International Flavors & Fragrances Inc. - Climate Change 2020

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

International Flavors & Fragrances Inc. is a leading global creator of flavors and fragrances for consumer products.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2019	December 31 2019	Yes	2 years

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

Australia
Austria
Belgium
Brazil
Canada
Chile
China
Colombia
Egypt
France
Germany
Guatemala
India
Indonesia
Ireland
Israel
Italy
Japan
Mexico
Netherlands
New Zealand
Peru
Poland
Republic of Korea
Russian Federation
Singapore
Slovenia
South Africa
Spain
Switzerland
Thailand
Turkey
United Kingdom of Great Britain and Northern Ireland
United States of America
Viet Nam

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C-CH0.7

(C-CH0.7) Which part of the chemicals value chain does your organization operate in?

Row 1

Bulk organic chemicals

Aromatics

Bulk inorganic chemicals

Please select

Other chemicals

Specialty chemicals

Specialty organic chemicals

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Board Chair	Our Chairman of the Board and CEO chairs the Sustainability Business Council (SBC), which consists of cross-functional committees (Responsible Sourcing, Eco-Effectiveness, Corporate Sustainability and Product Design) which are in turn led by the appropriate Executive Committee member and supported by a member of the Global Sustainability team. Each of these committees drives sustainability throughout that function, raises potential issues and provides regular updates to the SBC on progress. Our Chairman of the Board and CEO has oversight over climate-related issues via the SBC because our governance model relies on functional integration of our sustainability strategy, which includes climate-related issues, across IFF, including goal development, implementation and progress toward goals. Additionally, our Chief Scientific and Sustainability Officer and VP of Global Sustainability report annually to the Board on progress against our goals and targets and seek guidance on strategy. In 2019, an example of our Chairman of the Board's action on climate change was pledging IFF to the UNGC's Business Ambition for 1.5C which further committed the company to advanced industry leading climate action.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures	<Not Applicable>	Our Chairman of the Board and CEO chairs the Sustainability Business Council (SBC), and cross-functional committees – Responsible Sourcing, Eco-Effectiveness, Corporate Sustainability and Product Design – are each led by the appropriate Executive Committee (EC) member and supported by a member of the Global Sustainability team. Each of these committees drives sustainability throughout that function, raises potential issues and provides regular updates to the SBC on progress. This governance model relies on functional integration of our sustainability strategy, which includes climate-related issues, across IFF, including goal development, implementation and progress toward goals. Our Chairman of the Board and CEO's position leading the SBC, combined with our company-wide functional integration of sustainability strategy, allows the board to continually monitor implementation and performance of objectives, thereby contributing to the board's oversight of climate issues. Additionally, our Chief Scientific and Sustainability Officer and VP of Global Sustainability report annually to the board on progress against our climate related goals and targets and seek guidance on strategy. In 2019, an example of our board's action towards climate change was to catalyze progress towards our SBT by signing off on the UNGC's Business Ambition for 1.5C further strengthening IFF's commitment towards reducing our emissions.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly
Chief Operating Officer (COO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Annually
Chief Sustainability Officer (CSO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Annually
Risk committee	<Not Applicable>	Assessing climate-related risks and opportunities	<Not Applicable>	Half-yearly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

The Chief Executive Officer (CEO) is a major stakeholder in overseeing the direction of the global sustainability department and climate action at IFF. As an example of our management's commitment to climate policy, the VP of Global Sustainability and Chief Sustainability Office report quarterly to the CEO and executive committee on progress of climate related activities for the entire company including new acquisitions. In 2019, our CEO committed IFF further to climate action through the UNGC's Business Ambition for 1.5C which will require surpassing the goals of our current SBT.

The Executive Vice President (EVP) of Operations is the highest level Executive responsible for oversight of operations globally (note IFF does not have the title of COO). This role reports directly to the Chairman and CEO. This position is responsible for climate change issues, risks and opportunities in operations and at our facilities. He manages these issues by overseeing the Eco-Effectiveness Leadership Team. The EVP of Operations has responsibility for climate-related issues because of his management of the Eco-Effective Leadership Team, which has direct oversight for the achievement of our climate-change related goals.

The Chief Sustainability Officer (CSO) is a key leader of the Sustainable Business Council (SBC), which reviews targets and metrics quarterly. The SBC consists of cross-functional committees (Responsible Sourcing, Eco-Effectiveness, Corporate Sustainability and Product Design) which are in turn led by the appropriate Executive Committee (EC) member and supported by a member of the Global Sustainability team. The CSO has responsibility for climate-related issues because each of these committees drives sustainability throughout that function, raises potential issues and provides regular updates to the SBC on progress. The CSO position is also charged with driving low-carbon and circular-economy solutions into the R&D process.

These positions and our organization more broadly monitor climate-related issues through engagement with the World Business Council for Sustainable Development (WBCSD). Our Chairman and CEO, VP of Global Sustainability, and CSO each participate in WBCSD. Our Chairman and CEO was elected to the EC. Our engagement with the WBCSD, which holds forums and climate policy groups that provide information and trends on climate-related issues, is an opportunity to work with influential leaders to monitor these issues and make positive, lasting changes in society. Additionally, these positions also attend other forums, such as CDP events, to stay abreast of changes on key climate-related issues.

Our Eco-Effectiveness Leadership Team, which is composed of the VP's of Operations Globally as well as subject matter experts and operations representatives from each of our regions, drives climate change management in Operations and has implemented numerous projects to enable us to reach our 2019 climate change-related goals and achieve progress towards our 2020 climate-change related goals, which are (normalized per metric ton of production):

-reduce energy use by 20% by 2020 from a 2010 baseline;

-reduce carbon emissions by 25% by 2020 from a 2010 baseline.

We have also adopted an SBTi-approved Science Based Target (SBT) of reducing our absolute scope 1 and 2 GHG emissions 30% by 2025, from a 2015 base-year, and the Eco-Effectiveness Leadership Team will manage operational changes that drive us to achieve this goal.

In addition, the Global Risk Committee is a management risk committee made up of key members of the Company's management to integrate global risk activities (including climate-related issues) and to ensure appropriate prioritization of resources and alignment across the Company. The Global Risk Committee is co-chaired by our CFO and EVP General Counsel and Corporate Secretary. The Global Risk Committee meets approximately six times per year to discuss critical risks, critique mitigation plans and review the gap analyses. The Global Risk Committee has responsibility over climate-related issues because ESG risks are also included in this program based on input from our Global Sustainability Team. The team evaluates for "Failure of climate change mitigation or adoption" and "Facility loss due to extreme weather event".

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity inventivized	Comment
Chief Operating Officer (COO)	Monetary reward	Emissions reduction target	The Executive Vice President (EVP) of Operations is the highest level Executive responsible for oversight of operations globally (note IFF does not have the title of COO). This role reports directly to the Chairman and CEO. The EVP of Operations, who is ultimately responsible for our eco efficiency initiatives, has performance based objectives that are aligned with organizational energy and GHG emissions reduction goals of 20% and 25% per metric ton of production, respectively, by 2020.
Facilities manager	Monetary reward	Emissions reduction project	Facility managers have performance based objectives that are aligned with our organizational energy and GHG emissions reduction goals of respective 20% and 25% per metric ton of production by 2020. Performance on these goals is assessed annually during performance reviews and salary determination.
Environment/Sustainability manager	Monetary reward	Emissions reduction project	Environment/Sustainability managers have performance based objectives that are aligned with our organizational energy and GHG emissions reduction goals of respective 20% and 25% per metric ton of production by 2020. Performance on these goals is assessed annually during performance reviews and salary determination.
All employees	Non-monetary reward	Emissions reduction project	Employees are internally recognized locally and corporately for achieving results from energy and carbon reducing projects on the company intranet's Top Story, which recognizes employees for exemplary performance. Employees are internally recognized locally and corporately for achieving results from energy and carbon reducing projects on the company intranet's Top Story, which recognizes employees for exemplary performance. In 2015, we launched an eco-efficiency awards program to formally recognize facilities that have been the most effective at implementing a culture of sustainability and improving performance related to sustainability standards.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	1	3	
Medium-term	3	6	
Long-term	6	10	

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

We define 'substantive financial impact' when identifying or assessing climate-related risks in both our direct operations and supply chain as any change that would significantly affect our business, operations, revenue or expenditure.

In order to come to this definition of substantive risk, we have a multidisciplinary company-wide enterprise risk management program that annually assesses risks, including sustainability issues and climate change, on our business and the business of our customers. We annually prepare and review a risk dashboard with senior management and the Board of Directors. When prioritizing risks and opportunities, our strategic pillars are the starting point. However, we also identify natural disasters and other climate-related exposures as part of our process. As it relates to prioritization, consideration is also given to the following items: impact; both internal and external influences; our current capability and prior experience in mitigating such risks; and our expectations of the future outlook for the identified risk. ERM Risk Assessments are conducted when changing conditions warrant new analysis. Through this expansive program we were able to define substantive risk at the corporate level.

We further manage risk at the asset level, where we have global and regional crisis-management plans and procedures, and we conduct training for members of our cross-functional global and regional crisis teams. Additionally, each IFF facility assesses local risks and has a crisis management plan. Our regional and site level Eco-efficiency champions convey risks detected on the ground up through to corporate executives, who review risks annually.

In addition, we conducted a structured materiality analysis to identify the issues of most importance to our company and our stakeholders. The materiality analysis identified climate change—along with water efficiency, renewable raw materials and energy efficiency—as most material to IFF's stakeholders. We first assessed the materiality of conventional and emerging sustainability and carbon management issues in 2010. We evaluated these issues for their importance to our stakeholders, their potential impact on our business, and the degree of influence that we had on each issue In 2014, we formally updated our materiality work by soliciting feedback from IFF employees, including our Sustainability Steering Team, key customers, academics, and NGOs. This input helped us further transform and adapt our sustainability strategy in order to properly manage climate change and related environmental issues. At IFF, we know that our approach to sustainability, climate change and carbon management must continually evolve, and we will continue to engage with stakeholders through dialogue on sustainability and materiality. As part of the Frutarom acquisition, in 2019 IFF refreshed our materiality assessment. The results of the refresh were consistent with the results with the prior material assessment and identified new emerging and evolving climate change risk and opportunities topics to consider in the future. All of the above methodologies have helped to further define substantive risk.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered
Direct operations

Risk management process
Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment
More than once a year

Time horizon(s) covered
Short-term
Medium-term
Long-term

Description of process
At the corporate level, IFF's general approach for identifying and managing significant risks and opportunities relies on our management's evaluation of current events and its expectations regarding future developments. Climate risks and opportunities are assessed based on the magnitude and likelihood of impact, potential financial impact, return on investment, scale of capital costs or operational expenditures, and potential for disruption or delays in production. We have a multidisciplinary company-wide enterprise risk management program that continually assesses risks more than once a year, including sustainability issues and climate change, on our business and the business of our customers. This enterprise risk management program considers risks for short-, medium-, and long-term time horizons within our direct operations. By assessing these time horizons in tandem with the procedures above, this enterprise risk management program determines which risks could a have a substantive financial or strategic impact. Our CEO and other senior management oversee the day-to-day execution of the risk management process, including decisions to mitigate, transfer, accept or control climate-related risks. The Board receives regular reports on IFF's ERM process and oversees and reviews with management the company's enterprise-wide risks and the policies and practices established to manage such risks. Management maintains the ERM program, which is designed to identify and assess our global risks and to develop steps to mitigate and manage risks. The Global Risk Committee, composed of key members of management, meets approximately six times per year to discuss critical risks, critique mitigation plans and review the gap analyses. The Global Risk Committee reviews and evaluates each risk for impact and vulnerability. Each risk is identified as Low, Moderate, High or Critical based on its impact and vulnerability. We semi-annually prepare and review a risk dashboard with senior management and the Board of Directors. When prioritizing risks and opportunities, our strategic pillars are the starting point. However, we also identify natural disasters and other climate related exposures as part of our process. As it relates to prioritization, consideration is also given to the following items: impact; both internal and external influences; our current capability and prior experience in mitigating such risks; and our expectations of the future outlook for the identified risk or opportunity. Risks beyond 6 years are considered. At the asset level, we have global and regional crisis-management plans and procedures, and we conduct training for members of our cross-functional global and regional crisis teams. In addition, each IFF facility assesses local risks and has a crisis management plan. Our regional and site level Eco-efficiency champions also play the role of conveying risks detected on the ground up through to corporate executives, who review risks annually. We also conducted a formalized materiality analysis to identify the issues of most importance to our company and our stakeholders. At the corporate level, day-to-day management of sustainability and climate-related opportunities is under the purview of the Sustainability Business Council (SBC), chaired by our Chairman of the Board and CEO. The SBC consists of cross-functional committees (Responsible Sourcing, Eco-Effectiveness, Corporate Sustainability and Product Design) which are in turn led by the appropriate EC member and supported by a member of the Global Sustainability team. Each of these committees drives sustainability throughout that function, raises potential issues and provides regular updates to the SBC on progress. As relevant opportunities are identified, they are also reviewed with our R&D and Commercial teams. At the asset level, opportunities we pursue are implemented by our Eco-Effectiveness Leadership Team. These processes can determine which risks have a substantive financial or strategic impact on the organization. One example of a climate-related physical risk that was managed through this process is facility loss due to an extreme weather event. Specifically, our Union Beach facility incurred damage during Superstorm Sandy. Following the storm, we undertook mitigation processes and renovated these facilities to withstand flood events. During our ERM process, the likelihood of occurrence for climate related extreme weather events at key facilities was deemed low. The result of the risk evaluation process was that it was determined not a substantive risk for the business. One example of a climate-related transitional risk that was managed through this process is reputational impacts tied to the fact that our customers are increasingly demanding transparency regarding our climate change policies. For instance, during 2019 thirteen of our major customers, representing approximately 21% of our Legacy IFF business, requested we respond to the CDP supply chain questionnaire. Some customers specifically use CDP as a grade for an annual supplier performance evaluation and use this information to help generate their core lists, where not being included can significantly reduce the number of future projects and sales. The result of the risk evaluation process was that it was determined not a critical risk for the business. In addition to our formal risk management process, we conducted a structured materiality analysis to identify the issues of most importance to our company and our stakeholders, including size, scope and significance of identified risks. The materiality analysis identified several issues that are relevant to IFF, have global impact and influence product and facility energy and carbon management. We first assessed the materiality of conventional and emerging sustainability and carbon management issues in 2010. We evaluated these issues for their importance to our stakeholders, their potential impact on our business and the degree of influence that we had on each issue. We continue to engage with stakeholders, solicit feedback and refine our focus and approach. In 2014, we formally updated our materiality work by soliciting feedback from IFF employees, including our Sustainability Steering Team, key customers, academics and NGOs. This input helped us further refine IFF's sustainability strategy and reporting. At IFF, we know that our approach to sustainability, climate change and carbon management must continually evolve, and we will continue to engage with stakeholders through dialogue on sustainability and materiality. As part of the Frutarom acquisition, in 2019 IFF refreshed our materiality assessment. The results of the refresh were consistent with the results with the prior material assessment and identified new emerging and evolving climate change risk and opportunities topics to consider in the future.

Value chain stage(s) covered
Downstream

Risk management process
Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment
More than once a year

Time horizon(s) covered
Short-term
Medium-term
Long-term

Description of process
There is a global trend towards an increasing demand for sustainable, climate-friendly products and technologies. IFF sells its products primarily to consumer facing companies and our customers. Customers are limiting the number of their suppliers in order to increase their margins and profitability. These customers are creating "core lists" of suppliers and giving these "core lists" suppliers priority for new or modified products. These and other profitability initiatives being pursued by our customers reduce the market opportunity for which we compete and subject the volume and pricing of the remaining suppliers to downward pressure. To be successful in this competitive environment, we must continue to anticipate customers' needs, deliver products that contribute to our customers' profitability, provide effective customer service and offer competitive cost-in- use solutions to secure and maintain inclusion on certain "core lists" and our share of our customers' purchases. If we are unable to do so, it could

adversely impact our future results of operations. As a result, downstream risks are always included in our climate-related risk assessments. To enhance our risk management practices, we recently established a Global Risk Committee made up of key members of management to integrate global risk activities. The Global Risk Committee meets approximately six times per year to discuss critical risks, including downstream risks, critique mitigation plans and review the gap analyses. ESG risks are also included in this program based on input from our Global Sustainability Team. This process, which covers short-, medium- and long-term time horizons, is used to determine which downstream risks and/or opportunities could have a substantive financial or strategic impact on our business. For example, a considered potential climate-related downstream transition risk specific to IFF is that our customers are increasingly demanding transparency regarding our climate change policies. For instance, during 2019, thirteen of our major customers requested we respond to the CDP supply chain questionnaire. Some customers specifically use CDP as a grade to help generate their core lists, where not being included can significantly reduce the number of future projects and sales. Additionally, in response to growing concerns from our customers of climate related upstream physical risks we have begun procuring electricity from green energy sources to mitigate our output of greenhouse gases. This risk was identified and evaluated via the ERM process. The result of this process was that the climate-related risk was determined to not be a substantive risk for the business.

Value chain stage(s) covered
Upstream

Risk management process
Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment
More than once a year

Time horizon(s) covered
Short-term
Medium-term
Long-term

Description of process
Our purchases of raw materials are subject to fluctuations in market price and availability caused by weather, growing and harvesting conditions, market conditions, governmental actions and other factors beyond our control. In addition, our ingredient suppliers, similar to us, are subject to the risks inherent in manufacturing and distribution on a global scale over which they have no control. These suppliers also could become insolvent or experience other financial distress. We purchase approximately 11,000 different raw materials from about 3,000 domestic and international suppliers and distributors. Approximately half of the materials we purchase are naturals or crop-related items and the other half are synthetics and chemicals. As a result, upstream risks are always included in our climate-related risk assessments. To enhance our risk management practices, we recently established a Global Risk Committee made up of key members of management to integrate global risk activities (including cybersecurity, compliance, business and crisis management) and to ensure appropriate prioritization of resources and alignment across IFF. The Global Risk Committee meets approximately six times per year to discuss critical risks, including upstream risks, critique mitigation plans and review the gap analyses. ESG risks are also included in this program based on input from our Global Sustainability Team. This process, which covers short-, medium- and long-term time horizons, is used to determine which upstream risks and/or opportunities could have a substantive financial or strategic impact on our business. One example of a potential physical upstream climate-related risk evaluated in 2019 is the risk of reduced raw material availability caused by precipitation extremes and droughts that are exacerbated by the effects of climate change. Over the past several years, changes in precipitation extremes and droughts in Brazil, Madagascar, and Florida, USA, have affected the availability and cost of our key natural ingredients, such as orange oil and vanilla. This risk could impact the availability and pricing of these natural products. If we are unable to increase the prices to our customers of our products to offset raw material and other input cost increases, or if we are unable to achieve cost savings to offset such cost increases, we could fail to meet our cost expectations and our profits and operating results could be adversely affected. Increases in prices of our products to customers may lead to declines in sales volumes, and we may not be able to accurately predict the volume impact of price increases, which could adversely affect our financial condition and results of operations. This risk was identified and evaluated via the ERM process. The result of this process was that the risk was determined to not be a substantive risk for the business. However, other disruptions in our supply chain could adversely affect our business and financial results. For additional information, please see our 2019 Annual Report.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	We operate on a global basis, with manufacturing and sales facilities in the United States, Europe, Africa, the Middle East, Latin America and Greater Asia. Any regulation that increases the cost of raw materials or commodities, particularly energy used to operate our facilities, has the potential to impact our profit margins and operations. In particular, various current regulatory efforts in environmental (including climate change), health and safety regulations and similar regulations could impact costs for our operations or supply chain. As a result, current regulations are always included in our climate-related risk assessments. To enhance our risk management practices, we established a Global Risk Committee made up of key members of management to integrate global risk activities (including cybersecurity, compliance, business and crisis management) and to ensure appropriate prioritization of resources and alignment across IFF. The Global Risk Committee meets approximately six times per year to discuss critical risks, including current regulation, and then critique mitigation plans and review the gap analyses. ESG risks are also included in this program based on input from our Global Sustainability Team. One example of a considered potential risk from current regulation specific to IFF is compliance with environmental regulations for our Tilburg facility in the Netherlands, which requires annual reporting of energy and carbon emissions. To address this, we developed a plan for reducing energy and low carbon energy procurement at this facility. The result of this risk assessment process was that the risk was determined to not be a substantive risk for the business. However, new or changes to other environmental regulations could have a material impact on our business. For additional information, please see our 2019 Annual Report.
Emerging regulation	Relevant, always included	We operate on a global basis, with manufacturing and sales facilities in the United States, Europe, Africa, the Middle East, Latin America and Greater Asia. Any regulation that increases the cost of raw materials or commodities, particularly energy used to operate our facilities, has the potential to impact our profit margins and operations. In particular, various emerging regulatory efforts in environmental (including climate change), health and safety regulations and similar regulations could impact costs for our operations or supply chain. As a result, emerging regulations are always included in our climate-related risk assessments. To enhance our risk management practices, we established a Global Risk Committee made up of key members of management to integrate global risk activities (including cybersecurity, compliance, business and crisis management) and to ensure appropriate prioritization of resources and alignment across IFF. The Global Risk Committee meets approximately six times per year to discuss critical risks, including emerging regulation, and then critique mitigation plans and review the gap analyses. ESG risks are also included in this program based on input from our Global Sustainability Team. One example of a considered potential risk from emerging regulation specific to IFF identified and evaluated by the Global Risk Committee in 2019 is the failure of climate change mitigation or adoption caused by increasing carbon taxes in regions in which we operate. This risk of this type of emerging regulation could cause higher operating costs including a fluctuation in energy prices that could adversely affect our profit margins. The result of this process was that the climate-related risk was determined to not be a substantive risk for the business. However, new or changes to other environmental regulations could have a material impact on our business. For additional information, please see our 2019 Annual Report.
Technology	Relevant, always included	To enhance our risk management practices, we recently established a Global Risk Committee made up of key members of management to integrate global risk activities (including cybersecurity, compliance, business and crisis management) and to ensure appropriate prioritization of resources and alignment across IFF. The Global Risk Committee meets approximately six times per year to discuss critical risks, including technology risks, critique mitigation plans and review the gap analyses. ESG risks are also included in this program based on input from our Global Sustainability Team. One example of a potential risk from technology specific to IFF considered in 2019 was the risk of security breaches, higher costs and greater energy consumption and resulting energy costs from our on-site IT servers. In evaluating these risks, IFF made the decision to move our IT servers onto the cloud to save energy and increase technological security, although the move to the cloud carried its own risks, which were also considered. While the decision to move to the cloud was made, the risk of not saving this energy as a climate related risk was determined to not be a substantive risk for the business.

	Relevance & inclusion	Please explain
Legal	Relevant, always included	Our business operations and properties are subject to extensive and increasingly stringent federal, state, local and foreign laws and regulations pertaining to protection of the environment, including air emissions, sewage discharges, the use of hazardous materials, waste disposal practices and clean-up of existing environmental contamination. Failure to comply with these laws and regulations or any future changes to them may result in significant consequences to us, including the need to close or relocate one or more of our production facilities, administrative, civil and criminal penalties, liability for damages and negative publicity. As a result, legal risks are always included in our climate-related risk assessments. To enhance our risk management practices, we recently established a Global Risk Committee made up of key members of management to integrate global risk activities (including cybersecurity, compliance, business and crisis management) and to ensure appropriate prioritization of resources and alignment across IFF. The Global Risk Committee meets approximately six times per year to discuss critical risks, including legal risks, critique mitigation plans and review the gap analyses. ESG risks are also included in this program based on input from our Global Sustainability Team. One example of a potential climate-related legal or regulatory risk specific to IFF considered in 2019 is that noncompliance with regional carbon emissions regulations could impact our license to operate in these areas. The result of this process was that the climate-related risk was determined to not be a substantive risk for the business. However, noncompliance with other environmental laws and regulations may result in significant consequences to us. For additional information, please see our 2019 Annual Report.
Market	Relevant, always included	Our purchases of raw materials are subject to fluctuations in market price and availability caused by weather, growing and harvesting conditions, market conditions, governmental actions and other factors beyond our control. In addition, our ingredient suppliers, similar to us, are subject to the risks inherent in manufacturing and distribution on a global scale, including industrial accidents, environmental events, strikes and other labor disputes, disruptions in supply chain or information systems, disruption or loss of key research or manufacturing sites, product quality control, safety and environmental compliance issues, licensing requirements and other regulatory issues, as well as natural disasters, international conflicts, terrorist acts and other external factors over which they have no control. These suppliers also could become insolvent or experience other financial distress. As a result, market risks are always included in our climate-related risk assessments To enhance our risk management practices, we recently established a Global Risk Committee made up of key members of management to integrate global risk activities (including cybersecurity, compliance, business and crisis management) and to ensure appropriate prioritization of resources and alignment across IFF. The Global Risk Committee meets approximately six times per year to discuss critical risks, including market risks, and then critique mitigation plans and review the gap analyses. ESG risks are also included in this program based on input from our Global Sustainability Team.. A potential climate-related market risk evaluated in 2019 is the risk of reduced raw material availability caused by precipitation extremes and droughts. Over the past several years, changes in precipitation extremes and droughts in Brazil, Madagascar, and Florida, USA, have affected the availability and cost of our key natural ingredients, such as orange oil and vanilla. This risk was identified and evaluated via the ERM process. The result of this process was that the risk was determined to not be a substantive climate-related risk for the business. However, other disruptions in our supply chain could adversely affect our business and financial results. For additional information, please see our 2019 Annual Report.
Reputation	Relevant, always included	There is a global trend towards an increasing demand for sustainable, climate-friendly products and technologies. IFF sells its products primarily to consumer facing companies and our customers are increasingly challenged to find sustainable, reliable sources of ingredients to make products consumers have come to expect or demand. Potential loss in business can come from reduced demand for products and loss of customers if IFF's reputation is harmed by not meeting customer expectations related to sustainability and climate change. As a result, reputational risks are always included in our climate-related risk assessments. To enhance our risk management practices, we recently established a Global Risk Committee made up of key members of management to integrate global risk activities (including cybersecurity, compliance, business and crisis management) and to ensure appropriate prioritization of resources and alignment across IFF. The Global Risk Committee meets approximately six times per year to discuss critical risks, including reputational risks, and then critique mitigation plans and review the gap analyses. ESG risks are also included in this program based on input from our Global Sustainability Team. One example of a considered potential climate-related reputational risk specific to IFF is that our customers are increasingly demanding transparency regarding our climate change policies. For instance, during 2019, thirteen of our major customers, representing approximately 21% of our Legacy IFF business, requested we respond to the CDP supply chain questionnaire. Some customers specifically use CDP as a grade for an annual supplier performance evaluation and use this information to help generate their core lists, where not being included can significantly reduce the number of future projects and sales. This risk was identified and evaluated via the ERM process. The result of this process was that the climate-related risk was determined to not be a substantive risk for the business. However, other adverse publicity about our products, or our customers' products that contain our ingredients, including concerns about product safety or similar issues, whether real or perceived, could harm our reputation and result in an immediate adverse effect on our sales and customer relationships. For additional information, please see our 2019 Annual Report.
Acute physical	Relevant, always included	To enhance our risk management practices, we recently established a Global Risk Committee made up of key members of management to integrate global risk activities (including cybersecurity, compliance, business and crisis management) and to ensure appropriate prioritization of resources and alignment across IFF. The Global Risk Committee meets approximately six times per year to discuss critical risks, including acute physical risks, critique mitigation plans and review the gap analyses. ESG risks are also included in this program based on input from our Global Sustainability Team. Furthermore, each business unit has an ERM Team Lead that serves as the single point of contact for all aspects of the risk process related to the business function. The team leads engage other personnel from the organization in order to gather the information needed, provide status and lead the project in a manner that conforms to the timelines as agreed upon in the initiation phase, and escalate any issues that may come up related to the ERM process. The following key artifacts are used to facilitate the ERM process and training: - A guidelines document describing how the process works; - Info-packs customized for each business function that provide the templates to be populated in order to outline and add detail for each of the risks. As a result, acute physical risks are always included in our climate-related risk assessments. One example of a potential climate-related acute physical risk specific to IFF identified and evaluated by the Global Risk Committee in 2019 was the facility loss due to an extreme weather event. Specifically, our Union Beach facility incurred damage during Superstorm Sandy. Following the storm, we undertook mitigation processes and renovated these facilities to withstand flood events. During our ERM process, the likelihood of occurrence for climate related extreme weather events at key facilities was deemed low. The result of the risk evaluation process was that it was determined not a substantive risk for the business. However, other disruptions in our operations could adversely affect our business and financial results. For additional information, please see our 2019 Annual Report.
Chronic physical	Relevant, always included	Our purchases of raw materials are subject to fluctuations in market price and availability caused by weather, growing and harvesting conditions, market conditions, governmental actions and other factors beyond our control. In addition, our ingredient suppliers, similar to us, are subject to the chronic physical risks inherent in manufacturing and distribution on a global scale over which they have no control. These suppliers also could become insolvent or experience other financial distress. We purchase approximately 23,000 different raw materials from about 11,000 suppliers and distributors. Approximately half of the materials we purchase are naturals or crop-related items. As a result, chronic physical risks are always included in our climate-related risk assessments. To enhance our risk management practices, we recently established a Global Risk Committee made up of key members of management to integrate global risk activities (including cybersecurity, compliance, business and crisis management) and to ensure appropriate prioritization of resources and alignment across IFF. The Global Risk Committee meets approximately six times per year to discuss critical risks, including chronic physical risks, critique mitigation plans and review the gap analyses. ESG risks are also included in this program based on input from our Global Sustainability Team. Furthermore, each business unit has an ERM Team Lead that serves as the single point of contact for all aspects of the risk process related to the business function. The team leads engage other personnel from the organization in order to gather the information needed, provide status and lead the project in a manner that conforms to the timelines as agreed upon in the initiation phase, and escalate any issues that may come up related to the ERM process. One example of a potential chronic physical risk evaluated in 2019 is the risk of reduced raw material availability caused by precipitation extremes and droughts. Over the past several years, changes in precipitation extremes and droughts in Brazil, Madagascar, and Florida, USA, have affected the availability and cost of our key natural ingredients, such as orange oil and vanilla. This risk was identified and evaluated via the ERM process. The result of this process was that the risk was determined to not be a substantive risk for the business.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

No

C2.3b

(C2.3b) Why do you not consider your organization to be exposed to climate-related risks with the potential to have a substantive financial or strategic impact on your business?

	Primary reason	Please explain
Row 1	Risks exist, but none with potential to have a substantive financial or strategic impact on business	We have a multidisciplinary company-wide enterprise risk management program that annually assesses risks, including sustainability issues and climate change, on our business and the business of our customers. The Global Risk Committee made up of key members of management oversees this program and integrates global risk activities to ensure appropriate prioritization of resources and alignment across IFF. An ERM Team Lead at each business unit complements this program by serving as a single point of contact for all aspects of the risk process related to the business function. Through these processes we have determined that although we are exposed to climate-related risks none of the identified risks have the potential to have a substantive financial or strategic impact on our business. We define 'substantive financial impact' when identifying or assessing climate-related risks in both our direct operations and supply chain as any change that would significantly affect our business, operations, revenue or expenditure. For example, a significant physical risk is change in precipitation patterns because this could result in price volatility and supply shortages in natural products that represent approximately half of our raw material purchases. However, this was determined not to be a substantive risk because we work with our purchasers to develop various sourcing strategies, including maintaining strategic stock levels for critical items, multiple suppliers, inventory management systems, various geographic suppliers and long-term agreements. IFF also evaluates the use of green chemistry and biotechnology as an alternative to natural raw materials. We have identified other risks associated with climate change such as facility loss due to extreme weather events and the failure to address climate change in corporate planning (e.g. carbon taxes, disclosure, reputational or other consequences). The Global Risk Committee discusses critical risks, critiques mitigation plans, and reviews the gap analyses. After consideration of these risks in 2019, we do not consider them as substantive to our business. We continue to monitor these risks on an ongoing basis.

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

No

C2.4b

(C2.4b) Why do you not consider your organization to have climate-related opportunities?

	Primary reason	Please explain
Row 1	Opportunities exist, but none with potential to have a substantive financial or strategic impact on business	At the corporate level, IFF's general approach for identifying significant opportunities relies on our management's evaluation of current events and its expectations regarding future developments. Sustainability and climate-related topics are under the purview of the Sustainability Business Council (SBC) led by our Chairman of the Board and CEO. The SBC consists of cross-functional committees (Responsible Sourcing, Eco-Effectiveness, Corporate Sustainability and Product Design) which are led by the appropriate EC member and supported by a member of the GL Sustainability team. Each committee drives sustainability throughout that function, cites potential issues and provides regular updates to the SBC. As relevant opportunities are identified, they are also reviewed with our R&D and Commercial teams. At the asset level, opportunities we pursue are implemented by our Eco-Effectiveness Team. From these processes we determined that although we have numerous climate-related opportunities none of the identified opportunities have the potential to have a substantive financial or strategic impact on our business. We define 'substantive financial impact' when identifying or assessing climate-related risks in both our direct operations and supply chain as any change that would significantly affect our business, operations, revenue or expenditure. We identified climate-related opportunities for our business like the reduction of costs via resource efficiency projects, the development of new products in line with green chemistry to be more resource efficient, and the creation of innovative products. These types of opportunities are reviewed with our R&D and Commercial teams via the process described above as well as with our customers. Although there is interest from some customers this is not currently a large part of requests or our portfolio. For these reasons, although we see increasing trends for these types of products, in 2019 we do not see these opportunities as having the potential to have substantive impact on our business. We will continue to develop these products in anticipation that they will grow in the future. We are continually evaluating and re-evaluating opportunities, including climate-related opportunities, and will update our conclusions as appropriate based on this process.

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?

Yes, and we have developed a low-carbon transition plan

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?

Yes, qualitative and quantitative

C3.1b

(C3.1b) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenarios and models applied	Details
RCP 2.6	Several years ago, IFF launched an enterprise-wide risk management (ERM) effort designed to provide the ability to pro-actively manage business risks. The current ERM does not include 2°C scenario analysis, but we used climate-related scenario analysis to determine our science-based target (SBT) that was approved by the Science-Based Targets initiative (SBTi) and a pathway for achieving the target. This scenario analysis utilized the Representative Concentration Pathway (RCP) 2.6, which is the low emissions scenario pathway from the IPCC Fifth Assessment Report. We identified this scenario via the SBTi guidance and SBT Setting Manual, which lists the scenario as appropriate for setting SBT. For our analysis, we used the RCP2.6 subcategory that keeps overshoot to under 0.4W/m2, and which requires a 49% to 72% absolute emissions reduction by 2050 from 2010 levels to stay under 2°C. For our modeling, we used the high-end input of 72% reduction. We considered the timeline through 2050 but focused our goal-setting analysis on the period of 2025 to 2030. These timelines are relevant to our organization because IFF has a 130-year history and we plan to support the wellbeing of our consumers, the health of our planet and the integrity of our business well into the future. Since RPC 2.6 considers all global anthropogenic emissions, we considered all areas of our business covering our total Scope 1 and 2 emissions from global operations as part of the analysis. We assumed a compound year-on-year reduction pathway of 2.3% and performed a sensitivity analysis on the effectiveness and impacts of different routes to target achievement. The primary result of the scenario analysis was the setting of our SBT commitment to reduce absolute Scope 1 and 2 GHG emissions 30% across all operations globally by 2025 based on a 2015 base year. IFF additionally committed to working with our suppliers (representing 70% of its supply chain emissions) so that they set their own SBT reductions and report annual emissions by 2025. The target has been reported and publicized via a press release, social media posts, as well as included on the SBTi website. The target will be monitored through our sustainability governance and progress will be reported both internally to our Sustainability Business Council and Eco-efficiency Team as well as externally on an annual basis. The results of the scenario analysis and our resulting SBT inform our business objectives and strategy through our decisions regarding renewable energy procurement and the design, building, operation and maintenance of our facilities and equipment to achieve greater energy efficiency. For example, we developed our parallel Eco-Efficiency+ goal of procuring 75% of our electricity from renewable sources. We recognize that regulatory efforts related to climate change may increase the cost of raw materials as well as energy used. Induced changes in natural resources due to climate change may also affect the availability and price of ingredients used in the manufacture of our products. To lessen the impact of energy costs, we are pursuing energy efficiency and reduction programs as well as increasing our use of renewable energy. To mitigate sourcing-related risks, we are diversifying our sourcing strategy, maintaining strategic stock levels, and developing flavors and fragrances using biotechnology. In 2019, key examples of how the results of the scenario analysis directly influenced our business objectives and strategy were the increase of purchased renewable electricity at key sites and a new solar field on the grounds of our Union Beach facility that resulted in the creation of 10,000 REC's via its PPA contract in 6 months of operation. Through increased awareness of climate change megatrends within our customers and supply chain, this subject has dovetailed into the IFF business strategy and we have integrated climate change thinking and actions into key carbon-intensive parts of our business.

C3.1d

(C3.1d) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Our short-, medium- and long-term strategies for products and services have been influenced by climate-related risks and opportunities, particularly through the investment in new sustainable products. In order to mitigate climate related risks and to utilize our climate related opportunities, IFF invested 6.7% of our annual sales revenue in 2019 into Research and Development. As a result, one of the most substantial strategic decisions on products to date that have been influenced by climate-related risks and opportunities made in 2019, was working with a customer to develop the first Cradle to Cradle Certified Gold fine fragrance, Henry Rose, and its five associate fragrances. Each product component of Henry Rose was evaluated on the Cradle to Cradle Certified Products Program's five criteria: material health, material reutilization, renewable energy and carbon management, water stewardship and social fairness. Additionally, IFF addresses concerns of price volatility of our natural raw materials by working with our purchasers to develop various sourcing strategies, including maintaining strategic stock levels for critical items, multiple suppliers, inventory management systems, various geographic suppliers and long-term agreements. At the corporate level, IFF's general approach for identifying significant opportunities relies on our management's evaluation of current events and its expectations regarding future short-, medium-, and long-term developments. Sustainability and climate-related topics are under the purview of the Sustainability Business Council (SBC), chaired by our Chairman of the Board and CEO. The SBC consists of cross-functional committees (Responsible Sourcing, Eco-Effectiveness, Corporate Sustainability and Product Design) which are in turn led by the appropriate EC member and supported by a member of the Global Sustainability team. Each of these committees drives sustainability throughout that function, raises potential issues and provides regular updates to the SBC on progress. As relevant opportunities are identified, they are also reviewed with our R and D and Commercial teams. At the asset level, opportunities we pursue are implemented by our Eco-Effectiveness Leadership Team.
Supply chain and/or value chain	Yes	Our short-, medium- and long-term strategies for our supply chain have been influenced by climate-related risks and opportunities, particularly through the investment in new sustainable products. In order to mitigate these climate change related supply chain risks regarding our raw materials IFF works with our purchasers to develop various sourcing strategies, including maintaining strategic stock levels for critical items, multiple suppliers, inventory management systems, various geographic suppliers and long-term agreements. One of the most substantial strategic decisions for our supply chain to date that has been influenced by climate-related risks and opportunities is that through continuous engagement campaigns, approximately 75% of legacy IFF's (excluding new Frutarom legacy suppliers) direct global spend was with suppliers assessed through EcoVadis or Sedex. Through these platforms we are able to set corrective action plans to assist suppliers in prioritizing and reducing their climate-related risks. By engaging suppliers that utilize these platforms we further increase our supply chain transparency and increase our opportunities to avoid major climate related supply chain disruptions. At the corporate level, IFF's general approach for identifying significant opportunities relies on our management's evaluation of current events and its expectations regarding future short-, medium-, and long-term developments. Sustainability and climate-related topics are under the purview of the Sustainability Business Council (SBC), chaired by our Chairman of the Board and CEO. The SBC consists of cross-functional committees (Responsible Sourcing, Eco-Effectiveness, Corporate Sustainability and Product Design) which are in turn led by the appropriate EC member and supported by a member of the Global Sustainability team. Each of these committees drives sustainability throughout that function, raises potential issues and provides regular updates to the SBC on progress. As relevant opportunities are identified, they are also reviewed with our R and D and Commercial teams. At the asset level, opportunities we pursue are implemented by our Eco-Effectiveness Leadership Team.
Investment in R&D	Yes	Our short-, medium- and long-term strategies for products and services have been influenced by climate-related risks and opportunities, particularly through the investment in R&D. In order to mitigate climate related risks and to utilize our climate related opportunities, IFF invested 6.7% of our annual sales revenue in 2019 into Research and Development. Identifying these risks has allowed for R&D to evaluate current IFF products through life cycle assessments (LCA's) and to develop new products that have less impact on climate. As a result one of the most substantial strategic decisions in R&D to date that has been influenced by climate-related risks and opportunities, was working with a customer to develop the first Cradle to Cradle Certified Gold fine fragrance, Henry Rose, and its five associate fragrances. Each product component of Henry Rose was evaluated on the Cradle to Cradle Certified Products Program's five criteria: material health, material reutilization, renewable energy and carbon management, water stewardship and social fairness. At the corporate level, IFF's general approach for identifying significant opportunities relies on our management's evaluation of current events and its expectations regarding future short-, medium-, and long-term developments. Sustainability and climate-related topics are under the purview of the Sustainability Business Council (SBC), chaired by our Chairman of the Board and CEO. The SBC consists of cross-functional committees (Responsible Sourcing, Eco-Effectiveness, Corporate Sustainability and Product Design) which are in turn led by the appropriate EC member and supported by a member of the Global Sustainability team. Each of these committees drives sustainability throughout that function, raises potential issues and provides regular updates to the SBC on progress. As relevant opportunities are identified, they are also reviewed with our R and D and Commercial teams. At the asset level, opportunities we pursue are implemented by our Eco-Effectiveness Leadership Team. Moving forward, IFF continues to look for climate associated risks and opportunities associated with R&D.
Operations	Yes	Our short-, medium- and long-term strategies for operations have been influenced by climate-related risks and opportunities, particularly through the assessment of our newly acquired assets. One of the most substantial strategic decisions on our operations to date that have been influenced by climate-related risks and opportunities' has been to diligently asses and then improve upon the sustainability and climate related policies of our recent acquisition of Frutarom. The new Frutarom legacy facilities have caused IFF to re-assess our climate-related strategies and goals. For example, we determined that the Frutarom legacy sites would not be included in our 2020 intensity goals, but would be included in the future update of our 2025 climate related goals. As part of our assessment so far, we have begun upgrading Frutarom's sustainability practices to better align them to our legacy IFF practices, and which may require significant costs and time to implement thus altering our operational climate related strategy. Despite our efforts, the increased focus on sustainability may result in new regulations and customer requirements that could negatively affect us. As we continue to evaluate the Frutarom integration, our climate strategy will need to continuously evolve to address any operational risks or opportunities. At the corporate level, IFF's general approach for identifying significant opportunities relies on our management's evaluation of current events and its expectations regarding future short-, medium-, and long-term developments. Sustainability and climate-related topics are under the purview of the Sustainability Business Council (SBC), chaired by our Chairman of the Board and CEO. The SBC consists of cross-functional committees (Responsible Sourcing, Eco-Effectiveness, Corporate Sustainability and Product Design) which are in turn led by the appropriate EC member and supported by a member of the Global Sustainability team. Each of these committees drives sustainability throughout that function, raises potential issues and provides regular updates to the SBC on progress. As relevant opportunities are identified, they are also reviewed with our R and D and Commercial teams. At the asset level, opportunities we pursue are implemented by our Eco-Effectiveness Leadership Team.

C3.1e

(C3.1e) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Indirect costs Acquisitions and divestments	IFF acknowledges climate related risks throughout our 2019 10k financial report. and has thus included these risks and related opportunity throughout our financial planning. We understand that we have previously faced volatility in the direct costs of raw materials due to climate related evets. Natural products represent approximately half of our raw material spend, and we expect such volatility to continue in the near future. To the extent such climate change effects have a negative impact on crop size and quality, it could impact the availability and pricing of these natural products. If we are unable to increase the prices to our customers of our products to offset raw material and other input cost increases, or if we are unable to achieve cost savings to offset such cost increases, we could fail to meet our cost expectations and our profits and operating results could be adversely affected. Increases in prices of our products to customers may lead to declines in sales volumes, and we may not be able to accurately predict the volume impact of price increases, which could adversely affect our financial condition and results of operations. In order to financially plan for this climate related risk, we work with our purchasers to develop various sourcing strategies, including maintaining strategic stock levels for critical items, multiple suppliers, inventory management systems, various geographic suppliers and long-term agreements. As a case study of the influence of climate-related risks and opportunities on our strategy for acquisitions and divestments, in 2019, IFF worked on the integration of the large acquisition of Frutarom. The new Frutarom legacy facilities have caused IFF to re-assess our climate-related strategies and goals thus affecting our short-, medium-, and long-term financial planning. For example, we determined that the Frutarom legacy sites would not be included in our 2020 intensity goals, but would be included in the future update of our 2025 climate related goals. In order to manage these goals, Frutarom sites have been included in our sustainability capex program that provides annual funding of approximately $1.5 million annually towards sustainability and climate related projects. In effort to better financially plan for climate relate risks, we are currently assessing our combined environmental footprint following the Frutarom acquisition, with the intent of identifying synergies, gaps and opportunities in our sustainability efforts. As part of our assessment so far, we have begun upgrading Frutarom's sustainability practices to better align them to our legacy IFF practices, and which may require significant costs and time to implement thus altering our operational climate related strategy. Our assessment may reveal additional gaps between the legacy Frutarom operations and our sustainability practices and goals, which may require significant costs to remedy. As we continue to evaluate the Frutarom integration, our climate strategy will need to continuously evolve to address any operational risks or opportunities. At the corporate level, IFF's general approach for identifying significant opportunities relies on our management's evaluation of current events and its expectations regarding future short-, medium-, and long-term developments. Sustainability and climate-related topics are under the purview of the Sustainability Business Council (SBC), chaired by our Chairman of the Board and CEO. The SBC consists of cross-functional committees (Responsible Sourcing, Eco-Effectiveness, Corporate Sustainability and Product Design) which are in turn led by the appropriate EC member and supported by a member of the Global Sustainability team. Each of these committees drives sustainability throughout that function, raises potential issues and provides regular updates to the SBC on progress. As relevant opportunities are identified, they are also reviewed with our R and D and Commercial teams. At the asset level, opportunities we pursue are implemented by our Eco-Effectiveness Leadership Team. Through this evaluation of climate and sustainability related risks and opportunities

C3.1f

(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

i. How the business strategy has been influenced: Sustainability and climate change management is an enabler of our Vision 2021 corporate business strategy. As we strengthen our innovation platform, we continuously work to design high quality and sustainable products that our customers trust. We do this through green chemistry and with a secure and ethical supply chain. Climate change-related issues such as energy efficiency influence our decisions regarding the design, building, operation and maintenance of our facilities and equipment. Our Sustainability Business Council and Eco-efficiency Team meet at regular intervals throughout the year regarding IFF's Sustainability Strategy, to define objectives, assess risks, and perform reviews of our performance against our 2020 GHG emissions and energy reduction targets of 25% and 20%, normalized to production. Additionally, our 2025 targets of reaching 75% of our electricity procured from renewable sources and our Science-Based Target to reduce our absolute GHG emissions 30% by 2025 from a 2015 base year are now reviewed in these meetings.

ii. How business strategy is linked to targets: Our new sustainability strategy focuses on using circular economy to address climate change. For us, the strategy shows that increasing eco-effectiveness in carbon is as fundamental to being Earth-friendly as it is to reducing costs. The strategy is incorporated into the overall business strategy, which is linked to and exemplified by our SBTi approved emissions reduction target of 30% absolute scope 1 and 2 emissions by 2025. Our Eco-efficiency Team meets with our manufacturing facilities several times a year to drive GHG emissions and energy reduction and to review the site's performance against our targets. To meet these goals, IFF invests in energy efficiency, green chemistry, and carbon reduction initiatives. This includes institutionalizing a method by which facilities can propose improvement projects to reduce waste, water use, and energy consumption. For example, in 2019, our Zhangjiagang site installed a dry dedusting system for their powder production to reduce energy and emissions through our eco-efficiency project budget.

iii. The most substantial business decisions made with climate change as a factor during 2019 were:

The allocation of funds for specific climate change projects to reduce emissions, corporate tracking of those projects for progress, increased purchases of renewable energy credits (RECs), as well as Guarantees of Origin (GO) green electricity in Europe and the US.

Climate change was included in the decision to fund 23 projects to reduce greenhouse gas emissions by over 15,000 metric tons of CO2e.

The aspect of climate change that influenced our business decision to support these solutions was our commitment to transition to a low-carbon economy.

iv. Climate change aspects that have influenced the strategy: Climate change-related issues such as energy efficiency influence our decisions regarding the design, building, operation and maintenance of our facilities and equipment. We recognize that regulatory efforts related to climate change may increase the cost of raw materials as well as energy used. Induced changes in natural resources due to climate change may affect the availability and price of ingredients used in our products. To lessen the impact of energy costs, we are pursuing energy efficiency and reduction programs while increasing use of renewable energy. To mitigate sourcing-related risks, we are diversifying our sourcing strategy, maintaining strategic stock levels, and developing products using biotechnology. In addition to responding to potential risks, IFF is seeking opportunities in markets created by climate change. We find that climate change response drives innovation, efficiency improvements and the development of products, such as concentrated laundry detergent, to meet changing consumers.

v. IFF's short-term strategy includes a 1-2 year outlook. The most important changes which have occurred include:

Enhancements were made of our global web-based software application to track energy use and cost and to measure operational improvements on a more granular level. Reporting was enhanced to pinpoint areas of opportunity for climate-related projects.

Implementation of energy efficiency initiatives to enable us to meet our corporate goals to reduce energy use by 20% and GHG emissions by 25% by 2020 from a 2010 baseline, normalized to production. In 2018, funds were allocated specifically for carbon reduction such as a stream trap upgrade in our Jacksonville facility, the formalization of our climate change governance structure and the Eco-efficiency Team through the appointment of Regional Eco-Efficiency Champions and a Lead Eco-efficiency Champion. They drive progress on climate change goals at the regional level and help facilities create action plans to achieve GHG emissions and energy reduction goals.

Additionally, in 2018 we added our 2025 targets of reaching 75% of our electricity procured from renewable sources and our Science-Based Target to reduce our absolute GHG emissions by 30%.

vi. IFF's long-term strategy includes a 5-10 year outlook. The most important changes which have occurred include: Through increased awareness of climate change megatrends within our customers and supply chain, this subject has risen in awareness and has dovetailed into the IFF business strategy. We have integrated climate change thinking and actions into key carbon intensive parts of our business. In 2019, examples of this were the increase of purchased green electricity and the start of renewable electricity generation in Q3 of 2019 that provided IFF with 10,000 REC's via the on-site PPA contract.

vii. How this is gaining you strategic advantage: Sustainability and climate change management is an enabler of IFF's Vision 2021 corporate business strategy. We will leverage synergies to reduce energy, water, and waste and achieve our EcoEffective+ goals by 2025. We will embed regenerative approaches and circular design principles into products and processes. We will ensure ethical practices in our supply chain by reducing our environmental footprint and supporting workers and growing communities. We will nurture an inclusive and fair culture where we embrace diversity and give back to the communities where we source and operate. All of these actions increase our efficiency and improve our products in pursuit of a strategic advantage.

viii. We formally support the climate change agreement that emerged from the UN Climate Change Conference (COP21) in Paris as well as the 10 Principles of the UN Global Compact. In 2019, We also reconfirmed our commitment to mitigate climate change by signing the United Nation's Business Ambition for 1.5°C: Our Only Future pledge, committing to set science-based emissions targets to limit global temperature rise to 1.5 degrees Celsius.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?
Both absolute and intensity targets

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number
Abs 1

Year target was set
2017

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 1+2 (market-based)

Base year
2015

Covered emissions in base year (metric tons CO2e)
307165

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

Target year
2025

Targeted reduction from base year (%)
30

Covered emissions in target year (metric tons CO2e) [auto-calculated]
215015.5

Covered emissions in reporting year (metric tons CO2e)
259593

% of target achieved [auto-calculated]
51.6248053434907

Target status in reporting year
Revised

Is this a science-based target?
Yes, this target has been approved as science-based by the Science-Based Targets initiative

Please explain (including target coverage)
The Science Based Target initiative (SBTi) independently assesses and approves companies' targets to help determine a pathway for reducing companies' emissions in line with the Paris Climate Agreement's goal of limiting global warming to well below 2°C above pre-industrial levels. By 2025, IFF will strive to reduce absolute GHG emissions by 30% and encourage suppliers to set their own science-based reduction targets and report annual emissions. IFF also commits to working with its suppliers (representing 70% of its supply chain emissions) so that they set their own science-based reduction targets and report annual emissions by 2025. This target's ambition is classified as consistent with keeping warming to well-below 2°C by SBTi. This year, we have integrated our recent acquisition Frutarom into our 2015 base year emissions. This update does not affect our target boundary (100% of Scope 1 and market-based Scope 2 emissions and suppliers representing 70% of our supply chain emissions for Scope 3 engagement) or our ambition (30% reduction in Scope 1 and market-based Scope 2 emissions by 2025 while working with suppliers to set their own science-based targets and report annual emissions).

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number
Int 1

Year target was set
2012

Target coverage
Business division

Scope(s) (or Scope 3 category)
Scope 1+2 (market-based)

Intensity metric
Metric tons CO2e per metric ton of product

Base year
2010

Intensity figure in base year (metric tons CO2e per unit of activity)
0.976

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure
82

Target year
2020

Targeted reduction from base year (%)
25

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]
0.732

% change anticipated in absolute Scope 1+2 emissions
25

% change anticipated in absolute Scope 3 emissions
0

Intensity figure in reporting year (metric tons CO2e per unit of activity)
0.592

% of target achieved [auto-calculated]
157.377049180328

Target status in reporting year
Underway

Is this a science-based target?
No, but we are reporting another target that is science-based

Please explain (including target coverage)
This target applies to Legacy IFF operations and excludes new acquisition Frutarom. The target year for GHG emissions and energy reduction goals is 2020 and the baseline year is 2010. The intensity GHG emissions reduction goal is 25% normalized to production. We achieved our 2020 goal by continuously reducing overall energy use, enhancing our energy efficiency efforts, moving to lower greenhouse gas-emitting fuels, and increasing our use of renewable energy.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?
Target(s) to increase low-carbon energy consumption or production

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number
Low 1

Year target was set
2015

Target coverage
Company-wide

Target type: absolute or intensity
Absolute

Target type: energy carrier
Electricity

Target type: activity
Consumption

Target type: energy source
Renewable energy source(s) only

Metric (target numerator if reporting an intensity target)
Percentage

Target denominator (intensity targets only)
<Not Applicable>

Base year
2010

Figure or percentage in base year
0

Target year
2025

Figure or percentage in target year
75

Figure or percentage in reporting year
37

% of target achieved [auto-calculated]
49.3333333333333

Target status in reporting year
Underway

Is this target part of an emissions target?
Abs 1

Is this target part of an overarching initiative?
RE100

Please explain (including target coverage)
In 2015, we joined RE100, a global initiative of businesses that are committed to the goal of procuring 100% of their electricity from renewable sources. We are targeting 75% of our portfolio to help achieve our science-based target. This target now includes our legacy Frutarom facilities, our IFF legacy facilities separately achieved 49.6% renewable electricity or about 66% of the way to meeting this target.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.
Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	5	359
Implementation commenced*	0	0
Implemented*	23	15087
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Company policy or behavioral change	Resource efficiency

Estimated annual CO2e savings (metric tonnes CO2e)
375

Scope(s)
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
0

Investment required (unit currency – as specified in C0.4)
0

Payback period
<1 year

Estimated lifetime of the initiative
6-10 years

Comment
Implemented 1 projects focused on resource efficiency globally. Average payback period and lifetime were used to calculate the ranges in these columns. These projects impact both location-based and market-based Scope 2 emissions.

Initiative category & Initiative type

Energy efficiency in buildings	Building Energy Management Systems (BEMS)

Estimated annual CO2e savings (metric tonnes CO2e)
327

Scope(s)
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
20000

Investment required (unit currency – as specified in C0.4)
68000

Payback period
4-10 years

Estimated lifetime of the initiative
6-10 years

Comment
Implemented 1 projects focused on Building Energy Management Systems (BEMS) globally. Average payback period and lifetime were used to calculate the ranges in these columns. This project impacts Scope 1 as well as location-based and market-based Scope 2 emissions.

Initiative category & Initiative type

Energy efficiency in buildings	Heating, Ventilation and Air Conditioning (HVAC)

Estimated annual CO2e savings (metric tonnes CO2e)
1622

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
19000

Investment required (unit currency – as specified in C0.4)
58000

Payback period
4-10 years

Estimated lifetime of the initiative
6-10 years

Comment
Implemented 1 project HVAC globally. Average payback period and lifetime were used to calculate the ranges in these columns.

Initiative category & Initiative type

Energy efficiency in buildings	Insulation

Estimated annual CO2e savings (metric tonnes CO2e)
15

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
6100

Investment required (unit currency – as specified in C0.4)
44100

Payback period
4-10 years

Estimated lifetime of the initiative
6-10 years

Comment
Implemented 1 project focused on insulation globally. Average payback period and lifetime were used to calculate the ranges in these columns.

Initiative category & Initiative type

Energy efficiency in buildings	Lighting

Estimated annual CO2e savings (metric tonnes CO2e)
125

Scope(s)
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
26000

Investment required (unit currency – as specified in C0.4)
148700

Payback period
4-10 years

Estimated lifetime of the initiative
6-10 years

Comment
Implemented 3 projects focused on lighting globally. Average payback period and lifetime were used to calculate the ranges in these columns. These projects impact both location-based and market-based Scope 2 emissions.

Initiative category & Initiative type

Energy efficiency in production processes	Machine/equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)
2042

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
607000

Investment required (unit currency – as specified in C0.4)

665200

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment
Implemented 4 projects focused on machine/equipment replacement impacting Scope 1 globally. Average payback period and lifetime were used to calculate the ranges in these columns.

Initiative category & Initiative type

Energy efficiency in production processes	Machine/equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)
260

Scope(s)
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
106200

Investment required (unit currency – as specified in C0.4)
113800

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment
Implemented 1 project focused on machine/equipment replacement impacting Scope 2 globally. Average payback period and lifetime were used to calculate the ranges in these columns. This project impacts both location-based and market-based Scope 2 emissions.

Initiative category & Initiative type

Energy efficiency in production processes	Motors and drives

Estimated annual CO2e savings (metric tonnes CO2e)
52

Scope(s)
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
32500

Investment required (unit currency – as specified in C0.4)
55900

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment
Implemented 2 projects focused on motors and drives globally. Average payback period and lifetime were used to calculate the ranges in these columns. This project impacts both location-based and market-based Scope 2 emissions.

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
4170

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
522900

Investment required (unit currency – as specified in C0.4)
733100

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment
Implemented 4 projects focused on process optimization globally. Average payback period and lifetime were used to calculate the ranges in these columns.

Initiative category & Initiative type

Energy efficiency in production processes	Reuse of steam

Estimated annual CO2e savings (metric tonnes CO2e)
14

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
7000

Investment required (unit currency – as specified in C0.4)
21900

Payback period
4-10 years

Estimated lifetime of the initiative
6-10 years

Comment
Implemented 1 project focused on resuse of steam globally. Average payback period and lifetime were used to calculate the ranges in these columns.

Initiative category & Initiative type

Energy efficiency in production processes	Reuse of water

Estimated annual CO2e savings (metric tonnes CO2e)
151

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
40800

Investment required (unit currency – as specified in C0.4)
77900

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment
Implemented 1 project focused on resuse of water globally. Average payback period and lifetime were used to calculate the ranges in these columns.

Initiative category & Initiative type

Energy efficiency in production processes	Smart control system

Estimated annual CO2e savings (metric tonnes CO2e)
154

Scope(s)
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
29000

Investment required (unit currency – as specified in C0.4)
49700

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment
Implemented 1 project smart control systems impacting Scope 1 globally. Average payback period and lifetime were used to calculate the ranges in these columns.

Initiative category & Initiative type

Energy efficiency in production processes	Smart control system

Estimated annual CO2e savings (metric tonnes CO2e)
27

Scope(s)
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
3100

Investment required (unit currency – as specified in C0.4)
8000

Payback period
4-10 years

Estimated lifetime of the initiative
6-10 years

Comment
Implemented 1 project smart control systems impacting Scope 2 globally. Average payback period and lifetime were used to calculate the ranges in these columns.This project impacts both location-based and market-based Scope 2 emissions.

Initiative category & Initiative type

Low-carbon energy consumption	Wind

Estimated annual CO2e savings (metric tonnes CO2e)
5754

Scope(s)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
0

Investment required (unit currency – as specified in C0.4)
18500

Payback period
No payback

Estimated lifetime of the initiative
Ongoing

Comment
Several of our facilities increased their renewable electricity (wind) purchasing for production in 2019, including Knockrow, South Brunswick, Tastepoint, Union Beach, and Frutarom (UK) sites. Investment is approximated based on typical REC commodity costs.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Financial optimization calculations	IFF requires that energy reduction projects have a clear return on investment and also takes into consideration the environmental and social benefits of these projects, ensuring projects adhere to the triple bottom line of sustainability.
Internal incentives/recognition programs	IFF has corporate goals to reduce energy use by 20% and GHG emissions by 25% by 2020, normalized to production. In 2016, these goals were cascaded to each of our facilities and included in the performance management goals of plant manager. These goals were achieved in 2017, and looking forward IFF has set an approved Science-Based Target. For its SBTi-approved Science-Based Target, IFF commits to reduce absolute scope 1 and 2 GHG emissions 30% by 2025, from a 2015 base-year. IFF also commits to working with its suppliers (representing 70% of its supply chain emissions) so that they set their own science-based reduction targets and report annual emissions by 2025.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Group of products

Description of product/Group of products

Several of our facilities use 100% renewable electricity (solar and wind) for production: Benicarlo, Carrollton, Hazlet, Haverhill, Hilversum, Jacksonville, Knockrow, Tastepoint - North, Tastepoint - South, Union Beach, and Tilburg. All of the products made at these facilities are made with renewable electricity and are thus considered low-carbon products; as such, these contribute to the transition to a low carbon economy. Jacksonville is included in this total, as it has a contract to procure renewable energy credits (RECs) for 100% of its consumption, although due to a shortfall in production 97% of its consumption was covered by RECs from this contract this year.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Evaluating the carbon-reducing impacts of ICT

% revenue from low carbon product(s) in the reporting year

30

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

Several of our facilities use 100% renewable electricity (solar and wind) for production: Benicarlo, Carrollton, Hazlet, Haverhill, Hilversum, Jacksonville, Knockrow, Tastepoint - North, Tastepoint - South, Union Beach, and Tilburg. All of the products made at these facilities are made with renewable electricity and are thus considered low-carbon products; as such, these contribute to the transition to a low carbon economy. Jacksonville is included in this total, as it has a contract to procure renewable energy credits (RECs) for 100% of its consumption, although due to a shortfall in production 97% of its consumption was covered by RECs from this contract this year.

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start
January 1 2015

Base year end
December 31 2015

Base year emissions (metric tons CO2e)
144395

Comment
Accounting for the integration of Frutarom, we have updated our base year from 2010 to 2015. 2015 is also the base year of our SBTi-approved science-based target. Prior to the acquisition of Frutarom, legacy IFF had 118,984 tonnes of CO2e in Scope 1 Emissions.

Scope 2 (location-based)

Base year start
January 1 2015

Base year end
December 31 2015

Base year emissions (metric tons CO2e)
167953

Comment
Accounting for the integration of Frutarom, we have updated our base year from 2010 to 2015. 2015 is also the base year of our SBTi-approved science-based target. Prior to the acquisition of Frutarom, legacy IFF had 140,011 tonnes of CO2e in Scope 2 location-based emissions.

Scope 2 (market-based)

Base year start
January 1 2015

Base year end
December 31 2015

Base year emissions (metric tons CO2e)
162770

Comment
Accounting for the integration of Frutarom, we have updated our base year from 2010 to 2015. 2015 is also the base year of our SBTi-approved science-based target. Prior to the acquisition of Frutarom, legacy IFF had 127,777 tonnes of CO2e in Scope 2 market-based emissions.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)
151002

Start date
January 1 2019

End date
December 31 2019

Comment
This is accounting for the acquisition of Frutarom. In 2019, IFF Legacy had 122,996 tonnes of CO2e in Scope 1 emissions.

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)
150840

Start date
January 1 2018

End date
December 31 2018

Comment
This is accounting for the integration of Frutarom in 2018. Legacy IFF had 125,429 tonnes of CO2e in Scope 1 Emissions in 2018.

Past year 2

Gross global Scope 1 emissions (metric tons CO2e)
144395

Start date
January 1 2015

End date
December 31 2015

Comment
Accounting for the integration of Frutarom, we have updated our base year 2015 baseline which is the base year of our SBTi-approved science-based target. Prior to the acquisition of Frutarom, legacy IFF had 118,984 tonnes of CO2e in Scope 1 Emissions in 2015.

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based
We are reporting a Scope 2, location-based figure

Scope 2, market-based
We are reporting a Scope 2, market-based figure

Comment

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based
138718

Scope 2, market-based (if applicable)
108591

Start date
January 1 2019

End date
December 31 2019

Comment
This is accounting for the acquisition of Frutarom. In 2019, IFF Legacy had 110,775 tonnes of CO2e in Scope 2 location-based emissions and 75,542 tonnes of CO2e in Scope 2 market-based emissions.

Past year 1

Scope 2, location-based
145813

Scope 2, market-based (if applicable)
119990

Start date
January 1 2018

End date
December 31 2018

Comment
This is accounting for the integration of Frutarom in 2018., Legacy IFF had 116,433 tonnes of CO2e in Scope 2 location-based emissions and 85,048 tonnes of CO2e in Scope 2 market-based emissions.

Past year 2

Scope 2, location-based
167953

Scope 2, market-based (if applicable)
162770

Start date
January 1 2015

End date
December 31 2015

Comment
Accounting for the integration of Frutarom, we have updated our base year from 2010 to 2015. 2015 is also the base year of our SBTi-approved science-based target. Prior to the acquisition of Frutarom, legacy IFF had 140,011 tonnes of CO2e in Scope 2 location-based emissions and 127,777 tonnes of CO2e in Scope 2 market-based emissions.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?
No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status
Relevant, calculated

Metric tonnes CO2e
1407000

Emissions calculation methodology
Corporate-wide global direct and indirect expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK DEFRA's "Table 13 – Indirect emissions from the supply chain," Version 2.0, updated March 2014. The year 2011 factors are converted from British Pounds to US Dollars via the IRS Yearly Average Currency Exchange Rates. The factors are then updated to 2019 factors per the USA Bureau of Labor Statistics annual average inflation rate. Sectors already included in Scopes 1 and 2 (such as electricity purchases) and other Scope 3 categories (such as capital goods) were removed to prevent double counting. Global warming potentials (GWPs) used in the DEFRA factors are from the IPCC Second Assessment Report, 100 year average. Indirect spend data was not available for Frutarom operations, so this portion of company-wide purchased goods and services emissions was estimated based on legacy IFF's calculated indirect spend emissions scaled by Frutarom's share of company-wide direct spend, for which data was available for both Legacy IFF and Frutarom.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain

Capital goods

Evaluation status
Relevant, calculated

Metric tonnes CO2e
11200

Emissions calculation methodology
Legacy IFF capital expenditure (CAPEX) data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK DEFRA's "Table 13 – Indirect emissions from the supply chain," Version 2.0, updated March 2014. The year 2011 factors are converted from British Pounds to US Dollars via the IRS Yearly Average Currency Exchange Rates. The factors are then updated to 2019 factors per the USA Bureau of Labor Statistics annual average inflation rate. Global warming potentials (GWPs) used in the DEFRA factors are from the IPCC Second Assessment Report, 100 year average. CAPEX data was not available for Frutarom operations, so this portion of company-wide capital goods emissions was estimated based on legacy IFF's calculated Capital Goods emissions scaled by Frutarom's share of company-wide direct spend, for which data was available for both Legacy IFF and Frutarom.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status
Relevant, calculated

Metric tonnes CO2e
49362

Emissions calculation methodology
Total global electricity and fuel use derived from our Scope 1 & 2 inventory are used as activity data in this category. Upstream emissions from fuel use are quantified by applied emissions factors based on life cycle assessment of fuels in various countries derived from lifecycle assessment tools. Upstream emissions from US purchased fuels (Activity A) and electricity purchases in the US (Activity B) are quantified using life cycle emissions factors from Argonne Labs' GREET1_2019 model (Version 1_2019, October 2019), with the electricity life cycle factors based on Year 2018 eGRID grid generation mix. Upstream emissions from internationally purchased fuels (Activity A) are quantified using life cycle emissions factors from multiple lifecycle assessment tools including Ecoinvent LCI Database v3.5, USLCI NREL database 2018 update, and thinkstep professional database 2018, service pack 39, with conversion factors from EPA's Climate Leaders Design Principles. Upstream emissions from electricity purchases internationally (Activity B) are quantified using the multipliers in the UK DEFRA's 2015 Guidelines. Emissions due to losses from transmission and distribution in the US (Activity C) are calculated using loss factors from the EPA's eGRID2018, January 2020. Emissions due to loses from transmission and distribution internationally (Activity C) are quantified using the loss factors from International Energy Agency (IEA)'s "Emission Factors 2019" product, specifically the "Adjustment for transmission and distribution losses induced emissions (gCO2/kWh)" year 2017 factors. Steam transmission and distribution (T&D) losses (activity C) are derived from loss factors in 2010 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting (Year 2010 Factors from Annex 10). Global warming potentials come from the IPCC's Fifth Assessment Report, 100 year average.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain

Upstream transportation and distribution

Evaluation status
Relevant, calculated

Metric tonnes CO2e
200000

Emissions calculation methodology
This category includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. Data was not available for 2019, so 2014 data was used as a proxy. For each of these categories, total mass, distance shipped, and method of shipping were collected on a per-shipment basis. Emission factors per ton-mile for cargo shipments via air, ocean, and rail were taken from Table A-116 of the U.S. Greenhouse Gas Emissions and Sinks: 1990-2012. The emission factor for highway shipment was taken from Table 2-15 of the same source. Also included in this category is warehousing. For all warehoused material, approximate area of storage space and time spent in storage was determined. Average electricity use per sqft*yr for warehouses was taken from CBECs Table C15A: Electricity Consumption and Conditional Energy Intensity by Census Region for All Buildings, 2003. It was assumed that the average electricity emission factor is approximately equal to the U.S. eGRID's RFCE region, where many warehouses are located. GWPs were taken from the IPCC Second Assessment Report, 100 year avg. Data was not available for Frutarom operations, so this portion of company-wide upstream transportation and distribution emissions was estimated based on legacy IFF's estimated emissions in this category scaled by Frutarom's share of company-wide direct spend, for which data was available for both Legacy IFF and Frutarom.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain

Waste generated in operations

Evaluation status
Relevant, calculated

Metric tonnes CO2e
25314

Emissions calculation methodology
Total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied. Waste emissions factors are consistent with the GHG Protocol Scope 3 guidance, and include the voluntary transportation emissions, with an assumed average distance traveled to the processing facility. Recycling emissions include transport to recycling facility and sorting of recycled materials at material recovery facility. Landfill emissions include transport to landfill, equipment use at landfill and landfill CH4. Landfill CH4 is based on typical landfill gas collection practices, average landfill moisture conditions, and U.S.-average non-baseload electricity grid mix. Combustion emissions include transport to waste-to-energy facility and combustion-related non-biogenic CO2 and N2O. Compost emissions include transport to compost, equipment use at compost facility and CH4 and N2O emissions during composting. Factors are from the EPA, Office of Resource Conservation and Recovery (February 2016) Documentation for Greenhouse Gas Emission and Energy Factors used in the Waste Reduction Model (WARM). Factors from tables provided in the Management Practices Chapters and Background Chapters. WARM Version 14. Additional data provided from EPA. These US emission factors are assumed to be applicable across the rest of the world. Avoided emissions due to waste to energy and recycling are not included in this emissions reporting. Global warming potentials come from the IPCC's Fourth Assessment Report, 100 year average, and are used to convert all waste emission factors into CO2e.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain

Business travel

Evaluation status
Relevant, calculated

Metric tonnes CO2e
11346

Emissions calculation methodology
Travel data is provided by our travel agency and includes global air travel by cabin class and distance threshold for each trip. For air travel, each cabin class / distance threshold pairing is multiplied by the appropriate emission factor from the 2019 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting, Version 1.0 August 2019 release. GWPs come from the IPCC Fifth Assessment Report. Travel data was not available for Frutarom operations, so this portion of company-wide business travel emissions was estimated by scaling Legacy IFF calculated business travel emissions based on ratio of employees in Frutarom and Legacy IFF.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain

Employee commuting

Evaluation status
Relevant, calculated

Metric tonnes CO2e
23300

Emissions calculation methodology
Screening done for SBTi using Quantis Scope 3 Evaluator tool.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
This category was found to be relevant after our 2017 sustainability report was published and was determined during the SBTi approval process.

Upstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
This category is not relevant because we do not lease any assets that are not already included in our Scope 1 and 2 inventories.

Downstream transportation and distribution

Evaluation status
Relevant, calculated

Metric tonnes CO2e
105000

Emissions calculation methodology
Screening done for SBTi using Quantis Scope 3 Evaluator tool and sales invoicing.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
This category was found to be relevant after our 2017 sustainability report was published and was determined during the SBTi approval process.

Processing of sold products

Evaluation status
Relevant, calculated

Metric tonnes CO2e
73000

Emissions calculation methodology
Screening done for SBTi using average of multiple estimates including Quantis tool and Scope 3 Calculation Guidance average method. Factors of energy used per ton of product processed were derived from multiple sources, including the 2012 Commodity Flow Surveys (CFS), EIA manufacturing data, and the Census Annual Survey of Manufacturers with EPA Climate Leaders and eGRID emission factors applied.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
This category was found to be relevant after our 2017 sustainability report was published and was determined during the SBTi approval process.

Use of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
We participated and conducted several lifecycle assessments (LCA) of some of our flavors and fragrances products using the PAS2050 (2011) and ISO 14001 methodologies, and because of this we have an idea of the GHG emissions associated with our purchased goods and services. In most of our assessments, we found that for each ingredient, product manufacturing produced the fewest carbon emissions compared with raw materials and transport, which contributed higher percentages of emissions. We are working towards better understanding the Scope 3 GHG emissions of our use of sold products.

End of life treatment of sold products

Evaluation status
Relevant, calculated

Metric tonnes CO2e
179000

Emissions calculation methodology
Screening done for SBTi using Quantis Scope 3 Evaluator tool. This tool conservatively assumes that all sold product is eventually landfilled.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
This category was found to be relevant after our 2017 sustainability report was published and was determined during the SBTi approval process.

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
This category is not relevant because we have no downstream leased assets.

Franchises

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
This category is not relevant because we do not have any franchises.

Investments

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
IFF does not provide capital or financing as a service and, as a result, any emissions associated with investments are already included in scope 1 and 2.

Other (upstream)

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
No additional upstream Scope 3 emissions

Other (downstream)

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
No additional downstream Scope 3 emissions

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?
Yes

C6.7a

(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	38699	These are biogenic emissions from the consumption of biomass fuel at some of our Frutarom sites, Legacy IFF sites have no biogenic emissions from the consumption of biomass.

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure
0.0000505

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
259593

Metric denominator
unit total revenue

Metric denominator: Unit total
5140084000

Scope 2 figure used
Market-based

% change from previous year
25.83

Direction of change
Decreased

Reason for change
We have provided the standard total revenue intensity measurement. This metric indicates a 25.83% decrease based on a 29% increase in revenue and 4.1% overall decrease in market-based emissions. It is difficult to verify that emissions are related to revenue, except indirectly through production. Use of a carbon accounting software system has standardized comparisons and enable evaluation of additional metrics moving forward. This decrease in emissions intensity per total revenue is due to our ongoing emissions reductions activities as highlighted in C4.3b including building energy efficiency projects, boiler upgrades, and improved energy management plans at several of our sites, as well as increased purchases of renewable electricity in the US and Europe.

Intensity figure
0.45

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
259593

Metric denominator
metric ton of product

Metric denominator: Unit total
577213

Scope 2 figure used
Market-based

% change from previous year
2.71

Direction of change
Decreased

Reason for change
We have provided emissions intensity per metric ton of production company-wide. This is different from our measure of our disclosure on C4.1b for target Int 1, our IFF Legacy target to reduce GHG emissions 25% normalized to production by 2020 from a 2010 baseline year. Our Int 1 target applies only to Legacy IFF operations, while the value provided here is company-wide including Frutarom. This metric indicates a 2.71% decrease based on a 1.5% decrease in production and 4.1% overall decrease in market-based emissions. This decrease in emissions intensity per total revenue is due to our ongoing emissions reductions activities as highlighted in CC4.3b including building energy efficiency projects, boiler upgrades, and improved energy management plans at several of our sites, as well as increased purchases of renewable electricity in the US and Europe.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	148773	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	221	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	626	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	1382	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
United States of America	53406
Other, please specify (Rest of World)	97596

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

By activity

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Legacy IFF	122996
Frutarom	28006

C7.3c

(C7.3c) Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO2e)
Chemicals production activities	147411
Rest of organization	3591

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions , metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	147411	<Not Applicable>	Chemical product activities for this question are defined as manufacturing sites.
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
United States of America	28539	6918	80735	57159
Other, please specify (Rest of world)	110179	101673	296721	63987

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

By activity

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Legacy IFF	110775	75542
Frutarom	27943	33049

C7.6c

(C7.6c) Break down your total gross global Scope 2 emissions by business activity.

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Chemicals production activities	129837	102589
Rest of organization	8881	6002

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	129837	102589	Chemical product activities for this question are defined as manufacturing sites.
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C-CH7.8

(C-CH7.8) Disclose the percentage of your organization's Scope 3, Category 1 emissions by purchased chemical feedstock.

Purchased feedstock	Percentage of Scope 3, Category 1 tCO2e from purchased feedstock	Explain calculation methodology
Specialty chemicals	93	This percentage represents the portion of our Scope 3 Category 1 emissions calculated via direct-spend data. For Scope 3 Category 1, corporate-wide global direct and indirect expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK DEFRA's "Table 13 – Indirect emissions from the supply chain," Version 2.0, updated March 2014. The year 2011 factors are converted from British Pounds to US Dollars via the IRS Yearly Average Currency Exchange Rates. The factors are then updated to 2019 factors per the USA Bureau of Labor Statistics annual average inflation rate. Sectors already included in Scopes 1 and 2 (such as electricity purchases) and other Scope 3 categories (such as capital goods) were removed to prevent double counting. Global warming potentials (GWPs) used in the DEFRA factors are from the IPCC Second Assessment Report, 100 year average. Indirect spend data was not available for Frutarom operations, so this portion of company-wide purchased goods and services emissions was estimated based on legacy IFF's calculated indirect spend emissions scaled by Frutarom's share of company-wide direct spend, for which data was available for both Legacy IFF and Frutarom.

C-CH7.8a

(C-CH7.8a) Disclose sales of products that are greenhouse gases.

	Sales, metric tons	Comment
Carbon dioxide (CO2)	0	IFF does not sell CO2 gas.
Methane (CH4)	0	IFF does not sell CH4 gas.
Nitrous oxide (N2O)	0	IFF does not sell N2O gas.
Hydrofluorocarbons (HFC)	0	IFF does not sell HFC gas.
Perfluorocarbons (PFC)	0	IFF does not sell PFC gas.
Sulphur hexafluoride (SF6)	0	IFF does not sell SF6 gas.
Nitrogen trifluoride (NF3)	0	IFF does not sell NF3 gas.

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	5754	Decreased	2.1	Several of our facilities increased their renewable electricity (wind) purchasing for production in 2019, including Knockrow, South Brunswick, Tastepoint, Union Beach, and Frutarom (UK) sites. This figure represents the decrease in Scope 1 and Scope 2 market-based emissions from 2018 to 2019 that can be attributed to our increase in renewable energy consumption from additional purchases in the reporting year. In 2019, 5,754 tCO2e were reduced from new renewable energy projects and purchases, and our S1 and S2 market-based emissions for 2018 totaled 270,830 tCO2e. Thus, we calculated the percentage change in emissions due to change in renewable energy consumption as follows: (5,754 / 270,830)*100 = 2.1%. IFF has made and will continue to make capital and operational investments to mitigate costs and reduce GHG emissions, such as building energy efficiency projects, boiler upgrades, and improved energy management plans at several of our sites.
Other emissions reduction activities	9333	Decreased	3.4	This figure represents the decrease in emissions from 2018 to 2019 that can be attributed to our Scope 1 and Scope 2 market-based emissions reductions activities as highlighted in CC4.3a and b. In 2019, 9,333 tCO2e were reduced from our emissions reductions projects, not including renewable energy purchases, and our S1 and S2 market-based emissions for 2018 totaled 270,830 tCO2e. Thus, we calculated the percentage change in emissions due to change in other emissions reduction activities as follows: (9,333 / 270,830)*100 = 3.4%. IFF has made and will continue to make capital and operational investments to mitigate costs and reduce GHG emissions, such as building energy efficiency projects, boiler upgrades, and improved energy management plans at several of our sites.
Divestment	0	No change		
Acquisitions	0	No change		
Mergers	0	No change		
Change in output	4003	Decreased	1.5	This represents the decrease in production from 2018 to 2019 from 585,872 to 577,213 metric tons. In 2019, this decrease in production resulted in a decrease of 4,003 tCO2e, and our S1 and S2 market-based emissions for 2018 totaled 270,830 tCO2e. Thus, we calculated the percentage change in emissions due to change in output as follows: (4,003 / 270,830)*100 = 1.5%.
Change in methodology	0	No change		
Change in boundary	0	No change		
Change in physical operating conditions	7853	Increased	2.9	This represents the increase in emissions associated with changes in physical operating conditions such as the influence of weather and other site-specific factors. In 2019, these factors resulted in an increase of 7,853 tCO2e, and our S1 and S2 market-based emissions for 2018 totaled 270,830 tCO2e. Thus, we calculated the percentage change in emissions due to change in physical operating conditions as follows: (7,853 / 270,830)*100 = 2.9%.
Unidentified	0	No change		
Other	0	No change		

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 5% but less than or equal to 10%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	119575	722091	841666
Consumption of purchased or acquired electricity	<Not Applicable>	115390	207330	322720
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	0	48980	48980
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	5756	<Not Applicable>	5756
Total energy consumption	<Not Applicable>	240721	978401	1219122

C-CH8.2a

(C-CH8.2a) Report your organization's energy consumption totals (excluding feedstocks) for chemical production activities in MWh.

	Heating value	Total MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	822455
Consumption of purchased or acquired electricity	<Not Applicable>	298205
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	43111
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	5756
Total energy consumption	<Not Applicable>	1169527

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	Yes

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)
Natural Gas

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
526673

MWh fuel consumed for self-generation of electricity
5045

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
510767

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
10861

Emission factor
0.18082

Unit
metric tons CO2e per MWh

Emissions factor source
U.S. EPA Center for Corporate Climate Leadership. Center for Corporate Climate Leadership GHG Emission Factors Hub. March 2018. Table 1.

Comment

Fuels (excluding feedstocks)
Fuel Oil Number 2

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
15829

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
15829

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
0

Emission factor
0.2676

Unit
metric tons CO2e per MWh

Emissions factor source
U.S. EPA Center for Corporate Climate Leadership. Center for Corporate Climate Leadership GHG Emission Factors Hub. March 2018. Table 1.

Comment

Fuels (excluding feedstocks)
Liquefied Petroleum Gas (LPG)

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
24700

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
24700

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
0

Emission factor
0.2114

Unit
metric tons CO2e per MWh

Emissions factor source
U.S. EPA Center for Corporate Climate Leadership. Center for Corporate Climate Leadership GHG Emission Factors Hub. March 2018. Table 1

Comment

Fuels (excluding feedstocks)
Wood

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
114398

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
114398

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
0

Emission factor
0.00394

Unit
metric tons CO2 per MWh

Emissions factor source
U.S. EPA Center for Corporate Climate Leadership. Center for Corporate Climate Leadership GHG Emission Factors Hub. March 2018. Table 1

Comment
Fuel is Eucalyptus from reforested areas. EPA Emission Factor Hub factor used is for "Wood and Wood Residuals". CO2 portion of emissions is excluded from the factor because it is biogenic.

Fuels (excluding feedstocks)
Agricultural Waste

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
5177

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
5177

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
0

Emission factor
0.00685

Unit
metric tons CO2e per MWh

Emissions factor source
U.S. EPA Center for Corporate Climate Leadership. Center for Corporate Climate Leadership GHG Emission Factors Hub. March 2018. Table 1.

Comment
Fuels include palm kernel shells and process-derived rosemary cake. EPA Emission Factor Hub factor used is for "Agricultural Byproducts". CO2 portion of emissions is excluded from the factor because it is biogenic.

Fuels (excluding feedstocks)
Other, please specify (Process Derived Fuel)

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
145835

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
145835

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
0

Emission factor
0.2888

Unit
metric tons CO2e per MWh

Emissions factor source
Calculated based on mass balance and chemical composition of process derived fuels at each of the sites using process derived energy.

Comment

Fuels (excluding feedstocks)
Motor Gasoline

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
2853

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
2853

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
0

Emission factor
0.23967

Unit
metric tons CO2e per MWh

Emissions factor source
U.S. EPA Center for Corporate Climate Leadership. Center for Corporate Climate Leadership GHG Emission Factors Hub. March 2018. Tables 2 and 3.

Comment
CH4 and N2O components of factor assume gasoline passenger cars from 2009-present achieving 25 miles per gallon.

Fuels (excluding feedstocks)
Diesel

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
6201

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
6201

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
0

Emission factor
0.25302

Unit
metric tons CO2e per MWh

Emissions factor source
U.S. EPA Center for Corporate Climate Leadership. Center for Corporate Climate Leadership GHG Emission Factors Hub. March 2018. Tables 2 and 4.

Comment
Factor is weighted average of different vehicle types incorporating assumptions of 5 miles per gallon for fork-lifts, 10 mpg for heavy duty vehicles and medium trucks, and 15 mpg for light trucks. Factor incorporates CH4 and N2O per-mile factors of applicable diesel vehicle types from Table 4 of the EPA Emission Factor Hub, March 2018.

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	17232	9792	13196	5756
Heat	0	0	0	0
Steam	501965	501965	91519	0
Cooling	0	0	0	0

C-CH8.2d

(C-CH8.2d) Provide details on electricity, heat, steam, and cooling your organization has generated and consumed for chemical production activities.

	Total gross generation (MWh) inside chemicals sector boundary	Generation that is consumed (MWh) inside chemicals sector boundary
Electricity	13605	9792
Heat	0	0
Steam	501965	501965
Cooling	0	0

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method
Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type
Wind

Country/region of consumption of low-carbon electricity, heat, steam or cooling
North America

MWh consumed accounted for at a zero emission factor
5995

Comment
At our Tastepoint sites in the US, we are supplied with 100% renewable green power through a contract with the electricity supplier supported by energy attribute certificates.

Sourcing method
Unbundled energy attribute certificates, Renewable Energy Certificates (RECs)

Low-carbon technology type
Wind

Country/region of consumption of low-carbon electricity, heat, steam or cooling
North America

MWh consumed accounted for at a zero emission factor
21162

Comment
At our Carrollton, Hazlet, and Union Beach sites in the US, we are supplied with 100% renewable green power through the purchase of Renewable Energy Credits

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Sourcing method
Unbundled energy attribute certificates, Renewable Energy Certificates (RECs)

Low-carbon technology type
Wind

Country/region of consumption of low-carbon electricity, heat, steam or cooling
North America

MWh consumed accounted for at a zero emission factor
10000

Comment
At our South Brunswick site in the US, we are 55% supplied with renewable green power through the purchase of Renewable Energy Credits.

Sourcing method
Unbundled energy attribute certificates, Renewable Energy Certificates (RECs)

Low-carbon technology type
Solar

Country/region of consumption of low-carbon electricity, heat, steam or cooling
North America

MWh consumed accounted for at a zero emission factor
20003

Comment
At our Jacksonville site in the US, we are supplied with renewable green power through the purchase of Renewable Energy Credits.

Sourcing method
Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type
Biomass

Country/region of consumption of low-carbon electricity, heat, steam or cooling
Europe

MWh consumed accounted for at a zero emission factor
16297

Comment
At our Haverhill site in the UK, we are supplied with 100% renewable green power through a contract with the electricity supplier supported by Renewable Energy Guarantees Origin (REGOs) energy attribute certificates.

Sourcing method
Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type
Wind

Country/region of consumption of low-carbon electricity, heat, steam or cooling
Europe

MWh consumed accounted for at a zero emission factor
1267

Comment
Some of our Frutarom (UK) Limited sites were supplied for Q4 2019 with 100% renewable green power through a contract with the electricity supplier supported by Renewable Energy Guarantees Origin (REGOs) energy attribute certificates.

Sourcing method
Unbundled energy attribute certificates, Guarantees of Origin

Low-carbon technology type
Wind

Country/region of consumption of low-carbon electricity, heat, steam or cooling
Europe

MWh consumed accounted for at a zero emission factor
13431

Comment
At our Tilburg and Hilversum sites in the Netherlands, we are supplied with 100% renewable green power through the purchase of Guarantees of Origin.

Sourcing method
Unbundled energy attribute certificates, Guarantees of Origin

Low-carbon technology type
Wind

Country/region of consumption of low-carbon electricity, heat, steam or cooling
Europe

MWh consumed accounted for at a zero emission factor
27168

Comment
At our Benicarlo site in Spain, we are supplied with 100% renewable green power through the purchase of Guarantees of Origin

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Sourcing method
Other, please specify (On-site self generation)

Low-carbon technology type
Solar

Country/region of consumption of low-carbon electricity, heat, steam or cooling
Asia Pacific (or JAPA)

MWh consumed accounted for at a zero emission factor
35

Comment
Our Jiande (Hangzhou) site installed an on-site solar installation that supplies a small amount of renewable electricity.

Sourcing method
Power purchase agreement (PPA) with on-site/off-site generator owned by a third party with no grid transfers (direct line)

Low-carbon technology type
Wind

Country/region of consumption of low-carbon electricity, heat, steam or cooling
Europe

MWh consumed accounted for at a zero emission factor
5721

Comment
Our Tilburg site in the Netherlands is partially supplied with renewable electricity via an onsite windmill. Direct procurement contract with a grid-connected generator or

Power Purchase Agreement (PPA), where electricity attribute certificates do not exist or are not required for a usage claim.

Sourcing method
Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type
Solar

Country/region of consumption of low-carbon electricity, heat, steam or cooling
Asia Pacific (or JAPA)

MWh consumed accounted for at a zero emission factor
68

Comment
At our Knockrow site in Australia, we are supplied with 100% renewable green power through a contract with the electricity supplier supported by energy attribute certificates.

C-CH8.3

(C-CH8.3) Does your organization consume fuels as feedstocks for chemical production activities?
Yes

C-CH8.3a

(C-CH8.3a) Disclose details on your organization's consumption of fuels as feedstocks for chemical production activities.

Fuels used as feedstocks
Solid biofuels

Total consumption
34781

Total consumption unit
metric tons

Inherent carbon dioxide emission factor of feedstock, metric tons CO2 per consumption unit
1.81

Heating value of feedstock, MWh per consumption unit
5.65

Heating value
HHV

Comment
This includes all plant-based feedstocks used in our manufacturing. Inherent CO2 is biogenic and thus reported separate from the scopes in our GHG inventory. Because this feedstock total includes a mix of biomass, the HHV and emission factor for wood and wood residuals are used as a proxy.

Fuels used as feedstocks
Other, please specify (Petrochemicals)

Total consumption
56293

Total consumption unit
metric tons

Inherent carbon dioxide emission factor of feedstock, metric tons CO2 per consumption unit
3.05

Heating value of feedstock, MWh per consumption unit
12.8

Heating value
HHV

Comment
This includes all petrochemical feedstocks used in our manufacturing. Because this feedstock total includes a mix of petrochemicals, the HHV and emission factor for diesel oil are used as a proxy.

C-CH8.3b

(C-CH8.3b) State the percentage, by mass, of primary resource from which your chemical feedstocks derive.

	Percentage of total chemical feedstock (%)
Oil	0
Natural Gas	0
Coal	0
Biomass	38
Waste (non-biomass)	0
Fossil fuel (where coal, gas, oil cannot be distinguished)	62
Unknown source or unable to disaggregate	0

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description
Please select

Metric value

Metric numerator

Metric denominator (intensity metric only)

% change from previous year

Direction of change
<Not Applicable>

Please explain

C-CH9.3a

(C-CH9.3a) Provide details on your organization's chemical products.

Output product
Specialty chemicals

Production (metric tons)
577213

Capacity (metric tons)
577213

Direct emissions intensity (metric tons CO2e per metric ton of product)
0.255

Electricity intensity (MWh per metric ton of product)
0.534

Steam intensity (MWh per metric ton of product)
0.075

Steam/ heat recovered (MWh per metric ton of product)
0

Comment
This intensity metric is tracked at a site-level and aggregated for a corporate total. The intensity value is tracked annually and part of our emissions and energy reduction targets. The numerators for intensities reported in this question are defined as emissions and consumption from manufacturing sites; they exclude offices. This intensity covers all products and reflects energy and emissions reduction efforts.

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	

C-CH9.6a

(C-CH9.6a) Provide details of your organization's investments in low-carbon R&D for chemical production activities over the last three years.

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Unable to disaggregate by technology area	<Not Applicable>	≤20%		IFF evaluates various low carbon production activities through our research and development strategy. In 2019, IFF invested 6.7% of annual sales into R&D globally, with a portion of this going to low carbon investment as part of our short-, medium-, and long-term strategy. From these funds, R&D evaluates current IFF products through life cycle assessments (LCA's) and develops new products that have less impact on climate. In 2019, an example of this was the development and launch of the first Cradle to Cradle Certified Gold fine fragrance, Henry Rose, and its five associate fragrances. Each product component of Henry Rose was evaluated on the Cradle to Cradle Certified Products Program's five criteria: material health, material reutilization, renewable energy and carbon management, water stewardship and social fairness.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
ERM CVS 2019 CDP Climate Change Assurance Statement IFF_FINAL.pdf

Page/ section reference
1-2

Relevant standard
ISAE3000

Proportion of reported emissions verified (%)
100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach
Scope 2 location-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
ERM CVS 2019 CDP Climate Change Assurance Statement IFF_FINAL.pdf

Page/ section reference
1-2

Relevant standard
ISAE3000

Proportion of reported emissions verified (%)
100

Scope 2 approach
Scope 2 market-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
ERM CVS 2019 CDP Climate Change Assurance Statement IFF_FINAL.pdf

Page/ section reference
1-2

Relevant standard
ISAE3000

Proportion of reported emissions verified (%)
100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category
Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Underway but not complete for reporting year – previous statement of process attached

Type of verification or assurance
Limited assurance

Attach the statement
ERM CVS 2018 CDP Assurance Statement IFF_17Jul2019_FINAL.pdf

Page/section reference
1

Relevant standard
ISAE3000

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: Business travel

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Underway but not complete for reporting year – previous statement of process attached

Type of verification or assurance
Limited assurance

Attach the statement
ERM CVS 2018 CDP Assurance Statement IFF_17Jul2019_FINAL.pdf

Page/section reference
1

Relevant standard
ISAE3000

Proportion of reported emissions verified (%)
100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?
Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C8. Energy	Energy consumption	ISAE3000	IFF verifies its direct and indirect energy data annually for year on year change in energy usage. This is an organization wide verification and is part of our sustainability reporting process. The verification also helps IFF monitor and report on our 2020 energy intensity reduction goal. ERM CVS 2019 CDP Climate Change Assurance Statement IFF_FINAL.pdf
C6. Emissions data	Year on year change in emissions (Scope 1 and 2)	ISAE3000	IFF receives verification on Scope 1 and Scope 2 emissions data annually for both scope 1 and scope 2. The verified numbers are used to support our year on year change in emissions calculations. IFF Legacy 2018 Scope 1 and Scope 2 data was assured. This is an organization wide verification and is part of our sustainability reporting process. The verification also helps IFF monitor and report on progress towards our SBTi approved emissions reduction target. ERM CVS 2019 CDP Climate Change Assurance Statement IFF_FINAL.pdf

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?
No, and we do not anticipate being regulated in the next three years

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?
No

C11.3

(C11.3) Does your organization use an internal price on carbon?
Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price
Drive energy efficiency
Drive low-carbon investment
Identify and seize low-carbon opportunities

GHG Scope
Scope 1
Scope 2

Application
IFF has a formalized capital project approval process to promote energy efficiency projects and low-carbon solutions. If a project can claim environmental benefits in terms of energy, water, and hazardous waste, this is taken into consideration along with traditional ROI calculations. By integrating sustainability criteria into project evaluation frameworks, we can show additional environmental value from investments which are then taken into consideration for internal hurdle rates. This process helps us to value and implement carbon-reducing solutions. This process is applied at the corporate level and is applicable to all regions and business units. Based on 2019 projects, we calculated that the shadow price was equivalent to approximately $30 per metric ton of CO2e. We will explore framing this internally as an "internal carbon price" going forward, including applying the ICP to the ROI for each project.

Actual price(s) used (Currency /metric ton)
30

Variance of price(s) used
Uniform pricing that is applied throughout the company independent of geography, business unit, or type of decision. It will be updated annually as proposed projects will change each year.

Type of internal carbon price
Shadow price

Impact & implication
The carbon price will help IFF transition to low-carbon economy by emphasizing the need for a proper carbon management strategy. We expect it to help drive energy efficiency, drive low-carbon investment, and identify and seize low-carbon opportunities. Along with our traditional financial measures and eco savings approach, the shadow carbon price adds value to capital projects that reduce GHG emissions. Our Eco-Effectiveness Leadership Team is able to greenlight and implement numerous carbon-reduction projects to make progress toward our climate-related goals, including our approved Science-Based Target. IFF approved 23 capital projects in 2019 to save an additional 15,087 metric tons of CO2e per year. An example in 2019 of one of these projects was an energy efficiency improvement by our Jacksonville facility that enhanced their cleaning stations steam control, leading to an estimated 300 tonne reduction of CO2e.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?
Yes, our suppliers
Yes, our customers

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement
Engagement & incentivization (changing supplier behavior)

Details of engagement
Run an engagement campaign to educate suppliers about climate change

% of suppliers by number
0.6

% total procurement spend (direct and indirect)
27.4

% of supplier-related Scope 3 emissions as reported in C6.5
42

Rationale for the coverage of your engagement
Our supplier engagement strategy is based around the Scope 3 component of our SBTi-approved science-based target, which committed to working with our suppliers (representing 70% of its supply chain emissions) so that they set their own science-based reduction targets and report annual emissions by 2025. The coverage of this target prioritizes IFF's engagement not on a vaguely defined list of "key suppliers" but rather on the absolute emissions of all suppliers, which will maximize the science-based target's impact. The target's requirement of suppliers to report emission reduction progress will not only encourage progress on GHG emissions management but also allow measurement of absolute emissions reductions. At this point this coverage is only of legacy IFF suppliers as we continue to integrate Frutarom's supply chain into all of our goals and targets.

Impact of engagement, including measures of success
IFF's science-based target was recently approved by SBTi. As we move toward our target, the impact of engagement will include supplier GHG emissions reductions and/or improved climate change strategies including target setting. Based on an estimated average absolute emissions reduction of 15% per supplier involved in achieving the goal, we anticipate the absolute emissions impact will be 100,000 tCO2e per year (a 10.5% reduction in IFF's total scope 3 emissions). Success will be measured by percent of suppliers engaged, with a target to have 70% of supply chain emissions set their own science-based reduction targets and report annual emissions by 2025. In 2019, we measured the success of this strategy versus our targets for the first time as we have engaged suppliers representing 33% of our legacy IFF supply chain emissions through the CDP Supply Chain platform. Of this, suppliers representing 26% of our legacy IFF supply chain emissions have approved, committed to or plan to set an SBT.

Comment
Our engagement of suppliers for our approved science-based target will primarily be through CDP Supply Chain and in the future we will strive to report on legacy Frutarom supply chain emissions progress.

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement
Education/information sharing

Details of engagement
Run an engagement campaign to education customers about your climate change performance and strategy

% of customers by number
2.6

% of customer - related Scope 3 emissions as reported in C6.5
32

Portfolio coverage (total or outstanding)
<Not Applicable>

Please explain the rationale for selecting this group of customers and scope of engagement
The sustainability of our customers, their brands and their products is key to our strategy. Our customers are increasingly challenged to find sustainable, reliable sources of ingredients to make products consumers have come to expect or demand. With so many pressing needs, we prioritize and adopt only those initiatives that are right for us, our customers and our communities. We engage with our customers both proactively and on an as needed basis. The measure of success is the customer scorecard. For instance, during 2019, 13 of our major customers, representing approximately 21% of our business, requested we respond to the CDP supply chain questionnaire. We engaged with other key customers on climate-related issues via other channels, resulting in engagement of customers representing a combined total of 32% of our Scope 3 emissions. Our rationale for the scope of this engagement is that focusing on our largest customers provides the largest opportunity for impact and engaging through CDP Supply Chain is an established mechanism for education and information sharing.

Impact of engagement, including measures of success
IFF engages its customers through multiple channels but our primary means of engagement is CDP supply chain, which is included on customers' scorecards evaluating IFF's sustainability strategy and performance. The impact of engagement via CDP supply chain could include customers reducing use-phase GHG emissions, increasing renewable energy procurement, or selecting our low carbon products because of the focus on these in our disclosure process. We conduct customer-specific monitoring to measure success, which we measure by monitoring our rating in performance scorecards of our customers and our presence on their core lists. Our CDP Climate Change score is often factored into these scorecards. Some customers specifically use CDP as a grade for an annual supplier performance evaluation and use this information to help generate their core lists, where not being included can significantly reduce the number of future projects and sales. A positive score on customer scorecards and our inclusion on their core lists are our key measures of success. In 2019, all performance ratings received were positive (100% satisfied customers among those providing performance ratings).

Type of engagement
Collaboration & innovation

Details of engagement
Run a campaign to encourage innovation to reduce climate change impacts

% of customers by number
2.6

% of customer - related Scope 3 emissions as reported in C6.5
32

Portfolio coverage (total or outstanding)
<Not Applicable>

Please explain the rationale for selecting this group of customers and scope of engagement
The sustainability of our customers, their brands and their products is key to our strategy. Our customers are increasingly challenged to find sustainable, reliable sources of ingredients to make products consumers have come to expect or demand. With so many pressing needs, we prioritize and adopt only those initiatives that are right for us, our customers and our communities. We engage with our customers both proactively and on an as needed basis. The measure of success is the customer scorecard. For instance, during 2019, thirteen of our major customers, representing approximately 21% of our business, requested we respond to the CDP supply chain questionnaire. We engaged with other key customers on climate-related issues via other channels, resulting in engagement of customers representing a combined total of 32% of our Scope 3 emissions. Our rationale for the scope of this engagement is that focusing on our largest customers provides the largest opportunity for impact and engaging through CDP Supply Chain is an established mechanism for education and information sharing.

Impact of engagement, including measures of success
IFF engages its customers through multiple channels but our primary means of engagement is CDP supply chain, which is included on customers' scorecards evaluating IFF's sustainability strategy and performance. The impact of engagement via CDP supply chain could include customers reducing use-phase GHG emissions, increasing renewable energy procurement, or selecting our low carbon products because of the focus on these in our disclosure process. We conduct customer-specific monitoring to measure success, which we measure by monitoring our rating in performance scorecards of our customers and our presence on their core lists. Our CDP Climate Change score is often factored into these scorecards. Some customers specifically use CDP as a grade for an annual supplier performance evaluation and use this information to help generate their core lists, where not being included can significantly reduce the number of future projects and sales. A positive score on customer scorecards and our inclusion on their core lists are our key measures of success. In 2019, all CDP performance ratings received were positive (100% satisfied customers among those providing performance ratings).

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?
Trade associations
Other

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?
Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association
International Fragrance Association (IFRA)

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
The fragrance industry's creativity is built on a sound understanding of human behavior and attitudes. In common purpose with its customers and consumers the industry seeks to be at the forefront of what is environmentally sound, socially acceptable and economically viable, including climate change. Through initiatives in energy and water conservation, emission and waste reduction and education and community relations projects it continues to invest in improving the sustainability of its harvest of raw materials, its processing of essential oils and its manufacture of fragrance blends.

How have you influenced, or are you attempting to influence their position?
IFF is on the board of and supports IFRA's sustainability policies. International Fragrance Association (IFRA) works closely with the Research Institute for Fragrance Materials (RIFM) to develop standards on fragrance material usage. In 2011, IFF partnered with the Research Institute for Fragrance Materials (RIFM) to develop a lifecycle assessment methodology for measuring and communicating product sustainability.

Trade association
Natural Resources Stewardship Circle (NRSC)

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
The NRSC works to promote the responsible and ethical management of natural resources used in the beauty, cosmetics, fragrance, and flavor industries. NRSC members have pledged their personal commitment to creating a positive impact on the sourcing of natural ingredients.

How have you influenced, or are you attempting to influence their position?
IFF also serves on the board of the Natural Resources Stewardship Circle, where it supports the NRSC's sustainability initiatives, such as the vetiver root oil project in Haiti. IFF is working with the NRSC and other members to preserve the biodiversity of the vetiver supply chain and to develop cooperative, sustainable fair-trade projects with the local communities and farmers who grow this crop. Vetiver farmers in Haiti are encouraged through the program to take necessary steps to fight erosion to ensure soil fertility is preserved by implementing erosion control structures or by using sustainable harvesting techniques.

Trade association
WBCSD

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
The WBCSD is a CEO-led organization of forward-thinking companies that galvanizes the global business community to create a sustainable future for business, society and the environment.

How have you influenced, or are you attempting to influence their position?
Our Chairman and CEO was elected to the Executive Committee of the World Business Council for Sustainable Development (WBCSD). This is an opportunity to work with influential leaders to make positive, lasting changes in society. IFF's participation in this organization is another way we can help leave the world a better place for generations to come.

C12.3e

(C12.3e) Provide details of the other engagement activities that you undertake.

IFF is a member of the World Business Council for Sustainable Development (WBCSD), which is a CEO-led organization of companies that galvanize the global business community to create a sustainable future for business, society, and the environment; a triple bottom approach that aligns with IFF's sustainability strategy. We specifically engaged as both a company and individual. Our Vice President of Global Sustainability is the liaison delegate to our CEO within the organization and our CEO is on the executive committee of WBCSD. He personally attends and participates in climate change workgroups on both policy and climate mitigation measures. We participate in and advocate the low carbon technologies partnership initiative of the WBCSD and support their position on COP 21 as well as the position of the CDP on the Road to Paris.

IFF also serves on the board of the Natural Resources Stewardship Circle, which is a non-profit organization that works to promote the responsible and ethical management of natural resources used in the beauty, cosmetics, fragrance, and flavor industries. NRSC members have pledged their personal commitment to creating a positive impact on the sourcing of natural ingredients. For example, vetiver farmers in Haiti are encouraged through the program to take necessary steps to fight erosion to ensure soil fertility is preserved by implementing erosion control structures or by using sustainable harvesting techniques.

IFF is a founding member of the International Fragrance Association (IFRA), the official representative body of the fragrances industry worldwide, with the main purpose of ensuring the safety of fragrance materials. IFF participated in an IFRA working group to develop sector-specific approach to GHG emissions calculation for the fragrances and flavors industry.

IFF has a long association with the Research Institute for Fragrance Materials and partnered with them to conduct a life-cycle analysis of popular fragrance materials to determine their overall sustainability. RIFM's purpose is to gather and analyze scientific data, engage in testing and evaluation, distribute information, cooperate with official agencies and to encourage uniform safety standards related to the use of fragrance ingredients. The RIFM Database of flavor and fragrance materials is the largest available worldwide, classifying more than 5000 materials. The database is available online, 24/7, by subscription. RIFM's Database also houses an online collection of Flavor/Fragrance Ingredient Data Sheets (FFIDS) from 1985-present. FFIDSs are issued to assist with compliance for U.S. OSHA's Hazard Communication Standards and the European Commission's Dangerous Substances Directives.

IFF is also a member of the American Cleaning Institute (ACI), the Home of the U.S. Cleaning Products Industry™, representing producers of household, industrial, and institutional cleaning products, their ingredients and finished packaging; oleochemical producers; and chemical distributors to the cleaning product industry. IFF annually participates in the ACI's Sustainability Metrics Program. IFF also joined the ACI's Charter for Sustainable Cleaning, a voluntary lifecycle-based framework that promotes a common industry approach to sharing and reporting best practices for sustainability. Companies participating in the Charter demonstrate their commitment to continuous improvement of key aspects of sustainability across all stages of the cleaning product supply chain.

IFF is a member of the International Organization of the Flavor Industry (IOFI), which is a non-profit organization that represents the interest of the global flavor industry and its partners by providing leadership in safety, scientific and regulatory matters. One of IOFI's key objectives is "Organizational Sustainability and Growth: Increase IOFI's global representation and, in partnership with member associations, prepare the association for future challenges with adequate resources and reserves."

IFF is also a member of the Flavor and Extract Manufacturers Association (FEMA), the oldest and largest national association of the flavor industry and is engaged principally in activities which ensure a substantial supply of safe flavor materials.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

By supporting the works of external entities, such as industry associations and other organizations, we are able to monitor current and/or pending climate change legislation that may impact our business globally. IFF's Vice President of Global Sustainability along with the Sustainability Business Council, which is comprised of cross-functional business leaders, review all policies related to climate change to provide consistent alignment with our sustainability and business strategies.

Our process for ensuring engagement is consistent across different geographies and markets starts with the Sustainability Business Council. In addition to reviewing policies with the VP of Global Sustainability to ensure alignment with our sustainability principles and business objectives, members of this council are also frequently our representatives on or liaisons with trade organizations. They engage policymakers directly at a high level and relay information back to the VP of Global Sustainability to ensure consistency.

At the local level, Green Team core members interact with local officials to comply with regulatory frameworks and leverage ISO 14001 to help foster a working relationship with regulators to ensure they are updated with changing legislation. ISO 14001 is recertified every 3 years. The Green Team members report back to the Eco-Effectiveness Leadership Team, who report to the VP of Global Sustainability to maintain consistency and alignment with corporate policy engagement and strategy.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication
In mainstream reports

Status
Complete

Attach the document
IFF Annual Report 2019-Full Spread - FINAL.pdf

Page/Section reference
2,7,16-20

Content elements
Governance
Strategy
Risks & opportunities

Comment

Publication
In voluntary sustainability report

Status
Complete

Attach the document
iff-sustainability-report-2019.pdf

Page/Section reference
36-41

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

IFF is continuing the process of a large integration of our recent purchase of Frutarom. Frutarom data was part of our 2019 data verification process and has been included throughout the questionnaire, except where specified that data only pertains to Legacy IFF.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Executive VP and Chief Financial Officer	Chief Financial Officer (CFO)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

The assigned emissions calculations in SC1.1 are for Legacy IFF operations only. This excludes the integration of our newly acquired Frutarom facilities unless otherwise stated in the comments.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	5140084000

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

No

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member

Clorox Company

Scope of emissions

Scope 1

Allocation level

Business unit (subsidiary company)

Allocation level detail

This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e

1067

Uncertainty (±%)

5

Major sources of emissions

IFF operations use energy for heating and cooling of buildings, lighting, refrigeration, generating hot water and steam, process operations and cleaning. IFF obtained verification for absolute global Scope 1 GHG emissions.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member

Clorox Company

Scope of emissions

Scope 2

Allocation level

Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
655

Uncertainty (±%)
5

Major sources of emissions
IFF operations use energy for heating and cooling of buildings, lighting, refrigeration, generating hot water and steam, process operations and cleaning. IFF obtained verification for absolute global Scope 2 GHG emissions.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
Clorox Company

Scope of emissions
Scope 3

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
9561

Uncertainty (±%)
10

Major sources of emissions
GHG emissions for scope 3 include upstream emissions from purchased goods and services, capital goods, purchased fuels and electricity, transmission and distribution losses of purchased electricity and steam, upstream transportation and distribution, the waste generated within our operations, business travel, employee commuting, downstream transportation and distribution, processing of sold products, and end of life treatment of sold products.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided

by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
Diageo Plc

Scope of emissions
Scope 1

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
420

Uncertainty (±%)
5

Major sources of emissions
IFF operations use energy for heating and cooling of buildings, lighting, refrigeration, generating hot water and steam, process operations and cleaning. IFF obtained verification for absolute global Scope 1 GHG emissions.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
Diageo Plc

Scope of emissions
Scope 2

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
258

Uncertainty (±%)
5

Major sources of emissions
IFF operations use energy for heating and cooling of buildings, lighting, refrigeration, generating hot water and steam, process operations and cleaning. IFF obtained verification for absolute global Scope 2 GHG emissions.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for

upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
Diageo Plc

Scope of emissions
Scope 3

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
3762

Uncertainty (±%)
10

Major sources of emissions
GHG emissions for scope 3 include upstream emissions from purchased goods and services, capital goods, purchased fuels and electricity, transmission and distribution losses of purchased electricity and steam, upstream transportation and distribution, the waste generated within our operations, business travel, employee commuting, downstream transportation and distribution, processing of sold products, and end of life treatment of sold products.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
Johnson & Johnson

Scope of emissions
Scope 1

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
219

Uncertainty (±%)
5

Major sources of emissions
IFF operations use energy for heating and cooling of buildings, lighting, refrigeration, generating hot water and steam, process operations and cleaning. IFF obtained verification for absolute global Scope 1 GHG emissions.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
Johnson & Johnson

Scope of emissions
Scope 2

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
135

Uncertainty (±%)
5

Major sources of emissions
IFF operations use energy for heating and cooling of buildings, lighting, refrigeration, generating hot water and steam, process operations and cleaning. IFF obtained verification for absolute global Scope 2 GHG emissions.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
Johnson & Johnson

Scope of emissions
Scope 3

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
1967

Uncertainty (±%)
10

Major sources of emissions
GHG emissions for scope 3 include upstream emissions from purchased goods and services, capital goods, purchased fuels and electricity, transmission and distribution losses of purchased electricity and steam, upstream transportation and distribution, the waste generated within our operations, business travel, employee commuting, downstream transportation and distribution, processing of sold products, and end of life treatment of sold products.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
KAO Corporation

Scope of emissions
Scope 1

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
664

Uncertainty (±%)
5

Major sources of emissions
IFF operations use energy for heating and cooling of buildings, lighting, refrigeration, generating hot water and steam, process operations and cleaning. IFF obtained verification for absolute global Scope 1 GHG emissions.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
KAO Corporation

Scope of emissions
Scope 2

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
408

Uncertainty (±%)
5

Major sources of emissions
IFF operations use energy for heating and cooling of buildings, lighting, refrigeration, generating hot water and steam, process operations and cleaning. IFF obtained verification for absolute global Scope 2 GHG emissions.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
KAO Corporation

Scope of emissions
Scope 3

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
5947

Uncertainty (±%)
10

Major sources of emissions
GHG emissions for scope 3 include upstream emissions from purchased goods and services, capital goods, purchased fuels and electricity, transmission and distribution losses of purchased electricity and steam, upstream transportation and distribution, the waste generated within our operations, business travel, employee commuting, downstream transportation and distribution, processing of sold products, and end of life treatment of sold products.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and

distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
Kellogg Company

Scope of emissions
Scope 1

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
512

Uncertainty (±%)
5

Major sources of emissions
IFF operations use energy for heating and cooling of buildings, lighting, refrigeration, generating hot water and steam, process operations and cleaning. IFF obtained verification for absolute global Scope 1 GHG emissions.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
Kellogg Company

Scope of emissions
Scope 2

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
314

Uncertainty (±%)
5

Major sources of emissions
IFF operations use energy for heating and cooling of buildings, lighting, refrigeration, generating hot water and steam, process operations and cleaning. IFF obtained verification for absolute global Scope 2 GHG emissions.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG

emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
Kellogg Company

Scope of emissions
Scope 3

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
4586

Uncertainty (±%)
10

Major sources of emissions
GHG emissions for scope 3 include upstream emissions from purchased goods and services, capital goods, purchased fuels and electricity, transmission and distribution losses of purchased electricity and steam, upstream transportation and distribution, the waste generated within our operations, business travel, employee commuting, downstream transportation and distribution, processing of sold products, and end of life treatment of sold products.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
L'Oréal

Scope of emissions
Scope 1

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
2424

Uncertainty (±%)
5

Major sources of emissions
IFF operations use energy for heating and cooling of buildings, lighting, refrigeration, generating hot water and steam, process operations and cleaning. IFF obtained verification for absolute global Scope 1 GHG emissions.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
L'Oréal

Scope of emissions
Scope 2

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
1489

Uncertainty (±%)
5

Major sources of emissions
IFF operations use energy for heating and cooling of buildings, lighting, refrigeration, generating hot water and steam, process operations and cleaning. IFF obtained verification for absolute global Scope 2 GHG emissions.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
L'Oréal

Scope of emissions
Scope 3

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
21722

Uncertainty (±%)
10

Major sources of emissions
GHG emissions for scope 3 include upstream emissions from purchased goods and services, capital goods, purchased fuels and electricity, transmission and distribution losses of purchased electricity and steam, upstream transportation and distribution, the waste generated within our operations, business travel, employee commuting, downstream transportation and distribution, processing of sold products, and end of life treatment of sold products.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
PepsiCo, Inc.

Scope of emissions
Scope 1

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
7194

Uncertainty (±%)
5

Major sources of emissions
IFF operations use energy for heating and cooling of buildings, lighting, refrigeration, generating hot water and steam, process operations and cleaning. IFF obtained verification for absolute global Scope 1 GHG emissions.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member

PepsiCo, Inc.

Scope of emissions
Scope 2

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
4418

Uncertainty (±%)
5

Major sources of emissions
IFF operations use energy for heating and cooling of buildings, lighting, refrigeration, generating hot water and steam, process operations and cleaning. IFF obtained verification for absolute global Scope 2 GHG emissions.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
PepsiCo, Inc.

Scope of emissions
Scope 3

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
64460

Uncertainty (±%)
10

Major sources of emissions
GHG emissions for scope 3 include upstream emissions from purchased goods and services, capital goods, purchased fuels and electricity, transmission and distribution losses of purchased electricity and steam, upstream transportation and distribution, the waste generated within our operations, business travel, employee commuting, downstream transportation and distribution, processing of sold products, and end of life treatment of sold products.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital

goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
Unilever plc

Scope of emissions
Scope 1

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
11013

Uncertainty (±%)
5

Major sources of emissions
IFF operations use energy for heating and cooling of buildings, lighting, refrigeration, generating hot water and steam, process operations and cleaning. IFF obtained verification for absolute global Scope 1 GHG emissions.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
Unilever plc

Scope of emissions
Scope 2

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
6764

Uncertainty (±%)
5

Major sources of emissions
IFF operations use energy for heating and cooling of buildings, lighting, refrigeration, generating hot water and steam, process operations and cleaning. IFF obtained verification for absolute global Scope 2 GHG emissions.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased

steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
Unilever plc

Scope of emissions
Scope 3

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
98688

Uncertainty (±%)
10

Major sources of emissions
GHG emissions for scope 3 include upstream emissions from purchased goods and services, capital goods, purchased fuels and electricity, transmission and distribution losses of purchased electricity and steam, upstream transportation and distribution, the waste generated within our operations, business travel, employee commuting, downstream transportation and distribution, processing of sold products, and end of life treatment of sold products.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
Please select

Scope of emissions
Please select

Allocation level
Please select

Allocation level detail
<Not Applicable>

Emissions in metric tonnes of CO2e

Uncertainty (±%)

Major sources of emissions

Verified

Please select

Allocation method
Please select

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

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Requesting member
S.C. Johnson & Son, Inc.

Scope of emissions
Scope 1

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
192

Uncertainty (±%)
5

Major sources of emissions
IFF operations use energy for heating and cooling of buildings, lighting, refrigeration, generating hot water and steam, process operations and cleaning. IFF obtained verification for absolute global Scope 1 GHG emissions.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
S.C. Johnson & Son, Inc.

Scope of emissions
Scope 2

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
118

Uncertainty (±%)
5

Major sources of emissions
IFF operations use energy for heating and cooling of buildings, lighting, refrigeration, generating hot water and steam, process operations and cleaning. IFF obtained verification for absolute global Scope 2 GHG emissions.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM

CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
S.C. Johnson & Son, Inc.

Scope of emissions
Scope 3

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
1718

Uncertainty (±%)
10

Major sources of emissions
GHG emissions for scope 3 include upstream emissions from purchased goods and services, capital goods, purchased fuels and electricity, transmission and distribution losses of purchased electricity and steam, upstream transportation and distribution, the waste generated within our operations, business travel, employee commuting, downstream transportation and distribution, processing of sold products, and end of life treatment of sold products.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
Ajinomoto Co.Inc.

Scope of emissions
Scope 1

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
14

Uncertainty (±%)
5

Major sources of emissions
IFF operations use energy for heating and cooling of buildings, lighting, refrigeration, generating hot water and steam, process operations and cleaning. IFF obtained verification for absolute global Scope 1 GHG emissions.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
Ajinomoto Co.Inc.

Scope of emissions
Scope 2

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
9

Uncertainty (±%)
5

Major sources of emissions
IFF operations use energy for heating and cooling of buildings, lighting, refrigeration, generating hot water and steam, process operations and cleaning. IFF obtained verification for absolute global Scope 2 GHG emissions.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

Requesting member
Ajinomoto Co.Inc.

Scope of emissions
Scope 3

Allocation level
Business unit (subsidiary company)

Allocation level detail
This calculation is based on legacy IFF emissions and excludes legacy Frutarom emissions as we work to complete our integration.

Emissions in metric tonnes of CO2e
129

Uncertainty (±%)
10

Major sources of emissions
GHG emissions for scope 3 include upstream emissions from purchased goods and services, capital goods, purchased fuels and electricity, transmission and distribution losses of purchased electricity and steam, upstream transportation and distribution, the waste generated within our operations, business travel, employee commuting, downstream transportation and distribution, processing of sold products, and end of life treatment of sold products.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Energy sources were identified according to the global infrastructure and operational systems. Natural gas, purchased electricity, process derived fuels, and purchased steam accounted for more than 90% of our global energy consumption in 2019. These are the main energy sources we use to heat and cool our buildings, to generate hot water and steam; and for refrigeration, process operations and cleaning. Data is collected globally via an internet based system for capturing and calculating GHG emissions. Uncertainty could be due to human error, unit conversions, and estimation methodology. Our Scope 1 and 2 and data have been externally verified by the ERM CVS. Our Scope 3, Fuel- and energy-related activities (not included in Scopes 1 or 2) were calculated based on 100% primary data. The quantity of energy consumed for each energy type, such as electricity or natural gas, is used as activity data to calculate emissions. Consumption by fuel type is multiplied by emission factors for each of the three activities included in this category. Emission factors for upstream emissions of purchased fuels are based on life-cycle analysis software. Emission factors for upstream emissions of purchased electricity are based on life-cycle analysis software for the US, and on UK Defra 2015 Guidelines for other countries. Emission factors for T&D losses are based on EPA's eGRID database for the US, and on UK Defra 2015 Guidelines for other countries. GWPs are IPCC Fifth Assessment Report (AR5 - 100 year). Going forward we will be evaluating data collection methods for other categories of Scope 3 emissions. For emissions from purchased goods and services and capital goods, corporate-wide global expense data was obtained from finance. The spend was mapped to corresponding industry sectors and then multiplied by cradle-to-gate emission factors by sector from UK Defra's "2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting", Annex 13. Upstream transportation and distribution includes emissions associated with inbound shipments to our facilities, shipments between our facilities, and outbound shipments from our facilities that we pay for. For waste emissions, total weight of hazardous and non-hazardous waste generated from IFF's total global production are used as activity data for this calculation. Waste is categorized by type of material and diversion method, including recycling, composting, incineration, and landfilling. The waste-type-specific method, described in "Technical Guidance for Calculating Scope 3 Emissions," is then applied using factors from EPA's WARM model. For emissions from business travel, travel data is provided by our travel agency and includes global air and rail travel by cabin class and distance threshold for each trip. All these scope 3 emissions were calculated based on 100% primary data. Remaining relevant categories were estimated using the Quantis Scope 3 screening tool and other internal methods.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

Total Global Emissions are calculated using the Greenhouse Gas Protocol. Customer emissions are allocated based on the

market value of products purchased.

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Diversity of product lines makes accurately accounting for each product/product line cost ineffective	Given IFF's global footprint, multitude of suppliers, and broad range of natural and synthetic raw materials that are sourced from around the world, providing GHG emissions data per finished product is a complex process. That said, we have allocated our global GHG emissions data to our customers according to volume of products purchased and developed models to estimate GHG emissions on a per category and per product basis. Over the last several years we also gained better insight into our Scope 3 emissions and can estimate emissions throughout the product life cycle. We have insight from our library of lifecycle assessments of fragrance and flavor ingredients and partnered with industry and LCA experts on product specific initiatives. Note that the conclusion from our lifecycle assessments is that our product manufacturing processes produced the fewest carbon emissions compared with raw materials and transport, which contributed the highest percentage emissions.

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?
Yes

SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

We have made great advancements over the past few years regarding product specific data, and would be happy to share and partner with you our customers to enhance our mutual understanding and reduce of GHG emissions throughout the product life cycle. We welcome the opportunity to partner with our customers and share product level data throughout the lifecycle, as indicated in SM 4.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

Requesting member
Ajinomoto Co.Inc.

Group type of project
Relationship sustainability assessment

Type of project
Aligning goals to feed into customers targets and ambitions

Emissions targeted
Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized
1-3 years

Estimated lifetime CO2e savings

Estimated payback
Cost/saving neutral

Details of proposal
IFF is a leader in circular design and renewable energy. We have the largest solar field and the first and only Wind Turbine in our industry. We also have an in-depth view of our own footprint as well as the value chain and have an approved Science-based Target. In 2019, we also signed onto be a member of the UNGC Business Ambition for 1.5C. From renewable and Natural feedstocks to carbon reducing products, we can partner to help you to achieve your goals. Some opportunities that we presented this year for collaboration on climate change include products manufactured with 100 % renewable electricity, partnering on local renewable energy projects, fully traceable and For Life certified Naturals and Renewable and / or Cradle to Cradle certified fragrances. We welcome the opportunity to partner with you on initiatives that will help to support and advance your sustainability goals. And we look forward to our continued partnership to promote more sustainable products throughout your supply chain. Please contact Kip.Cleverley@iff.com, VP Global Sustainability to advance these opportunities. For an in-depth overview of our capabilities see http://www.iff.com/sustain.

Requesting member
Clorox Company

Group type of project
Relationship sustainability assessment

Type of project
Aligning goals to feed into customers targets and ambitions

Emissions targeted
Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized
1-3 years

Estimated lifetime CO2e savings

Estimated payback
Cost/saving neutral

Details of proposal
IFF is a leader in circular design and renewable energy. We have the largest solar field and the first and only Wind Turbine in our industry. We also have an in-depth view of our own footprint as well as the value chain and have an approved Science-based Target. In 2019, we also signed onto be a member of the UNGC Business Ambition for 1.5C. From renewable and Natural feedstocks to carbon reducing products, we can partner to help you to achieve your goals. Some opportunities that we presented this year for collaboration on climate change include products manufactured with 100 % renewable electricity, partnering on local renewable energy projects, fully traceable and For Life certified Naturals and Renewable and / or Cradle to Cradle certified fragrances. We welcome the opportunity to partner with you on initiatives that will help to support and advance your sustainability goals. And we look forward to our continued partnership to promote more sustainable products throughout your supply chain. Please contact Kip.Cleverley@iff.com, VP Global Sustainability to advance these opportunities. For an in-depth overview of our capabilities see http://www.iff.com/sustain.

Requesting member
Diageo Plc

Group type of project
Relationship sustainability assessment

Type of project
Aligning goals to feed into customers targets and ambitions

Emissions targeted
Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized
1-3 years

Estimated lifetime CO2e savings

Estimated payback
Cost/saving neutral

Details of proposal
IFF is a leader in circular design and renewable energy. We have the largest solar field and the first and only Wind Turbine in our industry. We also have an in-depth view of our own footprint as well as the value chain and have an approved Science-based Target. In 2019, we also signed onto be a member of the UNGC Business Ambition for 1.5C. From renewable and Natural feedstocks to carbon reducing products, we can partner to help you to achieve your goals. Some opportunities that we presented this

year for collaboration on climate change include products manufactured with 100 % renewable electricity, partnering on local renewable energy projects, fully traceable and For Life certified Naturals and Renewable and / or Cradle to Cradle certified fragrances. We welcome the opportunity to partner with you on initiatives that will help to support and advance your sustainability goals. And we look forward to our continued partnership to promote more sustainable products throughout your supply chain. Please contact Kip.Cleverley@iff.com, VP Global Sustainability to advance these opportunities. For an in-depth overview of our capabilities see http://www.iff.com/sustain.

Requesting member
Johnson & Johnson

Group type of project
Relationship sustainability assessment

Type of project
Aligning goals to feed into customers targets and ambitions

Emissions targeted
Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized
1-3 years

Estimated lifetime CO2e savings

Estimated payback
Cost/saving neutral

Details of proposal
IFF is a leader in circular design and renewable energy. We have the largest solar field and the first and only Wind Turbine in our industry. We also have an in-depth view of our own footprint as well as the value chain and have an approved Science-based Target. In 2019, we also signed onto be a member of the UNGC Business Ambition for 1.5C. From renewable and Natural feedstocks to carbon reducing products, we can partner to help you to achieve your goals. Some opportunities that we presented this year for collaboration on climate change include products manufactured with 100 % renewable electricity, partnering on local renewable energy projects, fully traceable and For Life certified Naturals and Renewable and / or Cradle to Cradle certified fragrances. We welcome the opportunity to partner with you on initiatives that will help to support and advance your sustainability goals. And we look forward to our continued partnership to promote more sustainable products throughout your supply chain. Please contact Kip.Cleverley@iff.com, VP Global Sustainability to advance these opportunities. For an in-depth overview of our capabilities see http://www.iff.com/sustain.

Requesting member
KAO Corporation

Group type of project
Relationship sustainability assessment

Type of project
Aligning goals to feed into customers targets and ambitions

Emissions targeted
Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized
1-3 years

Estimated lifetime CO2e savings

Estimated payback
Cost/saving neutral

Details of proposal
IFF is a leader in circular design and renewable energy. We have the largest solar field and the first and only Wind Turbine in our industry. We also have an in-depth view of our own footprint as well as the value chain and have an approved Science-based Target. In 2019, we also signed onto be a member of the UNGC Business Ambition for 1.5C. From renewable and Natural feedstocks to carbon reducing products, we can partner to help you to achieve your goals. Some opportunities that we presented this year for collaboration on climate change include products manufactured with 100 % renewable electricity, partnering on local renewable energy projects, fully traceable and For Life certified Naturals and Renewable and / or Cradle to Cradle certified fragrances. We welcome the opportunity to partner with you on initiatives that will help to support and advance your sustainability goals. And we look forward to our continued partnership to promote more sustainable products throughout your supply chain. Please contact Kip.Cleverley@iff.com, VP Global Sustainability to advance these opportunities. For an in-depth overview of our capabilities see http://www.iff.com/sustain.

Requesting member
Kellogg Company

Group type of project
Relationship sustainability assessment

Type of project
Aligning goals to feed into customers targets and ambitions

Emissions targeted
Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized
1-3 years

Estimated lifetime CO2e savings

Estimated payback
Cost/saving neutral

Details of proposal
IFF is a leader in circular design and renewable energy. We have the largest solar field and the first and only Wind Turbine in our industry. We also have an in-depth view of our own footprint as well as the value chain and have an approved Science-based Target. In 2019, we also signed onto be a member of the UNGC Business Ambition for 1.5C. From renewable and Natural feedstocks to carbon reducing products, we can partner to help you to achieve your goals. Some opportunities that we presented this year for collaboration on climate change include products manufactured with 100 % renewable electricity, partnering on local renewable energy projects, fully traceable and

For Life certified Naturals and Renewable and / or Cradle to Cradle certified fragrances. We welcome the opportunity to partner with you on initiatives that will help to support and advance your sustainability goals. And we look forward to our continued partnership to promote more sustainable products throughout your supply chain. Please contact Kip.Cleverley@iff.com, VP Global Sustainability to advance these opportunities. For an in-depth overview of our capabilities see http://www.iff.com/sustain.

Requesting member
L'Oréal

Group type of project
Relationship sustainability assessment

Type of project
Aligning goals to feed into customers targets and ambitions

Emissions targeted
Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized
1-3 years

Estimated lifetime CO2e savings

Estimated payback
Cost/saving neutral

Details of proposal
IFF is a leader in circular design and renewable energy. We have the largest solar field and the first and only Wind Turbine in our industry. We also have an in-depth view of our own footprint as well as the value chain and have an approved Science-based Target. In 2019, we also signed onto be a member of the UNGC Business Ambition for 1.5C. From renewable and Natural feedstocks to carbon reducing products, we can partner to help you to achieve your goals. Some opportunities that we presented this year for collaboration on climate change include products manufactured with 100 % renewable electricity, partnering on local renewable energy projects, fully traceable and For Life certified Naturals and Renewable and / or Cradle to Cradle certified fragrances. We welcome the opportunity to partner with you on initiatives that will help to support and advance your sustainability goals. And we look forward to our continued partnership to promote more sustainable products throughout your supply chain. Please contact Kip.Cleverley@iff.com, VP Global Sustainability to advance these opportunities. For an in-depth overview of our capabilities see http://www.iff.com/sustain.

Requesting member
PepsiCo, Inc.

Group type of project
Relationship sustainability assessment

Type of project
Aligning goals to feed into customers targets and ambitions

Emissions targeted
Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized
1-3 years

Estimated lifetime CO2e savings

Estimated payback
Cost/saving neutral

Details of proposal
IFF is a leader in circular design and renewable energy. We have the largest solar field and the first and only Wind Turbine in our industry. We also have an in-depth view of our own footprint as well as the value chain and have an approved Science-based Target. In 2019, we also signed onto be a member of the UNGC Business Ambition for 1.5C. From renewable and Natural feedstocks to carbon reducing products, we can partner to help you to achieve your goals. Some opportunities that we presented this year for collaboration on climate change include products manufactured with 100 % renewable electricity, partnering on local renewable energy projects, fully traceable and For Life certified Naturals and Renewable and / or Cradle to Cradle certified fragrances. We welcome the opportunity to partner with you on initiatives that will help to support and advance your sustainability goals. And we look forward to our continued partnership to promote more sustainable products throughout your supply chain. Please contact Kip.Cleverley@iff.com, VP Global Sustainability to advance these opportunities. For an in-depth overview of our capabilities see http://www.iff.com/sustain.

Requesting member
Unilever plc

Group type of project
Relationship sustainability assessment

Type of project
Aligning goals to feed into customers targets and ambitions

Emissions targeted
Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized
1-3 years

Estimated lifetime CO2e savings

Estimated payback
Cost/saving neutral

Details of proposal
IFF is a leader in circular design and renewable energy. We have the largest solar field and the first and only Wind Turbine in our industry. We also have an in-depth view of our own footprint as well as the value chain and have an approved Science-based Target. In 2019, we also signed onto be a member of the UNGC Business Ambition for 1.5C. From renewable and Natural feedstocks to carbon reducing products, we can partner to help you to achieve your goals. Some opportunities that we presented this year for collaboration on climate change include products manufactured with 100 % renewable electricity, partnering on local renewable energy projects, fully traceable and For Life certified Naturals and Renewable and / or Cradle to Cradle certified fragrances. We welcome the opportunity to partner with you on initiatives that will help to

support and advance your sustainability goals. And we look forward to our continued partnership to promote more sustainable products throughout your supply chain. Please contact Kip.Cleverley@iff.com, VP Global Sustainability to advance these opportunities. For an in-depth overview of our capabilities see http://www.iff.com/sustain.

Requesting member
S.C. Johnson & Son, Inc.

Group type of project
Relationship sustainability assessment

Type of project
Aligning goals to feed into customers targets and ambitions

Emissions targeted
Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized
1-3 years

Estimated lifetime CO2e savings

Estimated payback
Cost/saving neutral

Details of proposal
IFF is a leader in circular design and renewable energy. We have the largest solar field and the first and only Wind Turbine in our industry. We also have an in-depth view of our own footprint as well as the value chain and have an approved Science-based Target. In 2019, we also signed onto be a member of the UNGC Business Ambition for 1.5C. From renewable and Natural feedstocks to carbon reducing products, we can partner to help you to achieve your goals. Some opportunities that we presented this year for collaboration on climate change include products manufactured with 100 % renewable electricity, partnering on local renewable energy projects, fully traceable and For Life certified Naturals and Renewable and / or Cradle to Cradle certified fragrances. We welcome the opportunity to partner with you on initiatives that will help to support and advance your sustainability goals. And we look forward to our continued partnership to promote more sustainable products throughout your supply chain. Please contact Kip.Cleverley@iff.com, VP Global Sustainability to advance these opportunities. For an in-depth overview of our capabilities see http://www.iff.com/sustain.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?
Yes

SC2.2a

(SC2.2a) Specify the requesting member(s) that have driven organizational-level emissions reduction initiatives, and provide information on the initiatives.

Requesting member
Clorox Company

Initiative ID
2019-ID1

Group type of project
Relationship sustainability assessment

Type of project
Aligning goals to feed into customers targets and ambitions

Description of the reduction initiative
Organizational emissions reductions are being driven by our desire to be more sustainable in this area as well as by our commitment to being a responsible member of Clorox's supply chain. Multiple energy efficiency and renewable energy reduction initiatives are underway specifically at the locations that provide your products. We are working towards better understanding of specific product level emissions reductions and can now allocate a percentage of our overall emissions reductions to your supply chain.

Emissions reduction for the reporting year in metric tons of CO2e
131

Did you identify this opportunity as part of the CDP supply chain Action Exchange?
No

Would you be happy for CDP supply chain members to highlight this work in their external communication?
Yes

Requesting member
Diageo Plc

Initiative ID
2019-ID2

Group type of project
Relationship sustainability assessment

Type of project
Aligning goals to feed into customers targets and ambitions

Description of the reduction initiative
Organizational emissions reductions are being driven by our desire to be more sustainable in this area as well as by our commitment to being a responsible member of

Diageo's supply chain. Multiple energy efficiency and renewable energy reduction initiatives are underway specifically at the locations that provide your products. We are working towards better understanding of specific product level emissions reductions and can now allocate a percentage of our overall emissions reductions to your supply chain.

Emissions reduction for the reporting year in metric tons of CO2e
51

Did you identify this opportunity as part of the CDP supply chain Action Exchange?
No

Would you be happy for CDP supply chain members to highlight this work in their external communication?
Yes

Requesting member
Johnson & Johnson

Initiative ID
2019-ID3

Group type of project
Relationship sustainability assessment

Type of project
Aligning goals to feed into customers targets and ambitions

Description of the reduction initiative
Organizational emissions reductions are being driven by our desire to be more sustainable in this area as well as by our commitment to being a responsible member of Johonson & Johnson's supply chain. Multiple energy efficiency and renewable energy reduction initiatives are underway specifically at the locations that provide your products. We are working towards better understanding of specific product level emissions reductions and can now allocate a percentage of our overall emissions reductions to your supply chain.

Emissions reduction for the reporting year in metric tons of CO2e
27

Did you identify this opportunity as part of the CDP supply chain Action Exchange?
No

Would you be happy for CDP supply chain members to highlight this work in their external communication?
Yes

Requesting member
KAO Corporation

Initiative ID
2019-ID4

Group type of project
Relationship sustainability assessment

Type of project
Aligning goals to feed into customers targets and ambitions

Description of the reduction initiative
Organizational emissions reductions are being driven by our desire to be more sustainable in this area as well as by our commitment to being a responsible member of Kao's supply chain. Multiple energy efficiency and renewable energy reduction initiatives are underway specifically at the locations that provide your products. We are working towards better understanding of specific product level emissions reductions and can now allocate a percentage of our overall emissions reductions to your supply chain.

Emissions reduction for the reporting year in metric tons of CO2e
81

Did you identify this opportunity as part of the CDP supply chain Action Exchange?
No

Would you be happy for CDP supply chain members to highlight this work in their external communication?
Yes

Requesting member
Kellogg Company

Initiative ID
2019-ID5

Group type of project
Relationship sustainability assessment

Type of project
Aligning goals to feed into customers targets and ambitions

Description of the reduction initiative
Organizational emissions reductions are being driven by our desire to be more sustainable in this area as well as by our commitment to being a responsible member of Kellogg's supply chain. Multiple energy efficiency and renewable energy reduction initiatives are underway specifically at the locations that provide your products. We are working towards better understanding of specific product level emissions reductions and can now allocate a percentage of our overall emissions reductions to your supply chain.

Emissions reduction for the reporting year in metric tons of CO2e
63

Did you identify this opportunity as part of the CDP supply chain Action Exchange?
No

Would you be happy for CDP supply chain members to highlight this work in their external communication?
Yes

Requesting member
L'Oréal

Initiative ID
2019-ID6

Group type of project
Relationship sustainability assessment

Type of project
Aligning goals to feed into customers targets and ambitions

Description of the reduction initiative
Organizational emissions reductions are being driven by our desire to be more sustainable in this area as well as by our commitment to being a responsible member of L'Oréal's supply chain. Multiple energy efficiency and renewable energy reduction initiatives are underway specifically at the locations that provide your products. We are working towards better understanding of specific product level emissions reductions and can now allocate a percentage of our overall emissions reductions to your supply chain.

Emissions reduction for the reporting year in metric tons of CO2e
297

Did you identify this opportunity as part of the CDP supply chain Action Exchange?
No

Would you be happy for CDP supply chain members to highlight this work in their external communication?
Yes

Requesting member
PepsiCo, Inc.

Initiative ID
2019-ID7

Group type of project
Relationship sustainability assessment

Type of project
Aligning goals to feed into customers targets and ambitions

Description of the reduction initiative
Organizational emissions reductions are being driven by our desire to be more sustainable in this area as well as by our commitment to being a responsible member of Pepsico's supply chain. Multiple energy efficiency and renewable energy reduction initiatives are underway specifically at the locations that provide your products. We are working towards better understanding of specific product level emissions reductions and can now allocate a percentage of our overall emissions reductions to your supply chain.

Emissions reduction for the reporting year in metric tons of CO2e
882

Did you identify this opportunity as part of the CDP supply chain Action Exchange?
No

Would you be happy for CDP supply chain members to highlight this work in their external communication?
Yes

Requesting member
Unilever plc

Initiative ID
2019-ID8

Group type of project
Relationship sustainability assessment

Type of project
Aligning goals to feed into customers targets and ambitions

Description of the reduction initiative
Organizational emissions reductions are being driven by our desire to be more sustainable in this area as well as by our commitment to being a responsible member of Unilever's supply chain. Multiple energy efficiency and renewable energy reduction initiatives are underway specifically at the locations that provide your products. We are working towards better understanding of specific product level emissions reductions and can now allocate a percentage of our overall emissions reductions to your supply chain.

Emissions reduction for the reporting year in metric tons of CO2e
1351

Did you identify this opportunity as part of the CDP supply chain Action Exchange?
No

Would you be happy for CDP supply chain members to highlight this work in their external communication?
Yes

Requesting member

S.C. Johnson & Son, Inc.

Initiative ID
2018-ID9

Group type of project
Relationship sustainability assessment

Type of project
Aligning goals to feed into customers targets and ambitions

Description of the reduction initiative
Organizational emissions reductions are being driven by our desire to be more sustainable in this area as well as by our commitment to being a responsible member of SC Johnson's supply chain. Multiple energy efficiency and renewable energy reduction initiatives are underway specifically at the locations that provide your products. We are working towards better understanding of specific product level emissions reductions and can now allocate a percentage of our overall emissions reductions to your supply chain.

Emissions reduction for the reporting year in metric tons of CO2e
24

Did you identify this opportunity as part of the CDP supply chain Action Exchange?
No

Would you be happy for CDP supply chain members to highlight this work in their external communication?
Yes

Requesting member
Ajinomoto Co.Inc.

Initiative ID
2019-ID10

Group type of project
Relationship sustainability assessment

Type of project
Aligning goals to feed into customers targets and ambitions

Description of the reduction initiative
Organizational emissions reductions are being driven by our desire to be more sustainable in this area as well as by our commitment to being a responsible member of Ajinomoto's supply chain. Multiple energy efficiency and renewable energy reduction initiatives are underway specifically at the locations that provide your products. We are working towards better understanding of specific product level emissions reductions and can now allocate a percentage of our overall emissions reductions to your supply chain.

Emissions reduction for the reporting year in metric tons of CO2e
2

Did you identify this opportunity as part of the CDP supply chain Action Exchange?
No

Would you be happy for CDP supply chain members to highlight this work in their external communication?
Yes

SC3.1

(SC3.1) Do you want to enroll in the 2020-2021 CDP Action Exchange initiative?
Yes

SC3.1a

(SC3.1a) Identify which member(s), if any, have motivated you to take part in Action Exchange this year.
Please select

SC3.1b

(SC3.1b) Select the types of emissions reduction activities that your company would like support in analyzing or in implementing in the next reporting year.
Company policy or behavioral change
Energy efficiency in buildings
Energy efficiency in production processes
Fugitive emissions reductions
Green project finance
Low-carbon energy consumption
Low-carbon energy generation
Non-energy industrial process emissions reductions
Waste reduction and material circularity

SC3.1c

(SC3.1c) As part of Action Exchange, would you like facility level analysis?

Yes

SC3.2

(SC3.2) Is your company a participating supplier in CDP's 2019-2020 Action Exchange initiative?

No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

Yes, I will provide data

SC4.1a

(SC4.1a) Give the overall percentage of total emissions, for all Scopes, that are covered by these products.

17

SC4.2a

(SC4.2a) Complete the following table for the goods/services for which you want to provide data.

Name of good/ service
Product 1: Fragrance Products

Description of good/ service
Compounded Fine Fragrance and Compounded Consumer Fragrance (metric tons)

Type of product
Intermediate

SKU (Stock Keeping Unit)
Confidential

Total emissions in kg CO2e per unit
825

±% change from previous figure supplied
-1.4

Date of previous figure supplied
December 31 2019

Explanation of change
Global reduction of emissions per metric ton of production from Legacy IFF sites.

Methods used to estimate lifecycle emissions
GHG Protocol Product Accounting & Reporting Standard

Name of good/ service
Product 2: Flavor Products

Description of good/ service
Compounded Flavors (metric tons)

Type of product
Intermediate

SKU (Stock Keeping Unit)
Confidential

Total emissions in kg CO2e per unit
356

±% change from previous figure supplied
-6

Date of previous figure supplied
December 31 2019

Explanation of change
Global reduction of emissions per metric ton of production from Legacy IFF sites.

Methods used to estimate lifecycle emissions
GHG Protocol Product Accounting & Reporting Standard

Name of good/ service
Product 3: Natural Ingredients

Description of good/ service
Natural ingredients for both flavors and fragrances (metric tons)

Type of product
Intermediate

SKU (Stock Keeping Unit)
Confidential

Total emissions in kg CO2e per unit
1217

±% change from previous figure supplied
-9.5

Date of previous figure supplied
December 31 2019

Explanation of change
Global reduction of emissions per metric ton of production from Legacy IFF sites.

Methods used to estimate lifecycle emissions
GHG Protocol Product Accounting & Reporting Standard

SC4.2b

(SC4.2b) Complete the following table with data for lifecycle stages of your goods and/or services.

Name of good/ service
Product 1: Fragrance Products

Please select the scope
Scope 1 & 2

Please select the lifecycle stage
Production

Emissions at the lifecycle stage in kg CO2e per unit
825

Is this stage under your ownership or control?
Yes

Type of data used
Primary and secondary

Data quality
Primary data used include natural gas combustion and electricity production. Because readings are obtained from monthly bills and "revenue meters," which are typically subject to stringent calibration requirements by local governments, uncertainty level for natural gas quantities and GHG emissions can be assumed as <5%. Emissions reported as per metric ton of production. Scope 2 emissions use market-based accounting

If you are verifying/assuring this product emission data, please tell us how
It hasn't been verified at the product level yet, but we are taking steps toward it.

Name of good/ service
Product 2: Flavor Products

Please select the scope
Scope 1 & 2

Please select the lifecycle stage
Production

Emissions at the lifecycle stage in kg CO2e per unit
356

Is this stage under your ownership or control?
Yes

Type of data used
Primary and secondary

Data quality
Primary data used include natural gas combustion and electricity production. Because readings are obtained from monthly bills and "revenue meters," which are typically subject to stringent calibration requirements by local governments, uncertainty level for natural gas quantities and GHG emissions can be assumed as <5%. Emissions reported as per metric ton of production. Scope 2 emissions use market-based accounting

If you are verifying/assuring this product emission data, please tell us how
It hasn't been verified at the product level yet, but we are taking steps toward it.

Name of good/ service
Product 3: Natural Ingredients

Please select the scope
Scope 1 & 2

Please select the lifecycle stage
Production

Emissions at the lifecycle stage in kg CO2e per unit
1217

Is this stage under your ownership or control?
Yes

Type of data used
Primary and secondary

Data quality
Primary data used include natural gas combustion and electricity production. Because readings are obtained from monthly bills and "revenue meters," which are typically subject to stringent calibration requirements by local governments, uncertainty level for natural gas quantities and GHG emissions can be assumed as <5%. Emissions reported as per metric ton of production. Scope 2 emissions use market-based accounting

If you are verifying/assuring this product emission data, please tell us how
It hasn't been verified at the product level yet, but we are taking steps toward it.

SC4.2c

(SC4.2c) Please detail emissions reduction initiatives completed or planned for this product.

Name of good/ service	Initiative ID	Description of initiative	Completed or planned	Emission reductions in kg CO2e per unit
All IFF Products	Initiative 1	We have many voluntary energy and GHG emission reduction (Scope 1 & 2) initiatives that help reduce the carbon footprint of our products and achieve our energy targets. As part of our Ecoeffective+ program and signing the UNGC Business Ambition for 1.5C Pledge, IFF strives to meet our Science-based Target for emission reductions throughout our operations and value chain. Examples include installing an energy recovery system at our R&D facility in Union Beach, NJ that will save over 11M cubic ft of natural gas annually; and improving the CIP process in our Dandenong, Australia flavors facility, which will save over 430,000 kWh annually. In addition to reducing energy consumption, we also are focusing on powering our facilities with more renewable energy. In 2016, Tilburg, Netherlands, became the first in the industry to generate wind power on-site. Installation of a 2.4 megawatt turbine began in late 2015, and it was completed and operational by July 2016. We have found that reducing our overall facility level emissions has a great impact on product level emissions reductions and will continue to work toward product specific allocation. The emission reductions provided are in kg CO2e per unit kg of product and exclude our recently acquired Frutarom operations.	Ongoing	45

SC4.2d

(SC4.2d) Have any of the initiatives described in SC4.2c been driven by requesting CDP Supply Chain members?

Yes

SC4.2e

(SC4.2e) Explain which initiatives have been driven by requesting members.

Requesting member(s)	Name of good/service	Initiative ID
Ajinomoto Co.Inc.	Organizational emissions reductions are being driven by our desire to be more sustainable in this area as well as by our commitment to being a responsible member of Ajinomoto's supply chain. Multiple energy efficiency and renewable energy reduction initiatives are underway specifically at the locations that provide your products. We are continuously improving our understanding of specific product level emissions reductions and can currently allocate a percentage of our overall emissions reductions to your supply chain.	Initiative 1
Clorox Company	Organizational emissions reductions are being driven by our desire to be more sustainable in this area as well as by our commitment to being a responsible member of Clorox's supply chain. Multiple energy efficiency and renewable energy reduction initiatives are underway specifically at the locations that provide your products. We are continuously improving our understanding of specific product level emissions reductions and can currently allocate a percentage of our overall emissions reductions to your supply chain.	Initiative 1
Diageo Plc	Organizational emissions reductions are being driven by our desire to be more sustainable in this area as well as by our commitment to being a responsible member of Diageo's supply chain. Multiple energy efficiency and renewable energy reduction initiatives are underway specifically at the locations that provide your products. We are continuously improving our understanding of specific product level emissions reductions and can currently allocate a percentage of our overall emissions reductions to your supply chain.	Initiative 1
Johnson & Johnson	Organizational emissions reductions are being driven by our desire to be more sustainable in this area as well as by our commitment to being a responsible member of Johnson & Johnson's supply chain. Multiple energy efficiency and renewable energy reduction initiatives are underway specifically at the locations that provide your products. We are continuously improving our understanding of specific product level emissions reductions and can currently allocate a percentage of our overall emissions reductions to your supply chain.	Initiative 1
KAO Corporation	Organizational emissions reductions are being driven by our desire to be more sustainable in this area as well as by our commitment to being a responsible member of Kao's supply chain. Multiple energy efficiency and renewable energy reduction initiatives are underway specifically at the locations that provide your products. We are continuously improving our understanding of specific product level emissions reductions and can currently allocate a percentage of our overall emissions reductions to your supply chain.	Initiative 1
Kellogg Company	Organizational emissions reductions are being driven by our desire to be more sustainable in this area as well as by our commitment to being a responsible member of Kellogg's supply chain. Multiple energy efficiency and renewable energy reduction initiatives are underway specifically at the locations that provide your products. We are continuously improving our understanding of specific product level emissions reductions and can currently allocate a percentage of our overall emissions reductions to your supply chain.	Initiative 1
L'Oréal	Organizational emissions reductions are being driven by our desire to be more sustainable in this area as well as by our commitment to being a responsible member of L'Oreal's supply chain. Multiple energy efficiency and renewable energy reduction initiatives are underway specifically at the locations that provide your products. We are continuously improving our understanding of specific product level emissions reductions and can currently allocate a percentage of our overall emissions reductions to your supply chain.	Initiative 1
PepsiCo, Inc.	Organizational emissions reductions are being driven by our desire to be more sustainable in this area as well as by our commitment to being a responsible member of Pepsico's supply chain. Multiple energy efficiency and renewable energy reduction initiatives are underway specifically at the locations that provide your products. We are continuously improving our understanding of specific product level emissions reductions and can currently allocate a percentage of our overall emissions reductions to your supply chain.	Initiative 1
Unilever plc	Organizational emissions reductions are being driven by our desire to be more sustainable in this area as well as by our commitment to being a responsible member of Unilever's supply chain. Multiple energy efficiency and renewable energy reduction initiatives are underway specifically at the locations that provide your products. We are continuously improving our understanding of specific product level emissions reductions and can currently allocate a percentage of our overall emissions reductions to your supply chain.	Initiative 1
S.C. Johnson & Son, Inc.	Organizational emissions reductions are being driven by our desire to be more sustainable in this area as well as by our commitment to being a responsible member of SC Johnson's supply chain. Multiple energy efficiency and renewable energy reduction initiatives are underway specifically at the locations that provide your products. We are continuously improving our understanding of specific product level emissions reductions and can currently allocate a percentage of our overall emissions reductions to your supply chain.	Initiative 1

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain Questions?
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