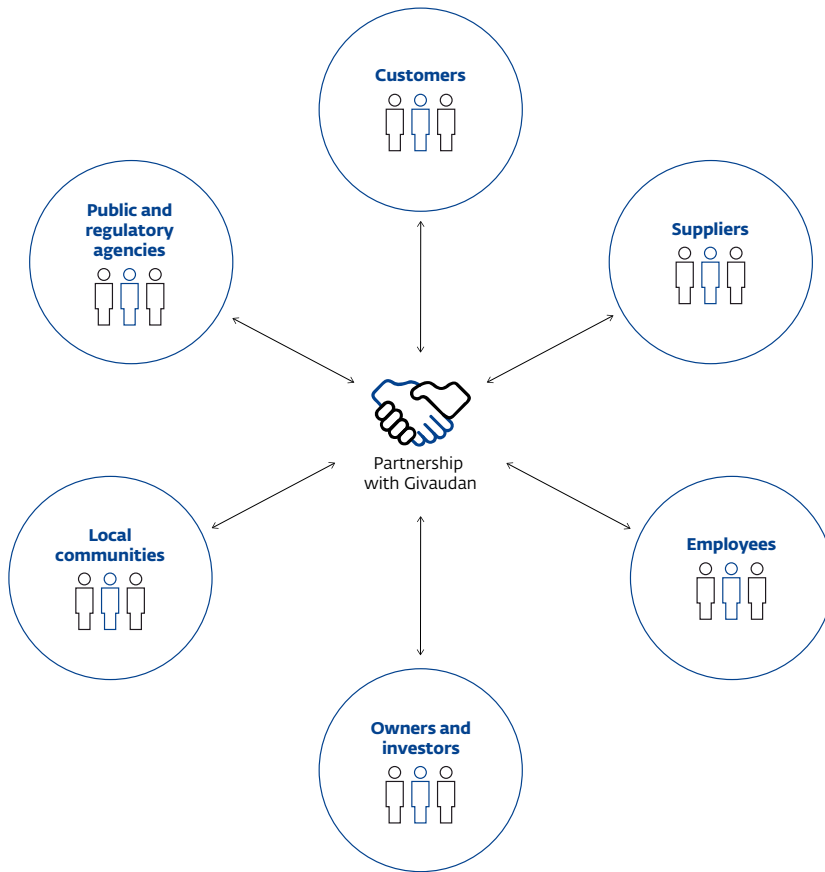
Givaudan's key principles of sustainability outline our aspiration to establish open dialogue and to take a collaborative approach with stakeholders in order to ensure the best understanding of mutual expectations and interests. Our key stakeholders are the people who impact our business or who are affected by it. Listening and responding to them is a core element of our sustainability management practices. The feedback we receive from these stakeholders helps us understand their expectations, enables us to prioritise issues effectively and contributes both to our overall sustainability strategy and to helping deliver against our sustainability goals.

For several years, Givaudan has been developing specific stakeholder groups to: discuss the Company's critical issues and strategic priorities; identify opportunities for improving management and relationships; and co-create projects. From the list of our many stakeholder groups we have selected six which are, at the moment, of primary importance to our Sustainability programme.

There are other stakeholder groups, but they have less capacity to directly impact our business, or Givaudan has less capacity to directly impact them. That is why we are limiting our focus to the six stakeholder groups listed above, ones with which we can develop close relationships.

Givaudan has many channels for stakeholder dialogue, spread across different departments and teams. We often obtain information and feedback from stakeholders through interactions during the ordinary course of business. In such cases, information from previous interactions can be used to identify interests and priorities. The following list formalises dialogue channels:

Stakeholder groups and dialogue channels



Customers

- On-going dialogue
 - Customer sustainability request
 - SMETA audits
 - Customer innovation days
 - Conferences and events
 - At associations and advocacy organisations.
- 🔍 See G4 – 15 and G4 – 16, pp. 17 – 19.

Suppliers

- Assessments via Sedex registration
- Issues raised at supplier audits
- Collaborations to improve performance
- Multi-stakeholder groups
- Supplier events – capacity building, discussing issues.

Employees

- European Works Council consultations
- Employee engagement initiatives
- Annual performance dialogue
- Talent management processes
- Learning and development opportunities
- Green Teams, engagements and on-going dialogue.

Owners and investors

- AGM/half-year meeting
- Annual investor road show
- Briefings with analysts.

Local communities

- Community development programme survey
- Local site community engagement programme
- Ongoing dialogue with local authorities and community organisations
- Green Teams engaged on social activities within the community we operate in
- Givaudan Foundation
- Local partners (NGOs or cooperatives) acting as Givaudan agents.

Public and regulatory agencies

- Commenting on emerging legislation/regulation
- Membership of working groups/forums
- IFRA/IOFI consultation
- UNGC consultation
- CDP project workshop
- Media.

Dialogue groups

We regularly ask our stakeholders to discuss the Company's critical issues and strategic priorities, identifying opportunities for improving management and relationships, and co-creating projects with us. Targeted categories such as local communities, suppliers and specialists in annual reports are asked to co-create an annual plan for the evolution of relationships with Givaudan.

Our main objective is to understand how our business affects our stakeholders and to determine the most material impacts to be managed. Sustainability aspects listed in the Givaudan materiality matrix are presented to stakeholders to allow them to confirm their most important topics, the ones they would like to discuss, or those they would like to know more about. Co-creation of projects and collaboration with mutual benefits are the ultimate goals of stakeholder dialogue and allow us to focus our sustainability efforts in those areas that are most important to our key stakeholders.

How dialogue groups support our materiality process

The dialogue groups give stakeholders a genuine and explicit role in setting the direction of our Sustainability programme and contribute on a regular basis to prioritising Givaudan's material issues. Outcomes from dialogue panel sessions are also fed back to the Sustainability Steering Team (our main governance body for sustainability) and management committees to shape strategy and improve decision-making.

G4 – 27: Key topics and concerns raised through stakeholder engagement

We regularly identify sustainability topics based on their importance for Givaudan and our stakeholders and we prioritise them on the principle of materiality. In our materiality matrix we highlight key sustainability issues and their significance for stakeholders.

🔍 See materiality matrix in G4 – 18 (p. 26).

We analyse stakeholder feedback and identify changes that have the greatest effect. The quality of our interactions with our stakeholders reflect a set of environmental and social trends that strongly influence our material issues and strategic priorities over the mid-term.

Product safety and regulation

Product safety and regulation remains a key topic for our stakeholders. There are more regulations and more public pressure for greater transparency. Our primary focus is to continue to develop and produce safe and compliant products.

Responsible sourcing

Responsible sourcing is a growing concern as developing countries industrialise and global demand for material resources increases. Key stakeholders are also demanding more supply chain transparency in the four core areas of responsible sourcing: health&safety, social, environment and business integrity.

Through our Responsible Sourcing programme we are committed to ensuring high ethical dealings throughout our supply chain. In 2016, we launched our Responsible Sourcing Policy, the first of its type in the industry, which informs and asks our suppliers and service providers to adhere to our principles and requirements in the four core areas of responsible sourcing. The implementation of this policy includes direct supplier audits and full supply chain assessment for key raw material families.

🔍 For more information see page 45.

Sustainable innovation

Sustainable innovation is of growing importance as issues such as health and wellness, climate change and resource depletion become more pressing for our customers and consumers.

Transforming these issues into opportunities and researching new technologies are important for Givaudan. As the industry leader we invest heavily in research and development, and we are well-placed to respond to these opportunities through our wide range of products, processes and services.

Traceability

Traceability is increasingly a business requirement connected with regulatory requirements, food safety and issue management. It also reflects the growing need for more information on the origin of our ingredients, which is addressed by our Responsible Sourcing programme.

🔍 For more information see page 45.

Community support

Community support from companies such as Givaudan is a requirement. As part of our sustainable sourcing practices, we engage with suppliers, including producers at source in remote rural communities, to meet environmental and social standards and support community needs. Moreover, we act responsibly and constructively in relation to the communities in which we operate. We support activities and projects which improve the quality of life of our local and global communities and support the focus areas of our business divisions: family nutrition for Flavour Division and blindness for Fragrance Division.

The Company's long-term commitment to sustainable sourcing practices of natural ingredients and community support is further reinforced by the actions of the Givaudan Foundation. The Givaudan Foundation is a non-profit organisation created in 2013 as a result of Givaudan's desire to reinforce its commitment towards the communities in which it operates. The foundation's purpose is to initiate and support projects as well as to grant donations in the areas defined by its vision and mission. One of the causes supported by the foundation is to safeguard the future of communities and their fragile environment.

🔍 For more information: www.givaudan-foundation.org

Identified material aspects and boundaries

G4 – 18: Process to define boundaries and report content

The prioritisation of the issues of highest material importance to Givaudan and our stakeholders is a critical component of our Sustainability programme strategy.

For several years, members of the sustainability Programme Management Organisation (PMO) and the Sustainability Steering Team (SST) together with members of functions and divisions in all regions have monitored and evaluated emerging sustainability themes on an ongoing basis. We describe challenges faced in the five different pillars of our Sustainability programme in indicator G4 – 2 (pp. 9 – 14).

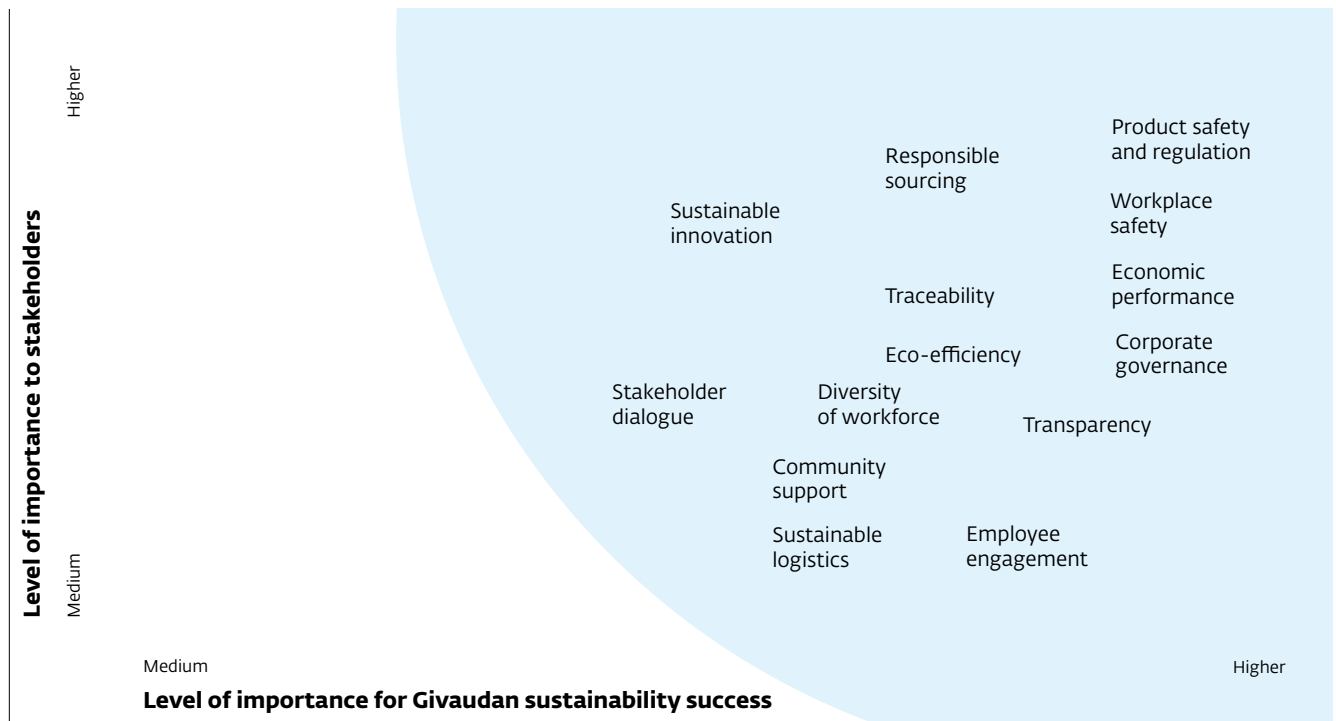
We use the Givaudan materiality matrix to map the key aspects we understand are of most concern to our customers and other key stakeholders, and to help prioritise our Sustainability programme initiatives.

The Givaudan materiality matrix is revisited on a regular basis and key stakeholders are asked to discuss the Company's critical issues and strategic priorities, identify opportunities for improving management and relationships, and co-create projects with Givaudan.

In 2016, we started updating our materiality matrix to fully reflect these challenges and integrate biological diversity, among other emerging business and societal issues, into our sustainability priorities. Givaudan will report in its Sustainability Report 2017 against the updated business matrix.

Our last review of the current matrix took place in 2015 with the identification and prioritisation of 14 aspects that are the basis of the Sustainability Report. These aspects are listed in the following table.

Materiality matrix



G4 – 19, G4 – 20 and G4 – 21: Material aspects in defining report content, including aspect boundaries

The content of this report is defined considering the GRI aspects list and identifying equivalents within Givaudan's materiality matrix. The list of all material aspects identified in this process is as follows:

Material aspects 2016	Equivalent G4 material aspects	Boundaries
Product safety and regulation The safety of our products and the processes that are used to comply with local laws and regulations.	Product responsibility: – product and service labelling – customer health & safety	Within and outside Givaudan Gather information on the origin of our ingredients to contribute to regulatory requirements, food safety and issue management. Ensure Givaudan products are safe for people and the environment when used as intended. Promote health and wellness through our products. Engage with customers to develop new technologies for healthier and more sustainable products.
Workplace safety Minimising accidents and injuries in the workplace, including the training and systems to ensure the health and safety of our employees.	Labour practices and decent work: – occupational health and safety	Within Givaudan Reduce incidents by strengthening the workplace environment, safety behaviour and awareness.
Economic performance Operating a Sustainable Business Model. This means respecting the planet, including the people living on it, while running a viable, profitable business.	Economic: – economic performance	Within and outside Givaudan Provide suppliers with the ability to secure continuity of supply. Ensure that Givaudan's business is financially sustainable in the short-, medium- and long-term. Support our customers' market expansion plans, providing growth opportunities by using our products.
Responsible sourcing The process of purchasing goods and services without causing harm to, or exploiting, humans or the natural environment.	Economic: – procurement practices Environmental: – supplier environmental assessment Labour practices and decent work: – supplier assessment for labour practices Human rights: – supplier human rights assessments Human rights: – child labour	Outside Givaudan Ensure that standards related to health and safety, environment, social responsibility, including labour and human rights, and business integrity – ethics and anti-corruption – are consistently applied by our vendors.

Material aspects 2016	Equivalent G4 material aspects	Boundaries
Sustainable innovation Development of products which are more efficient to make, have fewer negative by-products, or have a positive impact when used by the consumer (health and wellness/ environmentally friendly innovation).	Environmental: – products and services	Within Givaudan Develop new technologies for healthier and sustainable products through 1) Doing more with less by promoting innovative design such as concentrated quality and compacted fragrances. 2) Applying the 12 principles of green chemistry. In addition, we will ensure our products are not persistent in the environment after their use.
Traceability The ability to track, trace and predict the location of a batch, its sub-components and raw materials throughout the supply chain.	Economic: – procurement practices	Within and outside Givaudan Be able to trace the vendor provenance of a batch, its sub-components and raw materials, and to identify the destination of deliveries.
Eco-efficiency Improving the efficiency of operational activities with regard to harmful emissions, water efficiency and waste disposal.	Environmental: – energy – water – effluents and waste – emissions	Within Givaudan Improve the eco-efficiency of manufacturing sites with a focus on greenhouse gas emissions, waste and water.
Corporate governance Ensuring our practices are in alignment with international standards and safeguard the effective functioning of the governing bodies of the Company.	Society: – anti-corruption – public policy	Within Givaudan Ensure our practices are in alignment with international standards and safeguard the effective functioning of the governing bodies of the Company.
Diversity of workforce Having a diverse workforce which reflects the societies in which we operate.	Labour practices and decent work: – diversity and equal opportunity – employment – equal remuneration for women and men	Within Givaudan Embrace diversity throughout our organisation and create a diverse and inclusive workforce.
Stakeholder dialogue Engaging with stakeholders to build understanding of their priorities and to find opportunities for collaboration on sustainability initiatives.	Stakeholder engagement	Within and outside Givaudan Engage with stakeholders to build understanding of their priorities and to find opportunities for collaboration on sustainability initiatives. We have identified six stakeholder groups that are of primary importance to our Sustainability programme (Customers, Suppliers, Employees, Owners and Investors, Local communities, Public and Regulatory agencies).

Material aspects 2016	Equivalent G4 material aspects	Boundaries
Community support Building relationships for the benefit of the communities in which we operate.	Society: – local communities	Outside Givaudan Work together with our local communities on projects and causes that benefit the communities in which we work.
Transparency Being open to sharing data and information; disclosure of data.	Product responsibility: – product and service labelling	Within and outside Givaudan Being open to sharing data and information; disclosure of data both internally and externally.
Sustainable logistics Eco-efficient management of product flow including: packaging, warehousing and transportation.	Environmental: – transport	Within and outside Givaudan Improve logistics efficiency through reduced materials and energy usage including: packaging, warehousing and transportation.
Employee engagement Engaging and inspiring employees to be a motivated workforce.	Labour practices and decent work: – training and education – employment – labour/management relations	Within Givaudan Provide an engaging and inspiring environment for employees to realise their career aspirations.

For each material aspect we determined the following boundaries and the impact and/or relevance for us:

- ‘Within Givaudan’: Aspects relevant inside Givaudan’s organisational boundary defined as the entities reported in G4 – 17 (environmental workplace safety data are limited to manufacturing locations only)
- ‘Outside Givaudan’: Aspects relevant outside Givaudan’s organisational boundary, either upstream (supply chain) or downstream (customers)
- ‘Within and outside Givaudan’: Aspects relevant both inside Givaudan’s organisational boundary and outside Givaudan’s organisational boundary.

G4 – 22: Restatements of information provided in previous reports

Following the validation of quarterly reported figures and site audits, independently conducted against reporting definition sheets by Ernst&Young LLP, we have made a number of corrections to the 2009 baseline data and 2015 data in this report. With one exception, the corrections are minor and less than 1% of the target parameter.

For more information, see the restatement tables on page 77. Corrections for 2009 baseline are as follows:

- Total energy consumption has been reduced by 0.1% after the baseline recalculation and corrections in reporting definitions by Givaudan sites acquired over the last three years.
- CO₂ emissions for Scope 1 and Scope 2 increased by approximately 140 tonnes after recalculating the overall baseline to include the impact from acquired production sites in global Givaudan figures.
- About 40 tonnes of waste reclassified after an internal site audit and minor corrections led to an increase of 1.9% in one-off waste calculation. In addition, the misclassification of 78 tonnes of waste into landfilled category resulted in a 20% decrease in the hazardous waste landfilled category.
- The accumulated effects of the baseline recalculation, waste type misclassification and some errors in calculations in 2015 resulted in an increase of 1.06% for all types of waste incinerated and landfilled for 2015.

- The restatement in NO_x and SO₂ emissions is due to the correction in primary energy consumption and a compilation error detected during the year and corrected.
- Some ground water consumed by neighbour companies was not correctly deducted from Givaudan consumption. This reduced our consumption by 14,000m³.
- The total amount of water consumed has increased in 2009 (+0.61%) and 2015 (+0.09) following the baseline recalculation. This takes into account Givaudan’s structural changes and the overall ground water consumption decrease.
- Production volumes have been restated following the baseline recalculation process for 2009 and 2015 for all categories. This results in an increase of 0.16% in 2009 and 0.1% in 2015.
- Some CFC inventories have been updated over the year showing some discrepancies with the inventories in 2015. The increase represents 320kg or +3.2%.
- The ozone depletion substances lost and replacement amount has changed after reclassification and clarification of the definition, resulting in an increase of 2.8%.

All efficiency indicators are affected by both the restated environmental data and the changes in production volumes.

G4 – 23: Significant changes from previous reporting periods

The acquisition of Induchem was completed in August 2015. Our eco-efficiency and social KPIs in this report therefore include manufacturing data for Induchem for the full year 2016.

The acquisition of Spicetec was completed during 2016. As the company was not part of the Givaudan Group during the entire financial year, no Spicetec manufacturing data are included in this report. This data will be integrated in our 2017 Sustainability Report.

As listed in the annexe of the 2016 Annual Report (pages 199-203), 39 Givaudan locations are taken into account for the environment, health and safety performance indicators. In scope for this report are 37 out of the 39 active production sites as reported in the Annual Report. As stated above, acquired sites in 2016 are not in scope for 2016 data. In addition, two main non-production sites are included in our 2016 data. We have included these sites (Argenteuil, France and Cincinnati, USA) since the first publication of our Sustainability Report in 2010 because of their size and importance.

Environment

The environmental dimensions of sustainability and Givaudan’s impacts on living and non-living natural systems, including ecosystems, land, air and water.

In this section:	
Eco-efficiency	33
Products and services	39
Transport	41



Eco-efficiency



G4 – DMA Energy
G4 – DMA Water
G4 – DMA Emissions
G4 – DMA Effluents and waste

Why is this issue material?

Givaudan's stated vision is to continuously drive operational excellence without compromising the environment.

Climate change is a major global issue that directly impacts and influences other key sustainability and business issues. The fifth IPCC assessment report, released in November 2014, confirmed the increased likelihood of severe, pervasive and irreversible impacts for people and ecosystems. As a global company, we face many evolving sustainability challenges and opportunities; they are formally captured in our materiality matrix.

In December 2015, the Paris Agreement reinforced the need to keep global warming below 2°C through ambitious efforts by all nations. Companies have been called to demonstrate leadership on climate actions. The meeting of parties (COP22 and CMA1) in Morocco in November 2016 demonstrated that the implementation of the Paris Agreement is underway and the spirit of multilateral cooperation on climate change continues.

The availability and sustainable management of water is also an important challenge for the world. Water is essential for our manufacturing processes, so assessing our water risk exposure and building a water stewardship programme is essential.

How we manage these issues

The Environment Centre of Expertise, as part of the corporate Environmental, Health and Safety (EHS) function, joined forces with the EHS field organisation and the Operations functions to strongly encourage and support our manufacturing sites to delivering against our global eco-efficiency targets.

Five drivers support our local Eco-efficiency Management Teams and local Green Teams in their ongoing success in delivering against these targets:

- All our manufacturing sites have developed their site eco-efficiency plan (SEEP), setting individual eco-efficiency targets to be achieved over a period of two to three years. Motivated to achieve these targets, site teams identify additional saving projects or improve existing ones on an continuous basis.

- The most successful Green Team eco-efficiency project is awarded with a dedicated eco-efficiency Green Team award, as part of the award programme run by the Executive Committee.
- Energy saving workshops are conducted in order to reduce site inefficiencies. Eight workshops conducted so far in 2016 across both business divisions generated average energy savings of 5 – 10% per site.
- The introduction of regular eco-efficiency performance reporting on site, regional, divisional and global level.
- The implementation of the 'Green Chapter' to capital expenditure project proposals as decided by the Executive Committee in 2014. The chapter has to outline eco-efficiency aspects, a cost/benefit analysis and a 'price on carbon' of the proposed investment.

The target setting, documentation of improvement initiatives and regular performance reporting by individual sites are aligned with the requirements and principles of the ISO 14001 Environmental Management System. To date, six of our manufacturing locations have been certified against the ISO 14001 standard: Cimanggis, Daman, Pedro Escobedo, Sant Celoni, Vernier and Volketswil.

An analysis of our overall carbon footprint (Scope 3) has been conducted. The Environment Centre of Expertise works closely with the Procurement department and experts in the Company to further reduce our overall carbon footprint. Electricity, transport, packaging and production of raw materials in our supply chain are among the subjects we are working on.

The Centre of Expertise, in collaboration with local site management teams, has carried out an assessment of the water risk exposures which will be the basis for developing our water stewardship programme.

Our commitments

Our commitment is long term: drive operational excellence in the eco-efficiency of our production sites with a focus on reducing our overall footprint for energy, GHG emissions, incinerated and land-filled waste, and municipal and groundwater.

In 2015, after successfully delivering for five years on our targets and meeting some ahead of schedule, we announced a strengthening of our 2020 eco-efficiency targets.

In addition to our eco-efficiency targets we have committed to

- 100% renewable electricity (RE100)
- adopting Science-Based Targets, including targets for Scope 3 emissions.

Our targets

In 2016, we further defined and clarified our 2020 eco-efficiency targets. Our strengthened 2015 – 2020 targets considering 2015 as the baseline are the following:

- reduce the energy consumption by 4% per tonne year on year on average
- stabilise our absolute carbon footprint
- reduce our waste production per tonne of product by 4% year on year on average.

Our water target was reconfirmed as 15% reduction per tonne by 2020 against the baseline 2009. Our electricity target is to work towards 100% renewable electricity by 2025.

How we evaluate our management approach

Mechanisms

Monitoring carbon emissions

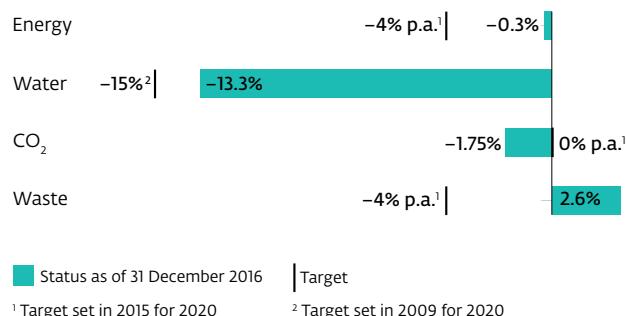
We participated in the annual Climate Change CDP survey for investors as well as in the Climate Change supply chain survey at the request of a number of customers. Against a newly introduced CDP scoring approach, this year's performance score was Leadership A- (on a scale of A – D with A being the highest). The scores demonstrate that we regard the mitigation of climate change as a critical issue for our business and that we manage our carbon emissions through rigorous internal data management and the implementation of improvement initiatives.

Monitoring water

We participated in the annual CDP water questionnaire for the second year as well as in the Water supply chain questionnaire at the request of a number of customers. The 2016 performance score was Management B. In line with our objective to measure and reduce water usage, we are implementing a water stewardship programme.

Progress in 2016

Eco-efficiency targets and performance in %



Energy consumption: Reduce the energy consumption by 4% per tonne year on year on average: -0.3% (against 2015 baseline)

During 2016, the energy per tonne figure slightly improved from 6.94 GJ/tonne of production (2015 figure) to the stated 6.92 GJ/tonne of production. The absolute total energy figure in 2016 increased against the 2015 baseline by about 3.4% while the production volume over the same period increased by about 3.7%.

The increase in energy consumption is a result of severe winter conditions and investments in additional production capacity. The slight improvement in the intensity figure is due to efficiency projects rolled out by local Green Teams and local engineering teams. Some of these projects are described in this section below.

Direct and indirect CO₂ emissions: stabilise our absolute carbon footprint (indirect relates to purchased secondary energy and not energy used by others, i.e. our raw materials suppliers or transport service providers): -1.75% (against 2015 baseline)

During 2016, the absolute total direct and indirect CO₂ emissions decreased by 3,251 tonnes (i.e. 1.75%) since 2015. Given that our goal was to stabilise our total direct and indirect CO₂ emissions, this result is very positive. The achievement is the result of purchasing more electricity produced from renewable sources, changing to cleaner combustibles and efficiency projects implemented by local teams.

The CO₂ per tonne figure also improved by 5.3% from 2015 to 2016.

Total weight of incinerated and land-filled waste by type and disposal: reduce our waste production per tonne of product by 4% year on year on average: 2.6% (against 2015 baseline)

During 2016, the waste reduction per tonne figure increased by 2.6% in comparison to 2015. With this result, we will put more effort into reducing waste produced by product.

Reducing land-filling of waste is a priority. In 2016, about 66% less hazardous waste was sent to land-fill.

We also focus on moving waste from incineration or land-filling to recycling. As a result, 70% of all waste generated in 2016 was recycled. By adding the waste incinerated with energy recovery, this figure increases to 77%.

Water use: 15% reduction, per tonne of product, by 2020 (for municipal and groundwater): -13.3% (against 2009 baseline)

During 2016, the water consumption per tonne figure improved from 9.78 m³/tonne of production (2015 figure) to the stated 9.63 m³/tonne of production, as a result of efficiency improvements in water consumption implemented by local Green Teams and local engineering teams. This translates against our 2009 baseline of an improvement from -11.9% (2015 figure) to -13.3% (2016 figure).

The absolute total water figure in 2016 increased against the 2009 baseline by about 11.8% while the production volume over the same period increased by 29%.

Electricity: 100% renewable electricity by 2025

48.4% of all electricity purchased in 2016 was produced from renewable sources, compared to 40% in 2015. In 2016, three manufacturing sites moved to 100% green electricity, which makes a total of 11 sites out of our 39 manufacturing sites.

Progress in Scope 3 analyses

In 2016, Givaudan performed an overall analysis of CO₂ emissions inventory associated with indirect emissions resulting from its global supply chain activities. This analysis excludes the following categories: procured energy, packaging material used for finished products, inbound and outbound transport, waste disposal, business travel and commuting, since these categories are already calculated separately using specific methodologies.

The analysis was based on the procurement data of the year 2015, including the spend for raw materials and indirect materials and services supplies. The analysis of the carbon effects was conducted using a macroeconomic model, the Escher model, using data from the Global Trade and Analysis Project. The results of this analysis are presented in table EN17 on p. 37.

Performance indicators

Baseline years

We use two baseline years in the following performance indicators. The reason for this is that our previous eco-efficiency targets were set using 2009 as the baseline. In 2015, because we had already achieved our targets for CO₂, energy and waste, we decided to strengthen them. These new targets use 2015 as the baseline year.

However, since our target for water was not achieved, we kept the previous target, with 2009 as the baseline year.

- For all the indicators, except water, the baseline year is 2015.
- For water indicators, the baseline year is 2009.
- For production volumes, both 2009 and 2015 are reported since the ratios are calculated using the data of the accurate baseline year.

Baseline recalculation

In order to sustain meaningful comparison over time and consistency in environmental performances, Givaudan has established a standard process to recalculate its baseline indicators in case of structural changes (for example, through acquisitions), changes in calculation methodology and inventory boundaries based on the GHG protocol. This is the only way to compare the performances on a like-to-like basis over time and changes. The process includes definitions of recalculation triggers and the process of reporting the information. Thanks to this guidance, Givaudan is able to track its environmental performances in a transparent manner and with confidence that the data disclosed are representing its performances despite the changes related to the business growth.

EN3: Energy consumption within the organisation

	2015 (restated)	2016
Direct energy: from primary sources (Gj)		
Natural Gas	1,517,946	1,609,073
Town Gas	115	142
LP Gas	33,192	12,844
Light fuel oil	107,822	69,751
Heavy fuel oil	0	0
Waste used as energy	51,708	45,940
Total direct energy	1,710,783	1,737,751
Indirect energy: purchased electricity and steam (Gj)		
Electricity purchased	907,115	949,785
Steam purchased	44,553	65,050
Total indirect energy	951,668	1,041,835

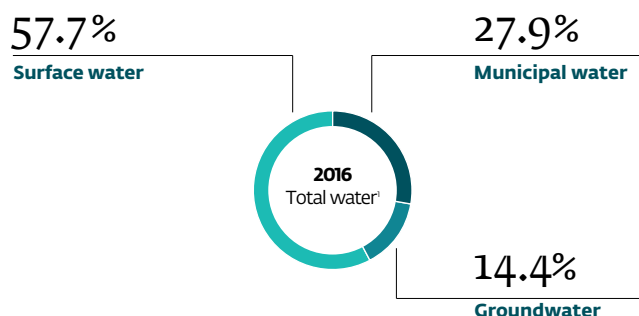
EN5: Energy intensity

	2015 (restated)	2016
Energy saved (GJ per tonne of product) against 2009 baseline	6.94	6.92

EN6: Reduction of energy consumption**Green chemistry for safranal production, Sant Celoni Spain**

Safranal is an organic compound found in nature as a component of saffron. This compound has been synthesised for use in our fragrance creations for many years. The process development team at the Sant Celoni site has used green chemistry techniques to improve the way of obtaining safranal, thereby reducing the environmental impact. In line with the Givaudan 2020 eco-efficiency targets, this approach to green chemistry maximises efficiency while reducing the possible hazardous impacts on human health and the environment. It is based on 12 principles, eight of which were applied (the other four were not applicable to this particular process). The results of this development include reductions in VOCs (by 24.5 tons per year); direct CO₂ emissions (by 8.8 tons per year); energy consumption (by 69%); and waste water (by 48% sent to waste water treatment plant).

For Group numbers, please refer to pages 75 – 76.

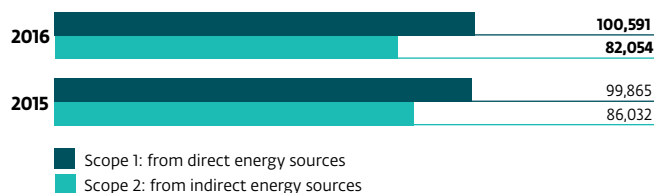
EN8: Total water withdrawal by source

Water intake (m ³)	2009	2015 (restated)	2016
Municipal water	2,290,556	2,363,071	2,524,905
Groundwater	1,136,050	1,390,267	1,307,576
Municipal and groundwater	3,426,606	3,753,338	3,869,191
Surface water	7,432,649	5,006,361	5,225,273
Total water ¹	10,859,255	8,759,699	9,057,753

¹ Includes sanitary, cooling and process water.

Reductions in water use, Makó Hungary

Continued efforts have been made to reduce water consumption at this flavours manufacturing site, which has a reasonably large water requirement. Additional ideas have been implemented to make further reductions by optimising water use in particular parts of the site's manufacturing processes. One of the main goals was to find and reuse previously drained potable water from the equipment, and a main action was to rationalise the unnecessary use of tap water. Through the co-operation and effort of everybody on the site, the results included recirculating of potable water in stirring motors, a reduction of 60% in the quantity of cooling water used in the spray dryer stirring motors, and the rationalising of tap water on the site. There has been a further overall reduction in water use of about 4,000 cubic metres a month.

EN15 and EN16: Greenhouse gas (GHG) emissions (Scope 1 and 2)**GHG emissions (tonnes)¹**

¹ Greenhouse gas data are limited to CO₂ emissions.

EN17: Other indirect greenhouse gas (GHG) emissions (Scope 3)

GHG emissions (tonnes)	2015	2016
Scope 3: Business travel	9,790	11,102
Scope 3: Employee commuting	14,900	15,756
Scope 3: Packaging	50,586	53,230
Transport of goods¹		
Scope 3: Inbound raw material	31,322	27,470
Scope 3: Outbound products to customers	32,370	34,439
Scope 3: Outbound intercompany deliveries	12,416	16,552
Total transport Scope 3 emissions	76,108	78,461
Scope 3: Waste disposal	15,135	16,480
Scope 3: Fuel and energy related activities ²	78,136	78,626
Raw materials ³	978,000	1,057,000 ⁴
IM&S ³	141,000	135,000 ⁴
Capital goods ³	48,000	42,000 ⁴

The majority of this data was collected through our global travel agent and we added an estimate, based on purchased tickets, to cover the few countries which book business travel locally.

¹ The figures include outbound transport by air, ship and road.

² The figures cover CO₂ emissions related to the exploitation, production and transport of primary energy carriers and electricity, which are not included in Scope 1 or Scope 2 emissions; data are extracted from ecoinvent database 2.2 (method: IPCC 2007).

³ The figures have been calculated using the Escher model.

⁴ The 2016 CO₂ emission figures have been calculated by extrapolating the ratio of the spend figures of 2015 compared to the 2015 CO₂ emissions with the spend figures of 2016.

EN19: Reduction of greenhouse gas (GHG) emissions**Buying in green energy to reduce emissions**

To further reduce our carbon footprint, Givaudan's Indirect Materials & Services (IM&S) department started the transition to green energy in 2011 by buying electricity produced from renewable sources.

Electricity accounts for around one-third of the total energy consumption of our manufacturing sites, but contributes close to half of our total Scope 1 and Scope 2 CO₂ emissions.

Highlights in 2016 of the transition were:

- Three additional sites moved to full 100% green electricity, which makes a total of 11 sites out of our 39 manufacturing sites
- The CO₂ emission load per purchased KWh of electricity was further reduced by 12% compared to 2015
- Of all electricity purchased, 48.4% (40% in 2015) is produced from renewable sources, while 60.2% is carbon free (55.8% in 2015).

Conversion from LPG to natural gas, Cuernavaca Mexico

Significant reductions in CO₂ emissions have been achieved by the site by moving from LPG to a natural gas supply for its steam boilers and spray dryers. Emissions were cut by 28% during 2016 compared to 2015 and 31% compared to 2009. Between May and September of 2016, there was a reduction of 598 tons of CO₂ emissions. In seeking opportunities to change its operations to more efficient and cleaner combustibles, the site has reduced costs and greenhouse emissions.

EN20: Emissions of ozone-depleting substances (ODS)

Ozone-depleting substances	2015	2016
CFC inventory (kg)	10,340	11,639
CFC 11 equivalent inventory (kg)	643	645
CFC loss-replacement (kg)	1,701	1,335
CFC 11 equivalent loss/replacement (kg)	99	73

EN21: NO_x, SO_x, and other significant air emissions

Other significant air emissions	2015 (restated)	2016
Nitrogen oxides – NO _x tonnes ¹	80	80
Sulphur dioxide – SO ₂ tonnes	1.12	0.96
Volatile organic compounds (tonnes)	476	521

¹ Quantity is calculated by multiplying the annual fuel consumption by the corresponding emission factor for fuel type.

EN22: Total water discharge by quality and destination

Water discharge (m ³)	2015 (restated)	2016
To the environment without biological treatment	4,584,657	4,634,189
To the environment after biological treatment	1,883,521	2,005,856
To external treatment facility without pre-treatment	429,375	401,784
To external treatment facility after pre-treatment	1,725,231	1,704,916
Total discharged water	8,622,760	8,746,745

Quality monitoring of waste water

The water quality is monitored through Chemical Oxygen Demand (COD) analysis. The resulting 2016 total quantity of COD discharged has been measured and calculated at 488 tonnes.

EN23: Total weight of waste by type and disposal method

Hazardous waste (tonnes)	2015 (restated)	2016
Incinerated	8,677	9,489
Incinerated with energy recovery ¹	4,252	4,093
Land-filled	318	108
Recycled	14,997	14,384
Total hazardous waste	23,992	23,981

Non-hazardous waste	2015 (restated)	2016
Incinerated	2,253	2,542
Incinerated with energy recovery ¹	1,100	716
Land-filled	6,412	6,704
Recycled	27,840	28,578
Total non-hazardous waste	36,505	37,824

¹ Quantity out of total incinerated waste which is incinerated with an energy recovery of at least 75%.

The percentage of the total recycled waste represents 70% of all our waste in 2016. This figure increased to 77% when incineration with 75% energy recovery is also classified as 'recycled'.

Efficient disposal of hazardous waste, Pedro Escobedo Mexico

More sustainable alternatives are being successfully implemented for the disposal of waste generated from the production processes at our site in Mexico. Efforts are being directed at waste with potential for recycling and at the reprocessing or recovery of solvents from hazardous waste that can be used as alternative fuel on the site. The burning of waste, instead of using heavy fuel oil as a combustible, has reduced CO₂ emissions. Waste generated has been reduced with improvements in the burning process for the generation of steam, as well as through the use of contractors who may utilise these residues for the generation of alternative fuels and the recovery of solvents. By mid-2016, the site achieved a reduction of waste generated of 14.5% (representing 273 tons of hazardous waste) compared to the result obtained in 2015.

Products and services

Why is this issue material?

Most of the products we manufacture and sell are used as ingredients in consumer products.

Innovation is critical for Givaudan's continued growth and success. The optimal way to support the business with innovation is to make it part of the Sustainability programme. At the heart of our approach is the belief that innovation must not only respond to demands for ingredients that are more efficient to produce, create less waste and do not persist in the environment, but also anticipate and influence change. Givaudan has the ambition and ability to shape the future of the flavour and fragrance industry.

How we manage this issue

Givaudan has continued to advance developments within a green chemistry framework, both at commercial and research levels. Our innovation and development teams regularly conduct research programmes to design more sustainable products and review current ingredients guided by green chemistry principles and sustainability profiling studies.

When we review or develop new products we aim to improve the efficiency of the production process, have fewer negative by-products and have a positive impact on the well-being of the consumer.

Givaudan has completed the biodegradability screening of our perfumery ingredients palette for new creations, including synthetic, naturally derived and natural materials. Rich with more than 20 years' experience in the biodegradability testing of fragrance ingredients, Givaudan has an extensive database of this information.

We continue to develop tools to predict the toxicology and biodegradability of new ingredients so that risks can be identified and averted earlier in the design of new fragrance ingredients. We also periodically re-assess the toxicology

of existing ingredients, both the ones we make and the ones we purchase from our suppliers.

Disposal is not an issue for our flavour products, which are consumed at the end of their life cycle. However, flavour regulatory is crucial and we are investing in compliance management capabilities globally.

Our commitments

- Engage with customers to develop new technologies for healthier and sustainable products
- Do more with less, promoting innovative design based on concentrated quality and compacted fragrances
- Reduce animal testing and develop alternative test methods
- Ensure our products are not persistent in the environment after their use
- Ensure food safety and regulatory assurance through our network of local and regional regulatory and product safety experts
- Continue to invest in regulatory and risk management capabilities through:
 - Proactive risk identification
 - Global regulatory compliance
 - Crisis management.

How we evaluate our management approach

We evaluate our management approach towards products and services by controlling several indicators:

- The capacity of assessing biodegradability/green chemistry in action
- The number of biodegradable ingredients on the fragrance creative palette
- Continual improvement in green chemistry metrics such as e-factor
- Sustainability profiling exercises
- The number of tests conducted using non-animal methods.

Our impact

>20 years

Biodegradability testing of fragrance ingredients

Progress in 2016

- The Givaudan Ecotoxicology Laboratory in Vernier commissioned a Gas Chromatography coupled with Mass Spectroscopy (GC-MS) in Q4 2016. This enables metabolite identification, and enhances our understanding of biodegradability pathways.
- After the OECD validated and adopted our KeratinoSens® test method in February 2015, the methodology continued to be rolled out, and is now used by more than 40 laboratories globally. A further review has been published in ATLA, a leading journal in alternatives to animal testing. In 2016 the ECHA (European Chemicals Agency) released new guidance on skin sensitisation testing, placing non-animal methods including KeratinoSens® as first choice options, and allowing animal testing only in specific cases.
- In addition to KeratinoSens® we are working on two methodologies to assess bioaccumulation of chemicals and to replace acute toxicity tests for fish. For the bioaccumulation method, we worked on an international validation study. Based on the results, a submission of two new draft guidelines and a draft guidance document to the OECD was made at the end of 2016, and we have played a very active role in the development of the required data and drafting of the documents.
- Also for the acute fish test we participated in the international validation trial. For both methods, we use our historical database of toxicological data and compare the new methods with the existing data. With these comparisons we can demonstrate accuracy of the new methods and can significantly promote the regulatory acceptance of the alternatives to evaluate fragrance molecules. These comparisons will be published in 2017. Givaudan has implemented the in vitro test to replace acute toxicity tests for fish and applied it the first time to fragrance chemicals. In 2016, Givaudan used the test actively in the early testing of new molecules to identify ecotoxicological risks. Givaudan tested the replacement test for acute fish toxicity on a set of 38 fragrance chemicals with historical in vivo data, and showed very good predictivity.
- We have developed a state-of-the-art flavour compliance engine. Based on an IT solution, it manages ingredient and formula regulatory data, handling complex compliance evaluations (for authorities, certifiers, as well as customers), throughout the product development cycle. It is fully integrated with creative, operations and commercial systems.

Performance indicators

EN27: Mitigation of environmental impacts of products and service

A case study of our approach to innovation is the new fragrance ingredient Nympheal™ which was launched in July 2016 and is biodegradable. The mission of the ingredient research was to design a molecule with lily-of-the valley odour that had a better safety and regulatory profile than Lilial, a molecule which has come under scrutiny as it affects fertility in male rats when tested at high concentrations.

With these overarching aims, Givaudan's teams systematically screened potential new ingredients supported by in vitro metabolism assays. This assay predicts formation of potentially toxic metabolism from lily-of-the valley aldehydes. This testing capability allowed us to find new safe alternative structures, not forming toxic metabolites. Innovations in 'in vitro' testing technology and the way we work helped to create the new, high-performing Nympheal™ ingredient that is 'safe by design'.

Our new SAP-based compliance engine enables 'real time' calculations for compliance data for new and existing products. Using this proprietary technology that is exclusive to Givaudan, we can now obtain significantly enriched compliance data and provide additional product information for over 40 new countries and agencies. This product information can be expanded to include new NGO, customer or regulatory requirements.

Transport

Why is this issue material?

Delivery of finished or intermediate products to our customers or other Givaudan manufacturing sites as well as inbound transport of raw materials are an important step in our value chain.

Given that transport is a major source of CO₂ emissions, sustainable logistics has an impact on our customers and suppliers. The way that our partners manage logistics can have an impact on the sustainability performance of our business, so we need to develop strong partnerships in order to manage logistics elements proactively and efficiently.

How we manage this issue

The carbon footprint related to inbound and outbound transport is significant compared to the footprint of our manufacturing activities. It is about 50% of our manufacturing footprint. Givaudan is taking steps to map and reduce its CO₂ footprint in relation to transport, with an evolving strategy, coordinated between the Flavour Division and Fragrance Division.

As part of this effort we monitor the environmental impact related to different transport modes by calculating CO₂ emissions. We do this through a calculation model that tracks through our SAP system all transport movements (by mode of transport), from delivery to receipt locations of raw materials, intercompany deliveries and deliveries to customers. To calculate the carbon footprint, CO₂ emission factors per mode of transport are used as per the Cefic guideline of 2011. This methodology was first used in 2015 and again in 2016.

Achieving sustainable transport and logistics is also related to planning transport. This requires good communication and planning within the business and with our customers. In this way we can do things such as arrange more sea freight, instead of air cargo, which is cost-effective and has less CO₂ output.

Our commitments

- Adopting Science-Based Targets, including targets for Scope 3 emissions
- Sustainable logistics offers opportunities to improve efficiency through reduced fuel usage and therefore lower transport costs
- Continue our programme of reducing reliance on air cargo to transport products.

Our targets

In 2017, to fulfil our Science-Based Targets commitment, we will put in place a Scope 3 target, which will include transport.

How we evaluate our management approach

Mechanisms

The Global Transport Governance Team meets every quarter and reviews performance.

Givaudan has made progress in reducing its use of air freight through a range of activities including individual country targets, an SAP-integrated approval process and focused monthly KPI reporting. In the Flavour Division, for example, monthly reviews with customer care teams along with a number of actions have resulted in consistent year-on-year reductions of average monthly outbound volumes by 7%, while still supporting Company growth and coping with increased market complexities. This has amounted to approximately 200 tonnes less air freighted volumes each year over the last three years. Progress is expected to continue in both business divisions in 2017.

Progress in 2016

- In 2016, Givaudan's Global Transport Governance team focused on assessing the possibility of setting a reduction target for our transport footprint and measures for more sustainable transport and logistics.

Our impact

~600 tonnes

Less airfreight volumes over the last three years

– Givaudan strives to ensure its growth is sustainable, and is aware that with a 4% growth in transported goods over 12 months its CO₂ footprint also increases. However, just 4.8% of these additional volumes are transported by air, with 39% of this by land; 56% of these volumes are transported by sea, the most efficient method. This moves our baseline for yearly allocation by mode of transport for air freight from 1.2% to 1.3% (6 kiloton), with a decrease of 1% in road volumes (297 kiloton, 63% of total) and an increase of 0.8% (165 kiloton) in sea freight.

– Routing changes for transport savings

We worked in collaboration with one of our logistics supplier teams to assess the best transport route to one of our sites to improve cost and services, a partnership that resulted in improved eco-efficiency as well. The previous route involved ship containers being transported from China to our site at Makó in Hungary via Rotterdam in the Netherlands. From April 2016 we switched this routing via Koper in Slovenia, resulting in reductions in sea and road distances to Makó as well as an overall reduction in Givaudan's CO₂ emissions of 36%, equating to 18,254 kg of CO₂ saving over seven months.

– Consolidation strategy leads to shipping savings

We have decreased the distance-equivalents in the annual domestic freight transported from seaports and airports to our Malvinas plant in Argentina through new consolidation strategy. This has resulted in better and more efficient filling of containers, leading savings equivalent to a distance of 28,000 km per year. The total annual distance involved is around 60,000 km, so this initiative has led to a reduction in the distance travelled of almost 50%, and represents a reduction of 680 Tons of CO₂. Through better logistics management and the shipping consolidation arrangements, the fixed cost of shipping has also been reduced.

Performance indicators

EN30: Significant environmental impacts of transporting products

Product transportation

The 2016 product transportation footprint increased by 3.1% compared to the 2015 figure (see EN17, p. 37). The inbound figure decreased by 12.3% by moving more transportation to sea freight. However, the outbound figure increased by 13.9% since more air freight was required, leading to the overall increase.

Transport-related incidents

Twelve small transport/packaging related incidents were reported via our external emergency response provider. With the help of this provider all incidents were controlled. Most of the incidents were without any exposure to people or contamination of the environment, and were often reported for notification only (i.e. not requiring any further assistance). One incident, a leaking container, resulted in a small spillage inside the trailer of a truck delivering the container. Advice was given to avoid a build-up of flammable vapour and a specialist for the clean-up was not needed.

Business travel

Employee travel in 2016, in terms of CO₂ emissions, increased by 13.4% compared to 2015. This increase is related to restricted travel conditions that were applied by the Company in 2015 and lifted in 2016. In addition, we used updated 2016 DEFRA CO₂ conversion factors for calculating the numbers that are shown in table EN17 (p. 37).

Employee commuting

The number for employee commuting is based on the employee commuting survey results from 2015 and extrapolated to the number of full time employees as of 31 December 2016, which was 10,476 compared to 9,907 in 2015. The total footprint is estimated to be 15,756 tonnes of CO₂ compared to 14,900 in 2015.

Packaging of finished products

Our SAP systems allow us to retrieve global data for the different types of packaging used. The data from SAP were combined with standard carbon footprint information from our suppliers. The estimated 2016 footprint is 53,230 tonnes, which is about 5.2% higher compared to the 2015 footprint, with a production increase of 3.7% during the same period (for packaging figures, see EN17, p. 37).

Supply chain

Sustainable procurement practices aim to ensure that high ethical standards are maintained along the value chain, improve the long-term security of strategic natural ingredients, and stimulate the development and well-being of communities from which we source.

In this section:	
Procurement practices	45
Child labour	52



Procurement practices



G4 – DMA Procurement practices
 G4 – DMA Supplier environmental assessment
 G4 – DMA Supplier assessment on labour practices and decent work
 G4 – DMA Supplier human rights assessment

Why is this issue material?

As a global business and the industry leader with operations in over 40 countries, it is imperative that we develop a strong network of suppliers to answer an accelerated consumer demand for more sustainable, healthier and differentiated products.

Given our complex raw materials supply chains and limited control of the end-of-life of the products containing our flavours and fragrances, we want to build knowledge around the sustainability impacts of our business and to deliver continuous improvements.

We seek to source materials in ways that preserve the environment, stimulate the development and well-being of communities from which we source, and safeguard the efficient use of resources for the long term. Responsible sourcing has become an important issue for many of our customers who increasingly want assurances of responsible supply chain practices, traceability and provenance. This is why we strive to adhere to high ethical standards in our supply chains.

How we manage this issue

There are several ways in which Givaudan addresses sustainability issues in its supply chains. The first three are addressed through our Responsible Sourcing programme, Communities at Source projects and Sourcing at Origin initiatives, which go beyond economic considerations to consider environmental, social and ethical factors as well. These three practices have different goals: drive compliance towards high standards in our supply chains; support local communities from which we source; and secure our supply of key natural ingredients through direct sourcing models in countries of origin.

Responsible Sourcing programme – We drive compliance

Responsible sourcing, which concerns the origins of raw materials and how they are produced, involves long journeys from local producers to Givaudan warehouses as well as thousands of people and their wider communities.

Ensuring that social and environmental practices are upheld across the entire supply chain is a particular challenge, and through our Responsible Sourcing programme we seek to

increase traceability of the supply chains of our materials and services, clarity on how these are produced, as well as to ensure corrective actions where needed. And through our Responsible Sourcing Policy, which was launched in 2016, we are more than ever committed to excellence from wherever we source. Our goal is to make sure that all our suppliers of goods and services work towards compliance with this policy.

As a signatory to the United Nations Global Compact (UNGC), we had previously used our Global Vendor Expectations document to inform raw material suppliers about our sustainability requirements. The Global Vendor Expectations document was replaced in October 2016 by our new [Responsible Sourcing Policy](#), which has specific requirements in responsible sourcing matters.

Furthermore, Givaudan complies with California Senate Bill 657, the California Transparency in Supply Chains Act, which requires retail and manufacturing companies to disclose the precautions they have taken or will take to eliminate slavery and human trafficking from their supply chains. In this context, Givaudan also acknowledges its obligations under the UK Modern Slavery Act and will publish a corresponding statement on its website in due course.

The Responsible Sourcing Policy informs and asks our suppliers and service providers to adhere to our principles and requirements in four core areas of responsible sourcing: health & safety, social, environment and business integrity. The policy is available in our main Company languages on givaudan.com.

The scope of attention now concerns both indirect materials and services and raw materials suppliers. For key raw materials, the policy requirements apply to the entire supply chain back to the primary production level.

The Responsible Sourcing programme is based on two pillars: direct supplier audits and key supply chain assessments as outlined below.

Sedex and SMETA for direct suppliers

Givaudan started supplier audits in 2010 with the target of having 200 of our top 400 suppliers audited by 2015. The Responsible Sourcing programme brings supplier audits to a next level with the objective of having all our first tier suppliers reaching 100% audit compliance by 2020.

Our impact in Madagascar

3,000
Organic vanilla farmers benefited

86,000
Trees planted

The process is internally managed by our Procurement function and, as part of these audits, we expect our key suppliers to improve their practices in the four core areas of responsible sourcing.

One way we do this is by asking our key suppliers to register with the Sedex data-sharing platform to improve supply chain practices and to complete the Sedex Members Ethical Audit (SMETA) four-pillar audit. An important benefit of these audits is that they are included in the mutual recognition agreement between AIM-PROGRESS members. This reduces audit fatigue for suppliers by encouraging them to share their audit reports with many customers to avoid duplicate audits.

Givaudan considers an audit as compliant once any non-compliances raised during the audit have been closed. Our Procurement team works closely with suppliers to guide them through their audit process and make sure that non-conformities are closed as soon as possible.

Assessment of our key supply chains

As part of our Responsible Sourcing programme we have started to assess targeted supply chains in our portfolio.

The first step of this assessment, which is done with Givaudan's direct suppliers, is to map our supply chains. This mapping helps us to understand how a supply chain is organised and to collect data such as the number of intermediary suppliers down to the farm level, their role, importance and geographical location. This analysis aims to identify potential risk and if risk is confirmed, Givaudan will work with the supplier to find mitigation solutions.

If needed, a further in-depth assessment is performed directly in the field as a second step.

Performing this assessment can pose a significant challenge, especially where the supply chain is linked to thousands of individual farmers. Because of this challenge, Givaudan seeks to work collaboratively with its suppliers to ensure the success of the project.

Sourcing at Origin – We secure supply and create value locally

We source at origin to improve the long-term supply security, both in terms of quantity and quality, of strategic natural ingredients.

Givaudan has a dedicated team within our Procurement organisation, Origination, which is responsible for implementing and managing Communities at Source projects and Sourcing at Origin initiatives. The Origination team is mostly based in countries from which we source critical natural raw materials, working hand-in-hand with smallholder producers and suppliers to set up innovative upstream sourcing models.

Our strategies are to source directly from producers through collection networks and exclusive farming partnerships as well as to build processing capabilities at origin. Sourcing at Origin can also be done in partnership with our suppliers.

Examples of our Sourcing at Origin initiatives are:

- [Patchouli collection network](#) in Sulawesi, Indonesia and [farming partnership](#) in Borneo, Malaysia, since 2014
- [Clove leaf oil collection network](#) and partnership in Madagascar and partnership with Natural Resources Preservation Programme, since 2015
- NATEMA – Natural extraction facility joint venture in Madagascar, plant inauguration in 2016
- [Cistus Labdanum](#), since 2013.

Communities at Source – We support producers of natural ingredients

For a decade, we have been supporting local communities from which we source precious natural raw materials. Local communities where we source raw materials contribute to our business. We are committed to working together with communities on causes that benefit them and the raw material supply chain.

Depending on the social or environmental challenges identified for a particular supply chain, targeted action plans are developed in cooperation with our suppliers and/or NGOs. Our support is in the areas of agriculture and production practices, education and health. We also support sourcing communities in safeguarding their surrounding environment and natural resources.

Our Communities at Source projects touch thousands of raw material producers worldwide and we continue develop new projects in different supply chains.


Examples of our projects are:

- [Partnership](#) with farmer cooperative and distiller for organic and [fair-trade vetiver oil](#) in Haiti, since 2013
- [Project on biodiversity for tonka beans](#) with Conservation International in Venezuela, since 2008

- Rural development programme for vanilla farmers in Madagascar, since 2010
- Project on ylang ylang quality and environmental conservation in Mohéli, Comoros, since 2010
- Cooperative and research partnership to preserve lavender and lavandin in France, since 2012.

The Company's long-term commitment to support communities from which it sources natural ingredients is further reinforced by the actions of the Givaudan Foundation. The Givaudan Foundation is a non-profit organisation created in 2013 as a result of Givaudan's desire to reinforce its commitment towards the communities in which it operates. The foundation's purpose is to initiate and support projects as well as to grant donations in the areas defined by its vision and mission. One of the causes supported by the foundation is to safeguard the future of communities and their fragile environment.

Some of our Communities at Source initiatives have been supported by the foundation since its launch.

 For more information: www.givaudan-foundation.org

Two additional ways of addressing sustainability in our supply chains are through risk mapping and preserving biodiversity.

Identifying supply risks

Each raw material we purchase has a potential supply risk. Givaudan's Procurement function monitors and manages supply chain risks arising from raw material purchases.

We have successfully implemented a risk management system that allows us to identify the materials at high risk in terms of sourcing and to correlate these risks with the potential business impact. Almost all the materials in our portfolio have been screened through this sophisticated SAP-based system that combines quantitative and qualitative input to provide information that helps us reduce the supply risk to our portfolio. This risk management process, integrated with global supply chain management, enables us to identify and mitigate raw materials sourcing risks.

Preserving biodiversity

Climate change and habitat loss are reducing biodiversity, which is not only an essential issue for our Company but a threat to humanity itself. Givaudan actively supports the Nagoya Protocol and has developed comprehensive policies to support the conservation of the environment and protect biological diversity, from our Principles of Conduct to our renewed EHS policy to specific position papers. Our position statement on biodiversity and the Nagoya Protocol can be found on our [website](#).

Our commitments

- Expanding our Sourcing at Origin scope to ensure security of supply
- Expanding our Communities at Source projects to make a positive impact on the communities from which we source
- Working with our suppliers to conduct regular reviews of our portfolio throughout our key value chains to contribute to our customers' increasing supply chain requirements
- Dealing ethically and respecting human rights within our sphere of influence wherever we do business.

As a signatory of the 10 principles of the United Nations Global Compact, since February 2010, Givaudan holds itself to a high ethical and social standard of human rights, labour standards, and anti-corruption. Givaudan's Principles of Conduct require, among others, compliance with all applicable laws and regulations. The UN Global Compact is a strategic policy initiative for businesses committed to aligning their operations and strategies with 10 universally accepted principles in the areas of Human Rights, Labour, Environment and Anti-Corruption. Principle 4 seeks the "elimination of all forms of forced and compulsory labour". Principle 5 seeks the "effective abolition of child labour".

Givaudan has similar expectations of its vendors. As per the United Nations Global Compact principles 1 – 6, Givaudan expects its suppliers to respect human rights standards. In particular, we ask our vendors to abide by all laws regarding the abolition of child labour and human trafficking.

As per the United Nations Global Compact principles 7 – 9, Givaudan expects its suppliers to support a precautionary approach to environmental challenges, to take initiatives that promote greater environmental responsibility, and to encourage the development and implementation of environmentally friendly technologies.

A description of our approach to anti-corruption, as per principle 10 of the United Nations Global Compact, can be found on page 65.

See Givaudan's Communication on Progress: www.unglobalcompact.org/COPs/active/137921

Furthermore, as a member of the AIM-PROGRESS organisation, we are following the recommendations on how to address human rights issues: www.aim-progress.com

Additionally, Givaudan is a member of the Natural Resources Stewardship Circle, which is also strongly involved in defending human rights and labour standards, particularly in remote local communities: nrsc.fr

Our targets

Responsible Sourcing programme

- Communicate with all suppliers about procurement requirements relating to responsible sourcing
- Reach 100% of audit compliance for our direct suppliers by 2020
- Assess raw material supply chains from our direct suppliers to primary producers.

Sourcing at Origin initiatives

- Continue to develop and expand Sourcing at Origin initiatives to improve the long-term supply security of strategic natural ingredients.

Communities at Source projects

- Continue to identify and support communities from which we source key natural raw materials through social and environmental projects.

How we evaluate our management approach

Progress in 2016

Communicate with all suppliers about procurement requirements related to responsible sourcing

The newly published Responsible Sourcing Policy was sent to a selection of more than 300 suppliers engaged in our responsible sourcing processes. At the end of 2016, more than 50% of the recipients had acknowledged the policy.

Reach 100% of audit compliance for our direct suppliers by 2020

In 2016, we surpassed our 2015 objective to have 200 of our top 400 suppliers registered with Sedex. In total, 307 key raw material suppliers are now registered with Sedex. These suppliers represent over 70% of our raw materials spend.

In 2014, we started to include our indirect materials and services suppliers in the Sedex initiative. To date, 25 such suppliers have joined Sedex.

We have also made good progress towards our supplier audits target. The total number of our suppliers audited was 201 at the end of 2016.

In 2016, we worked to ensure that the audited suppliers had closed all open non-conformities. At the end of 2016, our compliance rate was of 52%.

Assess raw material supply chains from our direct suppliers to primary producers

In 2016, we replaced the Global Vendor Expectations document with our new Responsible Sourcing Policy, which defines the

requirements not only for our direct suppliers but also for all the intermediary suppliers down to the farm level.

We have also developed the policy implementation process. In addition, we started the assessment of 15 raw material families and performed our first field visit. This work will be expanded in the coming years.

Continue to develop and expand Sourcing at Origin initiatives to improve the long-term supply security of strategic natural ingredients

Natural Extracts Madagascar (NATEMA) – Local value creation in Madagascar

In September 2016, Givaudan inaugurated a plant, NATEMA, for processing natural ingredients in Madagascar. A joint venture agreement was signed with Henri Fraïse Fils in April 2014 for the design, construction and operation of the plant. NATEMA will initially process hundreds of tons of clove leaf oil from our own collection network into derivatives that will be used in our flavour and fragrance creations. The plant will later leverage Givaudan's local expertise and capabilities to process additional natural ingredients from Madagascar's rich biodiversity and from neighbouring countries. By processing natural raw materials locally rather than exporting them non-processed, NATEMA will contribute to creating added value directly in Madagascar.

NATEMA is built on eight hectares of land, uses modern technology and standards, and will provide direct and indirect employment for many people. In line with Givaudan's sustainability commitments, the processing is carried out with recovered rainwater and distillation waste is recycled. NATEMA is currently exploring the installation of sustainable energy sources for the site, such as solar panels and biomass boilers. A small health centre has been built to serve employees and the villages around the plant.

Continue to identify and support communities from which we source key natural raw materials through social and environmental projects

Progress Natural Resources Preservation Programme and fair trade certification

Since 2011, Givaudan has collaborated with a local NGO in Madagascar on a Natural Resources Preservation Programme, for our clove leaf oil collection network. The objective of the collaboration is to help to reduce the environmental impact of the distillation of clove leaf oil and to support the producers. The programme involves more than 20 village associations, which are organised groups of smallholder clove leaf oil producers. The village associations benefit from the installation of more efficient distillation units and plantation of firewood trees for distillation: for every kilogram of clove leaf oil produced, producers taking part in the programme plant one tree and are paid a premium. In 2016, 86,000 trees were planted.

A further achievement in 2016 was the Fair for Life certification of Givaudan's clove leaf oil collection network in Madagascar. The certification aims to enforce good working conditions for all participants in the supply chain, and validates the social and environmental responsibility of the collection network. Fair for Life also covers fair prices and the administration of a fair trade premium for community development projects, while ensuring full traceability of the certified raw material.

Certifying our collection network supports Givaudan's commitment to go further in the implementation of our Responsible Sourcing programme.

Project on ylang ylang quality and environmental conservation in Mohéli, Comoros

Givaudan and our local partner AGK joined forces in 2010 to implement projects on the island of Mohéli to ensure the long-term supply of ylang ylang essential oils and support the producing communities.

To strengthen our support to producing communities, a new partnership with the non-profit organisation Initiative Développement was initiated in 2016 for the development of a project to install and co-finance new energy efficient

distillation units. This project will also involve training producers on good distillation practices.

Rural development programme for vanilla farmers in Madagascar

In 2010, we initiated a rural development programme for vanilla beans together with Henri Fraïse Fils in Madagascar. Vanilla supply from Madagascar is complex, because of a rural structure made up of thousands of smallholder farmers. This raises traceability questions in the supply chain as well as social and sustainability issues.

Our Ecocert certified organic vanilla and rural development programme aims at improving supply chain transparency and producers' living conditions. When the programme began, we initially worked with 14 villages that relied on vanilla production for their livelihood. This figure has since increased to 32 villages, representing a total of some 3,000 organic vanilla farmers in 2016. Support is provided in the areas of food security and education.

To date, we have been involved in the construction or repair and maintenance of 23 schools as well as the building of two health centres. Three of the schools were built in 2016.¹

Sourcing initiatives and community projects



Guaraná – Brazil

In Brazil, Givaudan has established a partnership with the supplier Centroflora Group and the local non-profit organisation Floravida Institute. This partnership enhances the quality of guaraná production, the sourcing of guaraná seeds, and supports the development of the local producing community. Guaraná is a plant typical to the Brazilian biodiversity. It is commonly found in local South American products and is gaining more popularity internationally. The main objectives of this partnership are to establish a direct sourcing relationship with local smallholder guaraná producers and their cooperative, provide technical training and knowledge-sharing among these communities as well as strengthen the supply chain. To date, the project has led to the hiring of a full-time agricultural technician to support and train the producers on good production practices, and the construction of four ovens to improve the seed drying process for better quality.

Chilli – India

In India, Givaudan has partnered with its supplier on a project supporting chilli producers in the region of Andhra Pradesh. The aim of this project is to assist chilli producers develop their production in a sustainable manner and improve the quality of production. At the same time, the project supports the livelihoods of the producing community.

In 2015 – 2016, the project saw the pilot installation of solar bubble dryers for freshly harvested chilli fruit to examine ways in which the producers' drying techniques can be improved. Schools in the chilli producing villages have benefited from teacher training and reinforcement sessions as well as the distribution of school equipment and books. The partnership has also supported the organisation of health camps in the villages, where a team of doctors and supporting staff carried out medical examinations of village members.

Lavender – France

In 2007, Givaudan entered into a partnership with the cooperative France Lavande to establish a direct link with lavender producers and ensure the long-term availability of this crop in France. The partnership has focused on encouraging farmers to join the cooperative and to collaboratively evaluate and improve lavender quality.

Over the years, Givaudan has financed the supply of certified healthy lavender plants from the CRIEPPAM, a French fragrant plant research organisation we have worked with since 2011. The cooperative members of France Lavande have also benefited from the pre-financing of four plant nurseries.

In 2016, an agreement was signed with the FiBL (Research Institute for Organic Agriculture), a Swiss non-profit research centre that aims to advance cutting-edge science in organic agriculture. This collaboration will focus particularly on finding solutions against the increasing threat of plant phytoplasma disease.

Patchouli – Indonesia

In 2016, Givaudan joined forces with an organisation in Indonesia for a sustainable patchouli oil production project on the island of Sulawesi in Indonesia. It will build on our current work with our patchouli oil collection network, where Givaudan field buyers travel the island purchasing oil from hundreds of smallholder producers. Patchouli production is an important livelihood activity on Sulawesi.

The overall goal of the project will be to support patchouli producers (distillers and farmers) in Givaudan's collection network in developing their patchouli oil production sustainably. This will help increase yields and incomes while limiting the impact on their close environment. Training on good agricultural and distillation practices, the installation of energy efficient distillation units and the planting of high-calorific firewood trees will be included. Producers and their families will also benefit from training on good nutritional and financial practices.

Other key achievements

- In January 2016, we published a Givaudan position statement on palm oil in which we highlight our ambition to eliminate deforestation from our supply chain and create positive difference for workers, farmers and local communities. Givaudan is committed to source its palm oil, palm kernel oil and their derivatives in a way that is traceable to known certified sources.
- In February 2016, we published a position statement regarding biodiversity and the Nagoya Protocol. Givaudan supports the terms of the Convention of Biological Diversity, being the conservation of biological diversity, the sustainable use of the components of biological diversity and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources.

¹ Thanks to Nestlé's contribution to the rural development programme, the programme has seen an increase in the number of schools constructed.

Performance indicators

EC9: Proportion of spending on local suppliers at significant locations of operation

It is the Company's common practice to prefer sourcing from locally based suppliers (defined as suppliers who are based in the same country as the Givaudan 'facility'). This is reflected in the 83% by value of non-raw material purchased locally in 2016. For raw materials, 26% by value were sourced locally in 2016. Several of the raw materials we buy cannot be sourced in countries other than the ones where it naturally grows.

EN32, LA14 and HR10: Percentage of new suppliers screened using environmental, labour practices and human rights criteria

All new relationships between Givaudan and vendors are developed using vendor requirement guidelines as reference material.

We encourage selected suppliers to improve their performance. One way we do this is by inviting suppliers to register with Sedex, a data-sharing platform to improve supply chain practices.

- Total number of significant suppliers identified: 400
 - Total number of suppliers assessed to date: 298
 - Total number of suppliers assessed in 2016: 9
 - Percentage of suppliers assessed to date: 75%
 - Percentage of suppliers assessed in 2016: 2%
-

Child labour

Our impact

100%

Operations assessed for child labour risk

Why is this issue material?

All forms of child labour are against our Company principles and values, and so we have a range of processes and measures in place to help prevent such labour in our supply chain and in our Company. Our Responsible Sourcing programme helps to mitigate risks inherent to our complex supply chains, including the possible use of child labour. In working to eliminate the risk of child labour in our supply chain, we deeply value the transparent and trusting relationships we have with our stakeholders, including our suppliers and customers as well as our employees, who expect their Company to operate at the highest levels in this area.

How we manage this issue

Givaudan's Principles of Conduct represent a governing charter for ethical behaviour. They outlaw all forms of exploitation of children, including by suppliers, and stipulate that Givaudan will not provide employment to children before they have completed their compulsory education. We also do not want to do business with suppliers that use child labour. To this end, our Responsible Sourcing Policy specifies that our suppliers must not use child labour (nor forced labour) and are expected to comply with all reporting obligations regarding the abolition of child labour and human trafficking.

In addition, through our Responsible Sourcing programme we seek to increase traceability of the supply chains of our materials and services, clarity on how these are produced, as well as to ensure corrective actions where needed. For more information, please refer to the procurement practices section.

Furthermore, Givaudan has been a signatory of the 10 principles of the United Nations Global Compact (UNGC) since 2010. For more information please refer to the procurement practices section.

Our commitments

We respect the Ethical Trade Initiative Base Code and audit supplier practices regarding child labour using the same code that details in its paragraph 4 how "Child labour shall not be used":

- 4.1 "there shall be no new recruitment of child labour"
- 4.2 "companies shall develop or participate in and contribute to policies and programmes that provide for the transition of any child found to be performing child labour to enable her or him to attend and remain in quality education until no longer a child"
- 4.3 "children and young persons under 18 shall not be employed at night or in hazardous conditions"
- 4.4 "these policies and procedures shall conform to the provisions of the relevant International Labour Organization (ILO) standards".

Our targets

For more information on targets, please refer to Responsible Sourcing programme targets as outlined in the procurement practices section (p. 48).

How we evaluate our management approach

Progress in 2016

HR5: Operations and suppliers with significant risk of child labour, and preventive measures

Child labour or young workers exposed to hazardous work can be an issue across the entire supply chain covering our own operations and our suppliers, and 100% of our operations are assessed for risk in this area.

Since 2008, Givaudan has been an active user of the Sedex platform which incorporates human rights risks in its assessments. Since 2010, all Givaudan manufacturing sites have been registered on Sedex and completed Sedex self-assessment questionnaires (SAQ) to share information with customers. Givaudan annually reviews and updates the SAQ. To date, 35 Givaudan sites have been audited according to SMETA standards.

Significant suppliers are assessed for risk, and in 2016 a total of 9 key raw material suppliers were registered with Sedex. These suppliers represent over 2% of our spend.

Also during the year, we worked to ensure that the audited suppliers had closed all open non-conformities. At the end of 2016, our compliance rate was of 52%.

Labour practices

Social dimensions of sustainability and Givaudan’s impacts on – and responsibilities to – employees, and how people issues are managed.

In this section:	
Labour/management relations	55
Occupational health and safety	56
Diversity and equality	59



Labour/management relations

Our impact

Ongoing dialogue

With employee representatives

10,476

Employees

Why is this issue material?

Businesses face many uncertainties in the rapidly changing global market. Establishing genuine dialogue with freely chosen workers' representatives enables workers and employers to better understand each other's challenges and find ways to resolve them. For example, over recent years we have successfully modified our benefits plans, a process which required solid labour/management relations.

These relations are crucial for continued success, and as we grow through acquisitions and the building of new factories we will continue to engage new and existing employees in making a positive difference for our customers, their consumers and our planet.

How we manage this issue

Givaudan has a history of constructive dialogue with employee representatives and supports the freedom of employees to join trade unions or other employee representative bodies, provided these bodies are properly constituted and in line with local laws and practices. Givaudan does not discriminate based on employee membership of, or association with, these bodies and seeks to enter into constructive discussions when issues arise.

Givaudan always consults with the employee representatives. For example, we continue to hold regular European Works Council consultations with a group of employees, which represents works council members from all EU member states where we have operations. The purpose is to inform and consult employees about significant changes in the organisation, and to report any feedback to the Executive Committee. Updates on sustainability within Givaudan are regularly discussed with the European Works Council.

The last European Works Council was held on 17 June 2016. A further part of internal constructive dialogue with employees is our global Employee Engagement Survey. Introduced in 2013, this survey is an opportunity for every employee to let us know how they feel about working at Givaudan, where we are doing

well and where we can improve. The most recent survey was conducted in September 2016.

How we evaluate our management approach

Progress in 2016

In September we conducted our second global Employee Engagement Survey. Feedback from this survey confirmed that:

- our strengths from the 2013 Employee Engagement Survey continued as strengths in 2016. We will continue to build on our strengths within the Engagement, Strategic Alignment, Continuous Improvement and Working Environment categories, which remain strong and are well above global high performing benchmarks.
- we have made strong improvements in each of the three priority areas identified in 2013 – Collaboration, Career and Inclusiveness. This includes an improvement in the inclusiveness category of 4% compared to the 2013 survey. The three areas will remain a key focus over the next few years so we can continue to build on the improvements we have made.

Performance indicators

LA4: Minimum notice periods regarding operational change

Legal local notice period prior to the implementation of significant operational changes that could substantially affect our employees is respected either through direct communication to our employees or through their elected representatives.

Works councils or other employee representatives are present in most of our locations.

In countries where there are collective agreements and where it is mandatory, minimum notice periods regarding operational changes are specified. These range from no notice period to three months, depending on the country and based on local laws and practices.

Occupational health and safety

Why is this issue material?

An essential part of being a responsible company and employer is the health and safety of our employees, and the protection of the environment in which we operate.

How we manage this issue

At Givaudan we manage occupational health and safety in numerous ways, including training sessions on health and safety risks, prevention measures and emergencies management, in addition to documentation and guidelines to disseminate information. We track our efforts through leading indicators such as the number of hours spent on training, and by measuring the number of safety contacts (proactive behavioural safety audits) and near-miss reports, thus reducing exposure to work-related risks or incidents. All these activities are aligned with and contribute to our newly updated Environmental, Health and Safety (EHS) Management System.

Our EHS Management System

Our EHS Management System provides a solid framework for implementing our engagement towards EHS on a day-to-day basis. It describes and explains how all elements interact and interrelate and provides guidance on how to translate our Global EHS policy into strategies and processes that drive continuous improvement and achieve excellence in EHS performance.

Our system is structured around the Responsible Care® charter along with ISO standards, industry best practices and regulatory requirements. Responsible Care is a voluntary commitment by the global chemical industry to drive continuous improvement and achieve excellence in environmental, health and safety performance.

Execution of 'Zero is possible', and Engagement programme - two instrumental and visible contributors to our Global EHS strategy

The execution of our Global EHS strategy is facilitated by our network of local, regional and global EHS professionals,

recognised as valued partners for our operations and business teams. Guidance, project management support and governance advice is provided by our corporate EHS Centres of Expertise in the fields of:

- environmental protection (optimal eco-efficiency targets and action plans, data reporting and analysis, support for 'Green Chapter' capital expenditure and encouraging local Green Teams)
- material stewardship and hazardous material compliance (industrial safety, dangerous goods transport, data compliance management, packaging and hazard communication channels like labels and safety data sheets)
- occupational health (identification, evaluation and control of potential health hazards in the workplace, medical surveillance and documentation)
- occupational safety (technical safety, behavioural-based safety)
- process safety management (standardised approaches to process risk assessment, odour emissions control, engineering support, internal audits, business continuity planning and global safety laboratory).

With actions visible on a daily basis, the 'Zero is possible' programme started in 2009 with the ultimate goal of zero occupational incidents. This programme consists of safety leadership training for line managers, a set of Safety Ground Rules and globally rolled-out employee awareness training covering the behavioural aspects of occupational health and safety. As part of this programme, we are finishing our rollout of SafeStart™ training in our locations. These activities facilitate the implementation of safety contacts as well as periodic workplace inspections. Last but not least, every location receives a yearly pre-defined local safety target aligned with and contributing to the global objective in accident reductions.

Our commitments

Our ultimate health and safety aspiration is to eliminate accidents. Our primary means of achieving this aspiration is through a 'Zero is possible' behavioural-based safety awareness programme designed to develop a strong culture in which every employee takes responsibility for their own safety, the

Our impact

-65%

Lost time injury rate since 2009

safety of the people around them and the safety of the environments in which we operate.

Our targets

- Conduct 'Zero is possible' behavioural safety programme
- LTI rate below 0.1 by 2020.

How we evaluate our management approach

Mechanisms

EHS strategy

Our day-to-day approach in EHS matters on our sites and regions and key programmes is guided by our Global EHS strategy. This strategy is reviewed and revised on a five-year cycle in alignment with the Company strategy, objectives and targets. The PDCA (Plan Do Check Act) methodology governs the overall review mechanism.

EHS objectives

EHS objectives are set on a five-year cycle according to our EHS policy, mission, strategy and requirements in order to achieve improvements. Priorities are defined at all levels of EHS and fine-tuned with input from the organisation to ensure business alignment and enable us to focus on key objectives. These objectives are broken down into annual targets, including essential measures such as accident and emission rates. The targets are cascaded into divisional, functional, regional, site and individual objectives. Givaudan employees have the opportunity to participate in the development, implementation and review of objectives and targets.

Monitoring

Our extensive monitoring programme provides regular tracking of key performance indicators (KPIs) at a defined frequency in order to identify trends through data analysis and help determine any necessary remedial action, feeding back into the PDCA cycle.

Progress in 2016

Conduct 'Zero is possible' behavioural safety programme

We continued to build on our SafeStart™ safety awareness training, which is part of our global behavioural safety programme 'Zero is possible'. This included refreshers on our Safety Ground Rules led by our employees who share globally why it is important to them personally to stick to the rules, using real life examples.

These rules, designed by employees, are a catalyst to take our safety performance to the next level by addressing common situations that may be encountered every day. The ground rules leverage the benefits of SafeStart™ training and key learnings from all accidents, near-misses and unsafe situations reported throughout Givaudan since 2009.

In 2016, our new EHS Engagement programme kicked off with 'EHS Weeks' organised on our sites offering the chance for all employees to participate in a broad range of engaging activities, drawing attention to both personal and collective vigilance by educating, building relationships, raising awareness and fostering our safety culture.

LTI rate below 0.1 by 2020

The 2016 LTI rate decreased by 14% compared to 2015 and at 0.36 (against our 2016 target of 0.22).

Consequences

As Givaudan expands into new markets and businesses through acquisitions and joint ventures, we face periods of adaptation in terms of institutionalising the Givaudan safety culture. The LTI rate of 0.36 in 2016, being above our target set of 0.22, is mostly related to this challenge, thus boosting our mandate to swiftly support and onboard our new colleagues to Givaudan's integrated safety platform. We help them build internal networks, complete risk assessments, and support them with any behavioural changes necessary to successfully comply with our Global EHS policy.

Performance indicators

LA6: Health and safety indicators

Health and safety data

	2009	2015 (restated)	2016
Fatalities	0	0	0
Number of LTIs	79	37	32
LTI rate	1.03	0.42	0.36
Lost day ¹ rate	N/A	8.43	10.88
Number of Restricted Work Cases (RWC)	28	25	37
Number of Medical Treatment Cases (MTC)	28	40	34
Number of Total Recordable Cases (TRC)	135	102	103
Total Recordable Case Rate ²	1.76	1.17	1.15
		734 (including 184 days carried over from previous years)	973 (including 236 days carried over from previous years)
Number of lost days	N/A		
Number of hours worked	15,341,093	17,417,988	17,886,782
Absenteeism	N/A	2.4%	2.4%

¹ Number of lost work days resulting from work-related accidents per 200,000 working hours. Calculation based on scheduled work days lost from the day after the accident.

² LTI and TRC are both according to the official OSHA definitions.

³ 7.4% of these represent external contractors for whom the Company is liable (Temps).

⁴ Compared to the number of normal available working days, includes correction for employees working on a part-time basis.

Total recordable cases by region and gender

Region	Women	Men
Asia Pacific	1	10
Europe, Middle East & Africa	8	44
Latin America	1	2
North America	2	35
Total	12	91

LTI rate, lost day rate, absenteeism - by region

Region	LTI rate	Lost day rate	Absenteeism
Asia Pacific	0.19	1.14	1.6%
Europe, Middle East & Africa	0.69	12.99	3.3%
Latin America	0.08	0.31	1.0%
North America	0.38	28.58	2.0%

Diversity and equality



G4 – DMA Diversity and equal opportunities

G4 – DMA Equal remuneration for women and men

Why is this issue material?

Diversity is a key driver in helping manage our complex operating environment and to serve our customers in the best possible way. Equal opportunity is necessary to cultivate a set of leaders with legitimacy in the eyes of employees and to make better business decisions. So it is necessary that the path to leadership is visibly open to all talented and qualified employees in Givaudan regardless of gender, background or geography. Givaudan believes that respecting and celebrating diversity also adds value to the experience of working for and with the Company.

Companies with a reputation for compensating men and women equally may have access to a larger talent pool when recruiting and hiring. Highly qualified candidates may be more likely to consider working for a company if they believe opportunities for economic growth will be available to them as they demonstrate their value, regardless of their gender. Once hired, productive workers may be more likely to remain with the organisation if they believe they are being compensated fairly.

How we manage these issues

Our updated Principles of Conduct, approved by the Board of Directors in 2016, state: "It is Givaudan's policy to recruit, employ and promote employees on the sole basis of the qualifications and abilities needed for the work to be performed without regard to race, age, gender, national origin or any other non-relevant category."

We embrace diversity throughout our organisation and are fully committed to increasing inclusiveness and diversity in our workforce.

In particular, we try to promote women as much as we can into managerial positions, and we produce analytics to track progress in this regard (including the percentage of women in leadership positions).

Our Diversity Position Statement outlines our commitment to ensuring a representative workforce that reflects the diverse communities in which we operate. This statement also reinforces our commitment to equal pay.

For more information:

www.givaudan.com/sustainability/expert-corner/governance

A robust process and a continuously updated rewards strategy for employees are in place to ensure our compensation offering is competitive and enables us to attract, retain and motivate qualified employees. This process includes all markets where we operate, all job functions and all levels. We achieve this by conducting annual (and in some cases bi-annual) benchmarking studies. Salaries are reviewed by taking into account various macroeconomic data (including cost of living) and market evolution. In developing markets and high-inflation environments, we may review compensation more frequently. We also have a profit sharing scheme which allows our non-management employees globally to share in Company profits. These elements are also reviewed at the senior management level each year.

Our commitments

- Embrace diversity throughout our organisation and increase inclusiveness and diversity in our workforce.

Our targets

- Continue the effective practices we have in place to foster and encourage diversity in our teams and ways of working across the world
- Increase the number of women in our senior leadership positions.

Our impact

22.7%

Women in senior leadership positions

How we evaluate our management approach

Mechanisms

As part of our commitment to foster and encourage diversity in our teams and ways of working we appointed a Talent & Diversity Programme Manager in 2016, responsible for developing processes and driving different global, regional and functional initiatives around talent management and diversity.

A recommendation for Givaudan's approach to diversity and inclusion will be finalised in Q1 2017. This recommendation will also address internal mechanisms for monitoring the progress of increasing diversity across the Company.

Progress in 2016

Continue the effective practices we have in place to foster and encourage diversity in our teams and ways of working across the world

- Initiatives undertaken to support building the recommendation on Givaudan's approach to diversity and inclusion have included external research and benchmarks, interviews of executive and senior business and HR leaders. We are now in the 'define' phase of the roadmap which will be ready in early 2017.

Increase the representation of women in our senior leadership positions

- The percentage of women in Givaudan's senior leadership positions increased to 22.7% in 2016, an improvement on the previous year.

Performance indicators

LA12: Composition of governance bodies

Composition governance (Executive Committee and Board of Directors)

	Executive Committee/Board	%	<30	30-50	>50
Women	3	18%	0	1	2
Men	14	82%	0	1	13

Employees' categories and composition of governance bodies

	Men			Women			Total
	<30	30-50	>50	<30	30-50	>50	
Senior management	0	63	70	0	23	16	172
Middle management	33	1,082	471	38	1,114	222	2,960
Associates	858	2,902	1,170	606	1,610	457	7,603
Total	891	4,047	1,711	644	2,747	695	10,735

¹ Including the Executive Committee.

LA13: Ratio of basic salary and remuneration of women to men

This is a priority topic at Givaudan and several studies have been conducted or are currently being conducted in major markets where we operate. For example, the results of the study of our headquarters in Switzerland show that the basic salary difference between men and women is 2.2%. For total cash compensation (fixed and variable pay), the difference is less than 3%.

Society

Social dimensions of sustainability and impacts Givaudan has on the local communities in which it operates, including how interactions are managed and remediated.

In this section:	
Local communities	63
Anti-corruption	65



Local communities

Why is this issue material?

We have designated local communities where we operate as one of the six key stakeholders with whom we have ongoing dialogue. We have made this designation because these communities have the ability to impact our business – and they in turn can be impacted by our activities.

We must ensure a secure supply of raw materials so our business, employees and customers can thrive over the long term. By doing this we help to protect ecosystems, support livelihoods and contribute to these local communities.

How we manage this issue

Actively developing and sustaining relationships with affected communities and other stakeholders, and understanding how we interact with markets and social institutions, are key components of our Sustainability programme. In particular, we listen to community representatives to make sure we take their point of view into account, and integrate this feedback into our sustainability activities.

We define local communities as persons or groups of people living and/or working in any areas that are economically, socially or environmentally impacted (positively or negatively) by Givaudan's operations. The local community can range from people living adjacent to operations through to isolated settlements at a distance from operations which may experience the impacts of these operations.

On most sites, formal relationships have been established with local authorities and with significant organisations representing neighbours, or working on specific environmental and social issues.

The Company's commitment to local communities is further reinforced by the actions of the Givaudan Foundation. The Givaudan Foundation is a non-profit organisation created in 2013, as a result of Givaudan's desire to reinforce its commitment towards the communities in which it operates.

The foundation's purpose is to initiate and support projects as well as to grant donations in the areas defined by its vision and mission. One of the causes supported by the foundation is to safeguard the future of communities and their fragile environment.

Charitable giving

We also monitor charitable spend on every site. Since 2012, we have implemented an annual budget allocation process for charitable giving for all our sites. Spend is controlled and consolidated by a sustainability controller. Every site manager is responsible for the way the site budget is spent. He or she has some freedom to allocate funding to local organisations providing they comply with Givaudan guidelines and local laws on non-profit organisations.

The total spend on charitable giving for local communities in 2016 was CHF 1,491,730.

Our commitments

- Work together with our local communities on projects and causes that benefit the communities where we work
- Build partnerships with non-profit organisations and work on charitable themes: blindness, family nutrition and supporting local communities.

Our targets

- Investing in Green Team network and collaboration
- All our sites to have ongoing interactions with local authorities regarding regulatory affairs (progress in SOI, p. 64).

How we evaluate our management approach

Mechanisms

In 2011, we undertook an internal global audit to understand the extent of our interaction with stakeholder groups such as affected communities, local government authorities, non-governmental and other civil society organisations, local institutions and other interested or affected parties. The

Our impact

CHF 1,491,730

Charitable spending for local communities

3 Awards

Executive Committee Green Team

internal audits included assessments of impacts, and the topics covered environmental and social programmes and local community complaints procedures. We monitor this programme every year, and progress in 2016 is reported below.

Progress in 2016

The 2016 Executive Committee Green Team Awards were distributed in each of the three categories:

- manufacturing site: Cycling for charity, Ashford, UK (see below)
- commercial site: Project Poshan, Mumbai India (see below)
- eco-efficiency: Green chemistry for safranin production, Sant Celoni Spain (p. 36).

Givaudan developed a number of partnerships during the year around its three charitable themes: blindness, nutrition and other initiatives such as health, education and culture. Projects on our charitable themes are carried out by our local Green Teams, which are cross-functional teams of volunteer employees.

Blindness

Cycling for charity, Ashford UK

Employees from our Ashford site raised a significant amount of money for two charities: the Kent Association for the Blind, which provides a range of help and support for people of all ages in the county of Kent whose sight loss affects their daily lives, and which was chosen because of the link to blindness, one of Givaudan's three charitable themes; the second charity was Pilgrims Hospices, a group of hospices that offers palliative care to patients in the east of Kent, and which was voted for by Ashford employees. About CHF 24,000 was raised after eight cyclists (plus support crew) from Ashford cycled 500 miles over six days from Geneva to our Sant Celoni site in Spain – a challenging event that helped improve the lives of those in need and raised the profile of the chosen charities.

Nutrition

Foundation for the Future, Daman India

Working with government authorities, our Green Team members at Daman Operations focused on local schools where there is a lack of awareness about food safety and hygiene among food handlers who prepare midday meals for students. A food safety and hygiene programme, developed by our team in partnership with the education department, was delivered over two days, reaching more than 200 food handlers who work at about 40 schools that serve meals to about 10,000 children each day. These government and government-aided schools receive free midday meals for students. The effectiveness of the food handlers' training and the increased awareness of food safety and hygiene are being checked by our Green Team through visits to school kitchens, accompanied by government health officers.

Project Poshan, Mumbai India

In the second phase of a programme started in mid-2015, our team in Mumbai has provided nutritional support and carried

out health and BMI (body mass index) checks on undernourished children in orphanages. Among the initiatives in July – September 2016 were health check-ups and haemoglobin tests for 428 children, deworming of all children and cooking staff, baseline BMIs compiled by a dietician and, based on further analysis and observations, a nutritional support plan prepared. Food preparation was contracted out and monthly nutritionist visits and review meetings with the contractor and staff were done. Monitoring of the project is carried out by members of the Green Team and the partner NGO to ensure continuous improvement.

Nutrition weeks, Zurich Switzerland

Can food be consumed while taking into consideration personal well-being as well as environmental factors? This was the challenge taken up by employees at Zurich who took part in three nutrition awareness weeks in September, organised by a Swiss start-up company WeAct. In seven teams, 34 employees participated in a total of 3,955 activities around healthy nutrition and reducing CO₂ emissions through appropriate food selection. For example, 'On Your plate' suggested that for vegetables and fruits, consider products that are seasonal and regional; drink fewer beverages containing sugar; and eat fruit or nuts instead of consuming snacks containing sugar. 'Around your plate' looked at aspects around food that are almost as important as the choice of what is on the plate and promoted gaining knowledge and information about healthy nutrition and walking after consuming food.

Other initiatives such as health, education and culture

Drinking water for students, Thailand

Clean and safe drinking water for school students in a remote part of Thailand has been made possible by our local team through their provision of a water filter, water tank and water cooler. An added long-term benefit of this water supply is that the school no longer has to purchase drinking water. Ban Nongket school in Lopburi province has 49 students aged 3 – 11, yet only three teachers. Our employees also arranged learning activities at the school that included a 'Water filter science station', about water purification, water for health and how to save water; 'Fruit and Scent', about the scent of fruit by drawing a picture after smelling the fruit juice; and a 'Colour card', for children aged 3 – 5 to learn about fruit and colour, and the health benefits of fruit – all underlining the benefits of good nutrition.

Performance indicators

SO1: Percentage of operations with local community development programmes

35 of our 39 production sites (90%) have implemented effective local community development programmes.¹

¹ Where the site does not have a formal local communities development programme, employees participate in social activities with the other sites in the same country.

Anti-corruption

Why is this issue material?

Ethical behaviour by our employees, agents and business partners is of utmost importance to us. We can be held responsible for our own actions as well as for the actions of our agents, consultants and certain other business partners. We have corporate governance systems in place to ensure our Company is managed in the interests of shareholders (including minority shareholders), and our management systems include checks and balances to control risk and oversee management accountability. The penalties for violating bribery and corruption laws are severe, including prison sentences and significant fines. We know that mere allegations of bribery or corruption violations can damage our reputation.

How we manage this issue

Most countries where we operate have anti-bribery laws, including the UK Bribery Act, the US Foreign Corrupt Practices Act and anti-bribery laws and regulations of other countries where Givaudan either already does business or intends to do so. Our actions will be particularly scrutinised whenever public officials are involved.

Anti-corruption compliance is managed as part of the Givaudan compliance management system through the following instruments:

- corruption is one of the risk areas regularly reviewed by the Corporate Compliance Officer as part of a compliance risk assessment.
- corruption and inappropriate gifts and entertainments are prohibited in Givaudan's updated Principles of Conduct, which were approved by the Board of Directors in 2016. In addition, in 2011 Givaudan introduced a Global Anti-Bribery, Gifts, Entertainment and Hospitality policy addressing the issue in more detail, including reporting of gifts and entertainment. Both documents are available to employees in all major Company languages. The policy was reconfirmed in 2013. The policy is planned to be reviewed again in 2017.
- Givaudan has included corruption and gifts/entertainment in its basic compliance training for all permanent employees.

Moreover, Givaudan has introduced specific anti-bribery training for employees with material outside stakeholder relations. Both trainings are available in all major Company languages.

- Givaudan discloses charitable contributions and sponsorship.
- As part of monitoring activities, Givaudan has introduced a compliance helpline to allow employees to report compliance issues in confidence. The compliance helpline has been opened in all sites worldwide. It is also available in all major Company languages.
- Givaudan has enacted a procedure for the selection and engagement of agents and distributors, which includes a formal due diligence review and minimum requirements for agent contracts and payments.

Our Principles of Conduct apply to all the employees of any Givaudan company across the world.

Our commitments

As stated in our Principles of Conduct, we have zero tolerance of bribery and corruption, and we do not make facilitation payments.

Our targets

- Above 90% of all employees trained on anti-bribery, gifts and entertainment
- Helpline rolled out to all material Givaudan locations
- Due diligence review of 100% of sales agents and distributors.

How we evaluate our management approach

Mechanisms

- Completion of compliance training is tracked on a monthly basis and employees who have not completed the training within the allotted time frame receive reminders from the system and from their local Company Managers
- Reporting on gifts and entertainment forms part of the annual certificate of Company Managers on compliance
- Regular review of new locations for additional roll-out of the

Our impact

Ongoing training

On anti-bribery

Compliance helpline taking into account the growth of the Company and the risk of the country involved.

Progress in 2016

- Training on anti-bribery made available to all newly joined employees
- Compliance helpline extended to two new locations (Nigeria, Pakistan)
- All existing sales agents and distributors reviewed.

Consequences

- In 2017, there will be a scheduled ordinary review of the current Anti-Bribery, Gifts and Entertainment policy.
- In 2017, new compliance training on the new Principles of Conduct will be rolled out, including basic training on anti-bribery.

Performance indicators

SO4: Communication and training on anti-corruption policies and procedures

Basic anti-bribery training, as part of our general code of conduct training, has been completed by 90% of all eligible employees outside the USA (active and those who have left the Company), including all members of our Executive Committee. This training will be replaced by new compliance training in 2017.

Additionally, over the last three years, 5,164 employees whose work involves regular and direct contact with external stakeholders, including the entire Executive Committee and all employees in the USA, have so far been invited to complete a specific anti-bribery training, and 5,040 employees (98%) including all members of the Executive Committee have completed this training at least once.

Product responsibility

The impacts of Givaudan's products that directly affect customers and consumers: health and safety, information and labelling, marketing and privacy.

In this section:

Customer health and safety	69
Product and service labelling	71



Customer health and safety

Why is this issue material?

The health and safety of our customers and end-consumers is part of our material issue product safety and regulation, which also includes information and labelling, marketing and privacy.

Health and safety is important for all of our stakeholders, and we maintain trusted relationships with our customers through product labels and safety data sheets. As a minimum requirement, we ensure compliance with local laws and regulations.

We are a business-to-business organisation and so we do not sell products directly to the end-consumer. We are responsible for providing safe products to the businesses we sell to, and we seek to ensure the health and safety of our customers when handling our products.

How we manage this issue

Givaudan has a long history of investing in safety evaluation of its raw materials. Critical data to support these evaluations are developed by Givaudan or our suppliers. This enables us to comply with safety regulations around the world. With our regulatory expertise we not only provide essential advice to our customers, but also ensure that our products meet or exceed all requirements.

Regulatory assessments

The flavour ingredients we use are subject to regulatory oversight and/or assessment by government agencies and international organisations worldwide that approve their use based on their origin and/or a review of their safety profile. For flavours these include the US Food and Drug Administration (FDA); the Flavor and Extract Manufacturers Association of the US (FEMA); the European Food Safety Authority (EFSA); the International Organization of the Flavor Industry (IOFI); and the Joint Expert Committee on Food Additives of the World Health Organization (JECFA). Fragrance materials meet mandatory IFRA requirements for safety in addition to specific country or regional regulatory requirements, such as those of the European Chemicals Agency and US Environmental Protection Agency.

REACH regulation update

Givaudan is working to ensure all ingredients within our scope of REACH are registered by the deadline of 2018. Our internal

programme covers all our manufactured ingredients and we have a dedicated cross-functional team in place to ensure suppliers have registered ingredients we purchase. For purchased ingredients considered high risk we conduct registration ourselves. The challenge for the 2018 deadline of REACH registration is that we must complete more than double the number of registrations that were required in the first two phases of REACH. It is a challenge we intend to meet to ensure REACH compliance, not only for Givaudan but also for our customers in the EU and the end-consumer. See also our [Principles of Conduct](#).

Our commitments

- Ensure Givaudan products are safe for people and the environment when used as intended
- Full regulatory compliance of all products
- Promote health and wellness through our products
- Engage with customers to develop new technologies for healthier and more sustainable products.

Our targets

- Flavour Division and Fragrance Division compliance with European REACH registration requirements as they become applicable in 2018
- Flavour Division and Fragrance Division ongoing surveillance of developing regulations to guarantee compliance of products
- Enable our customers to develop healthier, great tasting products.

How we evaluate our management approach

Mechanisms

The principle mechanism for monitoring the effectiveness of our management approach is via the application of systematic and automated compliance tools.

In addition to government regulation, Givaudan upholds voluntary industry standards such as those of IFRA, IOFI and additional requirements of our customers. Often these go above and beyond the regulatory baseline in ensuring the health and safety of consumers. We monitor our compliance against this global framework of regulations and standards as an indicator of our management of consumer health and safety.

Our impact

>600 customers

Attending Health & Wellness Symposium in Latin America

Progress in 2016

Flavour Division and Fragrance Division compliance with European REACH registration requirements as they become applicable in 2018

Givaudan is working to ensure all ingredients within our scope of REACH are registered by the deadline of 2018. Our internal programme covers all our manufactured ingredients and we have a dedicated cross-functional team in place to ensure suppliers have registered ingredients we purchase. For purchased ingredients considered high risk we conduct registration ourselves.

Flavour Division and Fragrance Division ongoing surveillance of developing regulations to ensure compliance of our products

Givaudan strives to be agile and understand the changing regulatory landscape. As new regulations are proposed and implemented, we are at the forefront of ensuring our products comply with the relevant changes. We work hand-in-hand with our customers to help them understand these changes as well as the impact they will have on their consumer products. With over 120 Flavours regulatory experts around the world, we are active in anticipating future customer needs.

Enable our customers to develop healthier, great tasting products

Health & Wellness Symposium in Latin America

In 2016, more than 600 customers attended our third Health & Wellness Symposium in Latin America. The symposium was held in Argentina, Brazil, Colombia and Mexico, where the higher incidence and prevalence rates of non-chronic communicable diseases are prompting governments, the industry and consumers to focus on healthier lifestyles. The symposium represented an opportunity to help drive change in eating habits and provide support to customers in educating consumers and developing more healthy food alternatives with balanced flavour profiles that delight.

The protein revolution

Givaudan has been working to develop alternative sources of protein for several years and in 2016 our Flavour Division developed a number of maskers to address taste challenges of high protein beverages. Alongside this work we are creating partnerships that allow us to quickly acquire knowledge, understanding and expertise in the areas of the sensory nature of proteins, how they interact and impact on flavours, and translate into physical and chemical properties and behaviours.

Performance indicators

PR1: Percentage of significant product and service categories for which health and safety impacts are assessed for improvement

Our product safety assessment programme is designed to ensure that 100% of our products are safe for consumers under the products' intended purpose of use. At the core of the programme is a systematic safety evaluation of the ingredients used in our flavour and fragrance products, and control of their use. All new ingredients are evaluated for human and environmental safety, as required, prior to their use.

Product registration/certification

We maintain stringent methodologies to assure the safety and quality of our products. To enhance these, and to ensure we meet ever-changing regulatory requirements, we have developed an SAP-based global Regulatory Compliance Engine (proprietary technology exclusive to Givaudan). The compliance engine enables us to make sure all products used or sold are registered or certified in accordance with the relevant regulations.

Manufacturing and production

The compliance calculation is performed by the Regulatory Compliance Engine, using calculation technology from SAP across all sites and regions. The compliance engine is connected with all commercial systems used for fragrance creation, development and sales.

In addition to complying with the regulations, Givaudan regularly reviews the ingredients it uses for any potential risks to the health and safety of consumers.

Marketing and promotion

Health and safety is not applicable at this stage of the product lifecycle.

Use and service

All products sold to customers are subject to product information requirements. Environment and health and safety information about our products is made available to the customer through product labels and safety data sheets. In the Flavour Division, additional information can also be provided in the format of an ingredient declaration and instructions for application. It is our customer's responsibility to ensure the end-consumer receives the right health and safety information.

Disposal, reuse or recycling

Finished products are created to comply with all appropriate end-consumer product safety and regulations in the markets where they will be sold.

Our programme to establish a biodegradable palette of fragrance ingredients began in 2007. We have completed the biodegradability screening of all perfumery ingredients of our creation palette, including natural materials. Givaudan has more than 20 years' experience in the biodegradability testing of fragrance ingredients, and a database of the results. Our flavour products are consumed at the end of their lifecycle, so should not cause disposal issues.

Product and service labelling

Our impact

100%

Ingredients evaluated for EHS impact

Why is this issue material?

Givaudan supports the effective management of environment, health and safety (EHS) through clear product labels and detailed safety data sheets. Product and service labelling is part of our material issues called product safety and regulation and is covered by the part that refers to information and labelling.

Transparency is increasingly expected in all areas of our business, from supply chain data to R&D information and formulas. The level of disclosure of sensitive information can have a positive or negative impact on our ability to protect our knowledge. Information is one of our most valuable assets and we are committed to maintaining strict confidentiality with proprietary customer information.

We are a business-to-business organisation, so our marketing communications are not aimed at consumers. It is crucial that these communications accurately reflect the reality of our products and services. We provide all customers with safety data sheets so that the businesses we sell to have the right information to safely handle our products and deliver safe products to the consumer.

How we manage this issue

Givaudan operates different Centres of Expertise in the Global EHS organisation to globally coordinate and reinforce expertise on classification, labelling and packaging activities, ensuring compliance of our products with local regulations.

All the ingredients used in our formulas are evaluated for EHS impact. Whenever necessary, this information is disclosed and filed with the relevant regulatory bodies. Quality and environmental data about our products, including safety information, are made available to the users through product labels and safety data sheets (SDS). The SDS, which are available in more than 45 languages, are attached to every consignment and readily available to customers on request.

For flavour products, information related to allergen, GMO, organic, nutritional and religious criteria can be provided.

Our commitments

- Ensure compliance with regulation and provide correct classification and labelling information
- Based on our classification assessment, provide all the necessary information for the proper handling of materials we sell
- Through clear and accurate product labelling, enable our customers to manage any risks to environment, health and safety associated with using our ingredients.

Our targets

- 100% of sold products delivered to our customers meet product information requirements and regulations.

How we evaluate our management approach

Mechanisms

We assess our performance on this issue through regulatory compliance and customer feedback.

Performance indicators

PR3: Product information requirements

Report whether the following product and service information is required by the organisation's procedures for product and service information and labelling

	Yes	No
Sourcing	X	
Content	X	
Safe use	X	
Disposal	X	
Other		

Report the percentage of significant product or service categories covered by and assessed for compliance with such procedures

100% of sold products delivered to our customers are subject to product information requirements and regulations.

Appendix

In this section:	
Performance indicators – environment	75
Performance indicators – restatement table	77
The principles of the UN Global Compact	78
G4 Content Index	79
Independent Assurance Statement	82
Overview of annual publications	84



Performance indicators – environmental

Key performance indicators		2009 (restated)	2015 (restated)	2016
Energy				
Energy (GJ)	Direct energy (from primary sources ¹)		1,710,783	1,738,381
	Indirect energy: purchased electricity & steam		951,689	1,014,835
	Total energy		2,662,451	2,753,216
Energy efficiency (GJ/tonne of production)	Direct energy efficiency		4.46	4.37
	Indirect energy efficiency		2.48	2.55
	Total energy		6.94	6.92
CO₂ emissions				
CO₂ emissions (tonnes)²	Scope 1: from direct energy sources		99,865	100,592
	Scope 2: from indirect energy sources		86,032	82,054
	Total CO₂ emissions		185,897	182,646
CO₂ emissions efficiency (tonnes CO₂/tonne of production)	Scope 1: from direct energy sources		0.26	0.25
	Scope 2: from indirect energy sources		0.22	0.21
	Total CO₂ emissions		0.48	0.46
Waste				
Hazardous waste (tonnes)	Incinerated		8,677	9,489
	Incinerated with energy recovery ³		4,252	4,093
	Land-filled		318	108
	Recycled		14,997	14,384
	Total hazardous waste		23,992	23,981
Non-hazardous waste (tonnes)	Incinerated		2,253	2,541
	Incinerated with energy recovery ³		1,100	716
	Land-filled		6,412	6,704
	Recycled		27,840	28,578
	Total non-hazardous waste		36,505	37,824
Total incinerated and land-filled waste (HZ and NHZ)			17,661	18,843
One-off waste (tonnes)			2,219	1,367
Waste efficiency⁴ (kg of waste/tonne of production)			46.0	47.3

Key performance indicators		2009	2015	2016
Water intake				
Water intake (m³)	Municipal water	2,290,556	2,363,071	2,524,905
	Ground water	1,136,049	1,390,267	1,307,576
	Total municipal and groundwater	3,426,606	3,753,338	3,832,481
	Surface water	7,432,649	5,006,361	5,225,273
	Total water⁵	10,859,255	8,759,699	9,057,754
Water efficiency⁶ (m³/tonne of production)		11.11	9.77	9.60
Water discharge				
Water discharge (m³)	To the environment w/o biological treatment	-	4,584,657	4,634,189
	To the environment after biological treatment	-	1,883,521	2,005,856
	To external treatment facility w/o pre-treatment	-	429,375	401,784
	To external treatment facility with pre-treatment	-	1,723,944	1,703,562
	Total discharged water	-	8,621,496	8,745,392
COD (tonnes)	Of waste water discharged to the environment	-	467	488
Other data				
	Nitrogen oxides – NO _x tonnes ⁷	-	79.77	80.19
	Sulphur dioxide – SO ₂ tonnes ⁷	-	1.11	0.96
	VOC (tonnes)	-	475	521
	CFC inventory (kg)	-	10,340	11,639
	CFC 11 equivalent inventory (kg)	-	643	645
	CFC loss-replacement (kg)	-	1,701	1,335
	CFC 11 equivalent loss/replacement (kg)	-	99.01	73.44
Production				
	Production quantities (tonnes)	308,560	383,728	398,104

¹ Includes natural gas (0.0345 GJ/m³), light fuel (36.12 GJ/m³), heavy fuel (39.77 GJ/m³), liquid petroleum gas (22.65 GJ/m³), town gas (0.0186 GJ/m³).

² Greenhouse gas data are limited to CO₂ emissions.

³ Among the quantity of HW and non-HW incinerated, this is the quantity incinerated with energy recovery (in tonnes) on condition that at least 75% of energy is recovered.

⁴ Includes incinerated and land-filled waste (HZ and NHZ).

⁵ Includes sanitary, cooling and process water.

⁶ Includes municipal and groundwater.

⁷ Quantity is calculated by multiplying the annual fuel consumption by the corresponding emission factor for fuel type.

Performance indicators – restatement table

	Key performance indicators	2009 (as published in 2015 SR)	2009 (corrected in 2016)	% change 2009	2015 (published in 2016)	2015 (current values 01/02/17)	% change 2015
Energy (Gj)	Direct energy				1,712,690	1,710,783	-0.11%
	Indirect energy: purchased electricity & steam				950,117	951,669	0.16%
	Total energy				2,662,807	2,662,451	-0.01%
Energy efficiency (Gj/tonne of production)	Direct energy efficiency				4.47	4.46	-0.21%
	Total energy				6.95	6.94	-0.11%
CO₂ emissions (tonnes)	Scope 1				99,740	99,865	0.13%
	Scope 2				86,019	86,032	0.01%
	Total CO₂ emissions				185,759	185,897	0.07%
One-off waste (tonnes)					2,178	2,219	1.91%
Hazardous waste (tonnes)	Incinerated				8,521	8,677	1.83%
	Incinerated with energy recovery ¹				4,129	4,252	2.99%
	Land-filled				396	318	-19.65%
	Total hazardous waste				23,914	23,992	0.33%
Non-hazardous waste (tonnes)	Incinerated				2,146	2,253	5.02%
	Incinerated with energy recovery ¹				949	1,100	15.90%
	Recycled				27,911	27,840	-0.25%
	Total non-hazardous waste				36,468	36,505	0.10%
	Total incinerated & land-filled waste (HZ and NHZ)				17,475	17,661	1.06%
Waste efficiency (kg of waste/tonne of production)	Total waste				45.6	46.0	0.97%
Water intake (m³)	Municipal water	2,286,999	2,290,556	0.16%	2,340,554	2,363,071	0.96%
	Ground water	1,074,035	1,136,050	5.77%	1,405,028	1,390,267	-1.05%
	Total municipal and groundwater	3,361,034	3,426,606	1.95%	3,745,582	3,753,338	0.21%
	Total water	10,793,683	10,859,255	0.61%	8,751,943	8,759,699	0.09%
Water discharge (m³)	To external treatment facility with pre-treatment				1,725,231	1,723,944	-0.07%
Water efficiency (m³/tonne of production)	Total water	10.91	11.11	1.78%	9.77	9.78	0.1%
Other data	Nitrogen oxides – NO _x tonnes				79.76	79.57	-0.24%
	Sulphur oxide – SO ₂ tonnes				1.12	1.11	-0.89%
Production (tonnes)	Production quantities	308,050	308,560	0.17%	383,353	383,728	0.10%
CFCs	CFC inventory (kg)				10,018	10,340	3.21%
	CFC 11 equivalent inventory (kg)				625	643	2.83%

¹ Among the quantity of HW and non-HW incinerated, this is the quantity incinerated with energy recovery (in tonnes) on condition that at least 75% of energy is recovered.

The principles of the UN Global Compact

The UN Global Compact asks companies to embrace, support and enact, within their sphere of influence, a set of core values in the areas of human rights, labour standards, the environment and anti-corruption:

Human rights

Principle 1

Businesses should support and respect the protection of internationally proclaimed human rights

Principle 2

Make sure that they are not complicit in human rights abuses

Labour

Principle 3

Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining

Principle 4

The elimination of all forms of forced and compulsory labour

Principle 5

The effective abolition of child labour

Principle 6

The elimination of discrimination in respect of employment and occupation

Environment

Principle 7

Businesses are asked to support a precautionary approach to environmental challenges

Principle 8

Undertake initiatives to promote greater environmental responsibility

Principle 9

Encourage the development and diffusion of environmentally friendly technologies

Anti-corruption

Principle 10

Businesses should work against corruption in all its forms, including extortion and bribery

G4 Content Index



General standard disclosures	Page	External assurance	UNGC Principles
Strategy and analysis			
G4 – 1	SR 7, 8	yes, pages 82 & 83	
G4 – 2	SR 9 – 14	yes, pages 82 & 83	
Organisational profile			
G4 – 3	SR 15	yes, pages 82 & 83	
G4 – 4	SR 15	yes, pages 82 & 83	
G4 – 5	SR 15	yes, pages 82 & 83	
G4 – 6	SR 15	yes, pages 82 & 83	
G4 – 7	SR 15	yes, pages 82 & 83	
G4 – 8	SR 15	yes, pages 82 & 83	
G4 – 9	SR 16	yes, pages 82 & 83	
G4 – 10	SR 16	yes, pages 82 & 83	Principle 6
G4 – 11	SR 16	yes, pages 82 & 83	Principle 3
G4 – 12	AR 66 – 68	yes, pages 82 & 83	
G4 – 13	AR 9, 11	yes, pages 82 & 83	
G4 – 14	AR 51 – 55	yes, pages 82 & 83	
G4 – 15	SR 17	yes, pages 82 & 83	Principle 1
G4 – 16	SR 17 – 19	yes, pages 82 & 83	
Identified material aspects and boundaries			
G4-17	AR 78, 79, 126, 174	yes, pages 82 & 83	
G4 – 18	SR 26	yes, pages 82 & 83	
G4 – 19	SR 27 – 29	yes, pages 82 & 83	
G4 – 20	SR 27 – 29	yes, pages 82 & 83	
G4 – 21	SR 27 – 29	yes, pages 82 & 83	
G4 – 22	SR 29	yes, pages 82 & 83	
G4 – 23	SR 30	yes, pages 82 & 83	
Stakeholder engagement			
G4 – 24	SR 23 – 25	yes, pages 82 & 83	
G4 – 25	SR 23	yes, pages 82 & 83	
G4 – 26	SR 23 – 25	yes, pages 82 & 83	
G4 – 27	SR 25	yes, pages 82 & 83	
Report profile			
G4 – 28	SR 1	yes, pages 82 & 83	
G4 – 29	SR 1	yes, pages 82 & 83	
G4 – 30	SR 1	yes, pages 82 & 83	
G4 – 31	SR 1	yes, pages 82 & 83	
G4 – 32	SR 1	yes, pages 82 & 83	
G4 – 33	SR 1	yes, pages 82 & 83	
Governance			
G4 – 34	AR 80 – 96	yes, pages 82 & 83	
Ethics and integrity			
G4 – 56	SR 20	yes, pages 82 & 83	Principle 10

AR – Annual Report 2016

SR – Sustainability Report 2016

Specific standard disclosures	Page	Identified omissions and reasons	External assurance	UNGC Principles
Economic				
Economic performance				
G4 – DMA	<u>AR 42, 43, 62</u>		yes, assured as part of audit of Financial report 2016, page 176	
G4 – EC1	<u>AR 62</u>		yes, assured as part of audit of Financial report 2016, page 176	
G4 – EC3	<u>AR 148 – 154</u>		yes, assured as part of audit of Financial report 2016, page 176	
Procurement practices				
G4 – DMA	SR 45 – 50		yes, pages 82 & 83	
G4 – EC9	SR 51		yes, pages 82 & 83	
Environmental				
Energy				
G4 – DMA	SR 33 – 35		yes, pages 82 & 83	
G4 – EN3	SR 35		yes, pages 82 & 83	Principle 7,8
G4 – EN5	SR 36		yes, pages 82 & 83	Principle 8
G4 – EN6	SR 36		yes, pages 82 & 83	Principle 8,9
Water				
G4 – DMA	SR 33 – 35		yes, pages 82 & 83	
G4 – EN8	SR 36		yes, pages 82 & 83	
Emissions				
G4 – DMA	SR 33 – 35		yes, pages 82 & 83	
G4 – EN15	SR 36		yes, pages 82 & 83	Principle 7,8
G4 – EN16	SR 36		yes, pages 82 & 83	Principle 7,8
G4 – EN17	SR 37		yes, pages 82 & 83	Principle 7,8
G4 – EN19	SR 37		yes, pages 82 & 83	Principle 7,8
G4 – EN20	SR 37		yes, pages 82 & 83	Principle 7,8
G4 – EN21	SR 37		yes, pages 82 & 83	Principle 7,8
Effluents and waste				
G4 – DMA	SR 33 – 35		yes, pages 82 & 83	
G4 – EN22	SR 37		yes, pages 82 & 83	Principle 8
G4 – EN23	SR 38		yes, pages 82 & 83	Principle 8
Products and services				
G4 – DMA	SR 39, 40		yes, pages 82 & 83	
G4 – EN27	SR 40		yes, pages 82 & 83	Principle 7,8
Transport				
G4 – DMA	SR 41, 42		yes, pages 82 & 83	
G4 – EN30	SR 42		yes, pages 82 & 83	Principle 8
Supplier environmental assessment				
G4 – DMA	SR 45 – 50		yes, pages 82 & 83	
G4 – EN32	SR 51		yes, pages 82 & 83	Principle 8
Social: Labour practices and decent work				
Employment				
G4 – DMA	<u>AR 69 – 72</u>		yes, pages 82 & 83	
G4 – LA1	<u>AR 70, 71</u>		yes, pages 82 & 83	Principle 6

AR – Annual Report 2016

SR – Sustainability Report 2016

Specific standard disclosures	Page	Identified omissions and reasons	External assurance	UNGC Principles
Labour/management relations				
G4 – DMA	SR 55		yes, pages 82 & 83	
G4 – LA4	SR 55		yes, pages 82 & 83	Principle 3
Occupational health and safety				
G4 – DMA	SR 56, 57		yes, pages 82 & 83	
G4 – LA6	SR 58		yes, pages 82 & 83	
Training and education				
G4 – DMA	AR 69 – 72		yes, pages 82 & 83	
G4 – LA11	AR 69		yes, pages 82 & 83	Principle 6
Diversity and equal opportunity				
G4 – DMA	SR 59, 60		yes, pages 82 & 83	
G4 – LA12	SR 60		yes, pages 82 & 83	Principle 6
Equal remuneration for women and men				
G4 – DMA	SR 59, 60		yes, pages 82 & 83	
G4 – LA13	SR 60		yes, pages 82 & 83	Principle 6
Supplier assessment for labour practices				
G4 – DMA	SR 45 – 50		yes, pages 82 & 83	
G4 – LA14	SR 51		yes, pages 82 & 83	Principle 4
Human rights				
Child labour				
G4 – DMA	SR 52		yes, pages 82 & 83	
G4 – HR5	SR 52		yes, pages 82 & 83	Principle 5
Supplier human rights assessment				
G4 – DMA	SR 45 – 50		yes, pages 82 & 83	
G4 – HR10	SR 51		yes, pages 82 & 83	Principles 1,2
Society				
Local communities				
G4 – DMA	SR 63, 64		yes, pages 82 & 83	
G4 – SO1	SR 64		yes, pages 82 & 83	Principle 1
Anti-corruption				
G4 – DMA	SR 65, 66		yes, pages 82 & 83	
G4 – SO4	SR 66		yes, pages 82 & 83	Principle 10
Public policy				
G4 – DMA	AR 58		yes, pages 82 & 83	
G4 – SO6	AR 58		yes, pages 82 & 83	Principle 10
Product responsibility				
Customer health and safety				
G4 – DMA	SR 69, 70		yes, pages 82 & 83	
G4 – PR1	SR 70		yes, pages 82 & 83	
Product and service labelling				
G4 – DMA	SR 71		yes, pages 82 & 83	
G4 – PR3	SR 71		yes, pages 82 & 83	

AR – Annual Report 2016

SR – Sustainability Report 2016

Independent Assurance Statement



Ernst & Young LLP
Golf View Corporate Tower - B
Sector-42, Sector Road
Gurgaon -122 002
Haryana, India

Tel: +91 124 464 4000
Fax: +91 124 464 4050
ey.com



The Management and Board of Directors

Givaudan S. A.
5 Chemin de la Parfumerie
CH-1214, Vernier
Switzerland

Independent Assurance Statement

Ernst & Young LLP (EY) has been engaged by Givaudan S. A. (the 'Company') to provide independent assurance to its GRI Report 2016 (the 'Report') covering the Company's sustainability performance during the period 1st January 2016 to 31st December 2016.

The development of the Report, based on G4 Sustainability Reporting Guidelines (GRI-G4) of the Global Reporting Initiative, its content and presentation is sole responsibility of the management of the Company. EY's responsibility, as agreed with the management of the Company, is to provide independent assurance on the report content as described in the scope of assurance. Our responsibility in performing our assurance activities is to the management of the Company only and in accordance with the terms of reference agreed with the Company. We do not therefore accept or assume any responsibility for any other purpose or to any other person or organization. Any dependence that any such third party may place on the Report is entirely at its own risk. The assurance report should not be taken as a basis for interpreting the Company's overall performance, except for the aspects mentioned in the scope below.

Assurance standard

Our assurance is in accordance with International Federation of Accountants' International Standard for Assurance Engagements Other than Audits or Reviews of Historical Financial Information (ISAE 3000), and our conclusions are for 'limited' assurance as set out in ISAE 3000.

Scope of assurance and methodology

The scope of our work for this engagement was limited to review of information pertaining to environmental and social performance for the period 1st January 2016 to 31st December 2016. We conducted review and verification of data collection/ measurement methodology and general review of the logic of inclusion/ omission of necessary relevant information / data and this was limited to:

- Review of the standard disclosures regarding the company's material sustainability aspects contained in the report;
- Review of consistency of data / information within the report as well as between the report and source;
- Verification of the sample data and information reported at the following manufacturing units and Corporate Headquarter at Vernier - Geneva, Switzerland:

- | | |
|-------------------------------------|------------------------------------|
| 1. Carthage - Cincinnati, USA | 2. Edison - Cincinnati, USA |
| 3. Lakeland - Florida, USA | 4. East Hanover - New Jersey, USA |
| 5. Naarden, Netherlands | 6. Barneveld, Netherlands |
| 7. Argenteuil - Paris, France | 8. Riverfront - Shanghai, China |
| 9. Zhang Jiang - Shanghai, China | 10. Song Jiang - Shanghai, China |
| 11. Dubendorf - Zurich, Switzerland | 12. Kempthal - Zurich, Switzerland |
| 13. Vernier - Geneva, Switzerland | |

- Review and execution of audit trail of selected claims and data streams to determine the level of accuracy in collection, transcription and aggregation processes followed;



- Review of Company's plans, policies and practices, so as to be able to make comments on the completeness of the reporting and degree to which EY believes the report provides a fair and honest representation of the Company's activities.

Limitations of our engagement

The assurance scope excludes:

- Data and information outside the defined reporting period (1st January 2016 to 31st December 2016);
- The 'economic performance indicators' included in the Report;
- The Company's statements that describe expression of opinion, belief, inference, aspiration, expectation, aim or future intention.

Our assurance team and independence

Our assurance team, comprising of multidisciplinary professionals, has been drawn from our Climate Change and Sustainability network, and undertakes similar engagements with various Indian and international companies. As an assurance provider, EY is required to comply with the independence requirements set out in International Federation of Accountants (IFAC) Code of Ethics for Professional Accountants. EY's independence policies and procedures ensure compliance with the Code.

Conclusion

On the basis of our procedures for this limited assurance, nothing has come to our attention that causes us not to believe that the Company has reported on material sustainability issues and associated key performance indicators significant to its business and its stakeholders.

Observations and opportunities for improvement

- At the selected sites visited as part of the verification, improvement has been observed regarding general monitoring and compilation of environmental and social performance data despite some non-material compilation errors. The Company may further improve on the accuracy of data compilation regarding certain indicators such as EN8 (water withdrawal) and LA6 (occupational health & safety).
- The Company continues to demonstrate its commitment on sustainability performance by releasing its Sustainability Report as per the "in-accordance" core criteria of the GRI G4 Guidelines. The Report fairly provides the Company's progress update on its sustainability roadmap targets and performance disclosures under the aspects identified as material. Further, the Company has demonstrated a structured approach towards integration of sustainability performance data for its new and acquired production sites.

Ernst & Young LLP

Sudipta Das
Partner
Dated: March 10, 2017
Place: Gurgaon, India

Overview of annual publications



Online 2016 Annual Report

Available in English

- From 31 January 2017
- www.givaudan.com – investors – online annual report

Content

Online overview of our financial and business performance, Governance and Compensation, as well as our business and culture, stories and a full download centre.



2016 Annual Report

Available in English

- PDF from 31 January 2017
- Print from 23 March 2017
- www.givaudan.com – media – publications

Content

The full Annual Report: Strategic overview, Performance review, Governance and Compensation, and the Financial Report.



2016 Highlights

Available in English, French and German

- PDF and print from 23 March 2017
- www.givaudan.com – media – publications

Content

Business and financial highlights in addition to the Chairman and CEO reviews and the highlights of the Governance and Compensation reports.



2016 Sustainability Report

Available in English

- PDF from 23 March 2017
- www.givaudan.com – sustainability – publications

Content

Management and performance information on our environmental, social and economic impacts.

To order publications:

www.givaudan.com - media - corporate publications



Givaudan Foundation

2016 Annual Report

Available in English

PDF from 23 March 2017
www.givaudan-foundation.org

The Givaudan Foundation is a non-profit organisation created in 2013 as a result of Givaudan's desire to reinforce its commitment towards the communities in which it operates. The foundation's purpose is to initiate and support projects as well as to grant donations in the areas defined by its vision and mission. One of the

causes supported by the foundation is to safeguard the future of communities and their fragile environment. There is a specific focus on three areas in which Givaudan as a company is already engaged and where its expertise and experience can be leveraged to make a difference: communities at source, blindness and nutrition. The Givaudan Foundation works closely with and relies on resources provided by Givaudan to conduct and monitor its projects. The Foundation also operates with local partners to ensure the efficient deployment of projects and their relevance to those who are intended to benefit from them.

Givaudan SA

Chemin de la Parfumerie 5
1214 Vernier, Switzerland

General information

T + 41 22 780 91 11

F + 41 22 780 91 50

Media and investor relations

T + 41 22 780 90 53

F + 41 22 780 90 90

Concept, design and realisation: PETRANIX Corporate and Financial Communications AG,
www.PETRANIX.com

The Givaudan Sustainability Report 2016 is published in English.

All trademarks mentioned enjoy legal protection.

This Sustainability Report may contain forward-looking information.
Such information is subject to a variety of significant uncertainties, including scientific, business, economic and financial factors. Therefore actual results may differ significantly from those presented in such forward looking statements. Investors must not rely on this information for investment decisions.

© Givaudan SA, 2017



www.givaudan.com