# CDP 2016 Climate Change 2016 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 agricultural, industrial and consumer markets globally for more than a century with innovative solutions, applications and quality products. FMC employs approximately 6,000 people and operates its businesses in three segments: Agricultural Solutions, Health and Nutrition and Lithium. In 2015, FMC acquired Cheminova A/S, a multinational crop protection company. Pro forma revenue totaled approximately \$3.3 billion in 2015.

FMC provides innovative and cost-effective solutions to enhance crop yields and quality by controlling a broad spectrum of insects, weeds and diseases, as well as in non-agricultural markets for pest control. Our food ingredients enhance texture, color, structure and physical stability. Our pharmaceutical additives are used for binding, encapsulation and disintegrant applications. Some FMC products are increasingly used as active ingredients in nutraceutical (products that contain nutrients derived from food products) markets. Our lithium products are utilized in energy storage, specialty polymers and pharmaceutical synthesis.

### **FMC Sustainability**

Sustainability is integral to FMC's success. We are focused on continuing to integrate sustainability into our innovation, operations, and business practices. We accomplish this in our Agricultural Solutions and Health and Nutrition businesses by helping meet the food and nutrient needs of a growing world population. Our Lithium business addresses climate change concerns with advanced products for energy storage, batteries for electric vehicles, more efficient tires, lighter weight materials for aircraft manufacturers and other low carbon technologies.

### Major Global Challenges

FMC is committed to alleviating some of the world's major global challenges. Our commitment strengthens our business performance and aligns with our corporate strategy. Through our customers' use of our products and changes in our business operations, we are committed to addressing five "major global challenges" that are among society's most profound concerns and have significant implications. They are:

- Climate Change: Reduction in greenhouse gas emissions is considered a necessary step in mitigating climate-warming trends.
- Environmental Consciousness: Growing interest in natural and benign materials is driving the need for new, improved, bio-based products that reduce impact

on the environment.

- Scarce Resources: To cope with limited availability of fresh water, energy, forests and other essential resources, all resources must be carefully managed and alternatives to non-renewable resources must become more widely used.
- Food & Health Expectations: Food and crop production must increase to meet the basic needs of a rapidly-growing population and the desires of a socio-economically diverse population seeking more nutritional options.
- Land Competition: Urbanization to accommodate the growing population and poor land management techniques limit the amount of arable land available for agriculture. Less arable land intensifies the need to increase farmland productivity and crop yields.

### 2020 and 2025 Targets

To continue our progress in sustainability, FMC developed a 10-year strategy to grow by providing products with sustained value that motivate our stakeholders to work with FMC. Our strategic position depends on sustainable investments that ensure our company runs more efficiently and resiliently by 2025. FMC's new 2020 targets for innovation and business practices are:

- Reduce our Total Recordable Incident Rate (TRIR), a common metric for reporting safety performance in manufacturing, to 0.3 or lower
- Increase our percent spending on research and development toward sustainably advantaged products to 80 percent
- Achieve 100 on our Community Engagement Index, FMC's index to measure the extent and quality of our interaction with local communities

### FMC's 2025 targets for operations are:

- Reduce our energy, greenhouse gas and waste intensities by 15 percent from the intensity levels in our 2013 baseline year
- Reduce our water use in high-risk areas by 20 percent compared to our 2013 baseline year

FMC representatives may from time to time make written or oral statements that are "forward-looking" and provide other than historical information. Such forward-looking statements are based on our current views and assumptions regarding future events, future business conditions and the outlook for the company 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 Thu 01 Jan 2015 - Thu 31 Dec 2015 Wed 01 Jan 2014 - Wed 31 Dec 2014 Tue 01 Jan 2013 - Tue 31 Dec 2013 Sun 01 Jan 2012 - Mon 31 Dec 2012

# 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, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sub-industries, companies in the oil and gas sub-industries, companies in the information technology and telecommunications sectors and companies in the food, beverage and tobacco industry group should complete supplementary questions in addition to the main questionnaire. If you are in these sector groupings (according to the Global Industry Classification Standard (GICS)), the corresponding sector modules will not appear below but will automatically appear in the 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. If you wish to view the questions first, please see https://www.cdp.net/en-US/Programmes/Pages/More-questionnaires.aspx.

### **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 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 the 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 is Linda Froelich, FMC's Global Sustainability Director. Linda oversees the implementation and integration of sustainability at FMC. She communicates with the Board of Directors' Sustainability Committee on sustainability and climate change and reports to Karen Totland, Vice President, Global Procurement, Global Facilities & Corporate Sustainability, who is part of FMC's executive leadership and a member of the SST. Linda also collaborates with Barry Crawford, Vice President, Operations, FMC's operations directors, and FMC's R&D directors to develop and ensure the achievement of FMC's 2015, 2020 and 2025 safety, environmental, innovation and social metrics and targets. Additionally, Linda manages the Global Sustainability Team, who collects, verifies and audits FMC's metrics for innovation, business practices, and environment (energy, water, greenhouse gas emissions, waste). The Global Sustainability Team 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
Environment/Sustainability managers	Monetary reward	Emissions reduction project Emissions reduction target Other: Completion of third-party assurance of FMC's environmental data	FMC's Global Sustainability Director, Linda Froelich, has incentives for the management of climate change-related issues within her annual performance indicators as part of FMC's sustainability program. Linda was responsible for the completion of the pre-assurance process and third-party assurance of FMC's environmental data in 2015.

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: Annual FMC EHS and Sustainability Chairman's Awards	FMC's Chairman's Award recognizes employees or small groups for outstanding achievements and leadership in the areas of EHS and Sustainability.
All employees	Recognition (non- monetary)	Behaviour change related indicator	FMC's Global Sustainability Group developed a series of events for Earth Week in 2015, which featured ideas for all FMC employees to have a positive impact on the environment. Tips on energy efficiency, water conservation, recycling and childhood environmental education were outlined as well as how FMC employees can help the company's sustainability mission.
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 issues related to sustainability at FMC. Employees and stakeholders can submit information to the Global Sustainability Team 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 locations in which FMC operates	> 6 years	FMC Risk Management conducts an annual company-wide risk assessment to reduce FMC's exposure to risk factors and natural catastrophes. These factors are generally disclosed in our 10-K. FMC's Risk Council has members of the executive leadership team. The Council has the responsibility to ensure good risk governance practices, define relevant strategic risks, promote a consistent approach that avoids risk process overlaps, and monitor risk assessment processes in strategic planning, business planning, capital planning, and M&A. Additionally, the Global Sustainability Team leads an annual materiality assessment to identify the sustainability issues that have the greatest impact on FMC. The materiality assessment includes external stakeholders. Both the company-wide risk assessment and the materiality assessment include risk factors like climate change, greenhouse gas emissions, global food supply, resource efficiency, product environmental impact and health and safety.

### CC2.1b

# Please describe how your risk and opportunity identification processes are applied at both company and asset level

## Company level:

FMC's Risk Council is comprised of members of FMC's executive leadership and its main objective is to oversee management of FMC's enterprise risks and risk management. FMC's Global Sustainability Group also conducts an annual materiality assessment that identifies sustainability issues that have the greatest impact on FMC. External stakeholders' input was included in our 2015 materiality assessment. We quantitatively and qualitatively analyzed a list of potential material issues with the following process:

• Conduct a series of interviews and meetings with FMC employees who have a deep understanding of our business and its impacts. The employees represented the following groups: Sustainability, Government Affairs, Internal Audit, Investor Relations, Communications, Finance, Legal and

Environment/Remediation.

• Conduct a formal survey asking internal and external stakeholders to rank sustainability issues based on each issue's perceived impact on, and importance to, FMC's business. There were 42 respondents to the 2015 survey, representing non-government organizations (NGOs), customers, suppliers, foundations, trade associations and employees.

### Asset level:

FMC Risk management conducts an annual risk assessment for our global manufacturing sites and physical assets. It includes a review process for potential natural catastrophes and possible sources of risks and opportunities for FMC. The risks are generally disclosed in FMC's annual 10-K. FMC's Global Sustainability Team manages the company's sustainability key performance indicators which include energy consumption, GHG, water use and waste generation data. FMC obtained third-party assurance on this data in 2015. This information allows us to measure FMC's environmental impact. Using the KPIs, the Global Sustainability Team conducts water risk assessments, energy audits and social audits in coordination with teams at each facility. Audit results are applied at other manufacturing sites as needed.

### CC2.1c

### How do you prioritize the risks and opportunities identified?

An internal, cross-functional materiality team identified 62 sustainability issues relevant to the FMC's business and operations. The issues that were considered fell into the following categories:

- Operations issues associated with products and companies
- Workplace issues associated with facilities, safety and manufacturing processes
- Environment issues associated with impacts on the environment including climate change
- Marketplace issues associated with products and companies
- Community issues associated with impacts on the communities where FMC operates.

Internal stakeholders evaluated and scored each issue on five factors: financial impact and risk, regulatory and policy drivers, peer-based norms, stakeholder concerns and societal trends, and opportunities for innovation. External stakeholders evaluated and scored each issue based on perceived importance to FMC's business and operations. Scores are calculated by the cross-functional materiality team. An issue that scores high on both internal and external surveys is considered a material issue of high importance to the company; those issues scoring high in either the internal or external survey are also prioritized and viewed as areas where further research and/or stakeholder alignment should be pursued. These surveys, alongside regular stakeholder interviews and meetings, inform our sustainability priorities, strategies and reporting for maximum positive impact.

### CC2.1d

Please explain why you do not have a process in place for assessing and managing risks and opportunities from climate change, and whether you plan to introduce such a process in future

Main reason for not having a process	Do you plan to introduce a process?	Comment

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

### I. The Process

As mentioned in question CC2.1a, FMC's Global Sustainability Group conducts an annual materiality assessment to determine the most material issues to the company. The materiality assessment includes input from FMC's external stakeholders. Risk Management also conducts an annual company-wide risk assessment process that considers risk factors for FMC's locations worldwide. The risk factors considered include climate change and greenhouse gas emissions, global food supply, resource efficiency, product environmental impacts and health and safety. Climate change was identified as a material issue to FMC and it has influenced our business strategy.

Climate change and its impacts have the potential to impact our company in the short- and long-term. Over the past decade, FMC has collected data on the company's energy usage, greenhouse gas emissions, water usage and waste generation, and this data comprises FMC's key sustainability performance indicators (KPIs). These KPIs were used to develop FMC's 2025 targets to reduce the company's environmental impact. The metrics and targets ensure our company runs more efficiently and more resiliently by 2025 by addressing market, climate and regulatory-based changes and risks.

### II. Aspects

FMC has identified five major global challenges that we can address through the use of our products and changes in our business operations. These challenges are climate change, scarce resources, environmental consciousness, land competition and food and health expectations. Climate change has influenced our business strategy because of its potential impacts on both our company and our customers. These impacts could include changing temperatures, growing seasons, species distribution, and insect and weed profiles, as well as more extreme weather. A possible result of these changes is that our company and our customers could experience higher energy and raw material costs, higher food prices, increased water scarcity and competition for raw materials and decreased availability of arable land and natural resources. FMC is adapting by working to reduce climate change and its potential impacts on our business and on our customers in both our business operations and product portfolio.

III. Short-term strategy influenced by climate change

FMC is addressing climate change in the short-term by making our business operations more efficient in both energy intensity and greenhouse gas emissions intensity, conducting life cycle assessments on our products, completing a pre-assurance assessment and third-party assurance assessment 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.

### IV. Long-term strategy influenced by climate change

FMC's strategy over the next ten years is to grow by providing products with sustained value that motivate customers, employees, and other stakeholders to work with FMC. Our strategic position depends on sustainable investments that ensure our company runs more efficiently and more 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 many locations that will experience changes in their physical environment. Our Agricultural Solutions business is developing products that improve agricultural productivity by helping growers increase their crop yields to feed a global population that is growing by approximately 75 million people annually. Growers must feed this growing population with less arable land available because of the impacts of climate change like temperature and rainfall shifts and increased urbanization. Our Health and Nutrition business is addressing these challenges by creating high-value, differentiated food and health ingredients that enable our customers to help feed the world, deliver more effective medicines and fuel healthier lifestyles. FMC Lithium is addressing climate change concerns by supplying lithium products used in diverse energy-efficient solutions that reduce society's impact on the climate.

Climate change concerns have influenced our business strategy, and we have committed to a 2020 goal to allocate 80 percent of our R&D spend to develop sustainably advantaged products and technologies, which address the previously mentioned five major global challenges that FMC can impact with its products and business operations. Over the next five years, we will continue to introduce greener chemistries. We will measure our products' impacts by measuring the percentage of sales of more sustainable products quarterly. We will also measure our efforts to reduce our environmental impact. We have set 2020 and 2025 metrics and reduction targets for the most impactful environmental indicators particular to FMC business. These targets include reductions in our energy intensity and greenhouse gas emissions intensity, water use in high risk areas and waste generation intensity.

### V. Strategic Advantage

By investing in our diverse product portfolio and sustainably advantaged products in the short- and long-term future, FMC is positioned to impact the previously mentioned and identified five major global challenges that FMC can impact with its products and business operations. We are developing effective greener chemistries and biological crop protection products, which are materials originating from renewable plant or natural microbial sources. We are also providing products to satisfy customers' needs for natural foods and products that give food a longer shelf life, which is needed in areas without reliable refrigeration. As a leader in lithium technology, we provide lithium inputs for our 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.

CC2.2b

Please explain why climate change is not integrated into your business strategy

### CC2.2c

# Does your company use an internal price of carbon?

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

### CC2.2d

Please provide details and examples of how your company uses an internal price of carbon

# 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

### 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

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
			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 climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
American Chemistry Council (ACC)	Mixed	The American Chemistry Council (ACC) supports 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. While FMC may support certain proposals the ACC advocates for with policy makers, we do not necessarily support all proposals supported by the ACC.
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

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
			Global Director of Portfolio Strategy and North America Director of Business Development, 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 security.	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.
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, the President of FMC's Health and Nutrition business, 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

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

# 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?

We have a series of engagements with FMC leaders of each function to define and ensure the priorities of the company are advocated for in the company's interactions with policy makers, trade associations, and research organizations. As part of this series of engagements, company leaders discuss the alignment of FMC's goals, sustainability initiatives and position on climate change.

Please explain why you do not engage with policy makers

# **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

CC3.1a

Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions covered by target (metric tonnes CO2e)	Target year	Is this a science- based target?	Comment
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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.

Please provide details of your renewable energy consumption and/or production target

ID	Energy types covered by target	Base year	Base year energy for energy type covered (MWh)	% renewable energy in base year	Target year	% renewable energy in target year	Comment
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# 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	5%	0%	FMC's emissions intensity increased slightly in 2015 to 1.25 from our 2013 energy intensity of 1.24. We set our 2025 target to reduce our GHG intensity by 15 percent in 2015, and we are 5 percent into the time period to complete the goal.

# CC3.1f

Please explain (i) why you do not have a target; and (ii) forecast how your emissions will change over the next five years

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 introduced a group of products, biologicals, which are materials originating from renewable plant or natural microbial sources, to our comprehensive line of crop protection products. Biologicals exemplify how our innovations are integrating "softer chemistry" with a lower environmental impact. 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 allows for several environmental	Low carbon product	Climate Bonds Taxonomy	3%	More than 60% but less than or equal to 80%	3 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

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
	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.					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 2015, 67% 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. 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.

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
Product	FMC started commercializing the 3RIVE 3D in-furrow delivery system in 2015 with onfarm beta test units. 3RIVE 3D combines crop protection products by combining patent-pending formulation technology with specifically-designed application technology. Growers who use this technology with the 3RIVE 3D applicator can plant as much as 500 acres using 90% less water while maintaining necessary crop 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 avoid greenhouse gas emissions during planting operations.	Low carbon product	Climate Bonds Taxonomy	3%	More than 60% but less than or equal to 80%	3 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 2015, 67% 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

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
						budget to develop sustainably-advantaged products by 2020. This focus will ensure a pipeline of improved products far into the future. 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.
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	Low carbon product	Climate Bonds Taxonomy	66%	More than 60% but less than or equal to 80%	66 percent of FMC Lithium revenue is comprised of low carbon products within the 2015 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

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
	produce aluminum alloys for lighter-weight airplanes, which consume less jet fuel and produce fewer greenhouse gas emissions					the use of energy storage for renewable energy will allow for avoided emissions from fossil fuel energy sources. As of 2015, 67% 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. FMC Lithium products are considered low carbon products according to the Climate Bonds Taxonomy, as they address increasing energy efficiency and energy storage.

# 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	15	1353
To be implemented*	0	0
Implementation commenced*	9	690
Implemented*	2	15411
Not to be implemented	2	212

# 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
Low carbon energy installation	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	10000	Scope 1	Voluntary	6000000	24000000	4-10 years	16-20 years	

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
	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.								
Energy efficiency: Processes	We reduced FMC's overall absolute GHG emissions by 7 percent in 2015. This achievement was driven by the first full year of operation since the conversion of our Rockland, Maine, United States facility to run on compressed natural gas from No.6 fuel oil. Our conversion to natural gas has resulted in a 30 percent reduction in carbon dioxide emissions, a 60 percent reduction in nitrogen oxide, a 50% reduction in particulate emissions, and a 100% reduction in sulfur dioxide emissions at the Rockland facility.	15411	Scope 1	Voluntary	1800000	4040000	1-3 years	21-30 years	

# 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. 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.
Internal incentives/recognition programs	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 2015, 67% 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.

CC3.3d

If you do not have any emissions reduction initiatives, please explain why not

# **Further Information**

# 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	Complet e	FMC 2015 Annual Report: 10-K PDF, Pg. 9 (Risk factors: Climate change regulation), • Pg. 30 (Contingencies: Climate change)	https://www.cdp.net/sites/2016/27/23227/Climate Change 2016/Shared Documents/Attachments/CC4.1/FMC Annual Report.PDF	FMC included the company's potential risks and impacts of climate change regulation and climate change-associated impacts in the company's 2015 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.
In voluntary communication s	Complet e	FMC's 2015 Sustainability Report: Inside front cover, Pg. 5, 6, 21, 29-30	https://www.cdp.net/sites/2016/27/23227/Climate Change 2016/Shared Documents/Attachments/CC4.1/FMC_2015_Sustainability_Report.pdf	Climate change and FMC's greenhouse gas emissions performance are disclosed in our 2015 Sustainability

Publication	Status	Page/Section reference	Attach the document	Comment
				Report, "Our Formula for Progress." The report details our 2020 and 2025 metrics and 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 Formula for Progress and our new 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 voluntary communication s	Complet e	FMC's Climate Change Statement	https://www.cdp.net/sites/2016/27/23227/Climate Change 2016/Shared Documents/Attachments/CC4.1/FMC Climate Change Statement - 3-17-16.pdf	In FMC's Climate Change Statement, we recognize that climate change is a critical global issue. We acknowledge the scientific

Publication		Page/Section reference	Attach the document	
	Status			Comment
				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 shortand 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.

Publication	Status	Page/Section reference	Attach the document	Comment
In voluntary communication s	Complet e	FMC's sustainability website (www.fmcsustainability.co m)	https://www.cdp.net/sites/2016/27/23227/Climate Change 2016/Shared Documents/Attachments/CC4.1/FMC_Sustainability2015_Website_Home.pdf	FMC updates its sustainability website (www.fmcsustainability.co m) 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 sustainable future within and outside of FMC.

# **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 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	Increased operational cost	1 to 3 years	Direct	Virtually certain	Low	The potential impact 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 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	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 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	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

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	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 has announced that that it will implement a cap and trade program to limit emissions						complying with a lower cap have yet to be determined because each member country of the EU ETS sets the emissions cap and the price of allowances. Consequently, the costs of complying with current or future cap and trade schemes' requirements are difficult to estimate at this time.	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.	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
	starting in 2017. The regulations of the Chinese cap and trade program have yet to be finalized, although they 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.								

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 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	Reduction/disruption in production capacity	>6 years	Direct	Likely	Medium	As noted in the International Panel on Climate Change Fifth 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	FMC has diversified its raw material sourcing locations to reduce 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 dyke system. To mitigate potential risks to water quality and supply, we	FMC has diversified its raw materials sourcing for our businesses, and the estimated cost of management of this issue is part of our business operations and expenditures. FMC has allocated over 67 percent of its current 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

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	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 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						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 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 (Health and Nutrition's	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 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	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
	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 in sourcing its raw materials as we take steps to mitigate this risk.						2015 revenue was \$786 million and Lithium's 2015 revenue was \$238 million.)	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
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	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	FMC Agricultural Solutions will help growers increase their crop yields in areas potentially impacted by changes in physical climate parameters. Our products help growers overcome these changes 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 are capable of helping farmers	FMC allocated over 67 percent of its current 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

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	patterns and mean precipitation levels. FMC Agricultural Solutions develops 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						financial impact on our Agricultural Solutions 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' 2015 revenue was \$2.253 billion.)	increase crop yields by up to 9.5 bushels per acre of corn compared to yields from untreated fields. FMC's new system, 3RIVE 3D™, combines crop protection products with patent-pending formulation technology and specifically-designed application technology, and 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 protection. 3RIVE 3D has the potential to significantly	in two ways. We have set 2025 goals to reduce our energy, 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
	experience a decrease in demand if our products and technologies do not align with the solutions that growers need.							reduce labor, time, water, fuel use and GHG emissions in 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, insects and plant diseases to replace potential decreases in the sales of products that become less preferable to customers.	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Changing consumer behaviour	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 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	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 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	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 67 percent in 2015 and committed to a 2020 goal to increase our R&D spending to 80 percent so we can address potential market and otherclimate related developments, including changing consumer behavior. It is highly likely that consumers will ask companies for information about their products, operations and environmental management. We provide stakeholders with information on	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 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.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	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						consumer behavior has the potential to impact a percentage of FMC's sales of its Agricultural Solutions products, which was \$2.253 billion in 2015. Losses in product sales could be compensated by increased sales of our greener chemistries like biologicals and our sustainably advantaged products and technologies.	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 efforts and developing sustainably advantaged products help to increase consumer's knowledge of FMC and our role in reducing climate change.	

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.								

# CC5.1d

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

# CC5.1e

Please explain why you do not consider your company to be exposed to inherent risks driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

#### CC5.1f

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

#### **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
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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 climate agreement signed at the COP21 Conference was highly significant because companies and 195 countries pledged to decrease their greenhouse gas emissions to keep global warming below 2 degrees Celsius from 1990 global emissions' levels by 2050. In order to do so, energy storage will be needed hold	Increased demand for existing products/services	1 to 3 years	Direct	Likely	Low- medium	As more countries and states make plans to reduce their carbon emissions, it is likely that additional legislation will be enacted to encourage consumers to purchase fuelefficient 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	FMC is a long-time leader in lithium research and innovation. We are working on the challenge of developing lithium products and applications that improve battery performance. We are currently researching new applications of our lithium products in a range of industries. We currently meet lithium to the aluminum industry for lithium aluminum alloys for lighter weight aircraft and aerospace applications. Our battery grade lithium is used in electric	FMC has committed to increasing the percentage of R&D spending on developing sustainably advantaged products from 67 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

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	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 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						new, eligible zero-emission or plug-in hybrid light-duty vehicles. There are potential regulations that could benefit FMC Lithium in the 1-3 year time frame as well as more potential regulations beyond 3 years. Consumers' increasing preference for electric vehicles (EV) in addition to incentive programs has the potential to increase FMC's Lithium's lithium hydroxide sales. According to analysts, the EV market is forecasted to	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, FMC will increase its production capacity of lithium hydroxide by a total of 20,000 metric tons per year, which effectively triples our production capacity of lithium hydroxide by a total of 20,000 metric tons per year, which effectively triples our production capacity of lithium hydroxide by a total of 20,000 metric tons per year, which effectively triples our production, in response to the strong demand for	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
	sources, thereby reducing climate change.						exceed more than 25 percent growth per year.	FMC's battery grade lithium hydroxide.	

CC6.1b

Please describe the 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 could cause more extreme weather conditions as well as changing temperatures, precipitation patterns and mean precipitation levels. The National Climate Assessment projects that due to these	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 to sell our agricultural products to growers in northern latitudes	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 renewable plant or natural microbial sources. FMC's	FMC Agricultural Solutions has a well-diversified product portfolio that will help growers address climate-related impacts and will continue to innovate and add products to our portfolio as market and growing conditions change. The estimated cost of management of

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	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						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	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	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

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	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 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						the market to address these impacts, it would be a significant opportunity for Agricultural Solutions.	can plant as much as 500 acres using 90% less water while maintaining necessary crop 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	health expectations.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	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 northern latitudes, creating an opportunity for FMC to sell its agricultural products to promote plant health and development in							plant diseases.	

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	new growing regions. 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	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	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	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
	depending on the geographic region and the extent of the changes. FMC Health and						that become available due to climate-related changes.	with our current seaweed suppliers, and we proactively work with seaweed	business operations and expenditures.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	Nutrition is exploring 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.							farmers to gauge 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 the 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 behaviour	As people become more aware of product impacts on the environment, they are 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 will likely prefer	New products/business services	1 to 3 years	Direct	Likely	Medium	The potential opportunities associated with changing consumer behavior will 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	FMC Agricultural Solutions helps address growers' need for products with a lighter 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 in our crop protection technologies like 3RIVE 3D™ that could significantly reduce labor, time, water, fuel use and GHG emissions in planting operations.	FMC is actively addressing major global challenges like climate change, scarce resources, land competition, food and health expectations and environmental consciousness. In 2015, we have dedicated 67 percent of our R&D spend to developing sustainably advantaged products and technologies and have committed to increase this percent by 2020. A sustainably advantaged product addresses the previously mentioned major

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	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 their health and well being 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						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 time. More dramatic climate-change effects in the short-term could accelerate consumers' preference for FMC's sustainably advantaged products and	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 alloys used in lighter weight aircraft and aerospace applications. Our battery grade lithium is used in electric vehicles and residential energy storage	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 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
	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 an international climate agreement at the United						technologies.	power packs. FMC is increasing its tripling our production capacity of lithium hydroxide by 20,000 metric tons per year due to strong demand for our battery grade lithium hydroxide.	

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	Nations' COP21 Conference in Paris. They agreed that fossil fuel 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.								

# CC6.1d

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

Please explain why you do not consider your company to be exposed to inherent opportunities driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

#### CC6.1f

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

#### **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	297579
Scope 2 (location-based)	Tue 01 Jan 2013 - Tue 31 Dec 2013	83314

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 2 (market-based)		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

#### CC7.2a

Other

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
		S	See attached Excel file.

# **Further Information**

See attached Excel file for answer to CC7.4.

# Attachments

Page	: CC8. Emissions Data - (1 Jan 2012 - 31 Dec 2012)
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
	271572
CC8.3	
	Does your company have any operations in markets providing product or supplier specific data in the form of contractual instruments?
	No
CC8.3	a a contract of the contract o
	Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e

https://www.cdp.net/sites/2016/27/23227/Climate Change 2016/Shared Documents/Attachments/ClimateChange2016/CC7.EmissionsMethodology/Electric, Steam + GHG GWP Factors.xlsx

Scope 2, location-based		Scope 2, market-based (if applicable)	Comment
74197	0		

Are there are 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

#### CC8.4a

Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded
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# 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 20% but less than or equal to 30%	Data Gaps Assumptions Metering/ Measurement Constraints Data Management Other: Human error	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 2 (location- based)	More than 20% but less than or equal to 30%	Data Gaps Assumptions Metering/ Measurement Constraints Data Management	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)			

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

No third party verification or assurance

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 (%)
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# CC8.6b

Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emissions Monitoring Systems (CEMS)

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission

# 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

#### CC8.7a

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 (%)
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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
No additional data verified	

# CC8.9

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

No

#### CC8.9a

Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tonnes CO2

#### **Further Information**

CC8.1	
	Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory
	Financial control
CC8.2	2
	Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e
	297579
CC8.3	3
	Does your company have any operations in markets providing product or supplier specific data in the form of contractual instruments?
	No
CC8.3	За
	Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e

Scope 2, location-based		Scope 2, market-based (if applicable)	Comment
83314	0		

Are there are 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

# CC8.4a

Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded
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# 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	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 2 (location- based)	More than 10% but less than or equal to 20%	Data Gaps Assumptions Metering/ Measurement Constraints Data Management	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)			

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

No third party verification or assurance

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 (%)
--	-----------------------------------	----------------------	------------------------	-------------------	---

# CC8.6b

Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emissions Monitoring Systems (CEMS)

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission

# 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

#### CC8.7a

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 (%)
--	--	--------------------------------------	-----------------------------------	----------------------	---------------------------	----------------------	--

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
No additional data verified	

# CC8.9

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

No

#### CC8.9a

Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tonnes CO2

#### **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
	294127
CC8.3	
	Does your company have any operations in markets providing product or supplier specific data in the form of contractual instruments?
	No
CC8.3	ia de la companya de
	Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e

Scope 2, location-based		Scope 2, market-based (if applicable)	Comment
63063	0		

Are there are 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

# CC8.4a

Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded
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# 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	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 2 (location- based)	More than 10% but less than or equal to 20%	Data Gaps Assumptions Metering/ Measurement Constraints Data Management	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)			

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

No third party verification or assurance

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 (%)
--	-----------------------------------	----------------------	------------------------	-------------------	---

# CC8.6b

Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emissions Monitoring Systems (CEMS)

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission

# 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

#### CC8.7a

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 (%)
--	--	--------------------------------------	-----------------------------------	----------------------	---------------------------	----------------------	--

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
No additional data verified	

# CC8.9

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

No

#### CC8.9a

Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tonnes CO2

#### **Further Information**

CC8.1	
	Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory
	Financial control
CC8.2	2
	Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e
	270526
CC8.3	3
	Does your company have any operations in markets providing product or supplier specific data in the form of contractual instruments?
	No
CC8.3	За За
	Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
60850	0	

### CC8.4

Are there are 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?

Yes

### CC8.4a

Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded
In 2015, FMC acquired Cheminova A/S, a global supplier of quality crop protection products.	Emissions excluded due to a recent acquisition	Emissions excluded due to a recent acquisition		FMC's energy, GHG, water and waste data (FMC Total and Intensity) reported in our 2015 CDP Climate response have been externally assured. The assured data excludes legacy Cheminova manufacturing from our total and combined intensity. This exclusion is in accordance with the Greenhouse Gas Protocol's guidance that allow companies one year to include data from newly acquired entities.

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 Metering/ Measurement Constraints Data Management	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

Third party verification or assurance process in place

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/2016/27/23227/Climate Change 2016/Shared Documents/Attachments/CC8.6a/ERM CVS 2015 Assurance Statement_FMC final.pdf	Included in FMC's 2015 Sustainability Report on page 34	Other: WBCSD/WRI GHG Protocol (2004)	100

### CC8.6b

Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emissions Monitoring Systems (CEMS)

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission

## 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

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/2016/27/23227/Climate Change 2016/Shared Documents/Attachments/CC8.7a/ERM CVS 2015 Assurance Statement_FMC final.pdf	Page 34	Other: WBCSD/WRI GHG Protocol (2004)	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
Other: Energy, water and waste data	FMC obtained third party verification on its 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.

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

No

CC8.9a

Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tonnes CO2

### **Further Information**

Page: CC9. Scope 1 Emissions Breakdown - (1 Jan 2012 - 31 Dec 2012)

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	115465
Rest of world	156107

CC	9.2
CC	J.Z

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

### CC9.2a

Please break down your total gross global Scope 1 emissions by business division

Business division	Scope 1 emissions (metric tonnes CO2e)

#### CC9.2b

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude

### CC9.2c

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)

CC9.2d

Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 emissions (metric tonnes CO2e)

## **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	182186

## CC9.2

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

## CC9.2a

Please break down your total gross global Scope 1 emissions by business division

Business division	Scope 1 emissions (metric tonnes CO2e)

## CC9.2b

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude

### CC9.2c

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)

## CC9.2d

Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 emissions (metric tonnes CO2e)

## **Further Information**

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

CC9.1

	Do you have Scope 1 emission	s sources in more than one country?			
	Yes				
CC9.1	a				
	Please break down your total g	ross global Scope 1 emissions by country/r	egion		
	Country/Region	Scope 1 metric tonnes CO2e			
	United States of America	112600			
	Rest of world	181527			
CC9.2	Please indicate which other Sc	ope 1 emissions breakdowns you are able t	o provide (tic	k all that apply)	
		ross global Scope 1 emissions by business	division		
	Business division	Scope 1 emissions (metric tonnes C	O2e)		

### CC9.2b

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude

### CC9.2c

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)

### CC9.2d

Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 emissions (metric tonnes CO2e)

**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	98920
Rest of world	171606

### CC9.2

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

Please break down your total gross global Scope 1 emissions by business division

Business division	Scope 1 emissions (metric tonnes CO2e)

#### CC9.2b

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude

#### CC9.2c

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)

### CC9.2d

Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 emissions (metric tonnes CO2e)

## **Further Information**

Page: CC10. Scope 2 Emissions Breakdown - (1 Jan 2012 - 31 Dec 2012)

## 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	57896	0		0
Rest of world	16301	0		0

## CC10.2

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

## CC10.2a

Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2 emissions, location based (metric tonnes CO2e)	Scope 2 emissions, market-based (metric tonnes CO2e)

### CC10.2b

Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2 emissions, location based (metric tonnes CO2e)	Scope 2 emissions, market-based (metric tonnes CO2e)

### CC10.2c

Please break down your total gross global Scope 2 emissions by activity

Activity	Scope 2 emissions, location based (metric tonnes CO2e)	Scope 2 emissions, market-based (metric tonnes CO2e)

## **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		0
Rest of world	21686	0		0

## CC10.2

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

## CC10.2a

Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2 emissions, location based (metric tonnes CO2e)	Scope 2 emissions, market-based (metric tonnes CO2e)

### CC10.2b

Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2 emissions, location based (metric tonnes CO2e)	Scope 2 emissions, market-based (metric tonnes CO2e)

### CC10.2c

Please break down your total gross global Scope 2 emissions by activity

Activity	Scope 2 emissions, location based (metric tonnes CO2e)	Scope 2 emissions, market-based (metric tonnes CO2e)

## **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		0
Rest of world	19621	0		0

## CC10.2

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

## CC10.2a

Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2 emissions, location based (metric tonnes CO2e)	Scope 2 emissions, market-based (metric tonnes CO2e)

### CC10.2b

Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2 emissions, location based (metric tonnes CO2e)	Scope 2 emissions, market-based (metric tonnes CO2e)

### CC10.2c

Please break down your total gross global Scope 2 emissions by activity

Activity	Scope 2 emissions, location based (metric tonnes CO2e)	Scope 2 emissions, market-based (metric tonnes CO2e)

## **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	42999	0		0
Rest of world	17852	0		0

## CC10.2

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

## CC10.2a

Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2 emissions, location based (metric tonnes CO2e)	Scope 2 emissions, market-based (metric tonnes CO2e)

### CC10.2b

Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2 emissions, location based (metric tonnes CO2e)	Scope 2 emissions, market-based (metric tonnes CO2e)

### CC10.2c

Please break down your total gross global Scope 2 emissions by activity

Activity

Scope 2 emissions, location based (metric tonnes CO2e)

Scope 2 emissions, market-based (metric tonnes CO2e)

### **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	Energy purchased and consumed (MWh)
Heat	0
Steam	49013.01
Cooling	0

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

1241589.61

### CC11.3a

Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh
Anthracite	166.67
Diesel/Gas oil	35471.70
Jet kerosene	12426.12
Distillate fuel oil No 2	147807.90
Residual fuel oil	66189.78
Liquefied petroleum gas (LPG)	7.22
Natural gas	979520.29

## 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	Comment
No purchases or generation of low carbon electricity, heat, steam or cooling accounted with a low carbon emissions factor	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
177134.86	177134.86	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	7	Decrease	As detailed in question CC3.3 of our 2015 CDP response, we have implemented a number of emissions reduction activities. The main source of the reduction in our emissions value is because of our fuel switch at our Rockland, Maine, United States facility. FMC reduced our absolute greenhouse gas emissions by 7 percent in 2015. This achievement was driven by the first full year of operation since converting our Rockland, Maine, facility to compressed natural gas.
Divestment	0		
Acquisitions	0		
Mergers	0		
Change in output	8	Decrease	FMC's overall GHG emissions decreased by 7 percent but our production decreased by 8 percent resulting in about a 1% increase in our intensity. FMC's three businesses have very different operational profiles and therefore different environmental impacts associated with each business. A large change in a metric for one business may or may not have an impact on FMC's overall operational profile. For example, if Agricultural Solutions has a significant reduction in water intensity, it may have a minimal impact on FMC's overall water intensity because the water use in this business is small compared to Health and Nutrition and Lithium. Manufacturing of FMC Lithium products requires higher consumption of energy and results in higher generation of waste compared to other FMC products. However, the volume of lithium production is less than the other two businesses, so reductions in resource intensity at our Lithium manufacturing sites may not greatly affect FMC's overall intensity. For example, a reduction in energy at Lithium sites will greatly affect FMC absolute energy, but will marginally affect FMC energy intensity. Of all the metrics, Lithium has the most impact on FMC's absolute energy, GHG and waste metrics. Health and Nutrition makes several different categories of products, and therefore the portfolio is mixed between resource-intensive manufacturing and resource-light blending operations. Similar to Lithium, Health and Nutrition can have a major impact on absolute resource use but its lower production volume means that changes do not always affect overall FMC resource intensity. Health and Nutrition has an impact on FMC's absolute energy, GHG and water use. The volume of products manufactured in Agricultural Solutions is the highest of our three businesses. However, in 2015 overall production decreased due to market conditions. At FMC-owned Agricultural Solutions facilities, we primarily blend and package products so the resource reductions by the other businesses.
Change in methodology	0		
Change in boundary	0		
Change in physical operating conditions	0		

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Unidentified	0		
Other	0		

## 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
0.000101029268293	metric tonnes CO2e	3280000000	Location- based	1	Increase	FMC's increase 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
1.25	metric tonnes CO2e	metric tonne of product	264387	Location- based	1	Increase	FMC's increase 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.

### **Further Information**

**Page: CC13. Emissions Trading** 

## CC13.1

Do you participate in any emissions trading schemes?

No, but we anticipate doing so in the next 2 years

## 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

#### 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. Our 2015 emissions data excludes Cheminova manufacturing from our total and combined intensity. This exclusion is in accordance with the Greenhouse Gas Protocol's guidance that allow companies one year to include data from newly acquired entities.

#### CC13.2

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

No

#### CC13.2a

Please provide details on the project-based carbon credits originated or purchased by your organization in the reporting period

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes of CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits cancelled	Purpose, e.g. compliance
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# **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	183314			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.
Fuel-and-energy- related activities (not included in Scope 1 or 2)	Not evaluated				
Upstream transportation and distribution	Relevant, not yet calculated				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.
Waste generated in operations	Not evaluated				
Business travel	Not relevant, explanation provided				FMC has not calculated the emissions the company generates from business travel. We estimate that it is not relevant when compared to our overall footprint.
Employee commuting	Not relevant,				FMC has not calculated the emissions associated with employee

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
	explanation provided				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				The emissions associated with downstream transportation and distribution of our products is relevant to FMC when considering the size of our overall footprint. We are evaluating how to best calculate this emissions source.
Processing of sold products	Relevant, not yet calculated				The emissions associated with the processing of sold products are relevant to FMC when considering the size of our overall footprint. We are evaluating how to best calculate this emissions source.
Use of sold products	Relevant, not yet calculated				The emissions associated with the use of sold products are relevant to FMC but we have not yet calculated these emissions. FMC is a member Field to Market, which helps develop and provide tools to some of our customers, like growers, to calculate their emissions and impacts on the environment on a case by case basis. We are evaluating how to best calculate this emissions source.
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)					

CC1	4.2
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Please indicate the verification/assurance status that applies to your reported Scope 3 emissions

No third party verification or assurance

#### CC14.2a

Please provide further details of the verification/assurance undertaken, 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 3 emissions verified (%)
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## 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
Purchased goods & services	Change in output	1	Increase	FMC's increase 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.

#### 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

#### CC14.4a

#### Please give details of methods of engagement, your strategy for prioritizing engagement and measures of success

FMC engages with its suppliers through a number of methods (collaboration, negotiation, contracts, reviews, and risk management assessments). Over the past year, we executed 45 projects that had a sustainability impact. 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.).

An example of a recent success was to generate and track projects that have a positive impact on our environment. We worked with our suppliers to increase the efficient use of and to reduce the impact of the materials used in packaging. We began refurbishing existing intermediate bulk containers (IBC) used for transporting agricultural products, rather than purchasing new ones. Our container supplier is able to recondition the steel cage exterior of the IBC and use it with a new interior plastic containment bottle without reducing quality or safety. By using refurbished cages instead of purchasing new ones, we eliminated over 1 million pounds of carbon emissions from steel production in our supply chain. We also ask our suppliers if they have or plan to have strategies in place for reducing greenhouse gas emissions. We are evaluating how best to collect, consolidate, and share this information at a global level and will engage third party support.

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

Number of suppliers	% of total spend (direct and indirect)	Comment
200	55%	The number of suppliers (200) and approximate percentage of total spend (55%) provided refers to FMC's direct material suppliers (approximately 700). FMC is currently implementing a program to engage all of its suppliers.

### CC14.4c

If you have data on your suppliers' GHG emissions and climate change strategies, please explain how you make use of that data

How you make use of the data	Please give details
Use in supplier scorecards	We use sustainability criteria in evaluation of supplier capabilities, identify risks and opportunities, and in the selection of new suppliers.
Managing physical risks in the supply chain	Currently, we ask FMC's new significant suppliers if they have or plan to have strategies in place for reducing greenhouse gas emissions as a means of reducing risks in our supply chain. We are evaluating how best to collect this information when screening our suppliers and how to use this information to develop measures of success.

### CC14.4d

Please explain why you do not engage with any elements of your value chain on GHG emissions and climate change strategies, and any plans you have to develop an engagement strategy in the future

**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
Linda Froelich	FMC Global Sustainability Director	Environment/Sustainability manager

# **Further Information**

CDP 2016 Climate Change 2016 Information Request