Climate Change 2017 Information Request
FMC Corp

Module: Introduction

Page: Introduction

CC0.1

Introduction

Please give a general description and introduction to your organization.

FMC Corporation is a specialty company serving global agricultural, industrial and consumer markets by providing innovative solutions, applications and quality products for more than a century. FMC employs 6,000 people and has three business segments: Agricultural Solutions, Health and Nutrition, and Lithium. FMC's 2016 revenue totaled approximately USD$3.3 billion.

Agricultural Solutions and Health and Nutrition, 69% and 23% of FMC's total business by revenue, respectively, help meet the food and nutrient needs of a growing population. Agricultural Solutions provides innovative and cost-effective solutions to enhance crop yields and quality by controlling a broad spectrum of insects, weeds and diseases, and non-agricultural solutions for pest control. Health and Nutrition produces food ingredients, pharmaceutical additives that enhance texture, color and structure and physical stability, as well as active ingredients for nutraceuticals, which are products with nutrients derived from food products. FMC Lithium, 8% of FMC's total business by revenue, produces low carbon products and technologies for energy storage, electric vehicle batteries, and energy efficient tires.

Sustainability is an enduring, fundamental part of FMC's structure, built into who we are as a company. We continue to integrate sustainability into our innovation, operations, and business practices, which strengthens our business performance and aligns with our corporate strategy. FMC's progress helps us to address some of the world's major global challenges. With our customers' use of our products and changes to our business operations, we are addressing five "major global challenges" that are among society's most profound concerns and have significant implications. They are:

1) Climate Change: Reduction in greenhouse gas emissions is a necessary step in mitigating climate-warming trends.
2) Environmental Consciousness: Growing interest in natural and benign materials is driving the need for new, improved, bio-based products that reduce environmental impacts.
3) Scarce Resources: To cope with limited availability of fresh water, energy, forests and other essential resources, we must carefully manage them and use more renewable alternatives.
4) Food & Health Expectations: Food and crop production must increase to meet the basic needs of a rapidly-growing population and socio-economically diverse population that seek a wider array of nutritional options.
5) Land Competition: Urbanization to accommodate a growing population and poor land management techniques limit the amount of arable land available for agriculture, which intensifies the need to increase farmland productivity and crop yields.

FMC continues to make progress in sustainability with a 10-year strategy to grow by providing products with value, which motivate our stakeholders to work with FMC. Our strategic position depends on sustainable investments that ensure our company runs more efficiently and resiliently. In 2015, FMC established targets to ensure we are a more sustainable enterprise by 2025.

2020 Innovation & Business Practices Targets:
• Reduce our Total Recordable Incident Rate (TRIR), a metric for reporting safety performance in manufacturing, to 0.3 or lower
• Increase our percent spending on R&D toward sustainably advantaged products to 80 percent
• Achieve 100 on FMC's Community Engagement Index, which measures the extent and quality of our interaction with local communities

2025 Operations Targets:
• Reduce our energy, greenhouse gas (GHG) and waste intensities by 15 percent from our 2013 baseline year
• Reduce our water use in high-risk areas by 20 percent from our 2013 baseline year

FMC recently announced its acquisition of part of DuPont's Crop Protection business and DuPont's acquisition of FMC Health and Nutrition in November 2017. Combining DuPont's exceptional products and R&D capabilities with our product portfolio, pipeline and formulation expertise will bring new solutions to growers and reduce our impact on the planet. FMC's 2017 CDP Climate Change

report includes information on FMC's three businesses, Agricultural Solutions, Health and Nutrition, and Lithium.

FMC representatives may from time to time make written or oral statements that are "forward-looking" and provide other than historical information. Such statements are based on our current views and assumptions regarding future events, future business conditions and the outlook for FMC based on currently available information. These statements involve known and unknown risks, uncertainties and other factors that may cause actual results to be materially different from any results, levels of activity, performance or achievements expressed or implied by any forward-looking statement. We wish to caution readers not to place undue reliance on any such forward-looking statements, which speak only as of the date made. References to "FMC" or "the company" refer to FMC Corporation.

CC0.2

Reporting Year

Please state the start and end date of the year for which you are reporting data.

The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.

We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.

Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

Enter Periods that will be disclosed

Fri 01 Jan 2016 - Sat 31 Dec 2016

Thu 01 Jan 2015 - Thu 31 Dec 2015

Wed 01 Jan 2014 - Wed 31 Dec 2014

Tue 01 Jan 2013 - Tue 31 Dec 2013

CC0.3
Country list configuration

Please select the countries for which you will be supplying data. If you are responding to the Electric Utilities module, this selection will be carried forward to assist you in completing your response.

Select country

CC0.4
Currency selection

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

USD($)

CC0.6

Modules

As part of the request for information on behalf of investors, companies in the electric utility sector, companies in the automobile and auto component manufacturing sector, companies in the oil and gas sector, companies in the information and communications technology sector (ICT) and companies in the food, beverage and tobacco sector (FBT) should complete supplementary questions in addition to the core questionnaire.

If you are in these sector groupings, the corresponding sector modules will not appear among the options of question CC0.6 but will automatically appear in the ORS navigation bar when you save this page. If you want to query your classification, please email respond@cdp.net.

If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below in CC0.6.

Further Information

Module: Management

Page: CC1. Governance

CC1.1
Where is the highest level of direct responsibility for climate change within your organization?

Board or individual/sub-set of the Board or other committee appointed by the Board

CC1.1a
Please identify the position of the individual or name of the committee with this responsibility

The committee with the highest level of responsibility for the management of climate change within FMC is the Board of Directors' Sustainability Committee, one of five of the Board of Directors' standing sub-committees. The Board of Directors adopted a written charter outlining the Sustainability Committee's duties, which are:
• Meeting three times per year
• Conducting an annual self-assessment
• Monitoring FMC's Sustainability Program, including program development and advancement, goals and objectives, and progress toward achieving those objectives
• Monitoring FMC's environmental responsibility, employee occupational safety and health and process safety programs
• Monitoring FMC's programs with regard to the American Chemistry Council's (ACC) Responsible Care initiative

The Board of Directors' Sustainability Committee is assisted by FMC's internal Sustainability Steering Team (SST), which meets with the Global Sustainability Group four times per year to discuss current and future sustainability initiatives and issues. The SST includes leaders of FMC's three businesses (Agricultural Solutions, Health and Nutrition, and Lithium) as well as group leaders from Manufacturing, EHS, R&D, Finance, Communications, Procurement, Human Resources, Legal and Government Affairs.

The individual with the highest responsibility for the management of climate change-related issues on a regular basis is Linda Froelich, FMC's Global Sustainability Director. Linda oversees the implementation and integration of sustainability at FMC. She communicates directly with the Board of Directors' Sustainability Committee on sustainability and climate change. Linda reports to Karen Totland, Vice President, Global Procurement, Global Facilities & Corporate Sustainability, who is a member of FMC's executive leadership and the SST. Linda collaborates with Barry Crawford, Vice President, Operations, and FMC's Operations, Human Resource and R&D directors to develop and ensure the achievement of FMC's 2020 and 2025 safety, environmental, innovation and social metrics and targets. Additionally, Linda manages the Global Sustainability Group, who collects, verifies and audits FMC's metrics for innovation, business practices, and environment (energy, water, greenhouse gas emissions, waste). The Global Sustainability Group works cross-functionally to monitor the implementation FMC's sustainability initiatives globally.

CC1.2
Do you provide incentives for the management of climate change issues, including the attainment of targets?

Yes

CC1.2a

Please provide further details on the incentives provided for the management of climate change issues

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
Executive officer	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target Other: Sustainability targets	FMC's executive officers and vice presidents, including those who are members of FMC's executive team, are eligible for non-monetary incentives, like recognition, as well as monetary incentives when they include sustainability-related targets, like greenhouse gas emissions and energy reductions, in their annual performance indicators. For example, Barbara Fochtman, Director of Global Operations for FMC Lithium, has included the management and accomplishment of FMC's Lithium's sustainability targets as a performance indicator in her annual performance goals. Steve Ridge, Director of Global Operations for FMC Agricultural Solutions, has also added the management and accomplishment of FMC Agricultural Solutions' sustainability metrics in his goals. FMC Agricultural Solutions and FMC Lithium have both committed to developing business-specific targets that will contribute to FMC's corporate 2025 sustainability targets to reduce energy, greenhouse gas emissions, and waste intensities by 15 percent as well as to reduce water use in high-risk areas by 20 percent.
All employees	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target Behavior change related indicator Supply chain engagement	All FMC employees are able to include the management of sustainability and/or climate change related issues into their annual performance indicators that have monetary incentives attached. All employees can decide on setting particular goal or incentive with their direct manager each year. Depending on employees' areas of focus, these goals are flexible and can pertain to employees' direct projects like energy reduction products, emissions reductions projects, or indirect projects that contribute to FMC's sustainability objectives.
Environment/Sustainability managers	Monetary reward	Emissions reduction project Emissions reduction target Other: Completion of third-party assurance of FMC's environmental data	o FMC's Global Sustainability Director, Linda Froelich, has incentives for the management of climate change-related issues within her annual performance indicators. Linda was responsible for the completion of the pre-assurance process completed in 2015 and third-party assurance of FMC's environmental data in 2015 and 2016.FMC's Sustainability Group collects FMC's energy and greenhouse gas data to monitor and track FMC's progress on its environmental targets, including the goal to reduce FMC's energy and greenhouse gas intensities by 15% by 2025.
Business unit managers	Monetary reward	Other: Collection and verification of FMC's data to report to EPA SmartWay program	FMC's Global Category Manager of Logistics has incentives in their FMC annual performance indicators to facilitate logistics greenhouse gas emissions data collection and verification of FMC's data to report to the U.S. Environmental Protection Agency's SmartWay reporting program.

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
Other: An FMC plant location, laboratory, business unit or staff functional department within a Group/Business or a Corporate Staff function	Recognition (non-monetary)	Other: Annual FMC EHS and Sustainability President's Awards	FMC's President's Awards recognize exceptional performance and/or improvement of a plant location, laboratory, business unit or staff functional department within a Group/Business or a Corporate Staff function in the areas of EHS and Sustainability.
Other: FMC employees or small groups	Recognition (non-monetary)	Other: Behavior change related indicator	FMC's Chairman's Award recognizes employees or small groups for outstanding achievements and leadership in the areas of EHS and Sustainability.
Other: Employees and their families	Recognition (non-monetary)	Other: Employee engagement	FMC's Global Sustainability Group has produced a sustainability blog, Sustainability + You, which is featured on FMC's sustainability website. The goal of the blog is to inform and engage FMC's international workforce on programs and initiatives related to sustainability at FMC. Employees and stakeholders can submit information to the Global Sustainability Group on how they are creating a more sustainable future within and outside of FMC.

Further Information

Page: CC2. Strategy

CC2.1
Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities

Integrated into multi-disciplinary company wide risk management processes

CC2.1a
Please provide further details on your risk management procedures with regard to climate change risks and opportunities

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
Annually	Board or individual/sub-set of the Board or committee appointed by the Board	All FMC Locations	> 6 years	FMC's Risk Council, Risk Management and Sustainability Groups interact with FMC business functions globally on many issues, including risks and opportunities associated with climate change. The Risk Council is responsible for ensuring good risk governance, defining strategic risks, and monitoring risk assessment processes in strategic planning, business planning, capital planning and M&A. Risk Management conducts a company-wide risk assessment to reduce FMC's exposure to risk factors, which are generally disclosed in our 10-K. The Sustainability Group also conducts an annual materiality assessment. Findings from both of these annual assessments are reported to FMC's executive leadership and Board of Directors and include factors like climate change, GHG emissions, food supply, resource efficiency, product environmental impact, and health and

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment

safety.

CC2.1b
Please describe how your risk and opportunity identification processes are applied at both company and asset level

At a company level, FMC's Risk Council, Risk Management and Sustainability Group interact with FMC locations and functions on many issues, which can include climate change risks and opportunities. The Risk Council includes FMC executive leadership and is responsible for ensuring good risk governance, defining strategic risks, and monitoring risk assessment processes in strategic planning, business planning, capital planning and M&A.

The Sustainability Group conducts an annual materiality assessment that quantitatively and qualitatively analyzes material issues. They conduct interviews with employees with a deep understanding of our business from Sustainability, Government Affairs, Internal Audit, Investor Relations, Communications, Finance, Legal and Environment/Remediation. They also conduct a survey asking internal and external stakeholders to rank sustainability issues based on each issue's perceived impact on and importance to FMC. The 2016 survey had 35 respondents, representing non-government organizations, customers, suppliers, foundations, trade associations and employees. The most material issues were reported to FMC's executive leadership team, Sustainability Steering Committee, Board Sustainability Team and in our Sustainability Report.

On an asset level, Risk Management conducts an annual risk assessment for our manufacturing sites and physical assets. It has a review process for potential natural catastrophes and possible sources of risks, which are generally disclosed in our 10-K. The Sustainability Group manages the company's energy consumption, GHG emissions, water use and waste generation data. FMC obtained third-party assurance on its 2015 and 2016 data. FMC's sites collect and report this data to the Sustainability Group, allowing us to measure our environmental impact. The Sustainability Group conducts water risk assessments, energy audits and social responsibility audits at FMC facilities and results are applied at other sites as needed.

CC2.1c
How do you prioritize the risks and opportunities identified?

A cross-functional materiality team identified 62 sustainability issues relevant to FMC that fell into 5 categories: Operations, Workplace, Environment, Marketplace, and Community. Internal stakeholders scored each issue on 5 factors: financial impact and risk, regulatory and policy drivers, peer-based norms, stakeholder concerns and societal trends and opportunities for innovation. External stakeholders scored each issue based on perceived importance to FMC. An issue that scores high on internal and external surveys is considered a material issue of high importance; high scoring issues are prioritized and considered for more research and/or stakeholder alignment. These surveys and stakeholder interviews inform our sustainability priorities, strategies, and reporting. The 10 most material issues are reported in FMC's sustainability report.

Risk Management conducts an annual risk assessment of global manufacturing sites. A recent example of how this assessment reduced potential physical risks that are projected to worsen with climate change, was when FMC analyzed potential locations for a new site in Thailand. The sites with the least risk for natural disasters, like flooding or extreme weather, were prioritized in deciding on the Rayong, Thailand location.

Enterprise Risk Management process has an Enterprise Risk Assessment component, which includes interviews of FMC's top 40 leaders annually. FMC assesses risks using impact and likelihood definitions as previously defined by the Risk Council to arrive at "enterprise" level risks. Based on this initial assessment, a preliminary report is presented to the Risk Council. After incorporating the Risk Council's input, enterprise risks are validated and the top risks prioritized in facilitated workshops with risk owners. These facilitated workshops use voting technology to find greater consensus on key risk impact, likelihood and owner. The final results are reported to the executive committee and Board each year.

CC2.2
Is climate change integrated into your business strategy?

Yes

CC2.2a

Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process

The Process

As discussed in question CC2.1a, Risk Management conducts an annual company-wide risk assessment with third-party auditors, and the Sustainability Group conducts an annual materiality assessment with internal and external stakeholders. Both assessments consider risk factors for FMC and its locations, including climate change, GHG emissions, global food supply, resource efficiency, product environmental impacts, health, and safety. Climate change was identified as a material issue. As a result, FMC began collecting information to determine our environmental impacts, such as energy usage, GHG emissions, water usage and waste generation, which are our key sustainability performance indicators. This data was used in developing our 2025 targets to reduce our environmental impacts. Our 2025 targets will ensure FMC's operations and business strategies are more efficient and resilient so we can address potential market, climate, and regulatory-based changes.

Example of Influence on Business Strategy

An example of how FMC's business strategies have been influenced by climate change is that FMC has identified five major global challenges that we can address through the use of our products, technologies, and changes in our business operations. These challenges are climate change, scarce resources, environmental consciousness, land competition and food and health expectations. Climate change was identified due to its potential impacts on FMC and our customers. We have incorporated these concerns into the kind of products we are developing, our increased investment in making our operations more efficient. In 2015, FMC decided to create our 2025 target to reduce our energy and GHG emission intensities by 15%.

Aspects

Our risk and materiality assessments indicated that climate change impacts could include more extreme weather as well as changing temperatures, growing seasons, and species distribution. A possible result of these changes is that FMC and its customers could experience higher energy and raw material costs, increased water scarcity and competition for raw materials, and decreased availability of arable land. FMC is adapting by investing in technologies to make our operations more efficient and less impactful on the environment and adapting our product portfolio to provide products that help customers mitigate and adapt to climate change.

Influence on short-term strategy

Climate change has influenced FMC's short-term strategy in that we are making changes in our business operations to become efficient in energy and GHG emissions intensities, conducting life cycle assessments on our products, and third-party assurance assessments of our environmental data, conducting energy assessments to reduce energy intensity at our high energy use manufacturing sites in Rockland, Maine, United States, Minera del Altiplano, Argentina and Cork, Ireland, and updating our Water Risk Assessment for our manufacturing sites.

Influence on long-term strategy

FMC's strategy in the next 10 years is to grow by providing products that motivate stakeholders to work with us. Our strategic position depends on sustainable investments that ensure our company runs more efficiently and resiliently by 2025. FMC aims to reduce its environmental impact while providing customers with sustainably-advantaged products. In the long-term, our Agricultural Solutions products will be needed by growers in locations that will experience changes in existing physical environments. FMC Agricultural Solutions is developing products that improve agricultural productivity by helping growers increase crop yields to feed a growing global population. Growers must adapt to less available arable land because of climate change impacts, like temperature and rainfall shifts as well as impacts like increased urbanization. FMC Health and Nutrition is creating high-value, differentiated food and health ingredients that enable our customers to help feed the world, deliver more effective medicines and support healthier lifestyles. FMC Lithium supplies lithium products used in diverse energy-efficient solutions that reduce society's impact on the climate.

FMC researchers also developed the Product Stewardship and Sustainability Assessment (PSSA) tool to ensure each new product introduction is more sustainable than the current benchmark. The PSSA tool includes questions that address FMC's identified five major global challenges. A product must show progress in at least one of the areas without regressing in another before it continues in the development process. R&D scientists and development managers must complete the PSSA at each development stage. More complete answers to the PSSA questions are developed as development on the product moves forward and more insights are gained into the product's attributes. Each FMC business has a unique PSSA tool that is appropriate and relevant for their project development. For example, Agricultural Solutions' PSSA considers human health and ecological toxicity, while Lithium's PSSA reviews whether the product promotes more sustainable energy or transportation. Every quarter, FMC aggregates PSSA scores across business units to determine our total R&D spend toward developing sustainably advantaged products. FMC has a 2020 goal is to achieve 80% of R&D spend toward sustainably advantaged products. In 2016, 76% of FMC's R&D spending on was on developing sustainably advantaged

products. We will continue to introduce these products and track their sales on a quarterly basis.

Paris Agreement
The Paris Agreement calls for countries to reduce their emissions to limit the increase in global average temperatures to 2 degrees Celsius. FMC's 2025 targets and the company's official climate change statement are indicative of the fact that FMC realizes its responsibility to limit its contributions to climate change. As FMC measures and manages its progress on the 2020 and 2025 targets it announced in 2015, it will continue to assess how its business strategies and sustainability initiatives can align with the Intended Nationally Determined Contributions (INDCs) of the Paris Agreement.

Strategic Advantage
By investing in our product portfolio and sustainably advantaged products, FMC is positioned to impact the aforementioned five major global challenges. FMC Agricultural Solutions is developing targeted chemistries and biological crop protection products (materials originating from renewable plant or natural microbial sources). FMC Health and Nutrition has provided products to satisfy customers' needs for natural foods and products that give food an extended shelf life, which is needed in areas that lack reliable refrigeration. FMC Lithium provides lithium inputs for customers to create batteries for electrically-powered vehicles, more fuel-efficient tires, lighter weight aluminum for aircraft, and other low carbon technologies to allow for greater reductions in greenhouse gas emissions.

CC2.2c
Does your company use an internal price on carbon?

No, and we currently don't anticipate doing so in the next 2 years

CC2.3
Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following? (tick all that apply)

Direct engagement with policy makers
Trade associations
Funding research organizations
Other

CC2.3a
On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
Other: Energy Storage	Support	FMC engages policy makers in the U.S. on issues related to energy storage. Specifically, supports federal funding for the advancement, manufacturing, and adoption of lithium-based energy storage.	FMC has identified five major global challenges that we can address through the use of our products, technologies and changes in our business operations. These challenges are climate change, scarce resources, environmental consciousness, land competition, and food and health expectations. We see energy storage as a means to reduce climate change and support the passage of federal funding that helps to advance lithium-based energy storage and its wide scale adoption in the energy sector. Our lithium products are used by customers to create batteries for electrically-powered vehicles, more efficient tires, lighter-weight aluminum for aircraft and other low carbon technologies.

CC2.3b
Are you on the Board of any trade associations or provide funding beyond membership?

Yes

CC2.3c
Please enter the details of those trade associations that are likely to take a position on climate change legislation

Trade association	Is your position on	Please explain the trade association's position	How have you, or are you attempting to, influence the position?

	climate change consistent with theirs?		
American Chemistry Council (ACC)	Consistent	The American Chemistry Council (ACC) and its members believe that chemistry plays an integral role in solving our world's sustainability challenges. The ACC is committed to advancing safe, innovative, effective, and economically viable chemical products and technologies that are key to unlocking sustainability solutions. The ACC's sustainability principles call on its members to address the environmental impacts from operations by achieving measurable reductions in greenhouse gas emissions and distribution of products, conserving materials and resources, reducing waste through re-use and recycling, and collaborating to reduce marine debris and its impacts. The ACC has supported a number of proposals designed to reduce greenhouse gases, and improve energy generation and efficiency. The ACC has not endorsed a specific climate change policy proposal.	FMC is a member of numerous trade and business associations that relate to the chemical, manufacturing, agricultural and consumer industries and their associated priority issues. FMC supports the ACC in its mission to deliver business value through advocacy, political engagement, communications and scientific research. The members of ACC are a diverse group of companies with differing positions on issues that impact the chemical industry. Overall, FMC supports the ACC's sustainability principles that call on ACC members to address their environmental impacts.
CropLife America (CLA)	Mixed	CropLife America (CLA) supports a number of proposals designed to impact greenhouse gas generation, energy generation and energy efficiency.	FMC is a member of numerous trade and business associations that relate to the chemical, manufacturing, agricultural and consumer industries and their associated priority issues. Diane Allemang, FMC's Agricultural Solutions Global Director - Portfolio Management & Strategic Marketing, serves on CLA's Board of Directors and was elected the 46th Chair of the board in 2015, the first woman to hold this position. FMC supports CLA in its efforts to engage with policy makers at the federal, state and local levels to develop policies and regulations. CLA is comprised of a diverse group of members that could potentially differ on certain issues that impact its members. In situations of conflict, all members have the right to advocate for an alternative position.
CropLife International (CLI) (Farming First)	Mixed	CropLife International (CLI) supports and is a member of Farming First, a coalition of multi-stakeholder organizations that articulates, endorses and promotes practical, actionable programs and activities to further sustainable agricultural development worldwide. Farming First has a set of recommendations on climate change to all governments: 1) Support the unique role of agriculture in the global climate change response, 2) Encourage the use of all available and applicable climate change solutions, 3) Promote funding mechanisms which support the needs of all levels and forms of farming, 4) Reward resource-based productivity improvements as the direct contributor to climate-change effectiveness, and 5) invest in capability sharing to encourage all farmers to play a role in climate change while safeguarding local and global	FMC is a member of numerous trade and business associations that relate to the chemical, manufacturing, agricultural and consumer industries and their associated priority issues. Mark Douglas, President, FMC Agricultural Solutions, is a member of CLI's Strategy committee. FMC supports CLI in its efforts to engage with policy makers to develop policies and regulations. CLI is comprised of a diverse group of members that could potentially differ on certain issues that impact its members. In situations of conflict, all members have the right to advocate for an alternative position.

		security.	
National Manufacturing Association (NAM)	Mixed	The National Manufacturing Association (NAM) supports an energy strategy that embraces all forms of domestic US energy production and expanding energy conservation and efficiency efforts. NAM also advocates for certain actions that positively impact manufacturing and its contributions to environmental protection. NAM has not endorsed a specific climate change policy proposal.	FMC is a member of numerous trade and business associations that relate to the chemical, manufacturing, agricultural and consumer industries and their associated priority issues. Eric Norris, President, FMC Health and Nutrition, is a Board Member of NAM. FMC supports NAM in its role as a voice for the manufacturing community and an advocate for policy designed to help manufacturers compete in the global economy. The members of NAM are a diverse group of companies with potentially differing positions on issues that impact the manufacturing sector. While FMC's position on certain issues may align with NAM's positions, we do not necessarily support all proposals and actions advocated for by NAM.

CC2.3d
Do you publicly disclose a list of all the research organizations that you fund?

No

CC2.3e
Please provide details of the other engagement activities that you undertake

FMC recognizes that education and research are vitally important to FMC's community engagement and leadership. FMC has two partnerships with the World Food Prize and the Initiative for Global Environmental Leadership (IGEL) at the University of Pennsylvania's Wharton School. In 2016, FMC was a supporter of the World Food Prize, which is known as the "Nobel Prize for agriculture" and promotes agricultural advancement in the developing world, and its Global Youth Institute, which supports student research. FMC's partnership with IGEL seeks to promote research and thought leadership in sustainable business on a global scale. In late 2015, FMC collaborated with the publication Knoweldge@Wharton on a special report, entitled, Feeding the World. In addition, FMC's Global Sustainability Director, Linda Froelich, participated in an IGEL panel discussion focused on "Careers in Sustainability," to encourage undergraduate and graduate students to consider the career path of corporate sustainability.

CC2.3f
What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

As discussed in CC1.1a, FMC has an established set of strategic and governance processes that ensure the collaboration of FMC's Governmental Affairs team with FMC's executive leadership team, business leaders, and sustainability Group on many issues, including sustainability and climate change-related issues. For example, members of FMC's Governmental Affairs Group participate on FMC's Sustainability Steering Team alongside leaders of FMC's executive leadership, leaders of FMC's three businesses (Agricultural Solutions, Health and Nutrition and Lithium) as well as group leaders from Manufacturing, EHS, R&D, Finance, Communications, Procurement, Human Resources, and Legal. In addition, members of FMC's Corporate Government Affairs have regular interactions with FMC's leaders from each function and geography in which FMC operates to define and ensure the priorities of the company are advocated for in our interactions with policy makers, trade associations, and research organizations. Through these interactions and meetings, FMC is able to discuss and ensure the company's common approach to climate change is consistent.

Further Information

Page: CC3. Targets and Initiatives

CC3.1

Did you have an emissions reduction or renewable energy consumption or production target that was active (ongoing or reached completion) in the reporting year?

Intensity target

CC3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions covered by target	Target year	Is this a science-based target?	Comment
Int1	Scope 1+2 (location-based)	100%	15%	Metric tonnes CO2e per metric tonne of product	2013	100	2025	No, and we do not anticipate setting one in the next 2 years	Within the 2015 reporting year, FMC developed and set a target to reduce the greenhouse gas intensity in our manufacturing operations by 15% from our 2013 baseline year levels by 2025. This 2025 goal includes our scope 1 and scope 2 (location-based) emissions.

CC3.1c

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
Int1	Decrease	15			Within the past year, FMC established a 2025 emissions reduction goal for our operations, which is to decrease our greenhouse gas (GHG) intensity by 15 percent. The amount of absolute emissions is highly dependent upon FMC's product production level, which could change the level of our absolute emissions.

CC3.1e

For all of your targets, please provide details on the progress made in the reporting year

ID	% complete (time)	% complete (emissions or renewable energy)	Comment
Int1	25%	2%	FMC's emissions intensity decreased in 2016 to 0.88 from our 2013 energy intensity of 0.90. We set our 2025 target to reduce our greenhouse gas intensity by 15 percent based on our 2013 emissions baseline year.

CC3.2

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

Yes

CC3.2a

Please provide details of your products and/or services that you classify as low carbon products or that enable a third party to avoid GHG emissions

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
Group of products	FMC has started to build a strong biological product and technology portfolio through BioSolutions. This portfolio is one component of FMC's comprehensive Plant Health platform, which is dedicated to advancing plant yields using biological active ingredients and microbes, which protect and stimulate crops using products derived from natural bacteria found in plants and soil, seed treatments that use bacteria to protect the seed and nurture an emerging plant once in the ground, and plant nutrition, which adds basic nutrients to the soil to ensure optimal conditions for healthy crop growth. FMC's biologicals include Fracture (a fungicide derived from sweet lupine plants), VGR Soil Amendment (a strain of the beneficial bacterium Bacillus licheniformis that creates an improved living seedbed to help increase root system size), and Ethos XB (an insecticide/fungicide that protects corn from a broad spectrum of seedling diseases). This group of products and technologies allows for several environmental advantages for growers, including water savings up to 17%, increased average product yield by 9.5 corn bushels per acre, and decreased applications and passes over crop fields that allow for less energy consumption and avoided emissions. We are following the Climate Bonds Initiative and the development of the Initiative's sector-specific taxonomy for Agriculture, Forestry & Other Land Use (AFOLU). As the parameters of what constitutes a low carbon product are further refined, we will work to further differentiate our sustainably-advantaged products that	Avoided emissions	Addressing the Avoided Emissions Challenge-Chemicals sector	1.7%	More than 60% but less than or equal to 80%	1.7% percent of FMC's Agricultural Solutions' revenue is made up of this sustainably advantaged group of products. In 2012, FMC established its first set of long-term sustainability targets in safety, R&D and community engagement. We have achieved significant progress while planning how FMC can contribute to a more sustainable future. One of these goals was to increase the percentage of our R&D spend on new solutions that positively impact FMC's five identified major global challenges climate change, scarce resources, land competition, environmental consciousness and food and health expectations that we can address with our products and technologies. Success in this area indicates that FMC is developing products that ensure more sustainable options for our customers. As of 2016, 76% of FMC's R&D spend was on sustainably advantaged products, which are products that address one of FMC's five identified major global challenges with our products and technologies. To build on our success in this area, we are dedicating 80 percent of our R&D budget to develop

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
	address climate change, scarce resources, land competition, environmental consciousness and food and health expectations from each other.					sustainably-advantaged products by 2020. This focus will ensure a pipeline of improved products far into the future.
Product	One product and technology that FMC has developed, 3RIVE 3DTM, helps to meet the challenge of feeding the world's growing population with its new 3RIVE 3DTM applicator, which is an efficient and sustainable method of applying crop protection products during planting. In 2016, FMC finalized the commercial on-planter application technology that minimizes labor, water use and fuel use. The patent-pending formulation and delivery system uses small amounts of water and expands the product three-dimensionally to cover 50 times more area than traditional formulations. This technology allows growers to plant and protect up to 500 acres on a single fill-up of the system and use 90 percent less water than traditional liquid delivery systems. FMC is formulating and testing several active ingredients with this technology, including FMC's biological products. We are following the Climate Bonds Initiative and the development of the Initiative's sector-specific taxonomy for Agriculture, Forestry & Other Land Use (AFOLU). As the parameters of what constitutes a low carbon product are further refined, we will work to further differentiate our sustainably-advantaged products that address climate change, scarce resources, land competition, environmental consciousness and food and health expectations from each other.	Avoided emissions	Addressing the Avoided Emissions Challenge-Chemicals sector	1.7%	More than 60% but less than or equal to 80%	1.7%of FMC's Agricultural Solutions' revenue is made up of this sustainably advantaged group of products. In 2012, FMC established its first set of long-term sustainability targets in safety, R&D, and community engagement. We have achieved significant progress while planning how FMC can contribute to a more sustainable future. One of these goals was to increase the percentage of our R&D spend on new solutions that positively impact FMC's five identified major global challenges climate change, scarce resources, land competition, environmental consciousness and food and health expectations that we can address with our products and technologies. Success in this area indicates that FMC is developing products that ensure more sustainable options for our customers. As of 2016, 76% of FMC's R&D spend was on sustainably advantaged products, which are products that address one of FMC's five identified major global challenges with our products and technologies. To build on our success in this area, we are dedicating 80 percent of our R&D budget to develop sustainably-advantaged

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
						products by 2020. This focus will ensure a pipeline of improved products far into the future.
Group of products	FMC Lithium produces a number of products from lithium inputs. Lithium hydroxide is a raw material used to produce the highest energy-density lithium ion batteries for energy storage applications, especially for electric vehicle batteries. FMC Lithium's butyllithium is used to create more fuel efficient tires that reduce gas consumption and greenhouse gas emissions produced from vehicles that use tires made with butyllithium. We also produce lithium for our customers to produce aluminum alloys for lighter-weight airplanes, which consume less jet fuel and produce fewer greenhouse gas emissions. FMC Lithium products are considered low carbon products according to the Climate Bonds Taxonomy, as they address increasing energy efficiency and energy storage.	Avoided emissions	Climate Bonds Taxonomy	25%	More than 60% but less than or equal to 80%	More than 60% but less than or equal to 80% Comment: 25 percent of FMC Lithium revenue is comprised of low carbon products within the 2016 reporting year. FMC is providing new lithium applications in a range of industries. We provide lithium to the aluminum industry for lithium aluminum alloys in lighter weight aircraft and aerospace applications. FMC's battery grade lithium is used in residential energy storage power packs, which can be used to support renewable energy sources. Increasing the use of energy storage for renewable energy will allow for avoided emissions from fossil fuel energy sources. As of 2016, 76% of FMC's total R&D spend was on sustainably advantaged products, which are products that positively impact one of FMC's major global challenges, which are climate change, scarce resources, environmental consciousness, land competition, and food and health expectations. To build on our success in this area, we are dedicating 80 percent of our R&D budget to develop sustainably-advantaged products by 2020.

CC3.3

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

Yes

CC3.3a

Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	8	
To be implemented*	10	361
Implementation commenced*	23	8724
Implemented*	18	2176
Not to be implemented	4	

CC3.3b

For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Other	Since 2012, FMC Agricultural Solutions in Brazil has continuously sought more sustainable packaging options. Since 2012, we have sourced “Green Bottle” packaging, which is composed of at least 51 percent sugarcane-based polyethylene. From 2012 to 2016, purchasing Green Bottles allowed FMC to avoid 3,520 tons of CO2 that would have been associated with 100 percent petroleum-based packaging. In addition to the Green Bottles, we use recycled bottles that are composed of at least 85 percent recycled polyethylene. Using these recycled bottles instead of virgin plastic materials allowed FMC to	2565	Scope 3	Voluntary	0	0	<1 year	Ongoing	The main costs associated with the Green Bottles and packaging recycling investments is mainly the labor of the companies involved (FMC, partners and suppliers). They had small investments to adequate their plants but not relevant. There

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	avoid over 1,600 tons of GHG over the three-year period. We have also used 100 percent recycled polypropylene bottle caps since 2015. However, these more sustainable packaging options comprised only 20 percent of packaging used in FMC Brazil leading into 2016. As a result, the decision was made to advance FMC's Green Bottle packaging in 2016. FMC worked to decrease the cost of the Green Bottle packaging from 18% to only 3% higher costs from non-Green Bottles (bottles made of 100% Polyethylene fossil). We have worked to generate cost savings in other areas with our packaging suppliers to reduce the increased cost impact of the Green Bottles. By 2018, we plan to shift to using 100 percent of packaging in the region to these more sustainable options including 85 percent Green Bottles and 15 percent recycled bottles. In 2017 and 2018, we will capture GHG in 47% more than past 5 years. Our 2016 commitment is estimated to reduce 2,154 tons of CO2 in 2017 and an estimated total of 5,162 tons of CO2 by 2018. With the success of this packaging project in Brazil, FMC is investigating how best to extend this project to EMEA and other regions in which FMC operates.								is no cost to FMC regarding this project as any cost increases were covered by cost savings in other areas.

CC3.3c

What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	We are conscious of compliance with regulatory requirements and standards. For example, FMC switched the fuel source to natural gas at its facility in Rockland, Maine, United States. A regulation on sulfur emissions in Maine will come into effect in 2017-2018. FMC voluntarily switched the fuels source of this facility from No. 6 fuel oil to compressed natural gas prior to the new regulation for financial and environmental reasons.

Method	Comment
Internal incentives/recognition programs	On an annual basis, FMC recognizes its employees' contributions to EHS and sustainability. They are eligible to be nominated for two awards for their achievements in these areas. FMC's President's Award recognizes the exceptional performance and/or improvement of a plant location, laboratory, and business unit or staff functional department within a Group/Business in the areas of EHS and sustainability. FMC also has a Chairman's Award that recognizes employees or small groups within the company for outstanding achievements and leadership in the areas of EHS and Sustainability.
Other	FMC has a dedicated budget for process improvements at its established Technical Centers, which conduct research in energy efficiency and emissions reductions activities. The Technical Centers perform energy audits and process improvement at FMC facilities and findings from these audits are implemented at other FMC locations as needed.
Dedicated budget for low carbon product R&D	In 2012, FMC established its first set of long-term sustainability targets in safety, R&D, and community engagement. We have achieved significant progress while planning how FMC can contribute to a more sustainable future. One of these goals was to increase the percentage of our R&D spend on new solutions that positively impact FMC's five identified major global challenges climate change, scarce resources, land competition, environmental consciousness and food and health expectations that we can address with our products and technologies. Success in this area indicates that FMC is developing products that ensure more sustainable options for our customers. As of 2016, 76% of FMC's R&D spend was on sustainably advantaged products, which are products that address one of FMC's five identified major global challenges with our products and technologies. To build on our success in this area, we are dedicating 80 percent of our R&D budget to develop sustainably-advantaged products by 2020. This focus will ensure a pipeline of improved products far into the future.

Further Information

Page: CC4. Communication

CC4.1

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

Publication	Status	Page/Section reference	Attach the document	Comment
In mainstream reports (including an integrated report) but have not used the CDSB Framework	Complete	FMC 2016 Annual Report: 10-K PDF, Pg. 9 (Risk factors: Climate change regulation), Pg. 30 (Contingencies: Climate change)	https://www.cdp.net/sites/2017/27/23227/Climate Change 2017/Shared Documents/Attachments/CC4.1/FMC 2016 Annual Report.pdf	FMC included the company's potential risks and impacts from climate change regulation as well as the environmental impacts from climate change in the company's 2016 Form 10-K. As we stated in the 10-K, we continually assess our manufacturing sites worldwide for regulation, physical parameters, and other climate-related developments that may impact the company. We also included actions we are taking to address climate change now and in the future. FMC has 2025 goals to reduce our energy intensity and greenhouse gas (GHG) intensity both by 15% from our 2013 baseline year.

Publication	Status	Page/Section reference	Attach the document	Comment
In mainstream reports (including an integrated report) but have not used the CDSB Framework	Complete	FMC's 2016 Sustainability Report, pgs. i,1, 2, 5, 6, 7, 8, 20, 23	https://www.cdp.net/sites/2017/27/23227/Climate Change 2017/Shared Documents/Attachments/CC4.1/FMC_2016_Sustainability_Report.pdf	Climate change and FMC's greenhouse gas emissions performance are disclosed in our 2016 Sustainability Report, "Built for Progress." The report details our progress on achieving our 2020 goals for safety, innovation and community engagement as well as our progress on our 2025 goals to improve our environmental performance and position the company for long-term success. Since 2011, sustainability has become an integral part of our business and operations strategy as we strive to impact five major global challenges, which are climate change, environmental consciousness, scarce resources, land competition, and food and health expectations. Our commitment to addressing these challenges and our long-term sustainability targets will hold us accountable to address these challenges. Both ensure that by 2025, FMC will have decreased its environmental footprint while continuing to innovate and develop valuable products that benefit society and address climate change.
In mainstream reports (including an integrated report) in accordance with the CDSB Framework	Complete	FMC's Climate Change Statement	https://www.cdp.net/sites/2017/27/23227/Climate Change 2017/Shared Documents/Attachments/CC4.1/FMC Cliamte Change Statement.jpeg	In FMC's Climate Change Statement, we recognize that climate change is a critical global issue. We acknowledge the scientific research on climate change, state our position on this issue and provide information on how we are addressing it. As a global corporate citizen, FMC is concerned about the short- and long-term consequences of climate change and is taking action by committing to reduce its energy and greenhouse gas intensities 15 percent by 2025. To achieve these goals, FMC is continually assessing its manufacturing sites for opportunities for sustainable energy sourcing and increasing energy efficiencies. We are also working to improve our existing product lines and to develop new technologies that help to mitigate climate change. To spur even greater progress in addressing climate change, we are collaborating with FMC's suppliers to reduce energy consumption throughout the supply chain and partnering with customers, suppliers, and contractors to improve their energy efficiencies and to reduce greenhouse gas emissions.
In mainstream reports (including an integrated report) but have not used the CDSB	Complete	FMC's sustainability website	https://www.cdp.net/sites/2017/27/23227/Climate Change 2017/Shared Documents/Attachments/CC4.1/FMC Sustainability Website Homepage 2017.jpeg	FMC updates its sustainability website (www.fmcsustainability.com) with sustainability and climate change-related information regularly. Actions the company and its employees are taking to address these issues are published on the blog, "Sustainability + You." The blog invites employees and stakeholders to submit stories and information on how they are creating a more

Publication	Status	Page/Section reference	Attach the document	Comment
Framework				sustainable future within and outside of FMC.
In mainstream reports (including an integrated report) but have not used the CDSB Framework	Complete	FMC's 2016 submission to CDP Climate Change	https://www.cdp.net/sites/2017/27/23227/Climate Change 2017/Shared Documents/Attachments/CC4.1/FMC 2016 CDP CC Response on FMC Sustainability Website.jpeg	FMC has included its 2016 submission to CDP's climate change program on the company's sustainability website in order to inform the public on the actions FMC has taken to address climate change since 2012.

Further Information

Module: Risks and Opportunities

Page: CC5. Climate Change Risks

CC5.1
Have you identified any inherent climate change risks that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Risks driven by changes in regulation
Risks driven by changes in physical climate parameters
Risks driven by changes in other climate-related developments

CC5.1a
Please describe your inherent risks that are driven by changes in regulation

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Cap and trade schemes	FMC is currently subject to the European Union (EU) Emission Trading Scheme (ETS), which has a goal to reduce greenhouse gas emissions by 43 percent by 2030 from 2005 emission levels. Started in 2005, the EU ETS was designed to be implemented in a	Increased operational cost	1 to 3 years	Direct	Virtually certain	Low	The potential impacts of proposed or established cap and trade schemes on different FMC locations around the world are similar. Requirements of cap and trade schemes may result in	FMC continues to follow legislative and regulatory developments regarding climate change because the regulation of greenhouse gases, depending on their nature and scope, could subject FMC	Depending on the yet-to-be determined requirements of cap-and-trade schemes of the EU ETS's Phase IV and China's cap-and-trade scheme, a percentage of FMC's revenues in EMEA and Asia ($783.4 million) and

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	series of four phases. The third phase (2013-2020) of the EU ETS is currently in effect and the emissions allowances decline by 1.74 percent annually. As of now, each member nation participating in the EU ETS sets the cap and distributes free emissions allowances. FMC's Ronland, Denmark plant is subject to the EU ETS and is below Phase III's emissions cap. In 2021, Phase IV of the EU ETS will come into effect and allowances will decrease by 2.2 percent annually from 2021 to 2030. Our Ronland, Denmark plant will continue to be subject to the EU ETS and the new emissions limits in Phase IV may increase costs at this plant, depending on the new EU-wide emissions cap and the cost of procuring allowances. Additionally, China is in the process of expanding the implementation of the country's cap and trade program across the country in order to limit emissions. General environmental regulations in China and the country's cap-and-trade program are						increased costs of energy, increased costs for purchasing emissions allowances, and additional capital costs for emissions controls or new equipment. At this point in time, our plant in Denmark is below the EU ETS designated emissions cap for the EU ETS Phase III. The potential financial implications of complying with a lower cap will be determined as the Phase IV of the EU ETS is finalized in 2021. Each member country of the EU ETS sets the emissions cap and the price of allowances. Consequently, the costs of complying with future cap and trade schemes' requirements are difficult to estimate at this time.	manufacturing operations to additional costs or limits on operations. FMC has also set an overall 15 percent energy intensity reduction goal. By reducing our emissions of greenhouse gases and investing in energy and process efficient equipment for our manufacturing facilities for 2025, we lessen the likelihood of a material risk from greenhouse gas legislation. The Technical Centers for our three businesses (Agricultural Solutions, Health and Nutrition, and Lithium) conduct research on and implement energy efficiency and emissions reductions activities at our facilities.	Asia Pacific ($798.5 million) could be impacted. FMC has and will continue to implement energy and process efficiency projects to reduce our energy consumption and GHG emission generation. FMC has a dedicated budget for process improvements at its established Technical Centers, which conduct research in energy efficiency and emissions reductions activities. The Technical Centers perform energy audits and process improvement at FMC facilities and findings from these audits are implemented at other FMC locations as needed. FMC's total annual investment in the technical centers can range, from approximately $30 to $35 million.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	designed to improve air quality and the environment and they are quickly becoming more prevalent throughout the country. FMC realizes the potential impacts on the company's operations due to government's recent increased focus on improving the country's environmental conditions. Environmental regulations have the potential to increase the costs of active ingredient contract manufacturing companies that produce our active ingredients. Depending on how additional countries implement cap and trade in the long-term, FMC could potentially need to increase capital investment in emission reduction technology to reduce its GHG emissions.								

CC5.1b

Please describe your inherent risks that are driven by changes in physical climate parameters

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Induced changes in natural resources	According to the U.S. Global Change Research Program's National	Reduction/disruption in production capacity	>6 years	Direct	Likely	Medium	As noted in the International Panel on Climate Change Fifth	FMC has diversified its raw material sourcing locations to reduce	FMC has diversified its raw materials sourcing for our businesses, and the

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	Climate Assessment, climate change is projected to cause many changes in physical climate parameters. These include increases in extreme weather events as well as changes in sea levels, mean temperatures, precipitation levels and precipitation patterns. The interaction of these physical parameters could have significant impacts on natural resources in the locations in which FMC operates. Several FMC properties are at or near sea level. Dramatic changes in sea levels and more intense storm surges could cause a need to protect both these natural resources and FMC properties from storm surges and flooding. Our Health and Nutrition business depends on sourcing natural materials for its products, like seaweed for						Assessment Report, quantitative estimates to measure the private costs of climate change may be incomplete due to difficulty in measuring all relevant effects over time. FMC Health and Nutrition's potential financial impact of changes in natural resources depend on the geographic range, time frame and severity of the changes. Our raw materials sourcing from some seaweed and pulp sourcing locations could be impacted. If changes are significant in the long-term, it would pose a risk to our production capacity. FMC could experience higher costs with adapting to	potential impacts of changing natural resources. If we are unable to source from our current locations, we can increase sourcing elsewhere. We are examining options to protect our resources and sites close to sea level against sea level changes and stronger storm surges, like at our Ronland, Denmark site plans to strengthen its dike system. To mitigate potential risks to water quality and supply, we conducted a Water Risk Assessment in 2013 that compared our sites' water use with the World Resources Institute's Aqueduct™ water mapping tool. A Lithium site in Minera del Altiplano, Argentina indicated a need to better understand potential	estimated cost of management of this issue is part of our business operations and expenditures. FMC has allocated over 76% of its 2016 R&D spend on developing sustainably advantaged products, which are products that address global challenges like climate concerns, scarce resources, food and health expectations, land competition or environmental consciousness. FMC can impact these challenges with our products and technologies as well as by decreasing our operations' environmental footprint. We have set a 2020 goal to increase the percentage of our R&D spend to 80 percent or more on developing sustainably advantaged products.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	carrageenan and alginates, wood pulp for microcrystalline cellulose and fish stocks for omega-3 fish oils. The interaction of the projected changes in the physical parameters listed above has the potential to disrupt and/or reduce our Health and Nutrition business' supply and production capacity. FMC Lithium also faces some risk with induced changes in natural resources. Changes in mean temperature have the potential to increase water scarcity in many parts of the world, and our raw materials sourcing operation depends on access to water. Induced changes in natural resources from climate change could increase the risk of disruptions in production capacity. FMC Lithium could experience increased costs						sea level rise, storm surges and changes in natural resources as we will need to fortify our sites near sea level. The percentage of Health and Nutrition's and Lithium's revenue that would be impacted would depend on the severity of changes in natural resources. (Health and Nutrition's 2016 revenue was USD$743.5 million and Lithium's 2016 revenue was USD$264.1 million.)	future water instability. We modeled the system to develop conservancy and contingency strategies to ensure long-term water availability. In 2015, we updated the assessment and created a 2025 goal to reduce water use in water scarce areas by 20 percent from our 2013 baseline.	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	in sourcing its raw materials as we take steps to mitigate this risk.								
Induced changes in natural resources	Induced changes in natural resources could be both a risk and an opportunity for FMC's Agricultural Solutions business depending on the geographic location and the severity of climate change impacts on our customers. The National Climate Assessment projects that growers in many regions will face impacts on crop yields and livestock development because of changes in growing seasons, insect vectors and species distributions due to increasing extreme weather, changing mean temperatures, precipitation patterns and mean precipitation levels. FMC Agricultural Solutions develops	Reduced demand for goods/services	>6 years	Indirect (Client)	Likely	Medium	As noted in the International Panel on Climate Change Fifth Assessment Report, quantitative estimates measuring private costs of climate change may be incomplete due to the difficulty in measuring all relevant effects over time. FMC Agricultural Solutions could be impacted by changes in natural resources. If impacts on growers are significant and FMC did not have products in the market to address these impacts, then it could be a material risk to our business. The financial impact on our Agricultural Solutions	FMC Agricultural Solutions helps growers increase crop yields in areas impacted by changes in physical parameters by supplying insecticides for insect control, herbicides for weed control in crops and soil, fungicides for disease control, and biologicals, which are materials originating from renewable plant or natural microbial sources. FMC's biologicals have a lower environmental impact and can increase crop yields by up to 9.5 bushels per acre of corn compared to yields from untreated fields. FMC has developed 3RIVE 3DTM, which helps to	FMC allocated over 76 percent of 2016 R&D spend on developing sustainably advantaged products, which address global challenges like climate change, scarce resources, land competition, environmental consciousness and food and health expectations. FMC can impact these challenges by decreasing our operations' environmental footprint and by providing customers with our products and technologies to mitigate and adapt to impacts from climate change. We are managing the risk of induced changes in natural resources in two ways. We have set 2025 goals to reduce our energy,

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	agricultural products and technologies to help growers combat the effects of these changes on their crops and we could experience greater market uncertainty because an increase in unpredictable growing conditions would negatively affect our customers. The severity and extent of induced changes in natural resources would affect our customers and in turn, it could affect their need for our products and technologies. Agricultural Solutions could experience a decrease in demand if our products and technologies do not align with the solutions that growers need.						and our customers is difficult to project at this point in time because of the difficulty in estimating the potential costs to our growers in different geographic locations, in what time frame and the severity of impacts. The percentage of Agricultural Solutions' revenue that would be impacted would depend on the severity of the changes in natural resources. (Agricultural Solutions' 2016 revenue was $2.3 billion.)	meet the challenge of feeding the world's growing population with its efficient method of applying crop protection products during planting. In 2016, FMC finalized the commercial on-planter application technology that minimizes labor, water use and fuel use. The patent-pending formulation and delivery system uses small amounts of water and expands the product three-dimensionally to cover 50 times more area than traditional formulations. It allows growers to plant and protect up to 500 acres on a single fill-up of the system and use 90 percent less water than traditional liquid delivery systems. FMC is formulating and testing active	GHG and waste intensities by 15 percent and our water use intensity by 20 percent in water scarce areas. We also set a 2020 goal to increase the percentage of our R&D spending to 80 percent or more on developing sustainably advantaged products. Therefore, the estimated cost of management of managing changes in natural resources by developing new products is part of our business operations and expenditures.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								ingredients with this technology, including biological products. We will add products that aid growers in fighting new invasive species of weeds, insects and plant diseases to replace potential decreases in the sales of products that become less preferable to customers.	

CC5.1c

Please describe your inherent risks that are driven by changes in other climate-related developments

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Changing consumer behavior	Climate change and its impacts have the potential to induce changes in customer preferences for products and/or services. People are increasingly concerned about the environment and the impact that companies' products and operations have on the environment. In the future, some consumers' preferences could	Reduced demand for goods/services	>6 years	Direct	Likely	Medium	The potential risks associated with changing consumer behavior depend on the time frame and extent to which consumers decide to switch to products they perceive as "greener" or more "climate-friendly" because of increased concern for	FMC actively addresses risks from major global challenges through the use of our products and technologies. We increased our R&D spending on developing sustainably advantaged products to 76 percent in 2016 and committed to a 2020 goal to increase our R&D spending to 80 percent so we can address	The cost of managing changing consumer behavior is difficult to predict and quantify over time to include in an overall strategy. We do track changes affecting customer preferences and are conscious of changing consumer preferences

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	change, and they could prefer to support products, technologies and companies that they perceive as “friendlier” and/or less impactful on the environment. These potential changes in consumer preferences would have an impact on all industries and the chemical sector. An example of conceivable changing consumer preference relates to agricultural livestock production, which currently accounts for approximately 15 percent of gross global greenhouse gas emissions. As some consumers become more concerned about the environment, they could decrease their consumption of meat to lessen their individual impact on the environment and climate change. As a result, FMC’s customers could experience a decreased demand for livestock, leading to a decreased demand for FMC’s agricultural						society’s negative impacts on the environment. The financial impacts on FMC will also depend on our product portfolio and our ability to adapt our products with changing consumer behavior. The actual financial implications are difficult to quantify and could change over time. The risk of changing consumer behavior has the potential to impact a percentage of FMC’s sales of its Agricultural Solutions products, which was $2.3 billion in 2016. Losses in product sales could be compensated by increased sales of our sustainably advantaged products, including biologicals and technologies.	potential market and other-climate related developments, including changing consumer behavior. Consumers will ask companies for information about their products, operations and environmental management. We provide stakeholders with information on how our products and technologies address major global challenges and information on our sustainability initiatives. Our employees engage with stakeholders by contributing to the communities in which FMC operates. FMC’s Community Engagement Index measures our impact within our communities and we committed to a 2020 goal to increase our community engagement score to 100. These engagement efforts and developing sustainably advantaged products help to increase	due to climate change and its impacts. In response, we are also developing sustainably advantaged products and technologies to help address consumers’ increasing interest in agricultural products that are less impactful on the environment. 76 percent of FMC’s R&D spend was on developing sustainably advantaged products and we have set a 2020 goal to increase this percentage of spend to 80 percent.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	products used to grow animal feed from corn and soybeans. Depending on the extent to which consumers and our customers' preferences change and our ability to adapt our portfolio to these changing preferences, our product sales and revenue could be impacted.							consumer's knowledge of FMC and our role in reducing climate change.	

Further Information

Page: CC6. Climate Change Opportunities

CC6.1

Have you identified any inherent climate change opportunities that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Opportunities driven by changes in regulation
Opportunities driven by changes in physical climate parameters
Opportunities driven by changes in other climate-related developments

CC6.1a

Please describe your inherent opportunities that are driven by changes in regulation

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Other regulatory drivers	FMC supports legislation that provides incentives for the development of renewable energy storage. The	Increased demand for existing products/services	1 to 3 years	Direct	Likely	Low-medium	As more countries around the world and states make plans to reduce their carbon emissions, it is likely that additional legislation	FMC is a long-time leader in lithium research and innovation. We are working on the challenge of developing lithium products and	FMC has committed to increasing the percentage of R&D spending on developing sustainably advantaged products from 76

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	Paris climate agreement signed at the COP21 Conference was highly significant because companies and 195 countries pledged that by 2050, they will decrease their greenhouse gas emissions to limit the rise in global temperatures to 2 degrees Celsius from 1990 global emissions' levels. In order to do so, energy storage will be needed to hold excess supplies of energy generated by renewable and nuclear sources. Stored energy can be used to cover the intermittent-nature of renewable sources, short-term demand spikes, and peak demand times. Legislation						will be enacted to encourage consumers to purchase fuel-efficient and electric vehicles. For example, the state of California is often at the forefront of legislation to reduce climate change. California has the Clean Vehicle Rebate Project, which is an incentive program that offers California residents up to $6,500 for the purchase of new, eligible zero-emission or plug-in hybrid light-duty vehicles. There are potential regulations that could benefit FMC Lithium in the 1 to 3-year time frame as well as more potential regulations beyond 3 years. Consumers'	applications that improve battery performance. We are currently researching new applications of our lithium products in a range of industries. FMC is the only producer of high-purity lithium metal in the Western Hemisphere. It is used in lithium-aluminum alloys that strengthen an aircraft's fuselage while also reducing its weight. Light-weight materials enable an aircraft to be more fuel efficient. Our battery grade lithium is used in electric vehicles and residential energy storage power packs, which can also be used to support the adoption of renewable energy sources. Over the next several years,	percent to over 80 percent by 2020. Our strategic position depends on our sustainable investments that ensure our company runs more efficiently and resiliently by 2025. In order to do so, we will proactively address market, climate and regulatory-based risks and opportunities. The cost of management of this regulatory opportunity driver is currently factored into our business strategy.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	supporting research and development of energy storage, in particular lithium-based energy storage, would not only provide an opportunity for FMC Lithium, but also encourage the transition to renewable sources, thereby reducing climate change.						increasing preference for electric vehicles (EV) in addition to incentive programs has the potential to increase FMC's Lithium's lithium hydroxide sales. At FMC, we believe demand for lithium will grow more than 10 percent every year throughout the next decade.	FMC will increase its production capacity of lithium hydroxide by a total of 20,000 metric tons per year, in response to the strong demand for FMC's battery grade lithium hydroxide.	

CC6.1b

Please describe your inherent opportunities that are driven by changes in physical climate parameters

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Induced changes in natural resources	Climate change is predicted to cause more extreme weather conditions as well as changing temperatures, precipitation patterns and mean precipitation levels. The National	Increased demand for existing products/services	>6 years	Indirect (Client)	Likely	Medium	It is likely FMC Agricultural Solutions and its customers will be impacted by induced changes in natural resources from climate change. We are investigating potential opportunities	FMC is well-positioned to help farmers overcome these threats and increase crop yields with its insecticides, fungicides, herbicides and biologicals, which are materials originating from	FMC Agricultural Solutions has a well-diversified product portfolio that will help growers address climate-related impacts and will continue to innovate and add

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	Climate Assessment projects that due to these climate-related changes, growers in many regions of the world will face potential impacts on crop yields and livestock development because of changes in growing seasons, diseases, weeds, insect vectors and species distributions. At the same time, growers will need to produce more food and increase their crop yields to support global population growth of approximately 75 million people per year. FMC Agricultural Solutions provides products and technologies that increase crop yields and/or water efficiency, which will help to reduce the effects of climate change on growers and support them in						to sell our agricultural products to growers in northern latitudes of the United States, where there has been an increase in soybean and corn production in recent years. As temperatures warm in states like Wisconsin, North Dakota and in the Canadian province of Saskatchewan, growers will be able to grow more soybeans and corn. Overall, the geographic range, time frame and significance of climate impacts on regions where our customers are located remain to be determined. If the impacts on growers are highly significant and FMC has the right agricultural products and technologies in the market to address these impacts, it would be a significant	renewable plant or natural microbial sources. FMC's biologicals have a lower environmental impact. For example, our biologicals are capable of helping farmers increase crop yields of corn by up to 9.5 bushels per acre compared to yields from untreated fields. New FMC crop protection products, like 3RIVE 3D™, combines crop protection products by combining patent-pending formulation technology and specifically-designed application technology. In beta testing, growers who use this technology with the 3RIVE 3D applicator on their corn crops can plant as much as 500 acres using 90% less water while maintaining necessary crop	products to our portfolio as market and growing conditions change. The estimated cost of management of research and development is part of our business operations and expenditures. FMC increased its R&D spending on developing sustainably advantaged products to 67 percent of total R&D spending. We have also set a 2020 target to increase the percentage of our R&D spending to 80 percent or more on developing sustainably advantaged products and technologies that address major global challenges like climate change, scarce resources, land competition, environmental consciousness and food and health expectations.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	meeting increasing food demand. Agricultural Solutions will continue to develop agricultural products and technologies designed to help growers combat the effects of climate-related changes on their crops. Depending on how pervasive the effects are in different geographic locations experiencing changes in natural resources, FMC's customers could be significantly impacted. FMC has a well-diversified portfolio that can help growers adapt to more unpredictable growing conditions and the effect these types of threats to crops. For example, as temperatures increase in the Northern Hemisphere, crops like soybeans and corn could be grown in more						opportunity for Agricultural Solutions.	protection. Honored by Farm Industry News, as a leading new technology in 2015, 3RIVE 3D has the potential to significantly reduce labor, time, water, fuel use and greenhouse gases emissions during planting operations. We have a well-diversified product portfolio and will continue to add products that aid growers in fighting potentially new invasive species of weeds, pests, insects and plant diseases.	

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	northern latitudes, creating an opportunity for FMC to sell its agricultural products to promote plant health and development in new growing regions.								
Induced changes in natural resources	Climate change is projected to cause changes in physical climate parameters, including changes in sea levels, mean (average) temperature, temperature extremes, mean (average) precipitation levels and precipitation patterns. These parameters will interact with each another and induce changes in natural resources, which would be an opportunity for FMC depending on the geographic region and the extent of the changes. FMC Health and Nutrition is exploring	Increased production capacity	>6 years	Direct	More likely than not	Low-medium	The financial implications of induced changes in natural resources for our Health and Nutrition business would vary depending on the geographic range, time frame and severity of the changes. FMC Health and Nutrition has diversified its raw materials sourcing locations and is well positioned to begin sourcing its raw materials, like seaweed, from new areas that become available due to climate-related changes.	Projections of long-term physical changes have been influential in our business decisions. FMC Health and Nutrition has diversified the locations from which we source our raw materials like seaweed. For example, we have investigated potential new locations where seaweed could be grown and sustainably harvested. FMC has also developed strong relationships with our current seaweed suppliers, and we proactively work with seaweed farmers to gauge	FMC Health and Nutrition has diversified its raw materials sourcing, and we will continue to monitor changes and make changes in our procurement strategy as necessary. We have also investigated potential new opportunities for raw materials sourcing due to changes physical climate parameters. The estimated cost of management of diversification is part of our business operations and expenditures.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	potential opportunities for seaweed farming. Warming sea temperatures could allow seaweed to be farmed in new areas where sea temperatures were previously too cold. Other areas that currently experience too much precipitation for seaweed farming could become drier as climate change affects precipitation levels and patterns. Drier climates and longer harvesting seasons could increase seaweed farming capacity.							potential changes in their ability to sustainably source seaweed due to physical changes and to increase the resiliency of our supply chain. These management methods reduce the risk of disruptions in our supply chain and allow us to pursue new sourcing opportunities.	

CC6.1c

Please describe your inherent opportunities that are driven by changes in other climate-related developments

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Changing consumer behavior	As people become more aware of product impacts on the environment, they are	New products/business services	1 to 3 years	Direct	Likely	Medium	The potential opportunities associated with changing consumer behavior will	FMC Agricultural Solutions helps address growers' need for products with a lighter	FMC is actively addressing major global challenges like climate change, scarce

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	demanding more natural and benign materials to reduce individuals' impacts on the environment. Changing consumer behavior presents an opportunity for FMC to develop products that are less impactful on the environment and/or products with a low-carbon life cycle. Growers prefer agricultural products with a lighter environmental footprint and ones that reduce labor, time, water, fuel use and GHG emissions. FMC Agricultural Solutions has a potential opportunity to provide products that fulfill these consumer preferences. Consumers are likely to become more concerned about how negative environmental impacts affect						depend on the timeframe and extent to which consumers decide to switch to products they perceive as "greener" or more "climate-friendly" out of increased concern for society's negative impacts on the environment. How FMC will benefit from these opportunities financially will depend on our ability to adapt our products with consumers' changing behavior. As noted in the IPCC's Fifth Assessment Report, quantitative estimates measuring the financial impact of climate change on companies may be incomplete because of difficulties in measuring all relevant climate-change effects over	environmental footprint in our biologicals products. One product can increase corn yields by up to 9.5 bushels per acre compared to yields from untreated fields and our crop protection technologies like 3RIVE 3D™ significantly reduce labor, time, water, fuel use and GHG emissions in planting operations. FMC Health and Nutrition addresses consumers' changing preferences and environmental concerns with natural products and differentiated food and health ingredients for healthier lifestyles. FMC Lithium develops lithium products for improved battery performance. We provide lithium to the aluminum industry for lithium aluminum	resources, land competition, food and health expectations and environmental consciousness. In 2016, we have dedicated 76 percent of our R&D spend to developing sustainably advantaged products and technologies and have committed to increase this percentage to 80 percent by 2020. A sustainably advantaged product addresses the previously mentioned major global challenges. By addressing these challenges in our R&D spend for developing sustainably advantaged products and technologies, we are better able to address potential market and other-climate related developments, including changing consumer behavior. The cost of these

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	their health and wellbeing on a personal level. As a result, they are likely to choose natural products that they perceive as better for the health of the environment and for their personal health. As economies develop and people's incomes rise, consumers will expect greater food variety that is healthier and contains recognizable ingredients. FMC Health and Nutrition has a potential opportunity to provide products that fulfill these consumer preferences. Climate change and environmental responsibility is one of the leading global concerns today. In 2015, governments worldwide signed the Paris climate agreement at the United Nations' COP21 Conference. They agreed that fossil fuel						time. More dramatic climate-change effects in the short-term could accelerate consumers' preference for FMC's sustainably advantaged products and technologies.	alloys used in lighter weight aircraft and aerospace applications. Our battery grade lithium is used in electric vehicles and residential energy storage power packs. FMC is tripling its production capacity of lithium hydroxide by 20,000 metric tons per year due to strong demand for our battery grade lithium hydroxide.	R&D programs has already been incorporated into our business strategy.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	consumption and greenhouse gas emissions must be reduced. FMC Lithium addresses these needs by supplying lithium products that can be used in energy-efficient solutions that reduce climate change.								

Further Information

Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading

Page: CC7. Emissions Methodology

CC7.1
Please provide your base year and base year emissions (Scopes 1 and 2)

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 1	Tue 01 Jan 2013 - Tue 31 Dec 2013	325603
Scope 2 (location-based)	Tue 01 Jan 2013 - Tue 31 Dec 2013	87578
Scope 2 (market-based)	Wed 21 Jun 2017 - Wed 21 Jun 2017	0

CC7.2
Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

Please select the published methodologies that you use

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

US EPA Mandatory Greenhouse Gas Reporting Rule

Please select the published methodologies that you use

Other

CC7.2a
If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

FMC uses the International Energy Agency's CO2 Emissions from Fuel Combustion for our sites in the United States.

CC7.3
Please give the source for the global warming potentials you have used

Gas	Reference
CO2	IPCC Fifth Assessment Report (AR5 - 100 year)
CH4	IPCC Fifth Assessment Report (AR5 - 100 year)
N2O	IPCC Fifth Assessment Report (AR5 - 100 year)
HFCs	IPCC Fourth Assessment Report (AR4 - 100 year)
PFCs	IPCC Fourth Assessment Report (AR4 - 100 year)
SF6	IPCC Fourth Assessment Report (AR4 - 100 year)
NF3	IPCC Fourth Assessment Report (AR4 - 100 year)

Other: Blended Refrigerants (R-401 - R-509)Other: ASHRAE Standard 34

CC7.4
Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data at the bottom of this page

Fuel/Material/Energy	Emission Factor	Unit	Reference
			See attached Excel file for FMC's answer to CC7.4.

Further Information

See attached Excel file for FMC's answer to CC7.4.

Attachments

https://www.cdp.net/sites/2017/27/23227/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC7.EmissionsMethodology/FMC Electric,Steam+GHG GWP Factors for 2017 CDP Submission.xlsx

Page: CC8. Emissions Data - (1 Jan 2013 - 31 Dec 2013)

CC8.1

Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Financial control

CC8.2
Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e

325603

CC8.3

Please describe your approach to reporting Scope 2 emissions

Scope 2, location-based	Scope 2, market-based	Comment
We are reporting a Scope 2, location-based figure	We have no operations where we are able to access electricity supplier emissions factors or residual emissions factors and are unable to report a Scope 2, market-based figure	

CC8.3a
Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
87578	0	

CC8.4
Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

CC8.5
Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	More than 10% but less than or equal to 20%	Data Gaps Assumptions Metering/ Measurement Constraints Data Management Other: Human error	FMC acquired Cheminova A/S in 2015, and as per the Greenhouse Gas Protocol, we excluded data from legacy Cheminova sites for one year. We are restating FMC's energy and greenhouse gas data to include manufacturing data from legacy Cheminova sites. As our data tracking system has matured over time, so has the level of certainty in the data. Therefore, historical data inherently includes more uncertainty that has been refined through more recent processes. There is potential uncertainty due to the inherent limitations of the measurement devices used to track emissions. Additionally, data is collected and manually entered into FMC’s tracking and reporting process on a quarterly basis. Manual entry of data involves the potential risk of human errors and unintended mistakes while entering data into the system. There is also potential uncertainty in data gabs and assumptions due to possible oversight in our data system.

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 2 (location-based)	More than 10% but less than or equal to 20%	Data Gaps Assumptions Metering/ Measurement Constraints Data Management	FMC acquired Cheminova A/S in 2015, and as per the Greenhouse Gas Protocol, we excluded data from legacy Cheminova sites for one year. We are restating FMC's energy and greenhouse gas data to include manufacturing data from legacy Cheminova sites. As our data tracking system has matured over time, so has the level of certainty in the data. Therefore, historical data inherently includes more uncertainty that has been refined through more recent processes. There is potential uncertainty in our scope 2 (location-based) data as a result of assumptions due to the uncertainty of the factors used in published electricity emission factors. There is potential uncertainty due to the inherent limitations of the measurement devices used to track emissions. Additionally, data is collected and manually entered into FMC’s tracking and reporting process on a quarterly basis. Manual entry of data involves the potential risk of human errors and unintended mistakes while entering data into the system. There is also potential uncertainty in data gabs and assumptions due to possible oversight in our data system.
Scope 2 (market-based)			

CC8.6
Please indicate the verification/assurance status that applies to your reported Scope 1 emissions

No third party verification or assurance

CC8.7
Please indicate the verification/assurance status that applies to at least one of your reported Scope 2 emissions figures

No third party verification or assurance

CC8.8
Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2

Additional data points verifiedComment

No additional data verified

CC8.9
Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

Further Information

Page: CC8. Emissions Data - (1 Jan 2014 - 31 Dec 2014)

CC8.1
Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Financial control

CC8.2
Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e

327273

CC8.3

Please describe your approach to reporting Scope 2 emissions

Scope 2, location-based	Scope 2, market-based	Comment
We are reporting a Scope 2, location-based figure	We have no operations where we are able to access electricity supplier emissions factors or residual emissions factors and are unable to report a Scope 2, market-based figure	

CC8.3a
Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
69455	0	

CC8.4
Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

CC8.5
Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	More than 10% but less than or equal to 20%	Data Gaps Assumptions Metering/ Measurement Constraints Data Management Other: Human error	FMC acquired Cheminova A/S in 2015, and as per the Greenhouse Gas Protocol, we excluded data from legacy Cheminova sites for one year. We are restating FMC's energy and greenhouse gas data to include manufacturing data from legacy Cheminova sites. As our data tracking system has matured over time, so has the level of certainty in the data. Therefore, historical data inherently includes more uncertainty that has been refined through more recent processes. There is potential uncertainty due to the inherent limitations of the measurement devices used to track emissions. Additionally, data is collected and manually entered into FMC’s tracking and reporting process on a quarterly basis. Manual entry of data involves the potential risk of human errors and unintended mistakes while entering data into the system. There is also potential uncertainty in data gabs and assumptions due to possible oversight in our data system.

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 2 (location-based)	More than 10% but less than or equal to 20%	Data Gaps Assumptions Metering/ Measurement Constraints Data Management	FMC acquired Cheminova A/S in 2015, and as per the Greenhouse Gas Protocol, we excluded data from legacy Cheminova sites for one year. We are restating FMC's energy and greenhouse gas data to include manufacturing data from legacy Cheminova sites. As our data tracking system has matured over time, so has the level of certainty in the data. Therefore, historical data inherently includes more uncertainty that has been refined through more recent processes. There is potential uncertainty in our scope 2 (location-based) data as a result of assumptions due to the uncertainty of the factors used in published electricity emission factors. There is potential uncertainty due to the inherent limitations of the measurement devices used to track emissions. Additionally, data is collected and manually entered into FMC’s tracking and reporting process on a quarterly basis. Manual entry of data involves the potential risk of human errors and unintended mistakes while entering data into the system. There is also potential uncertainty in data gabs and assumptions due to possible oversight in our data system.
Scope 2 (market-based)			

CC8.6
Please indicate the verification/assurance status that applies to your reported Scope 1 emissions

No third party verification or assurance

CC8.7
Please indicate the verification/assurance status that applies to at least one of your reported Scope 2 emissions figures

No third party verification or assurance

CC8.8
Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2

Additional data points verifiedComment

No additional data verified

CC8.9
Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

Further Information

Page: CC8. Emissions Data - (1 Jan 2015 - 31 Dec 2015)

CC8.1
Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Financial control

CC8.2
Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e

300837

CC8.3

Please describe your approach to reporting Scope 2 emissions

Scope 2, location-based	Scope 2, market-based	Comment
We are reporting a Scope 2, location-based figure	We have no operations where we are able to access electricity supplier emissions factors or residual emissions factors and are unable to report a Scope 2, market-based figure	

CC8.3a
Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
66961	0	

CC8.4
Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

CC8.5
Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	More than 10% but less than or equal to 20%	Data Gaps Assumptions Metering/ Measurement Constraints Data Management Other: Human error	FMC acquired Cheminova A/S in 2015, and as per the Greenhouse Gas Protocol, we excluded data from legacy Cheminova sites for one year. We are restating FMC's energy and greenhouse gas data to include manufacturing data from legacy Cheminova sites. Our 2015 FMC manufacturing sites were assured through third party verification. As our data tracking system has matured over time, so has the level of certainty in the data. Therefore, historical data inherently includes more uncertainty that has been refined through more recent processes. There is potential uncertainty due to the inherent limitations of the measurement devices used to track emissions. Additionally, data is collected and manually entered into FMC’s tracking and reporting process on a quarterly basis. Manual entry of data involves the potential risk of human errors and unintended mistakes while entering data into the system. There is also potential uncertainty in data gabs and assumptions due to possible oversight in our data system.

CC8.6
Please indicate the verification/assurance status that applies to your reported Scope 1 emissions

No third party verification or assurance

CC8.7
Please indicate the verification/assurance status that applies to at least one of your reported Scope 2 emissions figures

No third party verification or assurance

CC8.8
Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2

Additional data points verified	Comment
Other: See 2015 data points verified for FMC 2015 manufacturing sites	FMC acquired Cheminova A/S in 2015, and as per the Greenhouse Gas Protocol, we excluded data from legacy Cheminova sites for one year. We are restating FMC's energy and greenhouse gas data to include manufacturing data from legacy Cheminova sites. FMC obtained third party verification on its FMC manufacturing sites data for the following data points: Total Direct and Indirect 2015 absolute and intensity Energy Use (Terajoules and Gigajoules/tonne of production) in 2015. We also included the following data points in our third party verification process: • Total (Scope 1 and Scope 2) 2015 absolute and intensity GHG Emissions (Ktonnes CO2e and tonnes CO2e/tonne of production) • Total 2015 absolute and intensity Water Use (Million Cubic Meters and Cubic Meters/tonne of production) • Total 2015 absolute and intensity Waste Generated (Ktonnes and Kg/tonne of production) We obtained limited assurance on these data points.

CC8.9
Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

Further Information

Page: CC8. Emissions Data - (1 Jan 2016 - 31 Dec 2016)

CC8.1
Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Financial control

CC8.2
Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e

273146

CC8.3

Please describe your approach to reporting Scope 2 emissions

Scope 2, location-based	Scope 2, market-based	Comment
We are reporting a Scope 2, location-based figure	We have no operations where we are able to access electricity supplier emissions factors or residual emissions factors and are unable to report a Scope 2, market-based figure	

CC8.3a
Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
66036	0	

CC8.4
Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

CC8.5
Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	More than 5% but less than or equal to 10%	Data Gaps Assumptions Metering/ Measurement Constraints Data Management Other: Human error	There is potential uncertainty due to the inherent limitations of the measurement devices used to track emissions. Additionally, data is collected and manually entered into FMC's tracking and reporting process on a quarterly basis. Manual entry of data involves the potential risk of human errors and unintended mistakes while entering data into the system. There is also potential uncertainty in data gabs and assumptions due to possible oversight in our data system.
Scope 2 (location-based)	More than 5% but less than or equal to 10%	Data Gaps Assumptions Extrapolation Metering/ Measurement Constraints Data Management	There is potential uncertainty due to the inherent limitations of the measurement devices used to track emissions. Additionally, data is collected and manually entered into FMC's tracking and reporting process on a quarterly basis. Manual entry of data involves the potential risk of human errors and unintended mistakes while entering data into the system. There is also potential uncertainty in data gabs and assumptions due to possible oversight in our data system.
Scope 2 (market-based)			

CC8.6

Please indicate the verification/assurance status that applies to your reported Scope 1 emissions

Third party verification or assurance process in place

CC8.6a

Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Annual process	Complete	Limited assurance	https://www.cdp.net/sites/2017/27/23227/Climate Change 2017/Shared Documents/Attachments/CC8.6a/FMC 2017 Assurance Information and ERM Statement.pdf	Available on page 34 of FMC's 2016 Sustainability Report.	ISAE3000	100

CC8.7

Please indicate the verification/assurance status that applies to at least one of your reported Scope 2 emissions figures

Third party verification or assurance process in place

CC8.7a

Please provide further details of the verification/assurance undertaken for your location-based and/or market-based Scope 2 emissions, and attach the relevant statements

Location-based or market-based figure?	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
Location-based	Annual process	Complete	Limited assurance	https://www.cdp.net/sites/2017/27/23227/Climate Change 2017/Shared Documents/Attachments/CC8.7a/FMC 2017 Assurance Information and ERM Statement.pdf	Available on page 34 of FMC's 2016 Sustainability Report.	ISAE3000	100

CC8.8

Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2

Additional data points verified	Comment

Additional data points verified	Comment
Other: See comments for additional assured 2016 data points	As quoted from FMC's third party assurance verification statement (please see attached documentation in CC8.6a and CC8.7a): - Total FMC and Business level Direct and Indirect (Scope 1 and Scope 2) 2016 Absolute and Intensity Energy Use (Terajoules and Gigajoules/Tonne of Production) - Total FMC and Business level (Scope 1 and Scope 2) 2016 Absolute and Intensity GHG Emissions (K-tonnes CO2e and tonnes CO2e /Tonne of Production) - Total 2016 FMC and Business level Absolute and Intensity Water Use (Million Cubic Meters and Cubic Meters/Tonne of Production) - Total 2016 FMC and Business level Absolute and Intensity Total Waste and Absolute and Intensity Waste Disposed (K-tonnes and Kg/Tonne of Production) - Waste Disposed per disposal type – landfill, fuel blending, and incineration with and without recovery (K-tonnes and Kg/Tonne of Production) - Total Recordable Incident Rate (TRIR)

CC8.9
Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

Further Information

Page: CC9. Scope 1 Emissions Breakdown - (1 Jan 2013 - 31 Dec 2013)

CC9.1
Do you have Scope 1 emissions sources in more than one country?

Yes

CC9.1a
Please break down your total gross global Scope 1 emissions by country/region

Country/Region	Scope 1 metric tonnes CO2e
United States of America	115393
Rest of world	210210

CC9.2
Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

Further Information

Page: CC9. Scope 1 Emissions Breakdown - (1 Jan 2014 - 31 Dec 2014)

CC9.1
Do you have Scope 1 emissions sources in more than one country?

Yes

CC9.1a

Please break down your total gross global Scope 1 emissions by country/region

Country/Region	Scope 1 metric tonnes CO2e
United States of America	43442
	26013

CC9.2
Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

Further Information

Page: CC9. Scope 1 Emissions Breakdown - (1 Jan 2015 - 31 Dec 2015)

CC9.1
Do you have Scope 1 emissions sources in more than one country?

Yes

CC9.1a
Please break down your total gross global Scope 1 emissions by country/region

Country/Region	Scope 1 metric tonnes CO2e
United States of America	85364
Rest of world	187782

CC9.2
Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

Further Information

Page: CC9. Scope 1 Emissions Breakdown - (1 Jan 2016 - 31 Dec 2016)

CC9.1
Do you have Scope 1 emissions sources in more than one country?

Yes

CC9.1a
Please break down your total gross global Scope 1 emissions by country/region

Country/Region	Scope 1 metric tonnes CO2e
United States of America	85364

Country/Region	Scope 1 metric tonnes CO2e
Rest of world	187782

CC9.2
Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

By business division

CC9.2a
Please break down your total gross global Scope 1 emissions by business division

Business division	Scope 1 emissions (metric tonnes CO2e)
FMC Agricultural Solutions	43810
FMC Health and Nutrition	138057
FMC Lithium	91278

Further Information

Page: CC10. Scope 2 Emissions Breakdown - (1 Jan 2013 - 31 Dec 2013)

CC10.1
Do you have Scope 2 emissions sources in more than one country?

Yes

CC10.1a
Please break down your total gross global Scope 2 emissions and energy consumption by country/region

Country/Region	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
United States of America	61628	0	99623	0
Rest of world	25950	0	96529	0

CC10.2
Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

Further Information

Page: CC10. Scope 2 Emissions Breakdown - (1 Jan 2014 - 31 Dec 2014)

CC10.1
Do you have Scope 2 emissions sources in more than one country?

Yes

CC10.1a
Please break down your total gross global Scope 2 emissions and energy consumption by country/region

Country/Region	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
United States of America	43442	0	99524	
Rest of world	26013	0	104039	

CC10.2
Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

Further Information

Page: CC10. Scope 2 Emissions Breakdown - (1 Jan 2015 - 31 Dec 2015)

CC10.1
Do you have Scope 2 emissions sources in more than one country?

Yes

CC10.1a
Please break down your total gross global Scope 2 emissions and energy consumption by country/region

Country/Region	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
United States of America	39960	0	97556	
Rest of world	26076	0	95343	

CC10.2
Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

Further Information

Page: CC10. Scope 2 Emissions Breakdown - (1 Jan 2016 - 31 Dec 2016)

CC10.1
Do you have Scope 2 emissions sources in more than one country?

Yes

CC10.1a
Please break down your total gross global Scope 2 emissions and energy consumption by country/region

Country/Region	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
United States of America	39960	0	90805	0
Rest of world	26076	0	89271	0

CC10.2
Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

Further Information

Page: CC11. Energy

CC11.1
What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

CC11.2
Please state how much heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year

Energy type	MWh
Heat	0
Steam	34325
Cooling	0

CC11.3

Please state how much fuel in MWh your organization has consumed (for energy purposes) during the reporting year

1408381

CC11.3a
Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh

Fuels	MWh
Lignite	8058
Diesel/Gas oil	39423
Jet kerosene	2660
Distillate fuel oil No 2	62846
Residual fuel oil	28312
Liquefied petroleum gas (LPG)	61120
Natural gas	1205962

CC11.4

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the market-based Scope 2 figure reported in CC8.3a

Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Emissions factor (in units of metric tonnes CO2e per MWh)	Comment
No purchases or generation of low carbon electricity, heat, steam or cooling accounted with a low carbon emissions factor	0	0	

CC11.5

Please report how much electricity you produce in MWh, and how much electricity you consume in MWh

Total electricity consumed (MWh)	Consumed electricity that is purchased (MWh)	Total electricity produced (MWh)	Total renewable electricity produced (MWh)	Consumed renewable electricity that is produced by company (MWh)	Comment
180076	180076	0	0	0	FMC does not track electricity produced, only electricity used and fuel used. The electricity produced from fuel is tracked through the fuel.

Further Information

Page: CC12. Emissions Performance

CC12.1

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

Decreased

CC12.1a

Please identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Emissions reduction activities	50	Decrease	In 2015, FMC began operation of a 130-kilomter pipeline that supplies natural gas from Pocitos, Salta, Argentina to our lithium production facility in Salar del Hombre Muerto, Catamarca, Argentina. The pipeline supplies a more dependable source of energy, natural gas, to our facility. The previous means of obtaining energy for the facility was by truck. Ten trucks per day would drive through mountainous terrain in often difficult weather conditions. These transportation difficulties caused delays and excessive consumption of diesel fuel, as the trucks consumed nearly a full liter of gasoline to travel one kilometer. Using the new pipeline, we are now decreasing our GHG emissions from fuel shipments of natural gas via truck and reducing safety concerns. We have also eliminated the use of back up GHG intensive fuels, like fuel oil, which were used when natural gas was not available. 2016 was the first full year in which FMC utilized the pipeline. This project comprises 50 percent of FMC's gross global emissions reduction in 2016.
Divestment			
Acquisitions	18.4	Increase	In 2015, FMC acquired Cheminova A/S, a global supplier of quality crop protection products. FMC's energy, GHG, water and waste data (FMC Total and Intensity) reported in our 2016 CDP Climate response were externally assured and excluded legacy Cheminova manufacturing data from our total and combined intensity. This exclusion is in accordance with the Greenhouse Gas Protocol's guidance that allows companies one year to include data from newly acquired entities. In FMC's 2017 CDP Climate Change submission, data from legacy Cheminova manufacturing sites is included in FMC's total and combined intensity.
Mergers			
Change in output			
Change in methodology			
Change in boundary			
Change in physical operating conditions			
Unidentified			
Other			

CC12.1b

Is your emissions performance calculations in CC12.1 and CC12.1a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

CC12.2
Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator: Unit total revenue	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
0.103	metric tonnes CO2e	3282400000	Location-based	8	Decrease	FMC's decrease in gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e is due to the decrease in production levels of our Agricultural Solutions business.

CC12.3
Please provide any additional intensity (normalized) metrics that are appropriate to your business operations

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
0.883	metric tonnes CO2e	metric tonne of product	383912	Location-based	1	Increase	While FMC had a slight increase from 2015 CO2e per metric tonne product to 2016, it is due to lower than normal production level for Agricultural Solutions. However, we are still on pace to achieve our 2025 target of reducing our CO2e emission intensity by 15%. Even with this 1 percent increase year-over-year, we are still realizing a 2 percent decrease in our GHG emissions intensity from our 2013 baseline emissions levels.

Further Information

Page: CC13. Emissions Trading

CC13.1
Do you participate in any emissions trading schemes?

Yes

CC13.1a
Please complete the following table for each of the emission trading schemes in which you participate

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO2e	Details of ownership
European Union ETS	Fri 01 Jan 2016 - Sat 31 Dec 2016	51563	0		Facilities we own and operate

CC13.1b
What is your strategy for complying with the schemes in which you participate or anticipate participating?

In 2015, FMC acquired Cheminova, a chemical company based in Denmark. One of Cheminova's facilities in Ronland, Denmark, participates in the European Union (EU) Emissions Trading Scheme (ETS) and falls below the current emissions cap. In 2021, the next phase of the EU ETS will come into effect, and depending on what the emissions cap is, this facility could be below the cap. FMC will continue to invest and make improvements in its energy use and greenhouse gas emission levels prior to 2021 to prepare for the lower emissions cap.

CC13.2
Has your organization originated any project-based carbon credits or purchased any within the reporting period?

No

Further Information

Page: CC14. Scope 3 Emissions

CC14.1
Please account for your organization's Scope 3 emissions, disclosing and explaining any exclusions

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services	Relevant, calculated	149166	FMC collects this information from its active ingredient contract manufacturers on a quarterly basis. FMC uses suppliers' energy data, emissions factors, and GWP values to calculate this data.		The emissions associated with FMC's purchased goods and services are relevant. We see our agricultural active ingredient contract manufacturing as a key portion of our scope 3 emissions. At this time, this is the only purchased goods and services source of emissions that we track. We are evaluating how best to calculate the remainder of this emissions source.
Capital goods	Relevant, not yet calculated				FMC has not calculated the emissions associated with our capital goods. We are evaluating how to best calculate this emissions source.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Not evaluated				
Upstream transportation and distribution	Relevant, not yet calculated		FMC estimates that the upstream transportation and distribution are relevant to FMC in considering the size of our overall footprint. We are currently investigating methods to measure the emissions from our upstream transportation and distribution activities.		The emissions from the upstream transportation and distribution are relevant to FMC when considering the size of our overall footprint. We are evaluating how to best calculate this Scope 3 emissions source. FMC utilizes multiple transportation modes to move raw materials and products, including road, rail, air and ocean freight. The decisions we make in logistics have a significant environmental impact. In 2016, FMC evaluated our footprint using industry standards for measuring the sustainability of logistics. Logistics vary widely by region, so we began by assessing the greenhouse gas emissions generated from global ocean freight and North American road freight. In 2017, we will develop methods to measure and monitor a broader scope of our global logistics footprint. This will support our long-term objective to create a target to decrease emissions associated with logistics through optimization. As part of our commitment to transparency, we will join EPA's SmartWay Partnership and begin reporting the greenhouse gas emissions that are generated from North American road freight. An update on our progress will be included in the 2017 Sustainability Report.
Waste generated in operations	Not evaluated				
Business travel	Not relevant, calculated	477	FMC has begun collaborating with its business travel vendors to calculate its emissions from business travel. Through this collaboration, we estimate that 477 metric tons CO2e were generated from a portion of FMC's domestic airline travel and car rentals in 2016. We plan to continue working		

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			with our vendors to have global business travel emissions data in 2018.		
Employee commuting	Not relevant, explanation provided				FMC has not calculated the emissions associated with employee commuting. We estimate that it is not relevant when compared to our overall footprint.
Upstream leased assets	Not evaluated				
Downstream transportation and distribution	Relevant, not yet calculated		FMC estimates that the downstream transportation and distribution are relevant to FMC in considering the size of our overall footprint. We are currently investigating methods to measure the emissions from our downstream transportation and distribution activities.		The emissions from the downstream transportation and distribution are relevant to FMC when considering the size of our overall footprint. We are evaluating how to best calculate this Scope 3 emissions source. FMC utilizes multiple transportation modes to move raw materials and products, including road, rail, air and ocean freight. The decisions we make in logistics have a significant environmental impact. In 2016, FMC evaluated our footprint using industry standards for measuring the sustainability of logistics. Logistics vary widely by region, so we began by assessing the greenhouse gas emissions generated from global ocean freight and North American road freight. In 2017, we will develop methods to measure and monitor a broader scope of our global logistics footprint. This will support our long-term objective to create a target to decrease emissions associated with logistics through optimization. As part of our commitment to transparency, we will join EPA's SmartWay Partnership and begin reporting the greenhouse gas emissions that are generated from North American road freight. An update on our progress will be included in FMC's 2017 Sustainability Report.
Processing of sold products	Relevant, not yet calculated				FMC estimates that the processing of sold goods are relevant to FMC in considering the size of our overall footprint. We are currently investigating methods to measure the emissions associated with these activities.
Use of sold products	Relevant, not yet calculated				FMC estimates that the use of sold products is relevant to FMC in considering the size of our overall footprint. We are currently investigating methods to measure the emissions from associated with these activities.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
End of life treatment of sold products	Not evaluated				
Downstream leased assets	Not relevant, explanation provided				FMC has downstream leased assets that have a small footprint compared to our overall footprint.
Franchises	Not relevant, explanation provided				FMC does not have franchises.
Investments	Not relevant, explanation provided				FMC does not have emissions from investments that are not captured elsewhere in this response.
Other (upstream)					
Other (downstream)					

CC14.2
Please indicate the verification/assurance status that applies to your reported Scope 3 emissions

No third party verification or assurance

CC14.3
Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

Yes

CC14.3a
Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Purchased goods & services	Change in output	18	Decrease	FMC's emissions associated with the company's purchased goods and services decreased from 2015 to 2016 emissions levels due to a decrease in the production levels of FMC's Agricultural Solutions business.

CC14.4
Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)

Yes, our suppliers
Yes, other partners in the value chain

CC14.4a
Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success

Collaboration and strong partnerships with suppliers and customers are very important to FMC to ensure we meet our sustainability commitments, from sourcing, to manufacturing, to transportation and product stewardship. FMC chooses to work only with suppliers and vendors who share our commitment to ethical and sustainable business practices. FMC has an established Supplier Code of Conduct that requests information on human rights, labor, environmental, health and safety requirements from its suppliers. In 2016, FMC implemented a social responsibility audit process for its suppliers. We prioritize our engagements by evaluating risk and opportunities in the supply chain and have tools and processes to support us (e.g. spend analytics, supplier assessments, long-term contracts, etc.).

For all new raw material suppliers, FMC's Procurement Group employs an internal supplier prequalification process. This process assessesa supplier's sustainability efforts, safety record, environmental and quality management systems and responsible sourcing, and ensures that the raw material supply is ethical, reliable and safe. In addition to the prequalification screening, FMC partners with an external screening and risk management provider to qualify contractors who may be exposed to the hazards of the manufacturing site or may expose personnel, community members or the environment to additional hazards in the course of their work. The third-party process carefully assesses these contractors, including evaluation of safety, environment and sustainability criteria, to best protect people and the environment.

FMC promotes sustainable labor and work practices in our supply chain. In 2016, we initiated a partnership with the Supplier Ethical Data Exchange (Sedex) to thoroughly evaluate supplier social responsibility. Through Sedex, suppliers answer a series of questions regarding their responsible and ethical business practices, including human rights, labor standards, health and safety, and business ethics. FMC is then able to evaluate whether a supplier adheres to our high standards. FMC has initiated relationships with suppliers that are current members of Sedex and has successfully engaged with 67 percent of those current members we targeted. Sedex regularly updates FMC on changes to supplier profiles. In 2017, we will identify our strategic suppliers that are not current Sedex members and work with them to join the program.

We have begun the process of measuring and monitoring our logistics and transportation footprints. From optimizing logistics to reduce greenhouse gas emissions and increasing the sustainability of our packaging, we are committed to a responsible supply chain that reflects our sustainability priorities.

Throughout FMC's sustainability journey, employees responsible for product packaging have worked closely with suppliers to find sustainable packaging options while ensuring the highest standards of safety and quality for our customers. An example of a 2016 successful collaboration was as we significantly expanded our footprint in Europe in 2016, we reviewed the packaging we purchase for the region. After a careful evaluation of safety, we replaced some cardboard with a thinner grade and plastic packaging with a lower weight in Agricultural Solutions. In doing so, we were able to reduce cardboard consumption by 170 metric tonnes and plastic consumption by 20 metric tonnes per year. Those reductions equal 18 percent less paper consumption and a 4 percent reduction in plastic consumption annually versus 2015 with respect to the affected products.

CC14.4b
To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the

proportion of your total spend that they represent

Type of engagement	Number of suppliers	% of total spend (direct and indirect)	Impact of engagement
Collaboration/innovation	277	63%	The number of suppliers (277) and approximate percentage of total spend (63%) provided refers to FMC's direct material suppliers (approximately 766).

Further Information

Module: Sign Off

Page: CC15. Sign Off

CC15.1
Please provide the following information for the person that has signed off (approved) your CDP climate change response

Name	Job title	Corresponding job category
Pierre Brondeau	President, Chief Executive Officer and Chairman of the Board, FMC Corporation	Chief Executive Officer (CEO)

Further Information

CDP: [W][-,-][AQ][Pu][E2]