



Summary

IFRA-IOFI Sustainability Report

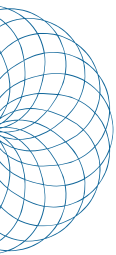
2025



International
Fragrance
Association



International Organization
of the Flavor Industry



Welcome to the 2025 Sustainability Report



Alexander Mohr
IFRA President



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IOFI Executive Director

Welcome to the third IFRA-IOFI Sustainability Report.

Since the publication of our second report in 2023, the IFRA-IOFI Sustainability Charter has gained momentum. The report covers the 143 companies who were signatories at the end of 2024. We are happy that four companies from China joined in May 2025 - adding a new country to our Charter and taking the total number of signatories to 147.

The Charter text is a foundational tool for sustainability in our industries, supported by an increasing number of tools provided by the associations to help Charter signatories and all members achieve greater sustainability in all areas of their work.

The Charter remains a voluntary yet powerful framework: a united effort to advance sustainability for the planet, for people, and for our business across responsible sourcing, environmental footprint and climate change, workplace culture, product safety and design, and transparency.

Originally conceived in 2016, the Charter was launched in 2020. It was refreshed as 'Charter 2.0' in 2022, updating commitments on biodiversity, emissions and waste, workplace culture, product design and alternatives to animal testing.

Our second report outlined notable progress and we are pleased to see the third report continue that upward trajectory, with more companies and a greater share of the industries by value aligning with the Charter's 17 commitments, with measurable improvements across many areas.

This year's report highlights not only the continued dedication of participating companies but also the expanding scope of collaborative projects launched since 2023.

IFRA and IOFI have strengthened their support for members by developing new initiatives and practical tools that reflect evolving best practices - including tools tailored to the specificities of the fragrance and flavor industries.

Overseeing this work is the IFRA-IOFI Sustainability Committee, which ensures broad member engagement and reflects the diverse nature of our community—from global leaders to small enterprises, across both flavor and fragrance industries, and spanning all regions.

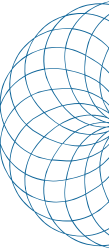
Sustainability - and especially the fight against climate change - remains a defining challenge of our times. Industry is rightly taking the lead, integrating climate-related strategies into sustainability planning. This assumption of responsibility should be accompanied by policies to ensure economic sustainability - creating growth and jobs without excessive red tape. In Europe in particular, we welcome the new focus on simplification and competitiveness.

IFRA and IOFI remain committed to constructive engagement on policies that support environmental, social, and economic sustainability, in line with the United Nations Sustainable Development Goals, providing guidance, resources, and support for members on their sustainability journey.

In this third report, you will find updated insights, data, and a case study showcasing practical implementation—bringing our collective progress to life. Together, we continue to build a more sustainable future for our industries and the world around us.



Executive summary



The IFRA-IOFI Sustainability Report allows members and associations around the world to communicate with customers, employees, and authorities about the positive way in which the flavor and fragrance industries engage on sustainability and the actions we take to further improve.

This third report builds on previous efforts, showcasing continued progress and an expanding scope of collaborative projects launched since 2023.

Refreshed in 2022, the Charter remains the foundation of our work. Since the last report, more companies have signed up to the Charter: there are now 147 participating companies, with four Chinese companies joining in May 2025, adding a new country in the process.

Charter signatories continue to make steady progress on the 17 Commitments, organised in five Focus Areas (responsible sourcing, environmental footprint and climate change, workplace culture, product safety and design, and transparency). Although the Charter is a voluntary framework, their efforts represent a collective endeavor to make a difference for the planet, for people, and for our business.

The number of respondents to our survey (featuring nearly 40 questions) fell slightly compared to the last report in 2023 but still covers well over half of Charter signatories, representing the vast majority of the flavor and fragrance industries by market share.

As before, signatory companies gave a self-assessment of their sustainability efforts. New questions on ‘product carbon footprint’ (PCF) and on integrating sustainability principles into research and innovation were added to the survey for Focus Areas 1 and 2 and for Focus Area 4 respectively.

For Focus Area 1 – **responsible sourcing**, the survey shows that more than 60% of respondents have a global responsible

sourcing strategy in place (representing over 95% of the industries by market share). For the second report in a row, the proportion of companies without a strategy has fallen and a larger number are planning implementation within the next 12 months.

Progress is also visible in the number of companies with plans and roadmaps to protect biodiversity and safeguard human rights and labor standards.

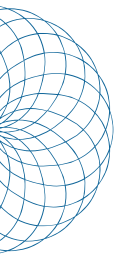
Regarding new questions on the ‘input’ element of a sourced product’s carbon footprint, one third of respondents already ask suppliers for information on the PCF of the materials they purchase, and another half are planning to do so in the future.

On Focus Area 2 (**environmental footprint and climate change**), 87% of respondents now have a global environmental impact assessment and management strategy in place or in the pipeline for the next year (up from 80% in 2023). An increased proportion of respondents track their water use and take conservation measures.

There is more tracking of energy footprints and also of greenhouse gas (GHG) emissions (over 70% of respondents). Implementation of circular economy principles is up, and in a new question, just under half of respondents say they can calculate the footprint of a specific flavor or fragrance, with two thirds of those using proxy values. About a third share PCF information with customers.

Focus Area 3 covers **workplace culture**, including occupational health and safety (OHS). In an improvement from the previous two reports, more than 75% of respondents have a global OHS strategy in place.

On equality, diversity and inclusion, an increased proportion of respondents embed these principles in their policies, while nearly 80% provide opportunities for training and development and more than 90% have work-life balance initiatives.



Product safety remains a non-negotiable requirement and is a core concept for the flavor and fragrance industries.

The survey questions on Focus Area 4 (**product safety and design**) found that nearly 90% of respondents engage with customers to improve the health and safety impact of their products. More than half of respondents, including the market leaders, go beyond legal requirements to provide information on the safety of materials.

Answers to a new question showed that nearly half of respondents are integrating sustainability principles into R&D.

On Focus Area 5 (**transparency**), almost 90% of companies have a global governance strategy in place or in the pipeline. Two-thirds of companies have set up anti-corruption processes; almost all engage in stakeholder dialogue. More than two-thirds surpass mandatory requirements on reporting their sustainability performance.

As associations, IFRA and IOFI continue to work on key sustainability issues - notably responsible sourcing and environmental footprinting. The associations have established work plans and two sub-committees continued their focus on carbon footprinting and deforestation, increasingly with an eye to legislative needs.

On carbon footprinting, IFRA concentrated on Scope 1 and 2, whilst IOFI focused on Scope 3 for a selected group of ingredients -

in both cases with a global viewpoint. This is the first time the industries established actual CO₂e/kg numbers.

For deforestation, palm remained the primary concern (also in the context of a new EU deforestation law). IFRA and IOFI jointly developed a list of ingredients that could possibly be in scope, to be shared in 2025.

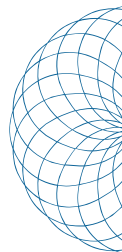
In 2024 IFRA published its Green Chemistry Compass' with all IFRA members encouraged to use it and promote it to their suppliers, to encourage more sustainable manufacturing of raw materials.

Quantifying progress remains important, beyond the results of our survey of Charter signatories. A range of evaluation tools exist to allow IFRA and IOFI members to measure themselves against a broader set of companies for environmental, social, and governance (ESG) management.

Meanwhile, Ecovadis is emerging as the most widely adopted (self-)assessment metric. Results show that both the group of larger multinational company members and the group of smaller companies who started their assessment later are improving over time. The gap between the groups has narrowed and both groups are now 'gold' (top five per cent of all companies assessed by Ecovadis).

This metric - along with the results of the survey - shows a high level of achievement and highlight the commitment of the flavor and fragrance industries at all levels.

Charter Principles, Focus Areas and Objectives



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Principles

Voluntary and inclusive

The Charter is open, inclusive and voluntary.

Complementary initiative

The Charter complements initiatives undertaken both by individual companies and by policymakers.

Aspirational and achievable

The Focus Areas and commitments seek to raise the bar across the F&F industries.

Anti-trust compliant

The Charter complies with competition laws and was subject to a thorough legal review.

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Focus Areas

Focus Area 1 Responsible sourcing

Promote the responsible sourcing of all raw materials (renewable or fossil based), indirect materials and services throughout the value chain.

Focus Area 2 Environmental footprint and climate change

Contribute to climate change mitigation by encouraging, guiding and enabling the continuous reduction of the environmental footprint of our product portfolio.

Focus Area 3 Workplace culture

Enhance a safe, attractive and rewarding workplace culture.

Focus Area 4 Product safety

Be at the leading edge of product safety and design.

Focus Area 5 Transparency

Be a transparent and reliable partner to our stakeholders and society.

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Objectives

Raise awareness

Through the Charter, we seek to raise awareness of sustainability throughout the F&F industries.

Give businesses a toolbox

The Charter offers a toolbox of best practices with an overview of legal obligations and standards to help raise the bar on sustainability.

Offer collective guidance

Five years' experience of the Charter helps us to provide advice and guidance on implementing sustainability best practices.

Report on progress

We benchmark progress as a sector in regular reports.

Build stakeholder trust

We aim to continue to enhance dialogue and trust with stakeholders, informing them of progress and gathering feedback.

Identify opportunities

The Charter is a common platform to exchange information and ideas that enable solutions to common challenges and chances for cooperation within and outside the F&F industries.



The IFRA-IOFI Sustainability Charter

A Sense of Responsibility, a Commitment to Sustainability

Our contribution to more sustainable businesses and a more sustainable planet

A new imperative

A commitment to sustainable business practices makes good long-term economic sense and has a renewed sense of urgency with the global imperative for a green transition.

The world around us has changed significantly with a global pandemic and other shifting dynamics including greater political instability. However, our purpose remains the same.

Whether it is by reducing the use of finite resources, careful management of renewable resources, responsible employment practices, promoting leading-edge safety standards, or nurturing of relationships with suppliers, customers, stakeholders and consumers, all aspects of a business value chain can benefit from a sustainable approach.

With a strong reference to the United Nations Sustainable Development Goals (SDGs), the flavor and fragrance industries continue to accelerate their sustainability initiative.

A framework for progress

Through this voluntary initiative, the flavor and fragrance industries encourage all members to strive for a more sustainable future by:

- Continuing to raise awareness and dialogue on sustainability within the sector
- Providing businesses with a toolbox, including education/training programs to help them continuously improve their performance
- Offering guidance and sharing best practices
- Introducing measures and reporting on progress at an industry level
- Continuing to build trust between the flavor and fragrance industries and stakeholders
- Identifying opportunities for collaboration to address shared challenges

IOFI and IFRA, as the global organizations representing the flavor and fragrance industries, provide the platform for companies to identify, assess and report on advances in the field of sustainability, setting a framework for progress that encompasses a life-cycle approach across the flavor and fragrance value chains – from responsible sourcing to environmental footprint and climate change, to workplace culture, to product safety and partnerships.

A flexible, open and responsive approach

The flavor and fragrances industries are diverse, so there can be no one-size-fits-all approach. This initiative is intended to be open and inclusive.

Companies are provided with a range of possible approaches to suit their activities. They can also adapt their reporting, including any validation and certification, based on their size and the scope of their activities.

The intention of this initiative is to encourage broad support and participation, driving continuous improvement in five focus areas as part of our commitment to sustainability.

The initiative also seeks engagement and dialogue – both within the flavor and fragrance value chains, and with external stakeholders. We are committed to listening to and seeking advice from other stakeholders, to understanding society's expectations, and to using the feedback we receive as part of a continual review of our approach.

A voluntary, open, inclusive framework

This voluntary framework shows our industries' sense of responsibility and our commitment to making a difference. The Charter is open, inclusive and comprehensive, and has been subject to legal review to ensure adherence to anti-trust rules.

The Charter takes a 'life-cycle' approach and gives the opportunity and tools for everyone in our industries to contribute to a brighter and more sustainable future.

Our Charter Commitments to sustainability



As essential drivers of consumer choice, the flavor and fragrance industries are key enabling partners for meeting societal expectations towards more conscious and healthier behaviors, without compromising on taste and smell.

The flavor and fragrance industries aspire to:

Focus Area 1 • **Promote the responsible sourcing of all raw materials (renewable or fossil based), indirect materials and services throughout the value chain**

- 1.1. We support our suppliers and their local communities with fair and long-term partnerships.
- 1.2. We promote respectful labor practices in line with fundamental human rights and international labor standards.
- 1.3. We recognize the need to protect and restore biodiversity, and to promote the sustainable use of all ecosystems.

Focus Area 2 • **Contribute to climate change mitigation and continuously reduce the environmental footprint of our product portfolio**

- 2.1. We apply and share measures to reduce direct and indirect GHG emissions, and efficiently manage resources such as water and energy.
- 2.2. We support the reduction of waste by the means of a better integration of circular economy principles.
- 2.3. We foster the application of Green Chemistry principles.

Focus Area 3 • **Enhance a safe, attractive and rewarding workplace culture**

- 3.1. We value employees' health and well-being, and make workplace safety a priority.
- 3.2. We provide a working environment with opportunities to upgrade skills through training and development while accelerating the implementation of sustainability initiatives.
- 3.3. We offer equal opportunities and fair treatment of all employees, and promote diversity and inclusion.

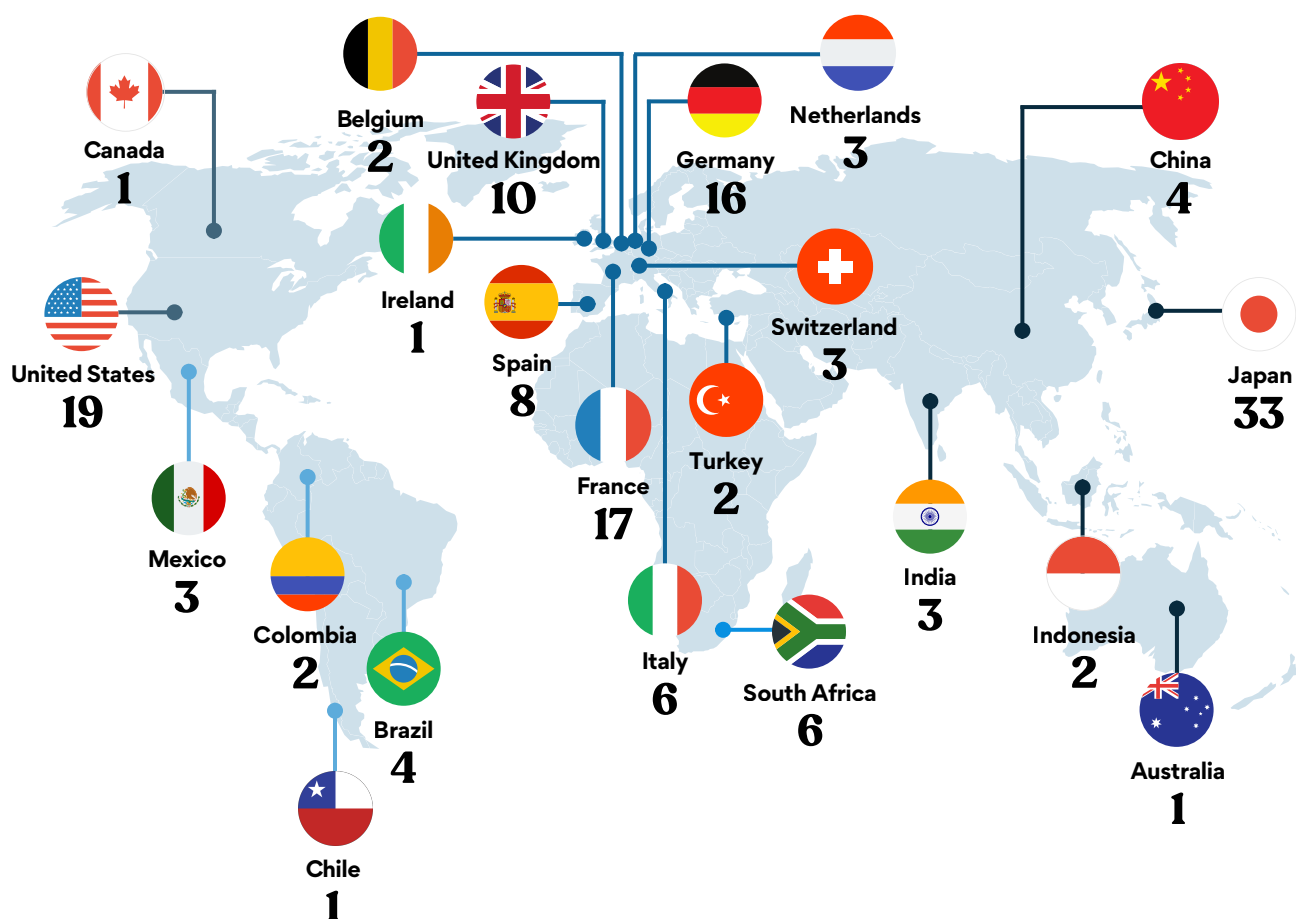
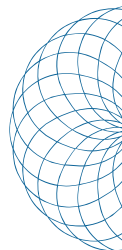
Focus Area 4 • **Be at the leading edge of product safety and design**

- 4.1. We work with key partners along the value chain to design products that are safe for consumers and the environment.
- 4.2. We submit our ingredients to a multi-step safety assessment and comply with rigorous risk management measures.
- 4.3. We actively engage in dialogue with regulators, upstream suppliers and downstream customers for better regulation, while protecting intellectual property.
- 4.4. We practice product stewardship by providing information and strengthening confidence in the safety of our materials.
- 4.5. We collaborate on new approaches towards alternatives to animal testing.

Focus Area 5 • **Be a transparent and reliable partner to our stakeholders and society**

- 5.1. We do not accept anti-competitive behavior, corruption or bribery within our business, and our Members are themselves committed to complying with the IFRA-IOFI Antitrust Compliance Policy.
- 5.2. We foster multi-stakeholder dialogue and collaboration beyond regulatory requirements to develop solutions and partnerships addressing shared environmental and societal challenges.
- 5.3. We communicate our activities according to international reporting standards and the UN Sustainable Development Goals.

The Charter around the world



22 countries, 147 companies
Regions according to signatory company HQ

20

North America

68

Europe

43

Asia-Pacific

10

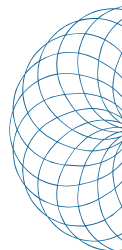
Latin America

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Africa

Survey results 2025

Introduction



This third IFRA-IOFI Sustainability Report provides a moment to measure progress as the number of Charter signatories continues to grow.

The number of respondents fell slightly compared to the last report in 2023. However, well over half of Charter signatories completed an extensive survey, including all the largest companies. The report therefore provides a representative picture of the flavor and fragrance industries as a whole. Many thanks to all those who took the extra time and effort to respond to the survey.

While the principal metric used in this report is the number of companies – allowing us to assess progress from small businesses to large multinationals – it is also important to give a more balanced reflection of the sustainability profile of the industries by taking into account market share. We have therefore used available data to comment on the industries' overall sustainability profile based on the size of companies.

The survey included nearly 40 questions based on the five Focus Areas and 17 commitments. Signatory companies gave a self-assessment of their sustainability efforts

- an indication of whether they have programs in place or were planning initiatives; the extent to which they reported their work; and how they complied with internationally recognized norms and standards.

In this report, new questions were added in particular on 'product carbon footprint' (PCF), both in terms of responsible sourcing (Focus Area 1) and environmental footprint of production (Focus Area 2). A new question on integration of sustainability principles into research and innovation was added to questions on Focus Area 4.

In addition to the questions on the Focus Areas, Charter signatories were also asked about their awareness and use of the IFRA-IOFI Toolbox of sustainability-related tools (including information on good practices, details of legal/regulatory frameworks and sustainability tools/programs, and international disclosure standards).

Around 60% of respondents are aware of the Toolbox; around 80% of those companies use it. Information on the IFRA Green Chemistry Compass and environmental footprinting tools were particularly well used.



Focus Area I

Responsible sourcing

About this focus area



- 8 • Decent Work & Economic Growth
- 12 • Responsible Consumption & Production
- 15 • Life on Land

The flavor and fragrance industries have a key role to play in socio-economic development relating to the sourcing of raw materials – notably in relation to job creation, skills development and the improvement of employment prospects. This is especially important for people living far from the main centers of employment.

F&F companies must ensure respect for human rights and labor standards in our activities and products, as well as in our business relationships and in monitoring the activities of partners. In areas where there is political instability or even conflict, companies must be particularly vigilant.

In their operations and supply chains, F&F companies rely on a variety of ecosystem services. The protection and/or restoration of biodiversity is an imperative as well as an opportunity to develop new projects and engage employees and wider communities.

As responsible industries, we should also seek to go beyond our core business activities by contributing to dynamic and positive change at a local level, whether through involvement in education or culture, community cohesion or wider technological development.

Analysis of the survey results

The results of the 2025 survey shows that more than 60% of respondents have a global responsible sourcing strategy in place - up from 54% in the last report. For the second report in a row, the proportion of companies without a strategy has fallen and a larger number are planning implementation within the next 12 months.

More than two-thirds of companies with a strategy use internationally recognized evaluation tools, with EcoVadis again leading the way.

On Commitment 1.1, the proportion of respondents engaging in dialogue or active participation with local communities, initiatives and development projects fell compared to the 2023 report, although the active engagement of the largest companies ensures that the vast majority of the sector by market share is involved in community dialogue.

For Commitment 1.2 (human rights and labor standards), there is a rise in the number of companies with a roadmap to identify, map and mitigate risks related to non-respect of labor standards, and the vast majority of companies are engaged individually, or as part of industry coalitions, to improve working conditions and ensure fair wages. Again, the vast majority of the sector by market share reports high standards on this Commitment.

On biodiversity (Commitment 1.3), we see improved results compared to 2023 regarding biodiversity and ecosystem protection plans, with many of the largest companies, covering most of the market, having concrete action plans to mitigate the impact of their activities on biodiversity.

New questions for 2025 cover the 'input' element of the carbon footprint of sourced products. One third of respondents already ask suppliers for information on the carbon footprint of the materials they purchase, and another half are planning to do so in the future. The Greenhouse Gas Protocol Product Standard is the preferred calculation method.

Over 60%

of respondents have a global sourcing strategy in place, representing over 95% of the industries by market share

Over 75%

of respondents work individually or with industry groups on issues linked to a fair/ living wage for all workers in the supply chain

1 in 3

responding companies ask suppliers for information on the carbon footprint of materials they provide

Focus Area 2 • Environmental footprint and climate change



About this focus area



- 9 • Industry, Innovation & Infrastructure
- 12 • Responsible Consumption & Production
- 13 • Climate Action

Increasing concerns over climate change, biodiversity loss and waste management have raised expectations of industry to reduce the environmental footprint of their activities.

Regulators, customers and other stakeholders want to know how we will lower emissions and develop low-environmental impact solutions.

Many players in the flavor and fragrance industries are committed to the implementation of measures that further reduce the environmental impact of their facilities and are investing in research and development to develop new products and processes, applying fundamental principles described in the European Union's 'Safe and Sustainable by Design' approach.

One such principle is that companies should ensure that the required raw materials (whether natural or synthetic) are used efficiently. The environmental footprint of both must be considered.

Adhering to green chemistry principles also comes with efficient use of utilities like water and energy and with stringent waste management.

Measurement and reporting of emissions are a prerequisite for their reduction. The measurement of greenhouse gas (GHG) emissions has become a key sustainability issue in the flavor and fragrance industries, both at a corporate and at a product level, as so-called 'product carbon footprint' (PCF) data develops into a key metric shared between partners along the value chain.

Analysis of the survey results

Building on an improvement already observed in 2023, 87% of respondents have a global environmental impact assessment and management strategy in place or in the pipeline for the next 12 months (up from 80% in the last report). More than 80% of those using internationally recognized evaluation tools favor EcoVadis.

There is a slight increase in the proportion of respondents conducting life-cycle assessments and integrating eco-design principles into their processes (covering the vast majority of the market) while the share of companies with no integration of these principles has fallen.

On Commitment 2.1, most respondents track their energy footprint and water consumption. Over 90% of companies are taking action on water consumption, an increase from less than 85% in 2023.

A greater proportion (more than 70%) of companies track greenhouse gas (GHG) emissions than in the 2023 survey, and 60% of those track Scope 1, 2 and 3 (up from just over half last time).

Just under a third of respondents have targets to cut Scope 1, 2 and 3 emissions, and another 45% have targets on Scope 1 and 2 or implement other actions to reduce GHG emissions.

In a new question, just under half of respondents say they can calculate the footprint of a specific flavor or fragrance, with two thirds of those using proxy values. About a third share product carbon footprint (PCF) information with customers.

Nearly 90% of companies are engaged in investment, measurement or long-term roadmaps to cut their waste footprint by means of better integration of circular economy principles (Commitment 2.2).

Meanwhile the results on green chemistry (Commitment 2.3) are broadly similar to the 2023 report, which already saw a big uptake compared to 2021.

Almost 90%

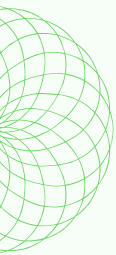
have a global environmental impact assessment and management strategy in place or in the pipeline for the next 12 months

Over 90%

of companies are taking action on water consumption, an increase from less than 85% in 2023

Around 90%

are engaged in investment, measurement or long-term roadmaps to cut waste via circular economy principles



Focus Area 3

Workplace culture

About this focus area



- 4 • Quality Education
- 5 • Gender Equality
- 8 • Decent Work & Economic Growth
- 10 • Reduced Inequalities

Companies have a moral and legal duty to ensure health and safety at work. But there is also an economic incentive: prevention helps to reduce risks, prevent accidents and illness, and boost economic performance.

Given the materials used, the flavor and fragrance industries have the potential to expose workers to potential occupational risks. We should therefore anticipate and limit the risks associated with products and processes to ensure the health and safety of employees.

Like other industries, we have to address physical risks (from travel, chemical exposure, musculoskeletal disorders, lifting, electrical charge, noise and so on) as well as psychological and social hazards. These issues also affect our employees and service providers, who should be informed of health and safety rules and guidance.

The flavor and fragrance industries, as significant employers, have a role to play on subjects such as equal pay and protection of certain groups in the workforce (such as young people, older people and people with disabilities).

The challenge is to allow the diverse talents of the sector to express themselves fully in the company, and to respect all differences. By implementing a diversity and equal opportunities policy and promoting inclusion, companies can increase their attractiveness as employers and improve performance.

A well-established social dialogue improves the functioning of companies and reduces the risk of conflict. Involving employees in the development and implementation of their own working conditions increases their satisfaction, well-being, motivation, loyalty and performance.

Analysis of the survey results

In an improvement from the previous two reports, more than 75% of respondents have a global occupational health and safety (OHS) strategy in place, with around 15% more planning it for the next 12 months.

EcoVadis is used by more than half of all respondents as an internationally recognized evaluation tool, with SMETA the other most popular tool.

On Commitment 3.1, around half of respondents develop and implement a comprehensive OHS management program aimed at preventing occupational diseases and reducing the severity and frequency of workplace incidents, covering the vast majority of the sector by market share.

Around 78% of respondents provide a working environment with opportunities to upgrade professional skills through training and development (Commitment 3.2) and nearly 85% integrate sustainability initiatives into training.

Regarding equal opportunities, a greater proportion of respondents than in 2023 fully embed principles of inclusion in their policies and processes for both employees and governing bodies (Commitment 3.3).

More than 90% of respondents have work-life balance initiatives such as structured well-being programmes - more than 60% actively promote flexible working, mental health support, and wellness programs.

3 in 4

respondents have a global occupational health and safety (OHS) strategy in place

Almost half

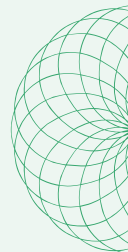
of responding companies fully embed diversity, inclusion and equality principles in policies and processes

Over 90%

of respondents have work-life balance initiatives such as structured well-being programmes

Focus Area 4

Product safety and design



About this focus area



12 • Responsible Consumption & Production

The commitments of the flavor and fragrance industries on product safety and design under the Charter Focus Area 4 reflect a comprehensive approach to ensuring product safety and responsible design throughout the flavor and fragrance value chain.

By working closely with partners to develop products that are safe for consumers and the environment, applying robust multi-step safety assessments, and adhering to strict risk management standards, both industries promote a high level of product integrity under this Charter Focus Area.

Active collaboration with regulators and along the supply chain promotes proportionate legislation, while also safeguarding intellectual property.

In addition, we support product stewardship through transparent information-sharing, as well as fostering innovation by exploring alternatives to animal testing.

These practices demonstrate how adherence to IFRA-IOFI safety guidelines and commitments across all stages of product development contributes to good design and responsible manufacturing.

Analysis of the survey results

Product safety is a non-negotiable requirement and is at the heart of everything that the flavor and fragrance industries do.

The questions asked on this topic are therefore more limited than those on other focus areas.

Our survey looked at how Charter signatories work with value chain partners to design products that are safe for consumers and the environment (Commitment 4.1). As in 2023, nearly 90% of respondents either occasionally or systematically engage with customers to improve the health and safety impact of their products.

On product stewardship (Commitment 4.4), more than half of respondents - including the market leaders - go beyond legal requirements to establish a consistent strategy to disseminate information on the safety of materials or to disseminate information and provide educational support in a proactive way.

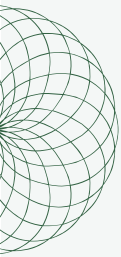
In response to a new question on integration of sustainability principles into research and innovation (according to guidelines such as the European Union's 'Safe & Sustainable by Design' approach), 44% of respondents apply such principles in some way, with a further 37% considering such an approach.

90%

of respondents occasionally or systematically engage with customers to improve the health and safety impact of their products

Over 80%

of respondents are integrating sustainability principles into R&D or are considering such an approach



Focus Area 5

Transparency

About this focus area



- 12 • Responsible Consumption & Production
- 13 • Climate Action
- 16 • Peace, Justice & Strong Institutions
- 17 • Partnerships for the Goals

Business ethics guide companies to make decisions that are fair and transparent and to prevent risks associated with unethical business or industrial practices.

Business failures in this area can have a significant impact in terms of reputational damage, as well as leading to possible commercial, civil or criminal penalties.

With a strategy in place, a company should develop indicators that allow analysis and follow-up of results and define a new direction if necessary.

Although reporting is not an end in itself, these indicators must be considered as a tool for continuous improvement.

Externally, a company can communicate on these indicators to strengthen the credibility of its actions and set an example.

Building dialogue with external stakeholders helps to create an environment that is conducive to understanding of a company's business and helps it to improve.

Analysis of the survey results

In an improvement from 2023, nearly 90% of respondents have a global governance strategy in place or have one planned for the next 12 months - including all the largest companies.

On Commitment 5.1, two in three respondents have established processes to prevent anti-competitive behavior, corruption and bribery practices and half of all respondents have formal anti-corruption documents signed by all employees, with penalties in case of violations.

Regarding multi-stakeholder dialogue (Commitment 5.2), almost all companies engage in some form of dialogue with stakeholders. More than 60% engage proactively with these stakeholders.

On reporting (Commitment 5.3), more than two-thirds of respondents go beyond mandatory requirements to report on their sustainability performance - well up on 2023, when the proportion was 56%.

Two-thirds report on the United Nations Sustainable Development Goals (SDGs), while the Global Reporting Initiative (GRI) and the UN Global Compact are other often-cited tools.

Almost 90%

of respondents have a global governance strategy in place or have one planned for the next 12 months

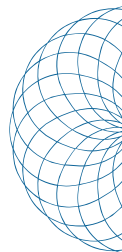
50%

of all respondents have formal anti-corruption documents signed by all employees, with penalties in case of violations

2 in 3

respondents go beyond mandatory requirements to report on their sustainability performance

Sustainability activities



The Sustainability Committee established a priority matrix in 2022 to identify the most urgent and important sustainability issues for the sector.

The resulting two broad-ranging priorities - responsible sourcing and environmental footprinting - remain relevant. Two sub-committees continued to pursue existing workplans, increasingly with an eye to regulatory compliance.

Deforestation

Under the theme of Responsible Sourcing, Deforestation remains a major concern of IFRA-IOFI members and their customers.

Of the commodities most linked to deforestation, palm oil and palm derivatives are materially the most important for members. The Roundtable on Sustainable Palm Oil (RSPO) remains the dominant certifying body and there is both increasing availability of RSPO Mass Balance-certified ingredients (RSPO-MB) and stronger customer demand for certified fragrances and flavors.

The Annual Communication of Progress (ACOP) data for the largest IFRA-IOFI members shows further progress in 2023, with 50 per cent of all palm volume being at least RSPO-MB certified.

In 2024 a major focus for the IFRA-IOFI Sustainability Committee was the interpretation of European Union (EU) Regulation 2023/1115 on deforestation-free products (EUDR).

EUDR has an extra-territorial impact, affecting global supply chains (and EU laws also often serve as models for legislation elsewhere). EUDR covers palm, cocoa, coffee, soy, timber, rubber and cattle - so once again, palm has become a key focus as a number of palm derivatives used by IFRA-IOFI members are within the scope of EUDR.

While EUDR does not cover all palm derivatives, those within the scope of the Regulation require geo-localised evidence that the palm oil used does not come from

land that has been deforested since December 2020.

Following protests from governments inside and outside the EU about the new rules, implementation has been delayed by a year to 30 December 2025.

The IFRA-IOFI Sustainability Committee has developed a list of flavor and fragrance ingredients that could both be palm derivatives and fall under the customs codes in Annex I of EUDR.

Following further consultation, this list will be made available to all members in Q3 2025, alongside an explanatory webinar.

Other materials are likely to impact members to a lesser extent. Potentially relevant materials in scope include coffee and cocoa beans, together with timber pallets and cardboard packaging when imported as such, rather than as a support or packaging for a material.

Green chemistry

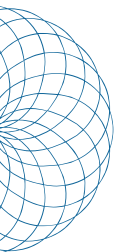
The 12 Principles of Green Chemistry are designed to support more sustainable chemistry - whether via choice of reagents, the use of catalysts, or waste reduction.

In 2023, IFRA member companies worked with Beyond Benign, a non-profit body dedicated to green chemistry education that was co-founded by John Warner, a co-author of the 12 Principles of Green Chemistry.

Together they developed a series of questions and scoring procedures ('most preferred', 'needs improvement', 'least preferred') adapted to the manufacture of both natural and synthetic fragrance ingredients. Examples of tailoring were the inclusion of biomass balance as a source of renewable starting materials and the use of metal-based catalysts in addition to enzymes.

Ten of the 12 principles were found to be of highest relevance (one was deemed not relevant, and another was largely covered by the way another principle was addressed).

In 2024 the questionnaire and scoring process were tested by IFRA members and



released for public consultation. Following feedback, a final version was developed. This process is available on open access from the IFRA website, alongside a tutorial, as the 'IFRA Green Chemistry Compass'.

In October 2024, just before IFRA's Global Fragrance Summit in Dubai, *Perfumer & Flavorist* published the Green Chemistry Compass as 'A Harmonized Tool to Support the Fragrance Industry's Pivotal Journey Toward Greater Sustainability'. The article featured the overview chart on the right.

All IFRA and IOFI members are invited to use the Compass and promote it to their suppliers, to encourage more sustainable manufacturing of raw materials.

Scope 1 and 2 emissions

The 2023 IFRA-IOFI Sustainability Materiality Matrix Survey showed carbon footprint to be the most important and pressing topic by far.

With this in mind, carbon management was a core topic in the 2024 workplan. Some activities addressed corporate reporting and emission reduction activities, while others focused on the carbon footprint of products.

The latter included best practice-sharing activities such as a webinar on the Partnership for Carbon Transparency (PACT) initiative, which developed a global standard to calculate and exchange consistent, comparable, and credible product carbon footprint (PCF) emission data across value chains.

Regarding corporate Scope 1 and 2 greenhouse gas emissions, IFRA conducted a member survey on emissions related to blending and storage activities in the years 2020, 2021 and 2022. The study aimed to provide insights into emission intensity, including regional variations, and report on decarbonisation strategies used in the sector.

Thirty-one companies participated in the survey, out of which 21 reported Scope 1 and 2 emissions, the GHG protocol being used as standard by more than 90% of respondents.

However, only 11 companies could provide the requested separate data on emissions

from fragrance blending and storage activities.

The study showed that emission intensity varied significantly across the 11 companies who responded. As eight out of 11 companies have an emission intensity below 0.2 tons of CO₂e per ton of fragrance mixture produced, IFRA believes that this is an achievable emissions intensity target for the blending and storage activities in the fragrance industry.

Clear regional differences in emission intensity can be seen. Activities in the Europe, Middle East and Africa (EMEA) and Latin America regions show only about half the emission intensity of activities in Asia. North America sits in-between. Regional electricity grid factor variations are likely to be the major reason behind these differences.

Within the Scope 1 GHG emissions, the share of fugitive hydrofluorocarbon (HFC) emissions varies from 0 to 91%. Companies have been advised to check respective reporting.

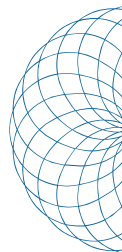
Finally, the report, which is publicly available on the IFRA homepage, includes best practices on decarbonisation shared by large as well as small companies who responded to the survey.

Scope 3 emissions

In 2022, IOFI launched a pre-competitive initiative to address a major challenge in climate reporting: the lack of reliable, consistent data for Scope 3 upstream greenhouse gas (GHG) emissions.

These emissions often represent a large share of a flavor company's overall footprint. However, meaningful action has been limited by data gaps, methodological inconsistencies, and high resource demands, particularly for smaller companies.

To close this gap, IOFI partnered with leading sustainability consultancy Quantis to develop a centralized, high-quality data repository covering the product carbon footprint (PCF) of over 150 commonly used flavor ingredients. This two-year project was designed to support all IOFI members — regardless of size or in-house capabilities —



in conducting Scope 3 assessments with confidence and comparability.

The carbon emission factors have been calculated on the basis of the EU Product Environmental Footprint (PEF) method. Development was conducted under strict antitrust supervision, with input from IOFI member companies, suppliers, and technical experts. The process included regular working sessions and quality reviews to ensure scientific integrity and broad relevance.

A public consultation in late 2024 allowed stakeholders across the flavor value chain to give feedback. After this open review process, the final repository is set to be released in the course of 2025. The data repository will be freely available on IOFI's website, serving as a resource for more accurate, transparent, and scalable emissions reporting.

By facilitating access to robust, standardized carbon data, this initiative empowers companies to identify emissions hotspots, respond to stakeholder expectations, and set meaningful reduction targets. It is a key milestone in the industry's collective effort to advance climate transparency and deliver on long-term sustainability goals.

Quantifying progress

As set out in the 2023 IFRA-IOFI Sustainability Report, third-party evaluation is a useful addition to the results of our survey of Charter signatories.

These evaluations allow us to compare progress made by IFRA and IOFI members against a broader set of companies for environmental, social, and governance (ESG) management.

In terms of third-party evaluations, there are some limitations:

Sedex enables companies to score and exchange site-specific management controls that are ESG relevant, but the data is private;

CDP scores are publicly available for climate, forest and water but only a few IFRA or IOFI members have such scores (typically the

biggest members) and the range of scoring is limited;

MSCI ESG ratings are also publicly available, but for an even more select group of IFRA and IOFI members.

Meanwhile, Ecovadis is emerging as the most widely adopted (self-)assessment metric among IFRA and IOFI members, with four scores (for Environment, Labor and Human Rights, Ethics, and Sustainable Procurement) leading to an overall final score. In 2023 we reported results for 14 companies; in 2025 we report results for 27 companies.

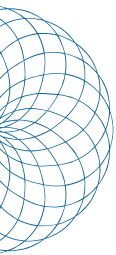
Once again, we compare two groups: first, the eight companies that have reported results since at least 2017, including the largest multinational IFRA and IOFI members; second, up to 19 companies who started their Ecovadis journey later (typically companies with a regional or national scope, from Japan to Indonesia, the United States and Europe).

The results show that both groups are improving over time, with the gap between the groups narrowing from an average of ten points in 2019 to five points in 2024.

We also see there are more diverse scores in the second group. The score required to achieve a given status has increased over time, and both groups are now 'gold'.

This means that IFRA and IOFI reporting members are, on average, among the top five per cent of all companies being assessed by Ecovadis - a high level of achievement and a sign of the commitment of our industries at all levels.

i See the full version of the IFRA-IOFI Sustainability Report 2025 for more information, including graphics



Concluding remarks

Jonathan Warr Chair IFRA-IOFI Sustainability Committee

Thank you for reading the 2025 IFRA-IOFI Sustainability Report.

Since the last report the trend for sustainability to move from company voluntary reporting and commitments to a legal requirement has accelerated, most notably in the European Union.

Examples include the European Union's Corporate Sustainability Reporting Directive (CSRD), which entered into force in January 2023, its Corporate Sustainability Due Diligence Directive (CSDDD or CS3D), which took effect in July 2024, and the EU Deforestation Regulation, known as EUDR, which entered into force in July 2023.

In the United States, the Lacey Act (16 U.S.C. 3371-3378) has been successively extended, covering the import of plant products like essential oils used by the flavor and fragrance industries. The Act entered Phase VII in 2024.

The IFRA-IOFI Sustainability Committee's activities have remained centred on responsible sourcing and environmental footprinting, combining workstreams on specific topics with expert webinars.

One evolution in the Committee's direction is to try and offer more quantitative reporting alongside the qualitative survey results. Such reporting is useful in discussions with regulators to show the progress and commitment of the industries and give members an indication of the level of their peer group. The results reported here for Ecovadis, RSPO-MB palm share and average Scope 1&2 CO₂e/ton are evidence of this intention.

A new activity in 2024 was the initiation of a workstream with the Union for Ethical BioTrade (UEBT), with the IFRA-UEBT Responsible Sourcing Initiative. This initiative aims to look at potential pre-competitive

collective action for the responsible sourcing of naturals where deforestation or ethical risks are a major concern.

It is anticipated that one supply chain could be tackled per year, and the first action is for Bulgarian Rose oil. The principal issues identified are linked to working practices for the Roma community and a workshop in Kazanlak in early 2025 with farmers and producers was the first step in defining concrete actions.

This activity compliments other collective responsible sourcing initiatives which IFRA-IOFI members participate in, such as the IDH Sustainable Vanilla Initiative and the Fair Labor Association Harvesting the Future initiatives for Rose (Turkey) and Jasmine (Egypt).

Another feature of the evolution of the sustainability topic is the growing interaction of the Committee's activities with other IFRA or IOFI workstreams - and no doubt this is set to continue.

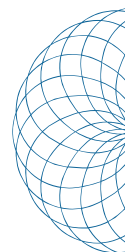
There is a good spirit of cooperation, be it for Life Cycle Assessment input into the Safe and Sustainable by Design project, or guidance on how to report certain aspects of CSRD with the Chemical Strategy for Sustainability group.

With both a new European Commission in 2024 and a new administration in the United States in 2025, there are questions as to whether sustainability will remain a key policy objective for governments and companies.

While there are proposals to adjust the scope of CSRD and CSDDD, so far there is no evidence to suggest that companies are reneging on their pledges to ensure and enable a more sustainable future. The evidence for a need to change remains overwhelming.



Glossary of terms



ACOP	Annual Communication of Progress (Roundtable for Sustainable Palm Oil)
CDP	(Formerly known as) Carbon Disclosure Project
CSDDD/CS3D	Corporate Sustainability Due Diligence Directive (European Union)
CSRD	Corporate Sustainability Reporting Directive (European Union)
ESG	Environmental, social and governance
EU	European Union
EUDR	European Union Deforestation Regulation
GHG	Greenhouse gas
GRI	Global Reporting Initiative
IPCC	Intergovernmental Panel on Climate Change
ISO	International Standards Organization
MB	Mass Balance (Roundtable for Sustainable Palm Oil)
OHS	Occupational health and safety
PACT	Partnership for Carbon Transparency
PCF	Product carbon footprint
PEF	Product Environmental Footprint (European Union)
RSPO	Roundtable for Sustainable Palm Oil
SA/SAI	Social Accountability International
SAI	Sustainable Agriculture Initiative
SASB	Sustainability Accounting Standards Board
SBTi	Science Based Targets initiative
SDGs	United Nations Sustainable Development Goals (UN Global Goals)
SMETA	Sedex Member Ethical Trade Audit
SSbD	Safe and sustainable by design (European Union)
TCFD	Task Force on Climate-Related Financial Disclosures
Tfs	Together for Sustainability
UEBT	Union for Ethical BioTrade
UN	United Nations
WBCSD	World Business Council for Sustainable Development



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