

who re-thinks chemistry
for future generations?

—
we do.

sustainability report
fiscal 2017-2018



ashland.com

/ efficacy usability allure integrity profitability™

 **Ashland**
always solving



sustainability highlights

>60%
of our personal care products launched in the last two years are nature-derived† and/or is COSMOS* validated

100%
of our wood-sourced cellulotics are from FSC- or PEFC-certified sources

our reduction in greenhouse gas emissions since 2013 is equivalent to the planting of 82,875 trees

65 COSMOS* validated products in our portfolio

our reduction in energy since 2013 is equivalent to the energy required to power 6,312 homes for a year

our reduction in hazardous waste weighs more than 17 statues of liberty

coal free
in all of our operations

51% of our sites have gone over one year without a recordable injury

named
**Responsible Care®
Company of the Year**
by the American
Chemistry Council (ACC)

2018 winner of ACCs
**Initiative of the
Year Award**
for our Find-It,
Fix-It challenge

named one of
**America's Safest
Companies**
by EHS Today

named amongst the
**Forbes' 2018
America's Best
Employers for
Diversity**

overview

	FY 2018	FY 2017	FY 2016
Total energy consumption (GJ)	12,912,018	12,331,708	12,878,567
Electricity (GJ)	3,781,792	3,663,687	3,682,588
Natural gas (GJ)	5,985,470	5,437,114	5,432,982
Other fuels (GJ)	3,144,756	3,230,906	3,762,996
Scope 1 emissions (MT CO ² eq. emitted)	318,644	303,256	299,104
Scope 2 emissions (MT CO ² eq. emitted)	691,386	667,603	671,019
Toxic release inventory (million pounds)	23*	21	21
Number of Notice of Violations (NOVs)	10	11	12
Fines from NOV settlements (USD)	\$71,800	\$138,073	\$89,613
Hazardous waste disposal (MT)	58,474	53,763	55,833
Water withdrawal (million m ³)	79,497,165	77,638,862	79,669,374
Employees at year-end	6,000	6,500	6,000
Employee recordable injury rate	1.11	0.65	0.76
Employee lost-time incident rate	0.53	0.29	0.33
Employee fatalities	0	0	0
Cash and in-kind donations (USD)	\$671,926	\$938,503	\$780,150

*While Ashland's total output of TRI materials increased from FY17 to FY18, our total release amount decreased. The amount transferred for treatment prior to release increased.

front cover: clary sage; below: Ashland's Clary Sage fields in Merry Hill, North Carolina

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†Has a natural origin content of > 50% per ISO 16128. Ingredients of synthetic origin are excluded.
* COSMOS stands for the Cosmetics Organic and Natural Standard which defines common requirements and definitions for organic and/or natural cosmetics in Europe.

chairman's message

“Ashland solvers continue to find ingenious ways to meet the future needs of our customers, our employees and the planet we share.”

Delivering on our commitment to become the premier global specialty chemicals company includes innovating and solving complex challenges with a conscious and proactive mindset for sustainability. During the past two years Ashland has focused on improving the social and environmental impact of our sourcing, operations and commercial solutions.

Safe and Responsible Operations are the foundation of our Blueprint for the Future and Sustainability is core to Responsible Operations. Ashland delivers on our commitments through our comprehensive Responsible Care program. This global industry initiative advances safe and secure management of chemical products and operations. Within Ashland, this program includes a global management system, employee involvement at every level of the organization, continuous improvement toward our goal of operating with zero incidents, ensuring compliance, and reducing our environmental, health, safety, and security impact.

Over the last two years, we have continued to enhance our efforts in sustainable sourcing by focusing on assessing compliance with Ashland's Supplier Code of Conduct. We launched Ashland's Production System (APS) for lean manufacturing to simultaneously begin multiple projects aimed at reducing the environmental footprint of our manufacturing facilities while providing more sustainable products for customers. Our passionate, tenacious solvers are continually working to improve our customers' products and processes, reduce our environmental impact, preserve our natural resources and enhance the quality of life within our communities. In addition, Ashland has been building a platform of sustainable solutions, which includes biofunctionals, and we have continued to expand our focus this year. We have a product portfolio where more than 60% of Ashland's personal care products launched in the last two years are nature-derived and/or COSMOS certified.¹ These initiatives and more have contributed towards achieving our 2020 Environmental goals.

Ashland formalized a sustainability council to drive performance in our four key focus areas: sustainable sourcing, sustainable operations, sustainable solutions, and communication. To make sure that we achieved the right level of transparency and governance, the sustainability council reports out to the EHSQ committee on our Board of Directors.

The Sustainability pages on ashland.com provide more detail about our continuous improvements and here are just a few highlights of our accomplishments during fiscal year 2017 and 2018:

- American Chemistry Council (ACC) honored Ashland with the Responsible Care Company of the Year Award in recognition of our performance in 2018
- ACC honored Ashland with the Responsible Care Initiative of the Year Award in recognition of our Find-it, Fix-it initiative in 2018
- ACC honored 21 Ashland sites for their safety performance in 2017, and 23 in 2018
- Society of Chemical Manufacturers and Affiliates (SOCMA) honored Ashland with the first ever Sustainability Award for the solvent recovery project at the Ashland, OH (USA) site
- Two new sites were added to the Responsible Care Global Certificate in 2018 and three new sites were added in 2017
- EHS Today honored Ashland as One of America's Safest Companies in 2018

In 2018, Ashland continued to focus on our 2020 Environmental goals which are aimed at reducing our environmental footprint, including energy, greenhouse gas (GHG) emissions and hazardous waste:

- Energy - reduce energy usage by 10%
- GHG emissions – reduce GHG emissions by 10%
- Hazardous Waste – reduce hazardous waste generation by 10%
- Nonhazardous waste – track non-hazardous waste to develop baseline
- Water – track water usage to develop baseline

I am proud to announce that Ashland achieved our goals for GHG emissions and hazardous waste in 2018 and we are still working toward our energy reduction goal. Additionally, with the replacement of the coal fired boiler in our Jiangmen plant, we are now coal-free in our operations footprint. While this represents a significant milestone for us as a company, we continue to work to increase the amount of renewable energy in our footprint and plan to have a 2025 goal targeted around renewable energy powering our operations.

Ashland solvers continue to find ingenious ways to meet the future needs of our customers, our employees and the planet we share. I am confident that Ashland will continue to find innovative ways to support the efforts of our customers with respect to sustainability while maintaining our commitment to Responsible Operations within our manufacturing footprint.

We look forward to sharing this exciting journey with you.



William A. Wulfsohn
Chairman and Chief
Executive Officer



our story

Ashland Global Holdings Inc. (NYSE: ASH) is a premier, global specialty chemicals company serving customers in a wide range of consumer and industrial markets, including adhesives, architectural coatings, automotive, construction, energy, food and beverage, nutraceutical, personal care and pharmaceutical. At Ashland, we are approximately 6,000 passionate, tenacious solvers – from renowned scientists and research chemists to talented engineers and plant operators – who thrive on developing practical, innovative and elegant solutions to complex problems for customers in more than 100 countries. Our people are distinguished by their ability to create and apply specialized chemistry in ways that enable customers to amplify the efficacy, refine the usability, add to the allure, ensure the integrity, and improve the profitability of their products and applications.

Ashland's "Blueprint for the Future" is the company's pathway for creating the leading premier specialty chemicals company in the world. The Blueprint's foundation includes safe, compliant and responsible operations and it is within this foundational element that sustainability initiatives at Ashland reside.

Ashland's employees are "solvers" who are passionate about creating technologies and solutions to improve customers' products and processes, reduce environmental impact, preserve natural resources and enhance the quality of life within the communities in which we operate. Ashland's teams throughout the company are working together to tackle tough challenges while finding innovative ways to operate more safely and sustainably. They are collaborating with customers to deliver breakthrough products downstream while reducing the environmental footprint. Ashland is also committed to expanding the use of natural, sustainable materials.

We consider sustainability a journey, not a destination, and we continue to make progress.



the Ashland way

Our vision, mission, and the Ashland Way are more than just words. They are our guiding principles. If you have worked with Ashland, you know that we have a distinct way of doing things.

What we aspire to accomplish, how we work every day toward that vision, and the Way that we do things are what give substance to the promises we make to each other, customers and investors.

At Ashland we share a core drive to solve technical problems and deliver breakthrough capabilities that transform what is possible. We also share a commitment to each other, our communities, sustainable practices, safety, commercial success, and much more.

Our vision is to make a better world by providing creative solutions through the application of specialty ingredients and materials. Our mission is to develop practical, innovative, and elegant solutions to complex problems in applied chemistry, always pushing the boundaries of what's possible, and advancing the competitiveness of our customers across diverse industries.

The Ashland Way calls for each of us 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.

As we go to market around the world, we make a promise about what it will be like to work with us and what we can accomplish. We are committed to the "always" part of our brand promise. The relentless pursuit of ways to transform the efficacy, usability, allure, integrity and profitability of our customers' products is at the center of our jobs and what makes us an indispensable partner. This includes Ashland's approach to sustainable solutions.

Ashland has made formal commitments to improve the environmental, health, safety, and security performance of facilities, processes and products throughout the globe.

Our company delivers on commitments through a comprehensive Responsible Care® program. This global industry initiative advances the safe and secure management of chemical products and operations. Within Ashland, this program includes a global management system, employee involvement at every level of the organization, continuous improvement towards the goals of operating with zero incidents, ensuring compliance, and reducing our environmental, health, safety and security impact.



From sourcing, to operations, to solutions that help our customers achieve their goals, Ashland is always curious, always questioning, always innovating and always solving™ to meet the needs of a planet with a growing population and dwindling resources.

always solving™

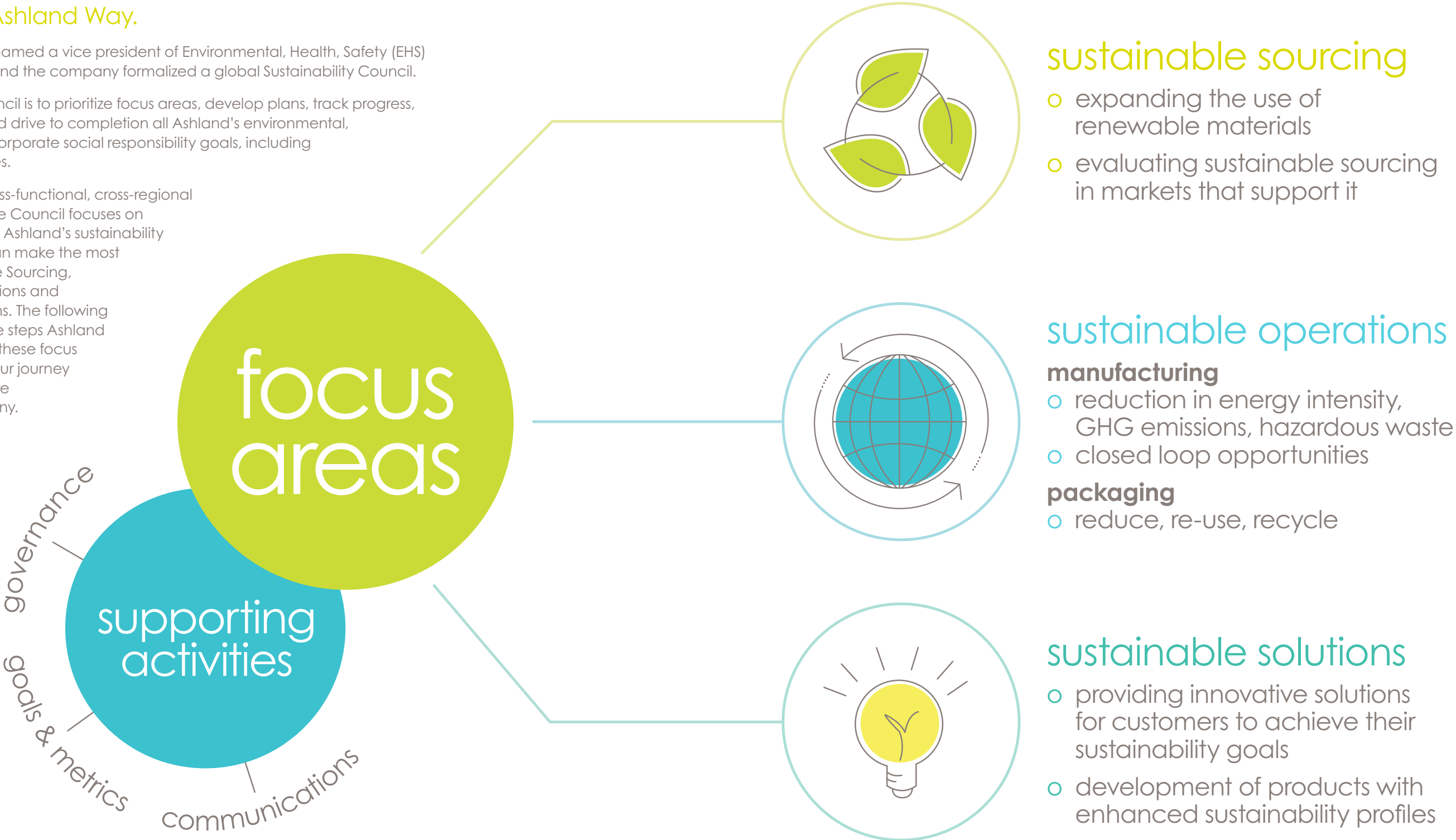
sustainability council

Ashland knows that sustainability is essential to business and that is why we have worked to make it an integral part of the Ashland Way.

Recently, Ashland named a vice president of Environmental, Health, Safety (EHS) and Sustainability and the company formalized a global Sustainability Council.

The role of the Council is to prioritize focus areas, develop plans, track progress, evaluate, guide and drive to completion all Ashland's environmental, sustainability and corporate social responsibility goals, including all interim milestones.

Comprised of a cross-functional, cross-regional group of leaders the Council focuses on three areas to drive Ashland's sustainability efforts where we can make the most impact: Sustainable Sourcing, Sustainable Operations and Sustainable Solutions. The following report describes the steps Ashland is taking in each of these focus areas to continue our journey of becoming a more sustainable company.





sustainable sourcing

One area of focus in 2018 has been extending sustainability initiatives beyond our fence line upstream to our supply chain. Several programs target different ways of measuring the environmental, social and ethical performance of our suppliers.



supplier code of conduct

As part of on-boarding new suppliers we require them to adhere to the requirements of Ashland's Supplier Code of Conduct. Ashland requires that all its suppliers meet the requirements of its Supplier Code of Conduct in accordance with the highest legal and ethical rules and principles. Ashland's suppliers are expected to implement work practices that consistently protect the environment and prevent personal injury or property loss, and that actively encourage care and regard for the environment. This includes such practices as responsibly cultivating and harvesting raw materials that are sourced from nature and seeking third party verification.

So, what exactly does that mean?

Simply put, it means that suppliers adhere to the expectations Ashland has for suppliers with respect to the following:

- labor and employment rights
- environmental, health and safety (EHS)
- ethics and social responsibility
- global trade practices

as of FY2018
Ashland has received **233** signed agreements, which represents **~80%** of our raw material spend

For more details, a copy of the Ashland Supplier Code of Conduct can be found [here](#).

supplier self-assessments

While the supplier code of conduct is good first step, it does not ensure overall compliance. Ashland has partnered with EcoVadis and SEDEX for third party verification of supplier self-assessments to ensure they meet their commitments to environmental, social and ethical practices and behavior. The self-assessment focuses on environment, labor and human rights, ethics, and sustainable procurement. Figure 1 below depicts, in collaboration with EcoVadis, the process we are applying with on-boarding new suppliers.



Figure 1

As of the end of FY 2018, **35 suppliers** have completed self-assessments. The average score was **58.88** out of **100**. Ashland will be working with suppliers that have low performance scores, so they understand the factors affecting their score and can improve.

Upon achieving a higher completion rate, verification of compliance will be evaluated for a sampling of the highest risk suppliers via independent third-party audits. Work towards this step has been initiated. The intent is to educate and help suppliers make progress on their own path toward becoming more sustainable companies.

social, ethical and environmental audits

The SEDEX Members Ethical Trade Audit (SMETA) is one of the most widely used ethical audit formats in the world. It combines the best practices in the field of corporate social responsibility. The methodology is based on the Ethical Trading Initiative (ETI) Base Code. It encompasses all aspects of responsible business practice, covering the four pillars of Labor, Health and Safety, Environment and Business Ethics.

guar supply chain

Quality and SMETA audits were performed on our guar suppliers in India. Several Ashland products are derived from guar seeds from India (INCI name: Guar Hydroxypropyl-trimonium Chloride). The derivatization is based on a unique proprietary water-based process. Our guar split suppliers were audited November 2017 according to Quality Standard ISO 9001 by an external party (SGS) mandated by Ashland. All three sites received "Approved GMP" audit ratings.

In 2018, they were subject to SMETA audits. The audit included review of labor standards, health and safety, environment, and business ethics. The SMETA Best Practice Guidance Version 5 (Dec 2015) was applied. The scope included all categories of workers located at the site, including those under other contractors. A corrective action was developed for each site with progress being monitored by Ashland. Future on-site audits of our guar suppliers are planned in 2020.



wood-sourced cellulosics

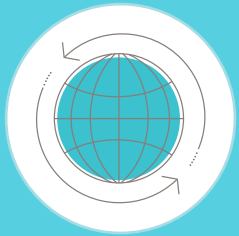
Ashland is the leading global producer of cellulose ethers. Ashland's cellulose derivatives such as Natrosol™ hydroxyethylcellulose, Klucel™ hydroxypropylcellulose, Blanose™ carboxymethylcellulose, Aqualon™ ethylcellulose, are water-soluble polymers that are made from cellulose, which is the primary cell wall of green plants and the most abundant naturally occurring polymer on Earth.

The wood-based cellulose used at Ashland are sourced from suppliers that have active sustainability programs and have implemented zero deforestation business practices. Our suppliers have made commitments to utilize certification standards set by the Forest Stewardship Council (FSC) or Program for the Endorsement of Forest Certification (PEFC). Both standards cover responsible forest management and assure consumers that product can be traced back to FSC- or PEFC-certified sources.

continuous improvement

Towards the end of 2019, Ashland will join the Together for Sustainability (TfS), a joint initiative of chemical companies that have developed a program to assess and improve sustainability sourcing practices across supply chains.

who sustains
good reactions?
—
we do.



sustainable operations

Ashland has implemented environmental, health and safety management systems through its Responsible Care® initiative to ensure that all Ashland operations achieve and maintain a high level of environmental performance.





Ashland manufacturing sites continue to prove that achieving zero workplace injuries is possible.

By the end of FY 2018:

51%
of our sites have gone over
1 year
without a recordable injury

32%
of our sites have gone over
3 years
without a recordable injury

injury and illness performance

Cultivating a safety culture is intentional at Ashland and is best shown by our commitment to a Zero Incident Culture (ZIC). ZIC begins with the vision, values, beliefs, and actions of Ashland's leaders demonstrating that zero incidents are possible. It means developing processes where compliance is the norm allowing employees to proactively manage safety above compliance on the journey to ZERO.

Our sites conform to global health and safety standards. OHSAS 18001 is a globally recognized standard to which Ashland locations can be certified as a recognition to their commitment to health and safety. The OHSAS 18001 standard is transitioning to the new ISO 45001 standard, allowing for more integration and alignment of requirements. Following is a link to our sites that are certified with OHSAS [18001](#):

Our recordable occupational injury and illness rates for the last three years are as follows:

	FY 2018	FY 2017	FY 2016
Employees at year-end	6,000	6,500	6,000
Employee recordable injury rate	1.11	0.65	0.76
Employee lost-time incident rate	0.53	0.29	0.33
Employee fatalities	0	0	0

As part of Ashland's Zero Incident culture we strive every day to achieve zero incidents. We continue to make good progress on our journey to zero incidents. The total recordable incident rate (TRIR) increased from fiscal year 2017 to fiscal year 2018 due to the acquisition and integration of 14 newly acquired sites, which historically have had higher incident rates than the heritage sites. As integration to Ashland zero incident culture continues for these sites, performance is improving.

And while we applaud the achievements of the sites that have already achieved zero workplace injury incidents, we continue to focus on the remaining sites to drive toward our goal of ZERO.

good catch program

Ashland has reported over **23,000** good catches in FY2018.

That is 23,000 opportunities to minimize and or eliminate risk. Many may ask what is a "Good Catch", at Ashland we have defined a "Good Catch" as anything that falls within three different areas of opportunity:

near hit

occurrences that could have but did not result in an incident

substandard condition

occurrences that could have but did not result in an incident/near hit

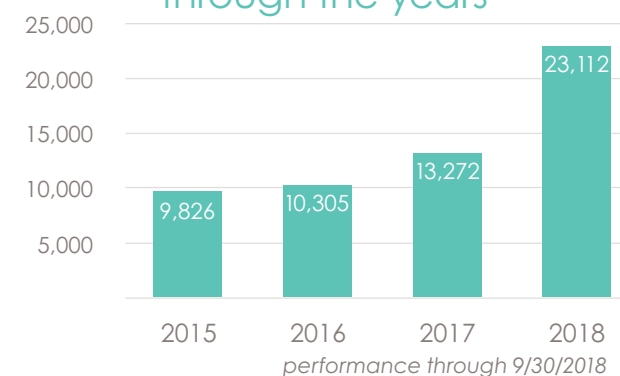
suggestion

Introduction of an idea related to environmental, health, safety, quality, and regulatory compliance for consideration and possible action can be related to a condition associated with Ashland operations that is of concern to an employee

Ashland has been measuring "Good Catches" for quite some time but has really been focused on driving increased reporting over the last few years. It is foundational to how we manage and measure EHS and Sustainability performance and at the center is our Environmental Health Safety and Quality Vision.

We will continue to focus on and drive good catch reporting at Ashland and expect to deliver more good catches in 2019.

good catches have increased through the years



Ergonomic Kaizen Rapid Improvement Events program

Since 2015, Ashland facilities have been holding Ergonomics Kaizen Rapid Improvement Events. The goal of these events is to train a wide variety of employees on how to identify and eliminate awkward positions that could increase the risk of ergonomic injury, all in a very short period. Since these events started, our employees have worked together to tenaciously solve a wide variety of ergonomic and safety issues, and the numbers are impressive:

FY 2017	FY 2018
127 employees participated in	353 employees participated in
11 events globally at	31 events globally at
9 plants and research labs	28 plants and research labs
combined, these teams identified	combined, these teams identified
515 ergonomics and safety hazards for improvement	1806 potential ergonomics and safety hazards for improvement

Several fixes that teams have found are common throughout our manufacturing facilities, and all plants are encouraged to implement these fixes at their locations:

truck wheel chocks with waist-high handles	railcar wheel chocks with waist-high handles
Milwaukee Tool backpacks for maintenance mechanics	trash tipping carts for dumping plant trash bins into dumpsters

external recognition

American Chemistry Council (ACC) and The Society of Chemical Manufacturers & Affiliates (SOCMA) Awards



The American Chemistry Council (ACC) recognizes sites for significant achievements in health

and safety through implementation of EHS&S management systems through Responsible Care® (RC). In 2017, 21 Ashland sites were recognized for their safety performance and 2 of our sites were awarded for their waste minimization achievements. In 2018, 23 Ashland sites were recognized for their safety performance and we received a product stewardship award for our product which helped lightweight a small truck helping improve fuel efficiency.

The Society of Chemical Manufacturers & Affiliates (SOCMA) acknowledges member companies for their outstanding commitment to continuous improvement in environmental, health, safety and security (EHS&S) practices. In 2017 Ashland received Performance Improvement awards for 9 facilities. In 2018, SCOMA awarded 6 of our plants.

American Chemistry Council (ACC) Responsible Care Company of the Year for 2018



In 2018 Ashland was named Responsible Care® Company of the Year by the American Chemistry Council (ACC) for their performance in 2017. The basis of this recognition was

Ashland's having made Responsible Care a key component of our commitment to sustainability. We set three sustainability goals to achieve by 2020 and have already met two of them – reducing greenhouse gas emissions by 10 percent, as well as its goal to reduce hazardous waste generation by 10 percent. Ashland also invests in future leaders through involvement in STEM programs, providing educational opportunities to hundreds of students in their communities.

ACC Initiative of the Year 2018

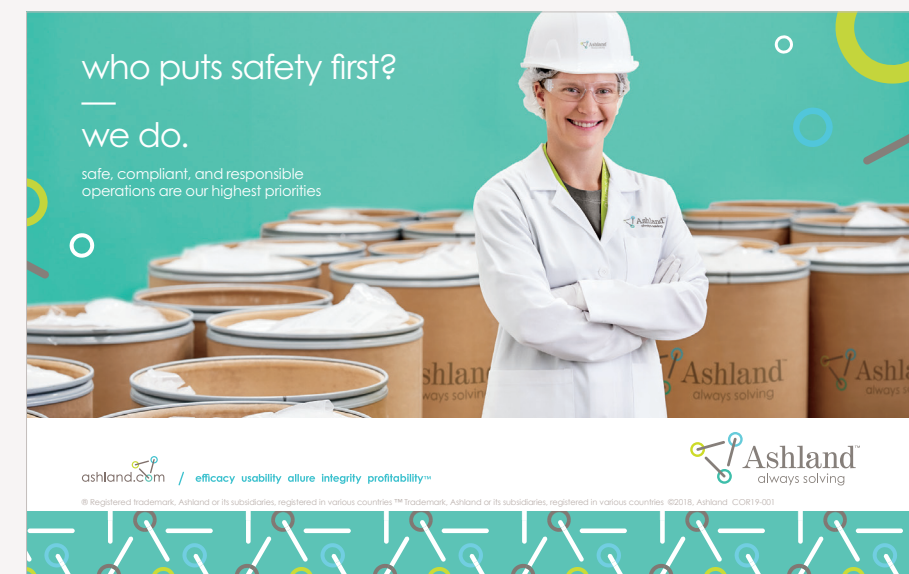


Ashland was also voted the 2018 winner of ACCs Initiative of the Year Award, by our peer companies, for our Find-It, Fix-It challenge. The Find-It, Fix-It challenge engages employees to identify a safety hazard in their workplace, home or around town, take a photo, fix-it, take another photo and submit to be entered to win prizes.

Initiative of the Year Ashland's values are at the core of who we are and how we act, so our solvers were thrilled to have our "Find It, Fix It" program named Responsible Care® Initiative of the Year by the American Chemistry Council. The innovative, interactive employee engagement campaign encouraged employees to take "selfies" to demonstrate how they reduced risks in their lives, both on the job and at home. The emphasis was on each employee's commitment to living and working safely and to further driving safety. In addition, during National Safety Month (June 2017) safety videos were posted on our company's intranet each week and provided additional examples for employees to consider on their journey to zero incidents. Children of the employees were also involved by challenging them to draw a picture that showed "safety." It could be something they have encountered at home, at school, at play or even something described to them by their parents about being safe. Prizes and ceremonies took place honoring those who submitted drawings and the winners.

EHS Today, one of America's Safest Companies, 2018

In November, Ashland was named one of America's Safest Companies by EHS Today, the magazine for EHS leaders. Ashland aims to be a benchmark in safety, and to that end the company openly shares its successes and challenges with peer companies and organizations. Safety is a key to Ashland's success and sharing details with other companies makes all of us better.



ACC Responsible Care Future Leaders Award 2018

The ACC also introduced a new category of awards in 2018 to recognize individuals for their achievements: The Responsible Care Future Leaders. After 30 years of Responsible Care in the chemical industry, the ACC recognized a challenge with maintaining momentum in Responsible Care with an aging and retiring workforce. In an effort to recognize the future of Responsible Care and Sustainability, ACC started a program in 2018 to highlight and celebrate contributors with 5 years or less experience having roles relevant to Responsible Care, and with great potential for being future industry professionals and leaders. Ashland employees have been bestowed this recognition:

For work conducted in 2017:



Laura Nicklin
Senior Environmental Specialist
Hopewell, Virginia

For practices conducted in 2018, of the 9 individuals selected for this award from the entire ACC member companies, 2 were from Ashland:



Cristina Salan Barrionuevo, CMSE
High Hazard Program Manager
Wilmington, Delaware



Sarah Phelan
Health and Safety Manager
Kearny, New Jersey

environmental performance

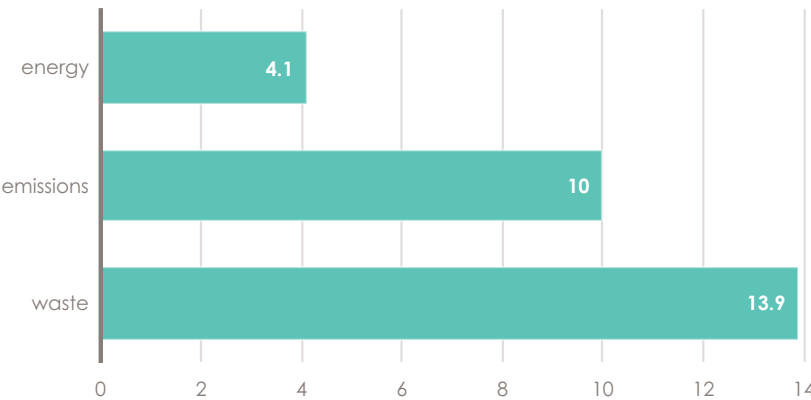
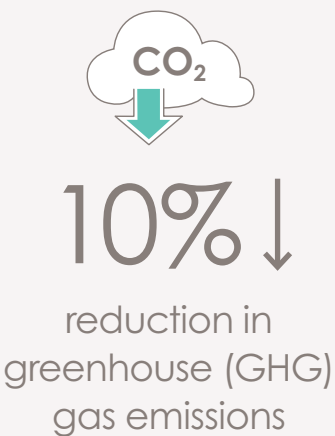
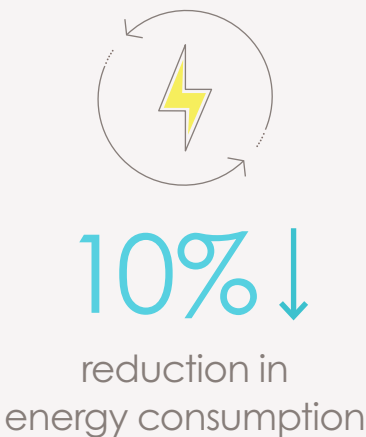
In 2016, to demonstrate our commitment to always solving with respect to a more sustainable future, Ashland set 2020 environmental goals to reduce our energy consumption, greenhouse gas (GHG) emissions and hazardous waste generation.

Our sites conform to ISO 14001 and RC14001 standards. ISO 14001 is a global standard for environmental management systems. Using this framework as a foundation, the ACC added elements of health, safety, security and chemical industry initiatives to create the RC14001 technical specification. Ashland chooses to certify our sites to RC14001, where the ISO 14001 certification is also automatically earned.

Following is a link to our sites that are certified with ISO 14001 and RC [14001](#)

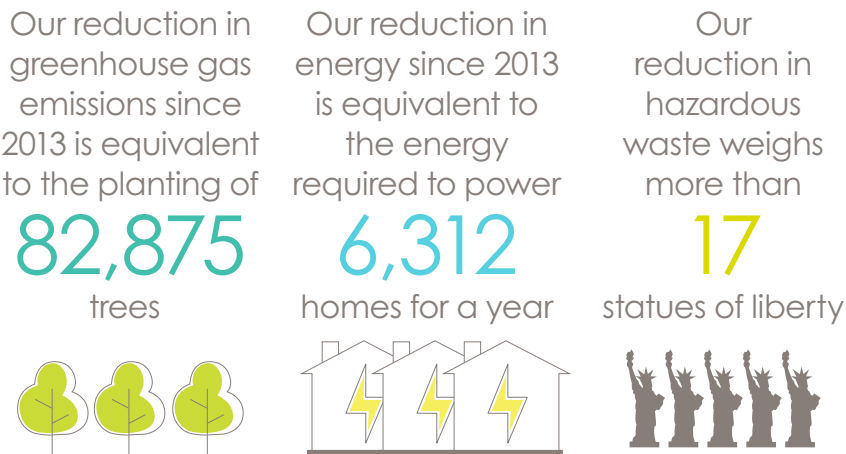
<h3>total energy consumption</h3> <p>Ashland uses "The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard" for guiding the reporting of energy and greenhouse gas emissions. For reporting purposes, we convert this number to gigajoules (GJ) for both our direct and indirect energy consumption. Increase from FY17 to FY18 was largely driven by product mix.</p> <table><caption>total energy million gigajoules</caption><tr><th>Year</th><th>Value</th></tr><tr><td>CY13</td><td>13.2</td></tr><tr><td>FY16</td><td>12.8</td></tr><tr><td>FY17</td><td>12.4</td></tr><tr><td>FY18</td><td>12.8</td></tr></table>	Year	Value	CY13	13.2	FY16	12.8	FY17	12.4	FY18	12.8	<h3>direct energy consumption</h3> <p>Direct energy consumption is the amount of primary energy combusted on site by Ashland. Direct energy sources include natural gas, coal, liquified petroleum gas, diesel and fuel oils, and gasoline.</p> <table><caption>direct energy million gigajoules</caption><tr><th>Year</th><th>Value</th></tr><tr><td>CY13</td><td>7.4</td></tr><tr><td>FY16</td><td>6.6</td></tr><tr><td>FY17</td><td>6.7</td></tr><tr><td>FY18</td><td>7.1</td></tr></table>	Year	Value	CY13	7.4	FY16	6.6	FY17	6.7	FY18	7.1	<h3>indirect energy consumption</h3> <p>Indirect energy refers to the energy consumed by Ashland that is generated by and purchased from external suppliers. Ashland consumes indirect energy through electricity and steam.</p> <table><caption>indirect energy million gigajoules</caption><tr><th>Year</th><th>Value</th></tr><tr><td>CY13</td><td>5.8</td></tr><tr><td>FY16</td><td>5.6</td></tr><tr><td>FY17</td><td>5.6</td></tr><tr><td>FY18</td><td>5.8</td></tr></table>	Year	Value	CY13	5.8	FY16	5.6	FY17	5.6	FY18	5.8								
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<h3>greenhouse gas emissions</h3> <p>Ashland's greenhouse gases are the result of our consumption of direct and indirect energy sources.</p> <table><caption>GHG emissions thousand metric tons</caption><tr><th>Year</th><th>Direct</th><th>Indirect</th><th>Total</th></tr><tr><td>CY13</td><td>350</td><td>700</td><td>1050</td></tr><tr><td>FY16</td><td>300</td><td>650</td><td>950</td></tr><tr><td>FY17</td><td>300</td><td>650</td><td>950</td></tr><tr><td>FY18</td><td>300</td><td>700</td><td>1000</td></tr></table>	Year	Direct	Indirect	Total	CY13	350	700	1050	FY16	300	650	950	FY17	300	650	950	FY18	300	700	1000	<h3>hazardous waste</h3> <p>Ashland has extensive global programs for waste minimization, recycling and treatment of disposal of generated wastes. We manage our hazardous waste in accordance with governmental regulations and our internal policies and procedures. See below for progress towards our 2020 Environmental Goals, which are reported on an intensity basis.</p> <table><caption>total hazardous waste metric tons</caption><tr><th>Year</th><th>Value</th></tr><tr><td>CY13</td><td>62000</td></tr><tr><td>FY16</td><td>56000</td></tr><tr><td>FY17</td><td>54000</td></tr><tr><td>FY18</td><td>58000</td></tr></table>	Year	Value	CY13	62000	FY16	56000	FY17	54000	FY18	58000	<h3>water consumption</h3> <p>Ashland's manufacturing operations account for a majority of the company's water footprint (96%). Ashland estimates that an additional 4% of water use comes from non-manufacturing sites. We continue to refine our tracking to establish a baseline for water usage and plan to evaluate reduction goals in the future.</p> <table><caption>total water consumption (million cubic meters)</caption><tr><th>Year</th><th>Value</th></tr><tr><td>FY16</td><td>80</td></tr><tr><td>FY17</td><td>75</td></tr><tr><td>FY18</td><td>80</td></tr></table> <p><small>CY13 is not included in graph as there is no established baseline for water.</small></p>	Year	Value	FY16	80	FY17	75	FY18	80
Year	Direct	Indirect	Total																																					
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environmental 2020 goals²



Note: In 2017 Ashland reevaluated our hazardous waste data and found that we had been inaccurately accounting for progress toward our hazard waste reduction goal due to regulatory changes that impacted one plant where we sell a by-product stream as fuel. Due to a regulatory change and Ashland's decision not to register the by-product stream under REACH, the stream was considered hazardous waste in 2016 and 2017 whereas it had not been historically accounted for as hazardous waste in our baseline. For reporting year 2017, we have corrected the baseline.

Ashland is proud to announce that as of the end on calendar year 2018, we have met two of our 2020 goals of a 10 percent reduction in greenhouse gas (GHG) emissions intensity and a 10 percent reduction in hazardous waste generation intensity.



² baseline is 2013

Ashland Production System and sustainability



In October 2017, Ashland began the implementation of the Ashland Production System (APS) at our Nanjing, China plant. Since then, Ashland has launched this system at eight of our plants in Asia, North America and Europe. The plan for roll-out is to launch this program in five more sites before the end of 2020.

A key principle of APS is continuous improvement through the elimination of waste. The lean philosophy of APS helps Ashland to produce exactly what the customer wants with the absolute minimum amount of resources. This results in APS projects that reduces our use of energy, reduces wasteful by-products, and thereby reduces our impact on the environment.

Our Nanjing plant has already used APS' Define, Measure, Analyze, Improve and Control (DMAIC) approach to projects to reduce their energy usage. By careful analysis and a disciplined approach to problem solving, they were able to reduce the total plant electrical consumption by 27% and their steam usage by 12%. Both projects accomplished these reductions by improving their understanding and control of the processes with no additional investment or resources.

While many of our manufacturing plants made contributions to achieving this goal early, one of the most significant projects that impacted achieving this goal was the replacement of a coal fired boiler at our **Jiangmen, China** site with a new natural gas fired boiler. Ashland invested \$1 million to reduce GHG emissions and improve the air quality in the Jiangmen area. With the replacement of this boiler, Ashland has now gone coal-free in all our operations.



steam network



Ashland's manufacturing processes require a significant amount of steam. One of our neighbors in Belgium produces a large amount of surplus steam through its waste incinerator processes. Instead of burning gas to generate steam for our own site

and adding a burden to the environment, our neighbor worked with us and other neighbors in the community to create a steam network. This results in reduction of burned gas and fewer emissions to the environment.

Ashland's portion of the steam network is **14%**



The overall project will provide a greenhouse gas reduction equivalent to the energy from

50 windmills

The Ashland facility in **Doel, Belgium** manufactures cellulosic-derived specialty chemicals that are used in the coatings, personal care, and pharmaceutical industries. Steam network and Sweet water sourcing are two environmental projects from our Doel, Belgium site.

sweet water sourcing

In a separate initiative, Ashland developed solutions to a wastewater challenge. Doel generates wastewater with a high salt content. For the waste streams to be released into the local river, they must go through an on-site biological treatment. Recent process improvements aimed to reduce energy, created even higher salt concentrations and the wastewater salt concentration needed to be reduced.

One source of water to reduce the salt concentration was derived from an adjacent site from a third party. Negotiations were put in place for the new tenants to provide Ashland their rainwater and water drainage. The new water sources called "sweet water," are added to Ashland's on-site rainwater collection points. The free-of-charge water aids in the treatment of the salty wastewater streams.

this project became a finalist in the
Port of Antwerp sustainability awards 2018



the amount of water sourced this way is estimated at

64,000m³

per year, which is equivalent to

26 Olympic-sized swimming pools

▶ Watch a video about these projects



Freetown, MA site has signed a Letter of Intent (LOI) with a solar developer and will serve as an anchor

client to enable renewable energy projects under the Solar Massachusetts Renewable Target (SMART) solar incentive program.

external recognition

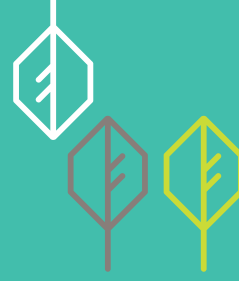
The Society of Chemical Manufacturers and Affiliates (SOCMA) Sustainability Award and ACC's Responsible Care Waste Minimization Awards for Ashland, Ohio site

SOCMA awarded our facility in Ashland, Ohio as the recipient of their 2018 Sustainability Award and the Silver Performance Improvement Award in recognition of the company's commitment to continuously improving environmental, health, safety and security (EHS&S) practices. They were also awarded ACC's Responsible Care Waste Minimization Award for this achievement in ceremonies held in April 2019.

The Ashland, Ohio, team reduced solvent waste disposal with the installation of a single-stage vacuum distillation unit to recover spent solvent for reuse. The project reduced the company's waste disposal and raw material costs, while preventing over 350 drums of waste per year. These benefits were realized without an increase in energy usage or greenhouse gas generation.

2018 sustainability award

Silver Performance Improvement award



ashland.com / efficacy usability allure integrity profitability™



Ashland's commercial solutions enable our customers to amplify the efficacy, refine the usability, add to the allure, ensure the integrity, and improve the profitability of their products and applications. Our ingredients and technologies also help them achieve their sustainability goals to operate with less of an environmental impact and help bring more sustainably advantaged products to market.



sustainable solutions

Many Ashland products launched in 2017 and 2018 support customer operational sustainability goals, enable the development of formulations with more “eco-friendly” attributes such as nature-based ingredients, responsibly-sourced raw materials and/or products that are biodegradable. Ashland solves for complex challenges with the intent to help our end-use customers lower ecotoxicological impact, conform to eco-standards/eco-labels, and more.





new product innovations

In 2018, sustainability considerations were incorporated throughout each gate of all of Ashland's new products in development. Sustainability-related checklists were created based on the given end market or application of our customers' products, considering environmental impacts at each life cycle stage. This includes the raw material selection (applying green chemistry principles), supply chain, manufacturing operations (including closed loop opportunities), packaging, shipment to customers, customer operations and formulations, to material's end-of-life.

Here is a non-inclusive list of examples of new product launches to meet those ends:

functional ingredients for personal care applications

Ashland is a leader in nature-derived polymers based on cellulose and guar and leverages this expertise to offer and innovate in a broad range of nature-based ingredients across functional categories. Natural offerings include antimicrobials, rheology agents, film formers, hydration agents, encapsulates, and other ingredients contributing to the allure and performance of personal care formulations. In fact, more than 60% of Ashland's personal care products launched in the last two years are nature-derived†and/or is COSMOS* validated

lubrajel® marine

Launched as a COSMOS-validated, natural solution for dry skin that delivers clinically proven moisturization due to its sustainably-sourced (RSPO supply chain-certified via mass balance) glycerin content, partial derivation from red seaweed, and cross-linked polysaccharide. With its light texture and fresh feel, Lubrajel Marine is ideal for moisturizing skin care formulations due to its excellent sensory and hydration properties. Lubrajel Marine is preserved with benzoic acid, citric acid and ascorbic acid (all derived from biofermentation).

fiberhance™ bm solution

A new patented chemistry evolving from glucose-based chemistry and has been proven to strengthen and repair the internal hair fiber structure. It penetrates deep into the hair cortex creating new bonds that support and restore the internal keratin structure. In manufacturing FiberHance™ bm the reaction occurs in water and there is full conversion; what is produced is sold with no waste.

style fusion™ complex 3

A patent-pending technology complexed in a way to create a synergistic phase structure that yields improved hair performance characteristics. Consumer benefits include long-lasting styling and conditioning with natural hold; smooth, natural hair feel; improved manageability; and enhanced, 48-hour humidity resistance. The natural guar component of this multifunctional ingredient makes it a good nature-derived option with its associated readily biodegradable properties.

aqualon™ ethylcellulose n200

A cellulose-derived thickening and film forming agent capable of gelling oils at low use level. Ashland uses a unique water-based process to manufacture Aqualon ethylcellulose.

conarom™ b aromatic

A unique aromatic for the personal care and cosmetics industry. Based on naturally-derived hops extract and the nature-identical phenylpropanol, it adds a gentle flowery-to spicy fragrance to the end use formulation delivering multifunctional benefits including broad anti-microbial protection. Conarom™ b aromatic can be added to formulations at any phase of production when worked into products at ambient temperature, making use of heat unnecessary for processing at the formulators' sites.

puraloe™

An exceptionally clean range of extracts of Aloe vera, a member of the lily family used since antiquity to promote skin wellness and recovery. Sourced from our fields in Tamaulipas, Mexico, Puraloe™ is certified Organic, involving no solvents, preservatives, or pesticides in its growth or production, and meets Kosher, Halal, and IASC standards. It is also Ecocert Fair for Life™ – meeting strict standards for fair trade and social responsibility.

†Has a natural origin content of > 50% per ISO 16128. Ingredients of synthetic origin are excluded.

* COSMOS stands for the Cosmetics Organic and Natural Standard which defines common requirements and definitions for organic and/or natural cosmetics in Europe.

vincience biofunctionals

Plants have been used for centuries for their healing and soothing properties. The knowledge and discovery of these beneficial properties are the basis of several traditional medicines still practiced today.

Cosmetic science has identified in plants a wide range of molecules that can be added to skin and hair formulations. New technologies allow scientists to better identify the molecular composition and better understand plant biology. These discoveries, many of which relate to modern improvements to extraction technologies, brings scientists to concentrate the best components from plants into innovative cosmetic solutions.

New products from Ashland's Vincience biofunctionals are developed by uncovering such unique and innovative molecular signatures from plants sourced from around the world. Employing a sustainable approach to sourcing any new biofunctionals is crucial. The process involves working hand-in-hand with suppliers and partnering closely with local communities to ensure sourcing is being conducted responsibly and ethically and has a minimal impact on the local environment and ecosystems. Some examples of biofunctionals launched in 2018 include:

seastem™ biofunctional

Extracted from giant kelp (Macrocystis pyrifera) along on the coasts of California. Only the upper part of the algae at the surface of the ocean is cut. This allows the plant to renew itself and preserves the ecosystem attached to the giant kelp forests.

suprastim™ biofunctional

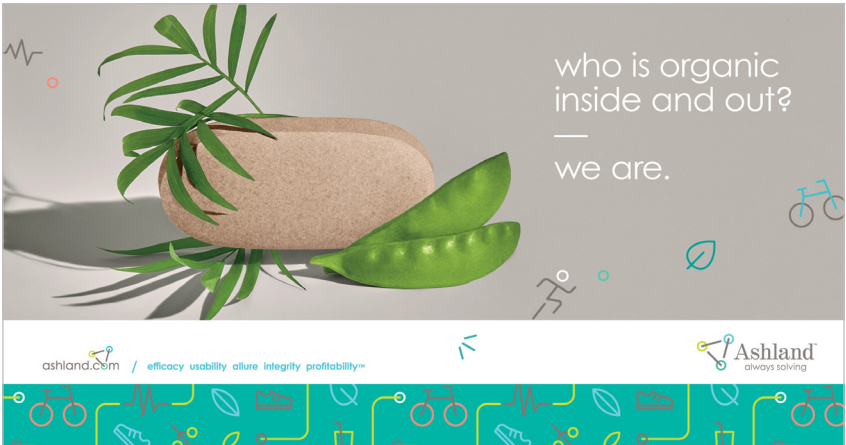
A Camu camu extract sustainably grown in the Amazonian rainforest with full traceability, a superfruit with a high vitamin C content and outstanding properties to reduce the signs of skin fatigue induced by daily life stress, revive skin and provide a healthy glow.

capauxein™ g2 biofunctional

The next generation of Capauxein, a natural biofunctional extracted from corn. Capauxein G2 is enriched with three hair boosters and delivers a superior efficacy compared to Capauxein biofunctional. Capauxein G2 has been tested on key biomarkers located in the dermal papilla of the hair follicle, a critical zone for hair regeneration. A clinical study on volunteers showed a significant and visible increase in hair fullness and density.

pharmaceutical applications

The Pharmaceutical business has launched two new products to serve the needs of Pharmaceutical and Nutraceutical customers. Both products are composed of naturally organically grown and derived ingredients:



aquarius™ organic

A clear, fully formulated, certified organic and non-genetically modified organism (GMO) project verified, aqueous film coating system. It is made with non-allergenic, label-friendly ingredients to provide an alternative to animal-derived, shellac-based systems.

nutrapress™ organic binder

A new organic, multi-functional tablet binder designed for customers who are creating tablets for the organically-minded consumer.

industrial solutions

In addition to the above-mentioned consumer-facing products and technologies, here are a few industrial solutions with a nod to sustainability:

aquaflow™ NMS-460E rheology modifier

Free of solvents, tin, and alkylphenol ethoxylates (APEOs), this new product enables decorative coating producers to formulate premium, low-Volatile Organic Compounds (VOCs) paints that conform with multiple eco-label requirements.

soteras™ CCS

A critical component in ceramic-coated separators which improve the safety of automotive and consumer lithium ion batteries. The Soteras™ CCS range of binders allows effective ceramic coating of both polyethylene (PE) and polypropylene (PP) separators. As a result, separator shrinkage is reduced during thermal stress at temperatures in excess of 170 °C. Soteras™ CCS employs Ashland's unique two-component cross-linking system to improve thermal and mechanical stability while minimizing moisture levels to ensure class-leading compatibility with electrolytes.

Ashland created a unique new technology platform designed to produce high solids solvent-based Pressure Sensitive Adhesives (PSAs). These self-curing one-part adhesives are coater-ready at 55–60% solids without sacrificing coatability and performance. Due to the high solids, less solvents are to be used, which is reducing the customers CO2 footprint. The new high solid Arosel™ solvent acrylic pressure sensitive adhesive grade, using a less hazardous solvent blend, enables benefits like improved line speeds, which can contribute to higher productivity and lowering overall applied cost. Because of the high solids content, the adhesive packaging is reduced. Efficiencies can be gained in utilization of less flammable storage of hazardous materials and less transportation costs due to less and lighter-weight packaging.

purerad™ uv curable linerless basecoats

Designed to support Linerless technology. It is recognized on a global scale and becoming the go-to label of choice for many food manufacturers. Linerless is the replacement for traditional labels that carry wasteful non-recyclable backing paper.

pliobond™ 1978

A water-based adhesive developed to adhere standard polyvinyl chloride (PVC) membranes to cover boards or various roofing insulation in commercial roofing applications. With essentially no VOC emissions, the Pliobond 1978 is VOC-compliant in all 50 states of the U.S. In contrast with traditional solvent based adhesives, the Pliobond 1978 is designed for single-sided application, resulting in less adhesive usage and as great as 55% labor savings. The product has also been shown to far exceed industry requirements for wind uplift testing.

pureled™ overprint varnishes and adhesives

Applied without solvents, requires less energy than HgUV (conventional UV mercury), and does not generate any ozone. It also offers higher water resistance than other chemistries which facilitates the recycling of labelled polyethylene terephthalate (PET) bottles.



business acquisitions

Furthering our focus on sustainable solutions, Ashland's last three business acquisitions have been bio-based:

Zeta Fraction™ Technology (2016)
unique, patented, solvent-free, and low-footprint botanical extraction technology

Pharmachem / Avoca (2017)
supplier of specialty botanical extracts, and nutraceutical services and ingredients

Vornia Biomaterials (2018)
designs, develops and manufactures customized nature-based polymer solutions for the medical device industry

Cosmetics Organic and Natural Standard

65
COSMOS*
validated
products in
our portfolio
(2018)

The Cosmetics Organic and Natural Standard (COSMOS) defines common requirements and definitions for organic and/or natural cosmetics and has been developed at the European and international level by BDIH (Germany), COSMEBIO & ECOCERT (France), ICEA (Italy) and SOIL ASSOCIATION (UK). They are the founders of the COSMOS-standard AISBL, an international non-profit association registered in Belgium.

COSMOS validation requires an ingredient meet criteria defining it as natural in origin and processing. In addition, the ingredients must be, if relevant, RSPO-certified, GMO-free, and not containing nanomaterials. Also, the material must be free of contaminants that are not naturally in the material or are present at quantities above naturally occurring levels which could lead to pollution or toxicity, such as heavy

metals, aromatic hydrocarbons, pesticides, dioxins and polychlorinated biphenyls (PCBs), radioactivity, mycotoxins, medicinal residues, nitrates, and nitrosamines.

ISO 16128

With growing consumer interest in natural and naturally-derived ingredients, Ashland has evaluated the natural and natural origin content of many grades of its specialty ingredients product lines, applying the ISO 16128-2: 2017(E) standard.

This ISO standard provides guidelines on definitions for natural cosmetic ingredients and approaches to calculate the natural origin content of products.

As examples:

For Ashland's cellulosic and guar chemistries, the derived natural values are calculated using molecular weight, formulation details for the product, and analytical data from production.

For Ashland's biofunctional and preservatives chemistries, the derived natural values are calculated using weight fraction, formulation details for the product, raw material supplier data, and where applicable, analytical data from production.





corporate
responsibility

procurement power for social good

Our facilities and procurement teams look at ways to expand our social positive impact by employing those from underprivileged or disadvantaged populations.

As an example, for paper shredding services in Lima, Ohio we use the services of Marimor Industries, whose mission is to maximize the independence of individuals with disabilities through community enrichment opportunities and similarly in Memmingen, Germany paper shredding is accomplished by the Unterallgäuer Werkstätten GmbH, a recognized workshop for people with disabilities.

In Kenova, West Virginia, Ashland hired Evergreen AES, a woman-owned small business for environmental engineering, regulatory interpretation, remediation, and proper disposal of waste products.

Ashland's charitable giving

In 2017, Ashland hosted our first global employee giving campaign, employees from ten countries raised more than \$938,503 with Ashland's match.

In 2018, the Ashland Charitable Giving platform was improved based on employee feedback from the prior year. Ashland matches employees' donations by 50 cents on the dollar. In the new system employees have the option of donating to one charity or making multiple gifts to more than 13,000 separate charities.



cash and in-kind
donations given by
Ashland for 2018 was
\$671,926

our employees in action

We are committed to the communities in which we live, the countries in which we operate, our world and the people, animals and natural resources that are a part of it. Here are just a few examples of our employees demonstrating community commitment.

making an impact that matters



Ashland India, in collaboration with Agastya International Foundation, launched two

Mobile science labs in Mumbai and Hyderabad, India. Very powerful and innovative instruments, the labs help revolutionize rural education and make education more accessible to disadvantaged children in India.

The mobile labs visit schools in and around Ashland offices, teaching students science in a very hands-on and engaging ways.



helping grow land and water education

Since 2013, Ashland has partnered with the Delaware Nature Society to provide more than 7,300 underserved fourth grade students from 17 schools with land

and water STEM education programming.

In 2017 and 2018, the program Ashland supported led students through a hands-on land and water field study packed with opportunities to understand water quality and wildlife management while learning more about chemistry, biology and math.



supporting teacher education and Audubon Wildlife Reserve

Ashland supports the New Jersey Audubon annually through program funding as well as employee volunteerism.

Ashland's grant contribution supports the Teachers' School of Ecology, a 5-day intensive summer learning institute for teachers in grades 4 to 8. During the week, teachers are provided opportunities to participate in hands-on experiences throughout the watershed including water quality monitoring (biological and chemical), habitat assessment (data collection and surveying) and environmental issues investigation.

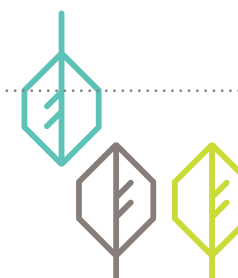
In honor of Earth Day, Ashland employees also volunteer annually at the Audubon Wildlife Reserve. In 2018, Ashland volunteers cleared a six-foot-wide path at the Audubon Wildlife Reserve from the road to a river which enabled them to build a footbridge across the river.

restoring a Swiss forest



After a storm had destroyed part of a local forest in Schaffhausen, Switzerland, Ashland volunteers helped to plant 100 oak, spruce and linden saplings to replace the trees that were lost.

Brush piles were left after the planting to provide a habitat for smaller animals and the trees that were planted by Ashland employees will last for generations to come as they continue to grow.



wildlife habitat council

Since 2014, four former Ashland remediation sites have achieved certification through the Wildlife Habitat Council (WHC), a non-profit, non-lobbying organization dedicated to increasing the quality and amount of wildlife habitat on corporate, private and public lands. We are also laying the ground work to apply for certification for an additional site (i.e., Hopewell, Virginia).

sites with WHC certification and expiration dates:

Ashland Research Center	certified silver	12/31/2020
Former Hercules Brunswick Plant	certified	12/31/2020
Hercules Incorporate 009 Landfill	certified	12/31/2020
Old York Road Site	certified gold	12/31/2019



Ashland Research Center - Wilmington, Delaware

At this site, Ashland employees have been involved since 2014 with Wildlife at Work (WAW), a Wildlife Habitat Council (WHC) program. Together, we have restored the habitat around a closed landfill (2.3 acres) and installed nesting sites for birds. We also assist in annual monitoring to continue to maintain the habitat and promote nesting. We are currently discussing potential expansion of this WAW program at this site. This is a WHC Certified Silver site.



Former Hercules Brunswick Plant - Brunswick, Georgia

Ashland achieved certification in the WHC WAW program for this facility in 2014. The project is centered around a 2.85-acre former stockpile area that was converted to a wildflower meadow providing critical habitat to a variety of wildlife species, including pollinators, grassland birds, reptiles, and small mammals. Since the initial certification, the project has expanded to include additional forest habitat and installation of nesting sites for birds. Species inventories are conducted routinely, and the habitat is maintained thru rotational mowing and removal of invasive vegetation.



Hercules Incorporate 009 Landfill - Brunswick, Georgia

Ashland achieved certification in the WHC WAW program for this closed landfill in 2015 with goals to increase the site's biological diversity, bolster community relations, and raise environmental awareness in the community. Cover boards and basking logs around the perimeter of a large pond are maintained and monitored through routine species inventories. Game cameras are also used to monitor the wildlife that inhabit the site.



Old York Road Site - Burlington, New Jersey

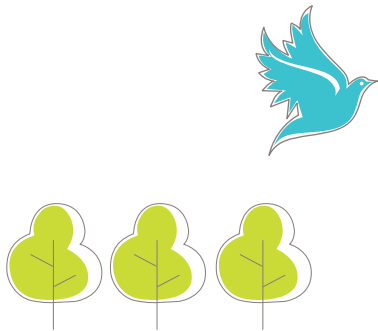
This site was formerly a landfill. WHC has designate this site as a WHC Certified Gold site. Employees at Ashland are working closely with Rutgers University to provide educational opportunities to students in the sciences to track species' diversity and life cycles. This includes providing the students an education lab they can work at while gaining experience credits. There is annual rotational mowing of landfill caps to promote meadow features.

Hopewell Former Landfill Site - Hopewell, Virginia

Though we have not started the process for certification at this Hopewell landfill site, we had WHC walk the site and provide us a report highlight recommendations for wildlife enhancements. We incorporated many of their ideas into the design of the landfill capping project:

- planting of native grasses and wild flowers
- installation of raptor perches and nesting platforms
- bank clearing of the nearby pond to provide basking, calling and perching spots for invertebrates and birds, and a habitat for fish

Now that the capping project is complete we are looking for a partner to team with to begin the WHC certification process.



inclusion and diversity

In addition to our strong business performance, FY2018 included some healthy signs of Ashland's progress with getting inclusion and diversity (I&D) right. Externally, Ashland was named amongst the Forbes' 2018 America's Best Employers for Diversity; Chairman & CEO Bill Wulfsohn signed on to the CEO Action for Diversity & Inclusion coalition.

Internally, 2018 included Ashland's launch of our I&D education program on unconscious bias entitled, "The Ashland Way through I&D."

Ashland's Women's International Network (AWIN) seeks to cultivate success in career aspirations for women across all levels of the organization in pursuit of greater inclusion and diversity. Ashland believes that everyone deserves a seat at the table and that Ashland should strive for gender equality across all aspects of the organization. In 2017 and 2018, a professional development program, titled "Dare to SOAR" was expanded to our high female performers in Europe to create a pipeline of strong talent.

With the belief that inclusion and diversity (I&D) is a critical business enabler and provides a competitive business advantage, through the "The Ashland Way", Ashland remains committed to fostering an inclusive work environment and externally make an impact within the communities where we live and work.

named amongst the
**Forbes' 2018
America's Best
Employers for
Diversity**

Some of our internal organizations

Ashland Women's International Network

Ashland International Millennial Network

Ashland Diversity Resource for Engaging & Advancing Multicultural Employees

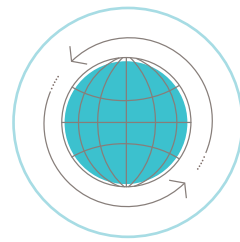
2025 sustainability goals

With 2020 nearly upon us, and the goals we previously set nearing completion, we have begun to think about the future. As we continue our journey to becoming a more sustainable company, we will be placing a greater focus on the environmental and social impact of our actions. As such, we have proposed 2025 goals that are broader and more ambitious than previous goals. They include goals in all three of our focus areas: sourcing, operations and solutions.



sustainable sourcing

continue to focus on assessing our suppliers via EcoVadis and engage our highest risk suppliers via third party environment, social and ethical audits.



sustainable operations

continue to reduce our environmental footprint and focus on increasing renewable energy in our manufacturing locations.



sustainable solutions

focus on launching products that have sustainable benefits and meet our customers sustainability needs, while also completing lifecycle assessments (LCA) for our key product families.

Board of Directors

Brendan M. Cummins

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Ciba Specialty Chemicals

William G. Dempsey, Ph.D.

Former Executive Vice President,
Global Pharmaceuticals,
Abbott Laboratories

Dr. Jay V. Ihlenfeld

Former Senior Vice President,
3M Company

Susan L. Main

Senior Vice President and
Chief Financial Officer, Teledyne
Technologies Incorporated

Guillermo Novo

President & CEO, Versum Materials

Jerome A. Peribere

Former President and CEO,
Sealed Air Corp.

Craig A. Rogerson

Chairman, President and CEO,
Hexion Inc.

Mark C. Rohr

Chairman and CEO,
Celanese Corp.

Janice J. Teal, Ph.D.

Former Group Vice President
and Chief Scientific Officer,
Avon Products Inc.

Kathleen Wilson-Thompson

Executive Vice President and
Global Chief Human Resource
Officer, Walgreens Boots Alliance

William A. Wulfsohn

Chairman and CEO,
Ashland Global Holdings Inc.

Executive and Corporate Officers

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Vito Consiglio

Senior Vice President and Chief
Commercial Officer

Peter J. Ganz

Senior Vice President, General
Counsel and Secretary;
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Vice President, Tax

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Anne T. Schumann

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Human Resources and Information
Technology Officer

Keith C. Silverman, Ph.D.

Senior Vice President, Global
Operations, Quality and EHS

William C. Whitaker

Vice President and Treasurer

J. Kevin Willis

Senior Vice President
and Chief Financial Officer



core values

safety

Ensure that Ashland people, places and products are safe.

integrity

Be open and honest.
Be personally accountable. Speak up.
Treat everyone with dignity and respect.

foresight

Consider the sustainability and long-term implications of our actions.
Plan for contingencies and invest in the future.

partnership

Be a collaborative and proactive partner to customers and colleagues.

ethics

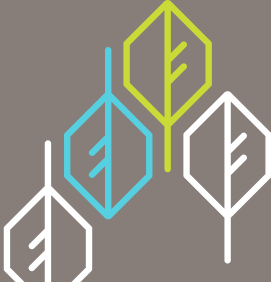
Do the right thing.
Always. Everywhere.

people

Recruit, retain, and reward passionate, tenacious, solvers.

passion

Commit to win. Take shared pride in our achievements.
Celebrate success.



global headquarters

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Covington, KY 41012-0391 USA
Tel: +1 859 815 3333

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