



## 2019 GRI Index

### Universal Standards

#### 102 General Disclosures

##### Organizational Profile

##### **(102-1) Name of the organization.**

Ashland Global Specialty Chemicals Inc.

##### **(102-2) Primary brands, products, and/or services.**

Ashland is a manufacturer of specialty chemicals. We provide the chemicals, technologies, and insights to help our customers create new and improved products. Ashland ingredients can be found across a broad spectrum of applications, including [architectural coatings](#), [automotive](#), [construction](#), [energy](#), [food and beverage](#), [personal care](#) and [pharmaceutical](#). Several chemicals we produce are regulated and/or banned in certain markets. Our Environmental, Health, Safety, Quality and Regulatory Affairs department works to ensure environmental and legal compliance for our products and business operations.

See [Annual Report](#) (Item 1. "Business" in Form 10-K) for more detailed information.

##### **(102-3) Location of organization's headquarters.**

Wilmington, DE, U.S.A.

##### **(102-4) Countries of operation.**

Ashland operates in Belgium, France, Netherlands, Brazil, United Kingdom, China, Mexico and the United States.

**(102-5) Nature of ownership and legal form.**

Listed on the New York Stock Exchange under the ticker symbol ASH, Ashland Global Holdings Inc. is incorporated under the laws of the Commonwealth of Delaware (U.S.A.).

**(102-6) Markets served.**

[Annual Report](#) (see Item 1. "Business" in Form 10-K)

**(102-7) Scale of the reporting organization.**

[Annual Report](#) (see Item 1. "Business" in Form 10-K; Item 8. "Financial Statements and Supplementary Data" in Form 10-K)

**(102-8) Total workforce by employment type, gender, employment contract and region.**

a)

Gender	Co-Op (Trainee)		Interns (Trainee)		Temporary	
	Total	Percent	Total	Percent	Total	Percent
Female	2	25.0	11	64.7	18	46.2
Male	6	75.0	6	35.3	20	51.3
Undisclosed	0	0	0	0	1	2.6
Total	8	100	17	100	39	100

Gender	Fixed Term Contract (Fixed Term)		Regular		Total	
	Total	Percent	Total	Percent	Total	Percent
Female	2	28.6	1,326	28.8	1,359	29.1
Male	3	42.9	3,268	71.0	3,303	70.6
Undisclosed	2	28.6	12	0.3	15	0.3
Total	7	100	4,606	100	4,677	100

b)

Employee Type	Asia Pacific		EMEA		Latin America		North America	
	Total	Percent	Total	Percent	Total	Percent	Total	Percent
Co-Op (Trainee)	0	0	0	0	0	0	8	0.3
Fixed Term Contract (Fixed Term)	0	0	7	0.8	0	0	0	0
Interns (Trainee)	3	0.5	2	0.2	4	2.9	8	0.3
Regular	640	99.2	856	97.5	129	92.1	2,981	98.9
Temporary	2	0.3	13	1.5	7	5.0	17	0.6
Total	645	100	878	100	140	100	3,014	100

c)

Gender	Full-Time		Part-Time	
	Total	Percent	Total	Percent
Female	1,328	28.8	31	48.4
Male	3,271	70.9	32	50.0
Undisclosed	14	0.3	1	1.6
Total	4,613	100	64	100

d) Around 10% of labor in fiscal year 2019 was performed by non-employee workers. Ashland utilizes contracted labor at select sites for several purposes, including—but not limited to—janitorial work, waste management, manufacturing, assistance with large projects, and more.

e) [Annual Report](#) (see “Seasonality,” pg. 7)

f) This data was taken from Ashland’s Human Resources records. Some numbers may be estimations.

### **(102-9) Describe the organization's supply chain.**

Ashland's global operations require that we form relationships and conduct business with thousands of suppliers that provide services and materials to support our businesses. Ashland purchases basic raw materials that are processed through many stages to produce products that are sold as either intermediates or finished products at various points in those processes. Ashland spends approximately \$6.4 million per year for raw materials to support our manufacturing.

Several of the primary raw materials used by our business are as follows:

- Natural and synthetic and semisynthetic polymers derived from plant and seed extracts, cellulose ethers and vinyl pyrrolidones, as well as acrylic and polyurethane-based adhesives.
- Primary raw materials include products of natural origin, cotton linters, wood pulp, ethylene oxide, propylene oxide, solvents, and water.

### **Supplier Code of Conduct**

In 2014, Ashland issued a [Supplier Code of Conduct](#) that outlines what Ashland expects from its suppliers with respect to labor and employment rights, environmental impacts, health and safety, business ethics, social responsibility, and global trade practices. Suppliers are expected to adhere to this code, and must operate in full compliance with the laws and regulations of the countries they operate in. Our goal is that our suppliers—who are integral to Ashland—will embrace these values and share our commitment to sustainability.

### **Supply Chain Security**

Throughout our supply chain Ashland applies various security standards, wherever we operate throughout the world. Ashland adheres to the following security standards and guidelines:

- American Chemistry Council's (ACC) Responsible Care® Security Code
- Department of Homeland Security (DHS) Chemical Facilities Anti-Terrorism Standards (CFATS)
- United States Coast Guard Maritime (USCG) Transportation Security Act
- Tier II Customs-Trade Partnership Against Terrorism (C-TPAT), a supply chain and border security program
- Authorized Economic Operator (AEO), a customs security program developed by the European Union

In addition, through our open and global reporting system employees, customers and suppliers can report on environmental, health & safety, security and compliance related concerns through 1-800-ASHLAND. Issues reported through our system are thoroughly investigated.

## **Transportation Safety**

Through our activities that reduce risk, we improve transportation safety performance, operate with improved equipment, and enhance our emergency response capabilities. These activities include:

- A comprehensive qualification, selection and performance management program for our logistic service providers;
- Applying transportation security and safety standards that defines requirements for shipments made by Ashland;
- Working with TRANSCAER® by providing training to our transportation partners; and
- Implementation of a comprehensive crisis management plan that allows Ashland to quickly and effectively respond to a potential or actual crisis situation.

Our goal is to reduce Ashland's potential impact of our transportation activities by reducing in-transit releases. Ashland has a comprehensive program to prevent incidents during transportation, which includes:

- Collecting information on transportation incidents;
- Investigating and analyzing the root causes; and
- Developing and implementing corrective and preventive actions.

This program is not limited to transportation incidents, but also incidents that may occur at contracted warehouses and terminals.

### **(102-10) Significant changes to the organization and its supply chain.**

[Annual Report](#) (see "A Note from Our CEO," pg. 3-5)

### **(102-11) Whether or how the precautionary approach or principle is addressed by the organization.**

Ashland supports the intent of the Precautionary Principle with regard to risk management. We have established formal programs throughout our organization to identify potential impacts from risks and develop appropriate action plans to mitigate those risks. Our risk management program covers all aspects of our operations—from design of our operations, product development, and production through the distribution of our products to our customers.

Ashland's commitment to environmental, health and safety excellence is reflected in our Responsible Care program and implementation of the American Chemistry Council's (ACC) Responsible Care Management System (RCMS) throughout our global

operations. We are currently enhancing RCMS by implementing the Product and Process Safety Codes that will further strengthen our risk management processes.

**(102-12) Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.**

[Responsible Care](#)

**(102-13) Memberships in associations and/or advocacy organizations.**

[Partnerships](#)

Strategy

**(102-14) Statement from senior decision-maker.**

[2019 Sustainability Report](#) (see: "chairman's message" pg. 6-7)

**(102-15) Key impacts, risks and opportunities.**

[Annual Report](#) (see Item 1A. "Risk Factors" in form 10-K; "Environmental Matters" in Form 10-K; Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Form 10-K)

Ethics & Integrity

**(102-16) A description of the organization's values, principles, standards, and norms of behavior.**

[Global Code of Conduct](#)

**(102-17) A description of internal and external mechanisms for: i. seeking advice about ethical and lawful behavior, and organizational integrity; ii. reporting concerns about unethical or unlawful behavior, and organizational integrity.**

All Ashland employees worldwide are required to complete annual training on the legal and ethical standards presented in the Global Code of Conduct. Annual training is provided for all employees either through online training modules or through instructor-led training sessions by the Law Department. The online modules are available in multiple languages.

Specific corporate policies and procedures also support the [Global Code of Conduct](#) and are accessible through the employee intranet.

Ashland has established an open reporting system (1-800-ASHLAND) to allow our employees to report on EH&S, security and compliance-related concerns, but also for emergency and non-emergency response. The 1-800-ASHLAND phone number is available on Ashland's internal intranet website and external website ([ashland.com](http://ashland.com)) so that anyone—including our customers and suppliers—can report issues of concern and seek assistance.

## Governance

**(102-18) a. Governance structure of the organization, including committees of the highest governance body. b. Committees responsible for decision-making on economic, environmental, and social topics.**

[Board of Directors](#), [Board Committees](#), [Annual Report](#) (see "Corporate Governance," inside back cover; Item X. "Information about our Executive Officers" in form 10-K)

**(102-20) a. Whether the organization has appointed an executive-level position or positions with responsibility for economic, environmental, and social topics. b. Whether post holders report directly to the highest governance body.**

Ashland's Vice President of Global Operations, EHS, and Quality holds this responsibility. This position reports to the CEO and Chairman of the Board.

**(102-21) a. Processes for consultation between stakeholders and the highest governance body on economic, environmental, and social topics. b. If consultation is delegated, describe to whom it is delegated and how the resulting feedback is provided to the highest governance body.**

[Annual Report](#) (see "Environmental Matters" in Form 10-K, pg. 4)

## Stakeholder Engagement

**(102-40) A list of stakeholder groups engaged by the organization.**

Ashland's stakeholders include employees, customers, suppliers, owners, contractors, business partners, governmental and non-governmental organizations, unions, industry colleagues, non-profit organizations, and the communities where we operate.

**(102-41) Percentage of total employees covered by collective bargaining agreements.**

Ashland complies with all federal and state workplace laws including those associated with labor organizing activities. About 35% of Ashland employees are covered by collective bargaining agreements globally.

**(102-42) The basis for identifying and selecting stakeholders with whom to engage.**

All Ashland solvers take an employee development course on business ethics and are prepared to conduct due diligence when interacting with external parties.

**(102-43) The organization’s approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process.**

We respond to many direct requests from our stakeholders regarding the company's environment, health and safety and social responsibility policies, programs and performance.

Ashland gathers specific feedback from internal sources to better understand how the company interacts with its key stakeholders. This analysis is conducted on an ongoing basis throughout the company. The table below shares some of the many stakeholder engagement practices. Although it is not inclusive of all stakeholder engagement practices, it summarizes the core elements of how the company engages stakeholder groups on topics of interest.

Stakeholder	How Ashland Engages	Issues of Interest
Employees	<ul style="list-style-type: none"> <li>• CEO-led companywide town hall meetings</li> <li>• Company webcasts</li> <li>• Daily intranet articles</li> <li>• Regular employee communications from executives and business leaders</li> <li>• Training sessions</li> <li>• Employee surveys</li> <li>• Employee networks</li> <li>• Employee hotline</li> <li>• Wellness programs</li> <li>• Work councils and union interactions</li> </ul>	<ul style="list-style-type: none"> <li>• Company performance &amp; strategy</li> <li>• Business opportunities</li> <li>• Benefits program</li> <li>• Compensation</li> <li>• Legal issues</li> <li>• Community outreach</li> <li>• Volunteering</li> <li>• Education &amp; training program</li> </ul>



Stakeholder	How Ashland Engages	Issues of Interest
Customers	<ul style="list-style-type: none"> <li>• Volunteerism</li> <li>• Direct contact through sales and customer relationship managers</li> <li>• Customer service call centers</li> <li>• Surveys</li> <li>• Trade shows</li> <li>• Industry meetings</li> <li>• Technical applications and support</li> <li>• Training sessions and workshops</li> </ul>	<ul style="list-style-type: none"> <li>• New product &amp; technologies</li> <li>• Product performance</li> <li>• Product safety</li> <li>• Carbon footprinting of products</li> <li>• Costs</li> <li>• Business process improvements</li> <li>• Regulatory compliance</li> </ul>
Investment Community	<ul style="list-style-type: none"> <li>• One-one-one meetings</li> <li>• <a href="#">Quarterly earnings announcements</a></li> <li>• Conference calls</li> <li>• <a href="#">News releases</a> and <a href="#">SEC filings</a></li> <li>• <a href="#">Annual Report</a></li> <li>• Annual meeting of shareholders</li> <li>• <a href="#">Online investor center</a></li> </ul>	<ul style="list-style-type: none"> <li>• Financial performance and outlook</li> <li>• Dividend commitment</li> <li>• Plans for use of cash</li> <li>• Merger and acquisition strategy</li> <li>• Transparency</li> <li>• Organic growth prospects</li> <li>• Timely communication</li> </ul>
<a href="#">Suppliers</a>	<ul style="list-style-type: none"> <li>• One-on-one meetings</li> <li>• Contract negotiations</li> <li>• Performance reviews</li> <li>• Online supplier portal</li> </ul>	<ul style="list-style-type: none"> <li>• Growth opportunities</li> <li>• Quality</li> <li>• Cost</li> <li>• Innovation</li> </ul>

Stakeholder	How Ashland Engages	Issues of Interest
Governments and Regulators	<ul style="list-style-type: none"> <li>• Environmental, Social, and Governance assessment</li> <li>• Visits to elected officials and agencies</li> <li>• Industry and trade associations</li> <li>• Direct contact</li> <li>• Plant tours and site visits for government officials</li> <li>• Grassroots advocacy</li> </ul>	<ul style="list-style-type: none"> <li>• Sustainability of business relationship</li> <li>• Sustainability program maturity</li> <li>• Compliance with regulations</li> <li>• How policies affect Ashland operations</li> <li>• Global competitiveness</li> <li>• Business and political priorities</li> <li>• Job preservation and creation</li> </ul>
Local Communities	<ul style="list-style-type: none"> <li>• Interaction with civic organizations</li> <li>• Business groups</li> <li>• Public education support and interaction</li> <li>• Local sponsorships</li> <li>• Chamber of Commerce memberships</li> <li>• Community meetings and events</li> <li>• Community volunteerism</li> <li>• Community Advisory Panels (CAPs)</li> <li>• Visits by community emergency services</li> <li>• City or state and industrial park association memberships</li> </ul>	<ul style="list-style-type: none"> <li>• Jobs/employment</li> <li>• Safety</li> <li>• Emergency preparedness</li> <li>• Environmental protection</li> <li>• Charitable giving</li> </ul>

Stakeholder	How Ashland Engages	Issues of Interest
Philanthropic and non-profit organizations	<ul style="list-style-type: none"> <li>• Local Emergency Planning Committees (LEPCs)</li> <li>• Charitable contributions and employee-giving programs</li> <li>• Employee volunteerism and giving programs</li> <li>• Disaster response</li> <li>• Local sponsorships</li> <li>• Collaborative partnerships</li> </ul>	<ul style="list-style-type: none"> <li>• Giving programs</li> <li>• Employee engagement and community involvement</li> <li>• Collaboration and partnerships</li> <li>• Dollars for Doors</li> </ul>

**(102-44) Key topics and concerns that have been raised through stakeholder engagement, including: i. how the organization has responded to those key topics and concerns, including through its reporting; ii. the stakeholder groups that raised each of the key topics and concerns.**

Much of our communication with stakeholders consists of customer requests. We respond to inquiries in a wide variety of areas, including environmental impacts, sustainable sourcing, regulatory, and more. In terms of investor concerns, Ashland's Director of Sustainability & Environmental joined the [Sustainable Accounting Standards Board \(SASB\) Standards Advisory Group \(SAG\)](#) as a result of a stakeholder meeting with an investor.

Reporting Practice

**(102-45) Entities included in the consolidated financial statements.**

[Annual Report](#) (see Item 8. "Financial Statements and Supplementary Data" in form 10-K)

**(102-46) a. An explanation of the process for defining the report content and the topic Boundaries. b. An explanation of how the organization has implemented the Reporting Principles for defining report content.**

We are striving to develop a more formal process to determine our material topics. Ashland's online Sustainability Report contains information on the company's performance in the following areas: environmental stewardship, social aspects, health and safety, product stewardship, community development and economic performance. This report includes information on our majority-owned operations where Ashland operates. We report our management systems, goals, and objectives in terms of their importance to our stakeholders—in accordance with the GRI Standards.

Our primary audience for this report includes, but is not limited to, the following stakeholders:

- Current shareholders and prospective investors;
- Current and prospective employees seeking to work for a sustainability-minded company;
- Communities where we operate that want to understand how we manage and operate our business as a responsible corporate citizen;
- Suppliers with whom we partner, who are critical to our operations; and
- Government and non-government agencies that have an interest in our business and operations.

We have chosen what to include in the report through the analysis of our stakeholder requests and needs.

**(102-47) A list of the material topics identified in the process for defining report content.**

Material Aspect	Internal Boundary	External Boundary
Economic Performance	All global operations	Shareholders, investment community, lenders, financial analysts globally
Energy	All global operations	Governmental agencies, communities surrounding our operating locations, investors, customers, NGOs

Material Aspect	Internal Boundary	External Boundary
Greenhouse Gas Emissions	All global operations	Governmental agencies, communities surrounding our operating locations, investors, customers, NGOs
Environmental Compliance	All global operations	Governmental agencies focused on health and safety in each of the countries where we operate, investors
Biodiversity	Sites located near at-risk areas	Government agencies in at-risk areas, organizations restoring biodiversity, local communities, investors
Water	All global operations	Governmental agencies, communities surrounding our operating locations, customers, NGOs, investors
Waste	All global operations	Governmental agencies, communities surrounding our operating locations, customers, NGOs, investors
Employees	All global operations	Customers, consumers, governmental agencies, NGOs, investors
Raw Materials	All global operations	Customers, suppliers, governmental agencies, NGOs, investors
Supplier Assessment	All global operations	Customers, suppliers, governmental agencies, NGOs, investors
Employment	All global operations	Governmental agencies, NGOs, investors

In addition to reporting on these material aspects, we continue to provide relevant information on many other topics to meet the needs of our diverse stakeholders.

**(102-48) The effect of any restatements of information given in previous reports, and the reasons for such restatements.**

There are no restatements.

**(102-49) Significant changes from previous reporting periods in the list of material topics and topic Boundaries.**

There are no revisions.

**(102-50) Reporting period for the information provided.**

Ashland's fiscal and reporting year is Oct. 1, 2018, to Sept. 30, 2019.

**(102-51) If applicable, the date of the most recent report.**

Ashland's most recent report was published in September of 2020 and covers fiscal year 2019.

**(102-52) Reporting cycle.**

The reporting cycle is annual and based on Ashland's fiscal year.

**(102-53) Contact point for questions regarding the report or its contents.**

Nicole M. Voss

Director, Sustainability & Environmental

614.790.2305

[nmvoss@ashland.com](mailto:nmvoss@ashland.com)

**(102-54) Claims of reporting in accordance with the GRI Standards.**

This report has been prepared in accordance with the GRI Standards: Core option.

**(102-55) GRI Content Index.**

This document serves as our 2018 GRI Context Index. It is organized and labeled by GRI Standard and Disclosure number. Each reporting item is described on the index or linked to additional materials.

**(102-56) A description of the organization's policy and current practice with regard to seeking external assurance for the report.**

Ashland has not obtained external assurance for the development of this online report. However, Ashland has rigorous internal policies and practices that provide assurance about the accuracy of the content of this report. They include the following internal and external processes:

- **Internal Audit:** We have a rigorous internal audit process that evaluates our operations in the following areas: environmental, health & safety, process safety, quality, Responsible Care® management systems, and financial & business processes.
- **U.S. Securities and Exchange Commission (SEC) Filings:** We file or provide information, including our annual, quarterly, and current reports, and proxy statements to the U.S. SEC. We are subject to its rules and regulations.
- **Global Standards of Business Conduct:** All Ashland employees worldwide are required to complete annual training on the legal and ethical standards presented in the Global Standards of Business Conduct. Additionally, we require our employees to certify their compliance with our business code of conduct, anti-corruption and insider trading.
- **Environmental, Health and Safety Organization:** We have established a global EHS organization, and we are committed to ensuring compliance with applicable environmental, health, safety and security laws, regulations, technical specifications and internal standards, while adhering to high ethical standards.
- **Community Advisory Panels:** We are transparent with regard to our operations and encourage our facilities to establish community advisory panels to provide a forum to exchange information on plant activities with the local community. We provide extensive information regarding our sites and provide constructive response to issues raised at these community advisory panels. See Engaging Stakeholders section.
- **External Partnerships:** We partner with many external organizations on a project or ongoing basis to address operational and community issues. See the Engaging Stakeholders section.
- **1-800-ASHLAND:** Ashland has established an open reporting system to allow our employees to report on EH&S, security, and compliance related concerns. It is also available to our customers and suppliers who can report issues of concern and seek advice and assistance.
- **Environmental and Social Impact Assessments:** Prior to constructing new facilities or expanding existing ones, we conduct an environmental and social impact assessment to determine what effects the project would have on the community.

## Certifications

Headquartered in the U.S.A., Ashland is an active member of the American Chemistry Council. Because we are a global company, we also participate in similar organizations in other countries as well as the International Council of Chemical Associations. As an indication of our commitment to Responsible Care, we have obtained third-party certifications to RC14001, which includes the internationally recognized ISO 14001 certification and adds additional health, safety, security, and chemical industry requirements. Currently, Ashland has 30 international sites participating on a group RC14001 certification, and we are working toward certifying all our manufacturing locations. Also, as part of our commitment to health and safety, 16 of our sites have obtained an additional ISO 45001 certification, an international health and safety management system.

## Topic-Specific Standards

### 200 Economic

#### 201 Economic Performance Management Approach

##### **(103-1) Explanation of the material topic and its Boundary.**

- a. This topic is material as it relates to Ashland's financial performance and its shareholders.
- b. The internal Boundary for this topic is all global Ashland operations. The external Boundaries are shareholders, investment community, lenders, and financial analysts globally. Ashland's business relationships and decisions are directly linked to its economic performance.
- c. The financial information included in this report comes from Ashland's overall 2018 Annual Report.

##### **(103-2) The management approach and its components.**

a-c. [Annual Report](#) (see "A Note from Our CEO" pg. 3-5 and Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" in form 10-K)

##### **(103-3) Evaluation of the management approach.**

[Annual Report](#) (see "A Note from Our CEO" pg. 3-5 and Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" in form 10-K)



**(201-1) Direct economic value generated and distributed.**

[Annual Report](#) (see Item 8. “Financial Statements and Supplementary Data” in form 10-K)

**(201-2) Financial implications and other risks and opportunities due to climate change.**

[Annual Report](#) (see “Climate Change and Related Regulatory Developments” in Form 10-K, pg. 6)

**(201-3) Defined benefit plan obligations and other retirement plans.**

[Annual Report](#) (see Note N. “Employee Benefit Plans” in Form 10-K)

## 300 Environmental

### 301 Materials

#### Management Approach

**(103-1) Explanation of the material topic and its Boundary.**

- a. Ashland's use of raw materials is pertinent to this report as our purchase and usage of materials relates to our economic, environmental, and social impacts.
- b. The internal Boundary of this topic is all global operations. The external Boundaries are Governmental agencies, communities impacted by our supply chain, customers, NGOs. Our purchases can directly impact stakeholders and our impacts are linked to our business relationships.
- c. Our analysis of our supply chain is ongoing. We are joining new external organizations and reporting systems to receive feedback on our suppliers. As this is still in process, our information about our suppliers may not be accurate yet.

**(103-2) The management approach and its components.**

- a. Our purchasing function and sourcing managers within each of our commercial units are responsible for the selection of suppliers. All potentially new suppliers are screened and required to provide information about their environmental, health and safety practices and confirm that they are compliant with applicable regulations. The requirements of the Code of Conduct are built into our supplier contracts to ensure that they are contractually enforceable.
- b. Our purchasing function and sourcing managers ensure Ashland purchases the proper raw materials to manufacture our product. Our sustainable sourcing

management approach ensures our suppliers around the globe help our businesses meet objectives for profitability, growth, innovation and sustainability.

- c.
  - i. [Supplier Code of Conduct](#)
  - ii. Our sustainable sourcing team is committed to assessing our current and future suppliers to ensure our raw materials are retrieved responsibly.
  - iii. By the end of fiscal year 2019, sustainable sourcing has evaluated our top 100 suppliers (by spend) through the [EcoVadis](#) assessment. After achieving this milestone, the team will continue the assessment process until all suppliers have been assessed.
  - iv. After the assessment of our suppliers, the sustainable sourcing team will utilize the EcoVadis score reports to engage with our suppliers.
  - v. Our management approach utilizes EcoVadis, [SEDEX](#), and [COSMOS standards](#) as resources to evaluate the sustainability of our raw materials.
  - vi. Our Supplier Code of Conduct and 1-800-ASHLAND phone number allow Ashland and its stakeholders to express grievances and concerns in terms of this material topic.

### **(103-3) Evaluation of the management approach.**

As our sustainable sourcing initiatives are relatively new to Ashland, a formal evaluation of the management approach is not yet established. Our sustainable sourcing team evaluates EcoVadis scores to decide areas for improvement—both internally and externally. Through this process, Ashland will determine different ways to manage our sourcing and operate more sustainably.

### **(301-2) Percentage of recycled input materials used to manufacture the organization's primary products and services.**

[2019 Sustainability Report](#) (see "upcycling" pg. 30). Additionally, during fiscal year 2019, our Ashland, Ohio site recovered 69,515 kg of solvent. Multiple other Ashland sites utilize solvent recycling. In the future, the total volume of recycled materials used will be reported on a consistent basis across all sites.

## 302 Energy Management Approach

### **(103-1) Explanation of the material topic and its Boundary.**

- a. This topic is material as Ashland uses energy to manufacture products, transport products and employees, and run all basic corporate and plant operations.
- b. The internal Boundary is all global operations. The external Boundaries are governmental agencies, communities surrounding our operating locations, customers, NGOs. The company is directly linked to its own

energy usage. Our business relationships have indirect impacts, as our customers and suppliers also have individual energy usage impacts.

- c. The data used to evaluate energy usage comes from different sources and encompasses locations around the world. The large scale and multi-step process to input data creates a possibility for error in the final numbers. Some numbers reported may be estimations.

**(103-2) The management approach and its components.**

- a. The Environmental, Health, Safety & Quality Committee collaborates with our Sustainability & Environmental team to set goals and discuss management of Ashland's energy usage. Ashland also tracks energy usage for further analysis of areas of improvement and progress towards achieving goals.
- b. The purpose of our energy use management is to ensure Ashland is sourcing and using energy sustainably in order to reduce our carbon footprint and improve efficiency.
- c.
  - i. Ashland's Director of Sustainability and Environmental and our Director of Manufacturing share the responsibility for developing the plan to achieve our 2020 goals.
  - ii. Ashland's Environmental, Health, Safety, and Quality Committee and our sustainability team are committed to reducing energy consumption, increasing renewable and clean energy usage, and sourcing energy responsibly.
  - iii. Our 2020 goal for energy usage is to reduce energy use in intensity by 10 percent from our baseline year usage—calendar year 2013.
  - iv. See i.
  - v. Our energy use data comes directly from our sites.
  - vi. Our stakeholders can communicate energy grievances through our 1-800-ASHLAND number.
  - vii. Ashland decreases energy usage where we can.

**(103-3) Evaluation of the management approach.**

As we near 2020, we will evaluate our progress towards reaching our energy reduction goal as well as our management approach for this material topic. We will assess areas of weakness and implement new changes and programs to undertake. This process will continue again as we establish future energy goals.

**(302-1) Energy consumption within the organization.**

Direct Energy Consumption (gigajoules)			
Fuels	FY19	FY18	FY17
Natural gas	6,001,717	6,085,598	5,439,179
Fuel oil	58,059	111,014	32,640
Coal	0	84,676	338,399
LPG	68,525	7,468	6,553
Other	1,057,669	1,027,665	916,621
Total	7,185,970	7,316,421	6,733,714

Indirect Energy Consumption (gigajoules)			
Fuels	FY19	FY18	FY17
Electricity	3,619,252	3,877,003	3,666,487
Steam	1,884,253	2,023,531	1,950,482
Other	0	9	0
Total	5,503,505	5,900,543	5,616,969

f. These totals were converted and totaled in Excel, using raw numbers reported from Ashland plants and corporate sites. Some numbers may be estimates.

g. For sites located in the United States, we utilize the [EPA eGRID](#) conversion factors which are updated every two years. For sites located elsewhere, we utilize available local conversion factors.

303 Water & Effluents  
Management Approach

**(103-1) Explanation of the material topic and its Boundary.**

- a. This topic is material as Ashland uses water to manufacture products run corporate and plant operations.
- b. The internal Boundary is all global operations. The external Boundaries are governmental agencies, communities surrounding our operating locations, customers, NGOs. The company is directly linked to its own water usage. Our business relationships have indirect impacts, as our customers and suppliers also have individual water use impacts.
- c. The data used to evaluate water usage comes from different sources and encompasses locations around the world. The large scale and multi-step process to input data creates the potential for error in the final numbers. Some numbers reported may be estimations.

**(103-2) The management approach and its components.**

Ashland continues to actively understand, manage and work toward reducing our overall water footprint. Going forward, Ashland plans to develop a water management standard that will provide a global framework for both general and specific elements for water management within the company. When developed, the standard will require Ashland operations to manage their water resources through understanding their water use, compliance with regulatory requirements, systematic conservation and reporting water usage. For now, we track water usage at all manufacturing sites for reporting and creating our management approach.

**(103-3) Evaluation of the management approach.**

As our management approach has not been finalized, we have no formal evaluation process to report.

**(303-1) Interactions with water as a shared resource.**

- a. [2019 Sustainability Report](#) (see “water” pg. 21 and “water consumption” pg. 50)

Water Withdrawal by Source (in millions of cubic meters)	FY19	FY18	FY17
Municipal water input	63.3	70.4	69.4
Surface water input	8.47	8.44	7.85
Total Water Usage	72.5	79.6	77.6

Water Discharge by Type (in thousands of cubic meters)	FY19	FY18	FY17
Groundwater	27	65	0
Surface water	1,685	1,734	1,306
Treatment Facility	590	518	625
Total Discharge	2,302	2,318	1,931

b. [2019 Sustainability Report](#) (see “water consumption” pg. 50)

c. Once solidified, our Environmental 2025 Goals will address water usage. The water target will be based on results from the water stress analysis and other environmental surveys. Ashland analyzes suppliers’ environmental impacts through tools such as [EcoVadis](#) self assessments. We use the results of these surveys to identify areas of opportunity and work with suppliers to reduce our water impacts.

d. Ashland is still developing water usage goals as well as establishing a baseline for comparison. Once this process is complete, Ashland will evaluate progress towards those goals and implement programs to address needs.

### 304 Biodiversity

#### Management Approach

##### **(103-1) Explanation of the material topic and its Boundary.**

a. Biodiversity is a material topic for Ashland as the company has programs and initiatives in place to protect and restore ecosystems.

b. The internal Boundary is Ashland manufacturing and corporate locations situated near at-risk areas. The external Boundary is government agencies in at-risk areas, organizations restoring biodiversity, and local communities. Ashland is indirectly linked to impacts on biodiversity through the company’s supply chain and business relationships.

c. Ashland does not monitor direct impacts on biodiversity.

##### **(103-2) The management approach and its components.**

a. Ashland has a team in place to monitor engagement with external partners who work to restore and protect biodiversity in affected areas. Ashland works to achieve certification with the [Wildlife Habitat Council](#) (WHC).

b. Ashland works to achieve WHC certification in order to honor the [Ashland way](#)—to respect, protect, and advance the people we work with, companies we serve, shareholders who invest in our future, communities we're a part of, and planet we share.

c.

i. Ashland does not have a formal policy for this material topic.

ii. Ashland is committed to maintaining current sites with WHC certification, as well as adding new sites when feasible.

iii. Ashland does not have formal targets for this material topic.

iv. Ashland's Director of Sustainability and Environmental is responsible for following through on WHC processes to continue biodiversity protection efforts.

v. The WHC serves as Ashland's resource for biodiversity protection guidance and information.

vi. Stakeholders can file a biodiversity-related grievance through Ashland's 1-800-ASHLAND number.

vii. Ashland currently has 4 inactive sites certified with the WHC. Ashland is working towards a 5<sup>th</sup> site receiving certification.

**(103-3) Evaluation of the management approach.**

a. i. There is no formal mechanism for evaluating this management approach in place.

ii. There are no results from an evaluation from the management approach.

iii. No adjustments have been made to the management approach as a result of an evaluation process.

**(304-3) Habitats protected or restored.**

[2019 Sustainability Report](#) (see "wildlife habitat council" pg. 46)

305 Emissions  
Management Approach

**(103-1) Explanation of the material topic and its Boundary.**

a. This topic is material as Ashland produces emissions while manufacturing products, transporting products and employees, and running all basic corporate and plant operations.

- b. The internal Boundary is all global operations. The external Boundaries are governmental agencies, communities surrounding our operating locations, customers, NGOs. The company is directly linked to its own emissions. Our business relationships have indirect impacts, as our customers and suppliers also have individual emission impacts.
- c. The data used to evaluate emissions comes from different sources and encompasses locations around the world. The large scale and multi-step process to input data leads to error in the final numbers. Some numbers reported may be estimations.

**(103-2) The management approach and its components.**

- a. The Environmental, Health, Safety & Quality Committee collaborates with our Sustainability & Environmental team to set goals and discuss management of Ashland's greenhouse gas emissions. Ashland also tracks emissions for further analysis of areas of improvement and progress towards achieving goals.
- b. The purpose of our emission production management is to ensure Ashland is operating sustainably in order to reduce our emissions and take responsibility for our environmental impact, as well as protect the air quality surrounding our sites for employee health reasons.
- c.
  - i. Ashland maintains an informal Air Standard that requires all manufacturing sites to develop an emissions inventory and comply with all local rules, regulations, and permits. Sites are encouraged to undertake projects which decrease emissions.
  - ii. Ashland is committed to our 2020 emissions goal and has leadership in place to ensure achievement.
  - iii. Our 2020 goal for emissions is to decrease emissions 10% in intensity from our baseline amount in calendar year 2013.
  - iv. See i.
  - v. Our Scope 1 and Scope 2 emissions data comes directly from our sites. We estimate our Scope 3 emissions using the [Quantis Scope 3 Emissions Evaluator](#).
  - vi. All grievances can be filed through the 1-800-ASHLAND number.
  - vii. Emissions reduction activities are led by individual manufacturing sites. Some examples of reduction programs include the installment of motion sensors and process improvements.

**(103-3) Evaluation of the management approach.**

As we near 2020, we will evaluate our progress towards reaching our emission reduction goal as well as our management approach for this material topic. We will assess areas of weakness and implement new changes and programs to undertake. This process will continue again as we establish future energy goals.



**(305-1) Direct (Scope 1) GHG emissions.**

- a. Our Scope 1 GHG total amounted to 453,840 metric tons of CO2 equivalent.
- b. Gases included in the calculation include CO2, CH4, N2O, HFCs, PFCs, SF6, and NF3.
- c. Ashland does not measure biogenic CO2 emissions.
- d. Our base year for emissions calculations is calendar year 2013.
  - i. Calendar year 2013 is Ashland's baseline because this was the first 12-month period with accurate emissions data due to growth by acquisitions.
  - ii. Total Scope 1 emissions in 2013 amounted to 419,909 metric tons of CO2 equivalent.
  - iii. There have been no recalculations of baseline emissions.
- e. Published emission factors are used when calculating the Global Warming Potential. We utilize different emission factors for each fuel source and location.
- f. Our consolidation approach for emissions consists of operational control.
- g. These totals were converted and totaled in an Excel sheet, using raw numbers reported from Ashland plants and corporate sites. Some numbers may be estimates.

Scope 1 GHG Emissions (Metric Tons) by Region			
	FY19	FY18	FY17
North America	362,305	363,479	332,264
South America	809	911	877
EMEA	82,807	90,703	92,422
Asia Pacific	7,920	12,284	2,298
Total, All Regions	453,840	467,377	427,861

**(305-2) Energy indirect (Scope 2) GHG emissions.**

a. Our Scope 2 GHG total amounted to 599,298 metric tons of CO2 equivalent.

Scope 2 GHG Emissions (Metric Tons) by Region			
	FY 2019	FY 2018	FY 2017
North America	289,833	286,609	287,279
South America	146	167	157
EMEA	259,332	306,839	294,005
Asia Pacific	49,987	60,160	57,656
Total, All Regions	599,298	653,776	639,096

b. We currently do not measure market-based emissions.

c. Gases in the calculation include CO2, CH4, N2O, HFCs, PFCs, SF6, and NF3.

d. Our base year for emissions calculations is calendar year 2013.

i. Calendar year 2013 is Ashland's baseline because this was the first 12-month time period with accurate emissions data.

ii. Total Scope 2 emissions in 2013 was 662,443 metric tons of CO2 equivalent.

iii. There have been no recalculations of baseline emissions.

e. Published emission factors are used when calculating the Global Warming Potential. We utilize different emission factors for each fuel source and location.

f. Our consolidation approach for emissions consists of operational control.

g. These totals were converted and totaled in an Excel sheet, using raw numbers reported from Ashland plants and corporate sites. Some numbers may be estimates.

**(305-3) Other indirect (Scope 3) GHG emissions.**

a. 1,208,000 metric tons CO2e

b. This calculation includes all gases.

c. We do not measure our Scope 3 biogenic CO2 emissions.

d. Categories and activities included: purchased goods and services, capital goods, fuel- and energy-related activities, upstream transport,

- waste generated in operations, business travel, employee commuting, sold products, and investments.
- e. As Ashland did not begin estimating and reporting Scope 3 until 2017, we do not have an established baseline for Scope 3 emissions.
  - f. The emissions calculation was performed by the Greenhouse Gas Protocol Quantis [Scope 3 estimation tool](#). All GWP rates and sources were incorporated directly into our result.
  - g. [Greenhouse Gas Protocol Quantis Scope 3 estimation tool](#)

## 306 Effluents and Waste Management Approach

### **(103-1) Explanation of the material topic and its Boundary.**

- a. This topic is material as Ashland produces waste through the manufacture or products.
- b. The internal Boundary is all global operations. The external Boundaries are governmental agencies, communities surrounding our operating locations, customers, NGOs. Our waste and effluents have direct impacts on the company and its surrounding communities.
- c. The data used to evaluate effluents and waste comes from different sources and encompasses locations around the world. The large scale and multi-step process to input data creates the potential for error in the final numbers. Some numbers reported may be estimations.

### **(103-2) The management approach and its components.**

Ashland does not currently have a formal management approach to effluents and waste. We follow all local waste regulations. Our sites are taking steps to reduce waste production by incorporating solvent recycling, streamlining packaging processes, and more. See our [2019 Sustainability Report](#) for more information.

### **(103-3) Evaluation of the management approach.**

As our management approach has not been finalized, we have no formal evaluation process to report.

### **(306-3) Significant spills.**

- a. During this reporting period, Ashland had zero significant spills to report. The volume of significant spills was zero.
- b. N/A
- c. N/A

**(103-1) Explanation of the material topic and its Boundary.**

- a. This topic is material as Ashland interacts with government agencies and obeys environmental compliance rules while manufacturing products, transporting products and employees, and running all basic corporate and plant operations.
- b. The internal Boundary is all global operations. The external Boundaries are governmental agencies, communities surrounding our operating locations, customers, NGOs. The company is directly linked to its own compliance choices. Our business relationships have indirect impacts, as our customers and suppliers also have individual procedures for environmental compliance.
- c. As we are a global company, we deal with regulations and standards across several countries and governments. Our environmental compliance management must keep up with changing regulations

**(103-2) The management approach and its components.**

- a. Ashland has designed and implemented a Responsible Care management system. Based on the ISO 14001 environmental management system, the American Chemistry Council added additional health, safety, security, and chemical industry requirements to create the RC14001 technical specification. Ashland maintains a “multi-site” external certification to RC14001, which automatically includes ISO 14001 certification. Some of our sites show their dedication to health and safety by obtaining the ISO 45001 certification at the same time as RC14001. These external certifications provide transparency to our leadership and stakeholders to indicate our RC management system is satisfying both external and internal requirements.
- b. Ashland decided to certify to these standards to demonstrate compliance to requirements and a commitment to continual improvement.
- c. Ashland has an RC Policy that provides the leadership direction and philosophy. This policy is translated into other languages so that every employee globally can understand and support the direction of our management system.
  - i. Commitments are also defined in our RC Policy. We have a “poster” version of the policy that is titled “our commitments” and available to employees everywhere.
  - ii. Our RC Policy and poster define 3 main goals: Operating with Zero Incidents, Ensuring Compliance, and Reducing our EHS&S Impacts. Each year, we develop more specific objectives, targets, and plans that support these 3 overarching goals.

iii. Responsibilities are defined in many ways throughout our management system. However, aligning with RC14001 requirements, ultimate responsibility and accountability for the RC management system rests with our leadership. Each employee plays a role in carrying out our management system requirements, and these responsibilities are defined in procedures, job descriptions, another tool utilized.

iv. Financial and personnel resources are allocated and assigned by Ashland leadership to meet the commitments defined in our RC Policy.

v. Ashland has a mechanism for any employee or external stakeholder to voice comments or complaints. This is processed through our 1-800-ASHLAND toll free reporting hotline. Once calls are placed, entries are made into an incident tracking system for investigation and corrective action.

vi. Ashland's RC management system consists of an overall documented manual and is supplemented with many company standards that define our requirements. These requirements are the same for any location in our control, regardless of the physical location or zip code.

### **(103-3) Evaluation of the management approach.**

a. Ashland follows our management system approach, which includes a step called "management review." At the senior management level, management reviews occur quarterly. Each site operating under our management system also conducts a management review, which may occur at a different frequency, depending on the culture at the site.

i. Evaluating the effectiveness of the management system is one of the purposes of the management review process. A series of inputs are evaluated. One of the outputs is an evaluation of the effectiveness of the management system.

ii. Records of each management review is maintained officially as documented information. This includes meeting minutes, action items, and presentation materials.

iii. Other outputs or decisions made during the management review include any adjustments or changes that are needed to achieve objectives or to continually improve our performance.

### **(307-1) Non-compliance with environmental laws and regulations.**

[2019 Sustainability Report](#) (see notice of violation data under "performance at-a-glance" pg. 4) Any non-compliance can be reported through our 1-800-ASHLAND number.

## 308 Supplier Environmental Assessment Management Approach

### **(103-1) Explanation of the material topic and its Boundary.**

[301 Materials](#)

### **(103-2) The management approach and its components.**

[301 Materials](#)

### **(103-3) Evaluation of the management approach.**

[301 Materials](#)

### **(308-1) New suppliers that were screened using environmental criteria.**

[2019 Sustainability Report](#) (see “sustainability assessments” pg. 12)

## 400 Social

### 401 Employment Management Approach

#### **(103-1) Explanation of the material topic and its Boundary.**

a. Employee matters are of importance to this report as Ashland employees work in many regions of the world with differing regulations in terms of employee health and safety, and benefits. Ashland values diversity in our workforce and believes that companies with strong inclusion and diversity in their culture show increase innovation, better financial performance, reflect the marketplace and catalyze growth by leveraging all of our employees' full potential.

b. The internal Boundary for this material topic is all global operations. The external Boundaries are government agencies focused on health and safety in each of the countries where we operate. Our employees are directly involved in impacts and relationships in terms of the employee material topic.

c. Ashland is a global company operating in several different countries.

#### **(103-2) The management approach and its components.**

a. Ashland's global HR department manages employee benefits, rights, policies, and more. Ashland also has initiatives in place to emphasize [diversity and inclusion](#) within the company.

b. The purpose of this management approach is to ensure Ashland remains a diverse company and all employee rights are respected. By focusing on inclusion

in addition to diversity, we ensure employees feel supported and valued in their work and presence at Ashland.

c. i. Ashland has several employment policies, including equal employment opportunity, benefits standards, standards of employee conduct, etc.

ii. In recognizing the importance of diversity and inclusion, we are committed to actively creating a collaborative environment of innovation that leverages the talents of a diverse, global workforce to drive a sustainable, competitive advantage that will help Ashland grow and prosper for decades to come.

iii. Our employment goals include: driving the ongoing recruitment of diverse talent, building global leaders with strong cultural awareness, embedding inclusion and diversity into the organization with leaders understanding and promoting strategic importance, and more.

iv. It is Ashland's responsibility to comply with all employment laws and guidelines within our countries of operation.

v. Ashland offers employees resources through HR department, employee networking groups, educational opportunities, and more.

vi. All grievances can be reported and discussed through our HR department, or through our 1-800-ASHLAND number—both internally and externally.

vii. Ashland's [employee networking groups](#) provide programming to empower certain employee groups within the company.

### **(103-3) Evaluation of the management approach.**

a. i. [Responsible Care](#)

ii. There have been no formal evaluations of this management approach within this reporting period.

iii. There have been no adjustments made to this management approach within this reporting period.

### **(401-2) Benefits provided to full-time employees that are not provided to temporary or part-time employees.**

Below is an overview of company benefits to full-time employees by country.

Argentina

- Death or Accident
- Disability
- Healthcare
- Perquisites & Allowances
- Cash Incentives

- Cars
- Profit Sharing

#### Belgium

- CLA 72%
- Retirement
- Death
- Disability
- Medical Insurance

#### Brazil

- Retirement
- Death or Accident
- Disability
- Healthcare
- Perquisites & Allowances
- Cash Incentives
- Cares
- Profit Sharing

#### Canada

- Retirement
- Death or Accident
- Disability
- Healthcare
- Perquisites & Allowances
- Human Resources

#### France

- CLA 90%
- Retirement
- Death or Accident
- Healthcare
- Disability
- Profit Sharing
- Cars
- Perquisites & Allowances

#### Germany

- CLA 9%
- Retirement Pension
- Death or Accident
- Cars
- Bonus Plans



## Italy

- Retirement
- Death or Accident
- Disability
- Healthcare

## Japan

- Retirement
- Death or Accident
- Disability

## Mexico

- Pension
- Life & Disability Insurance
- Major Medical Insurance
- Minor Medical Expenses
- Savings Fund
- Food Coupons
- Incentive Bonus
- Educational Support
- Lunch Service
- Transportation Services

## Netherlands

- CLA 43%
- Retirement
- Death or Accident
- Disability
- Healthcare

## Poland

- Death or Accident
- Healthcare
- Pension

## Russia

- Death or Accident
- Healthcare

## Singapore

- Death or Accident
- Healthcare

## Spain

- Death or Accident
- Healthcare
- Retirement

## Switzerland

- Death or Accident
- Disability
- Retirement
- Cars

## Turkey

- Death or Accident
- Healthcare
- United Kingdom
- Retirement
- Death or Accident
- Disability  
Healthcare

## United States

- 9 Unions
- Retirement
- Death or Accident
- Disability
- Healthcare
- Perquisites & Allowances
- Cash Incentives
- Human Resources
- Cars
- Career Development & Education

More detailed financial information about employee benefits can be found in the [Annual Report](#) (see Note N. “Employee Benefit Plans” in Form 10-K).

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