

**Module: Introduction**

**Page: Introduction**

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**CC0.1**

**Introduction**

Please give a general description and introduction to your organization.

Celgene is a multinational biopharmaceutical company committed to improving the lives of patients worldwide.

At Celgene, we seek to deliver truly innovative and life-changing therapies for patients, the healthcare system, society and the economy. Our Mission and Vision is building a preeminent global biopharmaceutical company focused on the discovery, development and commercialization of innovative therapies for unmet medical needs in cancer and immune-inflammatory diseases.

We continue to research and invest, advancing our own discoveries and scanning the landscape for opportunities to enhance and expand our deep and diverse portfolio of next-generation medicines that hold the potential to change the course of human health. Currently, we have 19 pivotal/phase III programs underway, 40 treatments in clinical trials, 42 programs in pre-clinical development and more than 180 clinical trials ongoing. At the same time we are mindful that Celgene is part of an ecosystem of innovation. Our research and discovery efforts seek to collaborate with and complement the work of medical and academic institutions of excellence, government agencies and regulators, patient advocacy groups and non-governmental organizations and other biopharmaceutical companies.

As committed as we are to clinical accomplishment, we are equally committed to patient support, which is a guiding principle at Celgene. We believe all who can benefit from our discoveries should have the opportunity to do so. Celgene puts patients first with industry-leading programs that provide information, for patient support and, to the maximum extent possible, safe access to our innovative therapies.

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**CC0.2**

**Reporting Year**

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

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

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

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

Enter Periods that will be disclosed
Fri 01 Jan 2016 - Sat 31 Dec 2016

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### 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
United States of America
Switzerland
Canada
France
Italy
Germany
United Kingdom
Japan

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### 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(\$)

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### **CC0.6**

#### **Modules**

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

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

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

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### **Further Information**

**Module: Management**

**Page: CC1. Governance**

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### **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

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### **CC1.1a**

**Please identify the position of the individual or name of the committee with this responsibility**

The Sustainability Committee holds the highest level of direct responsibility for climate change related activities, strategy and direction for Celgene. Richard Bagger, Executive Vice President of Global Corporate Affairs and Market Access, is one of the members of the Executive Committee and reports directly to the Chief Executive Officer. Richard is the chairman of the Sustainability Committee.

**CC1.2**

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

Yes

**CC1.2a**

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

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
Executive officer	Recognition (non-monetary)	Behavior change related indicator	Communicating Celgene's sustainability progress, including environmental programs and projects, to stakeholders within and outside the company worldwide.
Executive officer	Monetary reward	Behavior change related indicator	Managing the Corporate Responsibility department and including environmental sustainability within individual and group performance portfolios.
Other: Senior Director of Engineering, Construction, and Carbon Management	Monetary reward	Emissions reduction project Energy reduction project Efficiency project Behavior change related indicator	Completion of CDP for Celgene's environmental footprint Management of Responsibility Report publication on Celgene's sustainability performance Improved GHG emissions performance Improved GHG, water, and carbon footprint inventory data management Expansion of carbon management program, projects, and initiatives
Other: Employees of Engineering, Construction and Carbon Management Department	Recognition (non-monetary)	Emissions reduction project Energy reduction project	Assistance with CDP for Celgene's environmental footprint Assistance with Responsibility Report publication on Celgene's sustainability performance Improved GHG emissions performance Improved GHG, water, and carbon footprint inventory data management Meeting energy reduction targets for NJ Clean Energy's Pay for Performance program

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
		Efficiency project Behavior change related indicator	Expansion of carbon management program, projects, and initiatives
Facility managers	Recognition (non-monetary)	Emissions reduction project Energy reduction project Efficiency project	Assistance with CDP for Celgene's environmental footprint Assistance with Responsibility Report publication on Celgene's sustainability performance Improved GHG emissions performance Improved GHG, water, and carbon footprint inventory data management Expansion of carbon management program, projects, and initiatives

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**Further Information**

**Page: CC2. Strategy**

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**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

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**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	Other committee	The scope of the policy that pertains to climate change risks, opportunities, and risk management pertain to the company on a worldwide scale. As of 2017, Celgene has operations in North America, Europe, Asia, Latin America, South America, Australia, and Africa	3 to 6 years	

### CC2.1b

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

Risk management is already a part of Celgene's corporate policy and risk management efforts will be expanded to develop appropriate sustainability efforts and to enhance environmental compliance. Opportunity management at Celgene is based on observation and analysis of individual markets and the early recognition and evaluation of trends from which opportunities can be identified. Effective management of environmental opportunities and risks is a factor in sustainably protecting Celgene's assets. At Celgene, opportunities and risks are systematically identified, analyzed, and documented. Risk-relevant information is compiled and reviewed on a regular basis. Celgene has taken an approach to develop appropriate sustainability efforts and to enhance environmental compliance that includes the following steps:

1. Identify opportunities and risks to our business and operations related to sustainability and environmental compliance.
2. Analyze the identified opportunities and risks.
3. Plan and prioritize actions that are needed to address these opportunities and risks.
4. Implement appropriate actions and evaluate the progress of these actions.

Each site and business unit is responsible for continual awareness of potential crisis situations that could impact the site and/or business unit. Possible crisis situations can include a wide range of issues. Specific examples included in the policy are regulatory mandates, natural disasters (e.g. earthquakes hurricanes, floods), public service interruption (e.g. electricity, water, air travel, roads, railways), and public health threats. Celgene's business continuity plans (BCPs) outlines how facilities respond to disasters and includes strategies to support all critical business groups. These plans consist of over thirty groups identified as being critical to Celgene's business operations, including power for facilities, emergency power distribution, IT communications, and other miscellaneous plans.

### CC2.1c

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

Our Corporate Responsibility and Sustainability policy addresses environmental risks, opportunities, considerations and strategies at Celgene. This policy recognizes that the following areas of our value chain are potentially affected by climate change: investor expectation, regulatory requirements, local community impact, raw material sourcing, disruptions to the distribution network, production and operations.

These topics were identified as priorities from internal and external stakeholder engagement and by observations of company operations during the previous years. As Celgene evolves its Corporate Responsibility and Sustainability policy, additional risks and opportunities will be incorporated into this list. Priority will be given to the aspects/topics that have the greatest potential or observed actual impact on company operations, either positively or negatively.

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**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
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**CC2.2**

**Is climate change integrated into your business strategy?**

Yes

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**CC2.2a**

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

Climate change is integrated into Celgene business strategy through the cross-functional Sustainability Committee (“the Committee”) and the Corporate Responsibility and Sustainability Policy (“the Policy”). The Committee reviews and approves strategies, programs and projects that are aimed at reducing Celgene global carbon footprint and emissions. In addition, the Committee works across the organization to encourage the adoption of sustainable practices in daily operations through management leadership and employee engagement. The Policy outlines the focus areas that Celgene seeks to align and continuously develop across its global business, including compliance with environmental laws, waste minimization, energy and water conservation, employee awareness and

performance management. These areas are included within the Policy due to observed risk, realized opportunity for enhanced business performance and various externalities (regulation, climate adaptation, etc.)

In the immediate-term, the Policy covers initiatives that Celgene can take to create an impact on the triple bottom line (environmental, social and economic aspects), including energy-related and water-related conservation. This include initiatives that we have focused on in terms of our new (and first corporate-wide) quantitative targets, include one focused on decreasing emissions through best practices related to incorporating environmental considerations into all aspects of facility management. One important company strategy is to utilize standards for building operations, such as the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) standards for design and construction of environmentally-positive buildings. This has factored in to all new construction of Celgene buildings including the renovation occurring at our Corporate Headquarters in Summit, purchasing of electricity from certified renewable energy sources, locating Celgene operations within proximity of mass transit, and other environmental-focused aspects to enhance our triple bottom line. In long-term planning, Celgene views climate change aspects, in particular in the areas of supply chain, water, and GHG emissions, as important for Celgene operations and business performance to ensure continued delivery of life-changing therapies to the patients we serve.

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**CC2.2b**

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

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**CC2.2c**

**Does your company use an internal price on carbon?**

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

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**CC2.2d**

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

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**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)**

No

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CC2.3a

On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
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CC2.3b

Are you on the Board of any trade associations or provide funding beyond membership?

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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?
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CC2.3d

Do you publicly disclose a list of all the research organizations that you fund?

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CC2.3e

Please provide details of the other engagement activities that you undertake

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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?

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CC2.3g

**Please explain why you do not engage with policy makers**

Celgene's engagement with public policy makers primarily focuses on supporting public policies that help create an environment conducive to biomedical innovation and that ensures patient access to quality health care. This primary focus is reflective of Celgene's efforts in the biopharmaceutical industry and attention to putting our patients first.

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**Further Information**

**Page: CC3. Targets and Initiatives**

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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  
Renewable energy consumption and/or production target

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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 (market-based)	100%	20%	Metric tonnes CO2e per square foot*	2015	0.00811	2020	No, and we do not anticipate setting one in the next 2 years	

**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	12			

CC3.1d

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
RE1	Electricity consumption	2015	28847	42%	2020	46%	

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	20%	0%	Note that the comparison is based on 2015 Scope 1 and Scope 2 emissions of 10,390 and 14,523 metric tons CO <sub>2</sub> e, respectively, for a grand total of 24,947 metric tons CO <sub>2</sub> e. The Scope 1 emissions value was entered incorrectly in last year's CDP submittal (entered as a duplicate of 14,523 metric tons CO <sub>2</sub> e) in Section CC7.1 and CC8.3. The Scope 1 breakdown in section CC9 contained accurate data. The quantity of Scope 1 and Scope 2 emissions increased between 2015 and 2016 by 23% based on normalization compared to facility area
RE1	20%	100%	We have exceeded this goal and the total percent complete is 127%.

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

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**CC3.2**

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

No

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**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
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**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		
To be implemented*	3	525
Implementation commenced*		
Implemented*	1	225
Not to be implemented		

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
Energy efficiency: Building services	Replacement of significant quantity of induction fixtures located in a large parking garage with LED fixtures	112	Scope 2 (market-based)	Voluntary	28000	110000	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
Energy efficiency: Building services	Replacement of significant quantity of light bulbs with LED bulbs and fixtures		Scope 2 (market-based)	Voluntary		50000			
Low carbon energy purchase	Purchase of green power from certified hydropower for our Boudry, Switzerland office (identified in Switzerland as "hydraulic structures"). This is in addition to the purchase of green power from certified solar power sources	227	Scope 2 (market-based)	Voluntary					
Energy efficiency: Building services	Replacement of three aging chillers at the Phoenix, AZ facility	525	Scope 2 (market-based)	Voluntary	50000	190000	4-10 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	
Dedicated budget for energy efficiency	

Method	Comment
Dedicated budget for other emissions reduction activities	
Employee engagement	

CC3.3d

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

Further Information

Page: **CC4. Communication**

CC4.1

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

Publication	Status	Page/Section reference	Attach the document	Comment
In voluntary communications	Underway - previous year attached	The Environmental and Sustainability chapter (pages 67-79) of the attached Celgene Corporate Responsibility Report discusses Celgene's energy, water, waste, transportation, compliance, and carbon footprint performance. This report can also be accessed at Celgene's Responsibility website at <a href="http://www.celgene.com/responsibility">www.celgene.com/responsibility</a>	<a href="https://www.cdp.net/sites/2017/82/2982/Climate%20Change%202017/Shared%20Documents/Attachments/CC4.1/celgene-responsibility%2016.pdf">https://www.cdp.net/sites/2017/82/2982/Climate Change 2017/Shared Documents/Attachments/CC4.1/celgene-responsibility 16.pdf</a>	



**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	AB32 California Cap and Trade Program limits greenhouse gas emissions from large sources, including utilities.	Increased operational cost	3 to 6 years	Direct	Very likely	Medium	Increase in electricity and natural gas costs associated with energy purchasing, which could be on the order of \$20-100,000 per	The risk is being managed through energy reduction measures and employee energy conservation awareness	Equipment purchasing costs, building upgrades, and incorporation of these energy-efficient projects within

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	Although this program does not directly affect our facilities since Celgene facilities are not considered to be large sources of emissions under this program. This regulation will likely cause an increase in electricity and natural gas costs associated with energy purchasing for our facility in CA.						year	training. Additionally, we are planning on using a measurement and verification plan to evaluate building and/or energy system performance, purchase electricity from renewable energy sources, procure energy efficient equipment that is Energy-Star rated or rated through a certified standard, investigate optimizations to the HVAC systems and Chilled Water systems, and other energy-saving projects	the design and construction of the new San Diego facility
Voluntary agreements	Celgene International	Increased capital cost	>6 years	Direct	Very likely	Low	Increased capital costs	The risk is being managed	Equipment replacement

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>Sarl (Boudry facility) joined a voluntary energy savings program of the Swiss Private Sector Energy Agency. As part of this agreement, the Boudry facility commits itself to the active reduction of CO2 emissions and to the optimization of energy efficiency. The Boudry facility has set an annual energy saving objective, agreeing that the savings are to be achieved on the basis of the effectiveness of the measures undertaken. Ten measures have been defined for 3 years</p>						<p>required to meet agreements. This greatly depends upon the capital equipment needed to meet the requirements set forth by the agreements and can be on the order of \$50-100,000 per year</p>	<p>by evaluation of return on investment for each capital improvement project</p>	<p>and upgrade costs</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	according to a signed agreement with the Agency. Measures that have been implemented in 2012 include optimization of air handling of offices and fitness center at the Boudry facility.								
General environmental regulations, including planning	The New Jersey Global Warming Response Act set statewide limits on greenhouse gas emissions in July 2007. The law mandates reductions in greenhouse gas emissions to 1990 levels by 2020, approximately a 20 percent reduction below estimated 2020	Increased capital cost	Unknown	Direct	Unknown	Medium	Increased capital and operating costs associated with various state implemented measures taken to reduce GHG emissions (e.g. low emission vehicle requirements, renewable energy portfolio standards, etc). This greatly depends upon the capital equipment needed to meet the	The risk is being managed through energy reduction measures and employee energy conservation awareness training. Additionally, we are planning on using a measurement and verification plan to evaluate building and/or energy system performance,	Equipment replacement costs, building upgrades, employee energy conservation training. A general estimate, based upon past year's budgeting and actual spend, is \$25,000 per year for general practices and upwards of \$100,000 for capital

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>business-as-usual emissions, followed by a further reduction of emissions to 80 percent below 2006 levels by 2050. Celgene is not currently directly impacted by this act but could be impacted directly or indirectly by various state programs implemented to meet these limits in the future as Celgene has several facilities in NJ. Impacts could include increases in operating costs (fuel and electricity costs rise from increases in regulation and</p>						<p>requirements set forth by the agreements and can be on the order of \$50-100,000 per year</p>	<p>purchase electricity from renewable energy sources, procure energy efficient equipment that is Energy-Star rated or rated through a certified standard, investigate optimizations to the HVAC systems and Chilled Water systems, and other energy-saving projects</p>	<p>expenses</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	required reductions in GHG emissions) and increases in capital costs (resulting from requirements to comply with GHG reduction projects) Celgene will continue to monitor this risk.								
Carbon taxes	Effective in 2008 for the Switzerland (Boudry facility). The Swiss carbon tax applies to natural gas and heating oil but does not apply to transport fuels, wood, or biomass.	Increased operational cost	Up to 1 year	Direct	Virtually certain	Medium	Increased operating costs associated with purchasing natural gas. Capital costs associated with equipment replacement and building upgrades to reduce natural gas usage.	Continued energy reduction measures and employee energy conservation awareness training, continued evaluation of return on investment, continuing use and increases in wood heating to reduce natural gas fuel purchases	There are costs associated with equipment replacements, building upgrades, and employee energy conservation training.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Carbon taxes	Federal, state, and local regulations' establishment of a price on GHG emissions or carbon in the US can lead to increased operational costs in a similar fashion to taxes that are already incurred by businesses. It is difficult to estimate the potential cost of complying with unknowable GHG legislation. It is not possible at this time to estimate the cost of these taxes.	Increased operational cost	>6 years	Direct	About as likely as not	Low-medium	Increased operating costs associated with purchasing natural gas. Capital costs associated with equipment replacement and building upgrades to reduce natural gas usage. Various other expenses associated with purchasing energy, fuels, water, materials that incorporate carbon footprint/impact into its tax structure	Continued energy reduction measures and employee energy conservation awareness training, continued evaluation of return on investment, continuing use and increases in wood heating to reduce natural gas fuel purchases	There are costs associated with equipment replacements, building upgrades, and employee energy conservation training. However Celgene has not incurred any expenses to date because of carbon taxes and the management of them in the United States
Air pollution limits	Limits on emissions could be imposed in the US as a	Increased operational cost	3 to 6 years	Direct	Likely	Low	Air pollutions limits for various types of pollutants could be introduced	Continued energy reduction measures, monitoring of	The cost of emission limits has not been quantified because none

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	regulatory alternative to natural energy and climate policy						for control and operating equipment. Non-compliance due to equipment and monitoring errors/failures with these limits would cause financial penalties.	refrigerant leaks and replacement of harmful refrigerants with alternatives	apply at this time
International agreements	International regulations and agreements aimed at emission limits within countries could restrain the company production and operations in certain locations. The impact to the company's supply chain could drive up costs with regards to obtaining raw materials or intermediates.	Reduction/disruption in production capacity	>6 years	Direct	Likely	Low	The potential financial risks of international agreements could impact production costs, but the difficulty exists to put actual costs to these risks across the global supply chain.	Celgene is reviewing international, regional, and country-wide requirements. Our continued energy reduction and conservation measures will help anticipate more stringent controls and regulations before they come into effect.	There are costs associated with equipment replacements, building upgrades, and employee energy conservation training
Uncertainty surrounding	Federal or state legislation	Increased operational cost	3 to 6 years	Direct	More likely than not	Low-medium	Financial implications are	Celgene will continue to	Due to the uncertainty



Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
new regulation	that mandates emission reductions may risk various facilities, especially laboratory and manufacturing which produce the bulk of our greenhouse gas emissions annually. The impact would be to increase measures for various facility assets and operational expenses						uncertain. It is difficult to estimate the potential direct implications that is needed to comply with future regulations and legislation.	track and manage regulatory developments and associated risks. The main avenue to deal with these environmental risks is to focus on reducing our company's environmental footprint with emphasis on energy consumption and production of emissions.	surrounding these regulations, the operational, capital, and maintenance expenses may vary widely depending upon numerous factors.
Uncertainty surrounding new regulation	Federal or state legislation that mandates emission reductions may risk various facilities, especially laboratory and manufacturing which produce the bulk of our greenhouse gas emissions annually. The	Increased operational cost	>6 years	Direct	More likely than not	Low-medium	Financial implications are uncertain. It is difficult to estimate the potential direct implications that is needed to comply with future regulations and legislation.	Celgene will continue to track and manage regulatory developments and associated risks. The main avenue to deal with these environmental risks is to focus on reducing our company's environmental	Due to the uncertainty surrounding these regulations, the operational, capital, and maintenance expenses may vary widely depending upon numerous factors.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	impact would be to increase measures for various facility assets and operational expenses							footprint with emphasis on energy consumption and production of emissions.	

**CC5.1b**

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

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Tropical cyclones (hurricanes and typhoons)	In 2012 Celgene experienced Hurricane Sandy which impacted our US facilities in New Jersey. Celgene did not experience business critical interruptions in product	Other: Temporary staff relocation	1 to 3 years	Direct	Likely	Medium	Celgene's business operations in New Jersey were impacted in 2012 by Hurricane Sandy. Celgene did not experience business critical interruptions. There was a significant loss of employee working	Celgene is managing this risk by upgrading their emergency power systems at Summit to provide increased backup capacity to cover seventy percent of the site operations.	The costs associated with these emergency power system upgrades do not exceed three million dollars. Additional initiatives for emergency power and emergency

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	distribution or call center operations, however minor business operations were impacted. Celgene's corporate headquarters in Summit is continuing to upgrade their emergency power systems to provide increased backup capacity to cover seventy percent of the site operations.						hours, some equipment damage, and some research activities lost physical samples. These impacts can not be adequately quantified but do represent a financial loss because of this weather event.		preparedness are anticipated to be integrated within the facility planning budget.
Uncertainty of physical risks	Extreme weather events such as droughts in California could affect several of our other facilities. All of our facilities have adequate emergency backup generators to address	Reduction/disruption in production capacity	3 to 6 years	Direct	About as likely as not	Unknown	Potential loss of product or inability to supply the market could have financial implications	Celgene has already taken measures to protect operations from identifiable risks and determined that their other facilities (all except Summit) have adequate	There are no current costs anticipated to manage these risks at this time.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	potential power outages associated with extreme weather events.							emergency backup generators to address potential power outages associated with extreme weather events.	
Induced changes in natural resources	Various resources could be impacted by climate change. This includes food, water, and natural (raw) materials that are involved in Celgene's operations.	Increased operational cost	3 to 6 years	Direct	More likely than not	Low-medium	Financial implications are uncertain. Induced changes in natural resources could impact various commodities used within Celgene's operations and include food, water, and energy. The lack of natural resources could impact numerous operations and business development	No actions taken yet. Celgene is evaluating its Supply Chain strategies and management. Celgene is also evaluating risks of water shortages at facilities with appropriate planning for disruptions that may occur within operations if natural resource disruptions occur.	There are no current costs anticipated to manage these risks at this time.
Uncertainty of physical risks	Extreme weather events such as droughts in	Reduction/disruption in production capacity	>6 years	Direct	About as likely as not	Unknown	Potential loss of product or inability to supply the market could	Celgene has already taken measures to protect	There are no current costs anticipated to manage these

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	Arizona or typhoons in California could affect several of our other facilities. All of our facilities have adequate emergency backup generators to address potential power outages associated with extreme weather events.						have financial implications	operations from identifiable risks and determined that their other facilities (all except Summit) have adequate emergency backup generators to address potential power outages associated with extreme weather events.	risks at this time.
Uncertainty of physical risks	Extreme weather events such as droughts, floods, hurricanes or typhoons, could affect our supply chain.	Reduction/disruption in production capacity	3 to 6 years	Indirect (Supply chain)	About as likely as not	Unknown	Numerous physical events and problems could impact various commodities used within Celgene's operations and include food, water, and energy. These problems could impact Celgene's supply chain and visa vie Celgene's own operations	No actions taken yet. Celgene is evaluating its Supply Chain strategies and management	There are no current costs anticipated to manage these risks at this time.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							and business development		
Uncertainty of physical risks	Extreme weather events such as droughts, floods, hurricanes or typhoons, could affect our supply chain.	Reduction/disruption in production capacity	>6 years	Indirect (Supply chain)	About as likely as not	Unknown	Numerous physical events and problems could impact various commodities used within Celgene's operations and include food, water, and energy. These problems could impact Celgene's supply chain and visa vie Celgene's own operations and business development	No actions taken yet. Celgene is evaluating its Supply Chain strategies and management	There are no current costs anticipated to manage these risks at this time.
Change in precipitation pattern	Changes in precipitation could result in changes in water supply and the ability to discharge treated wastewater	Increased operational cost	3 to 6 years	Direct	Likely	Low-medium	Changes in precipitation patterns could result in interruptions to the availability and quality of water. Operations (manufacturing, laboratory research, general office, etc.) depends upon clean water	No actions taken yet. Celgene is evaluating its Water strategies and management and water risks due to actual and recorded shortages at its facilities	There are no current costs anticipated to manage these risks at this time.
Induced	Various	Increased	3 to 6	Indirect	More likely	Low-	Financial	No actions	There are no

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
changes in natural resources	resources could be impacted by climate change. This includes food, water, and natural (raw) materials that are involved in Celgene's operations that are obtained through its supply chain.	operational cost	years	(Supply chain)	than not	medium	implications are uncertain. Induced changes in natural resources could impact various commodities used within Celgene's operations and include food, water, and energy. The lack of natural resources could impact numerous Celgene's supply chain and ability to deliver products.	taken yet. Celgene is evaluating its Supply Chain strategies and management. Celgene is also evaluating risks of water shortages at facilities with appropriate planning for disruptions that may occur within operations if natural resource disruptions occur.	current costs anticipated to manage these risks at this time.
Induced changes in natural resources	Various resources could be impacted by climate change. This includes food, water, and natural (raw) materials that are involved in Celgene's operations.		>6 years	Direct	More likely than not	Low-medium	Financial implications are uncertain. Induced changes in natural resources could impact various commodities used within Celgene's operations and include food, water, and energy. The lack of natural resources could	No actions taken yet. Celgene is evaluating its Supply Chain strategies and management. Celgene is also evaluating risks of water shortages at facilities with appropriate planning for disruptions that	There are no current costs anticipated to manage these risks at this time.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							impact numerous operations and business development.	may occur within operations if natural resource disruptions occur.	
Induced changes in natural resources	Various resources could be impacted by climate change. This includes food, water, and natural (raw) materials that are involved in Celgene's operations that are obtained through its supply chain.	Reduction/disruption in production capacity	>6 years	Indirect (Supply chain)	More likely than not	Low-medium	Financial implications are uncertain. Induced changes in natural resources could impact various commodities used within Celgene's operations and include food, water, and energy. The lack of natural resources could impact numerous Celgene's supply chain and ability to deliver products.	No actions taken yet. Celgene is evaluating its Supply Chain strategies and management. Celgene is also evaluating risks of water shortages at facilities with appropriate planning for disruptions that may occur within operations if natural resource disruptions occur.	There are no current costs anticipated to manage these risks at this time.

CC5.1c

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



Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Reputation	As global concern about the impacts of climate change continues to rise, companies are facing increasing pressure to actively participate in efforts to reduce their emissions of greenhouse gases. As a publicly listed company, Celgene recognizes that some financial shareholders are increasingly interested in the climate change policies and practices of the companies in which they invest. Other stakeholders including customers, consumers, employees, government agencies and local communities may also be concerned if Celgene does not participate effectively in reducing and	Reduced stock price (market valuation)	>6 years	Direct	About as likely as not	Low	Celgene is aware that other companies have faced shareholder criticism for failing to make meaningful commitments toward sustainability and/or for a lack of transparency regarding their efforts and commitments in this respect. We do not consider it possible to place a quantitative financial value on the implications of these risks; however a reduction in the value of our stock could reduce our available capital and potentially impact our ability to continue our current growth trajectory.	Celgene is addressing environmental sustainability through our efforts to manage our energy and water use, increase energy efficiency and track GHG emissions, which should serve to protect our reputation with stakeholders. Specific actions we are taking to ensure that our stakeholders are made aware of our efforts include annual response to the CDP Climate Change and Water questionnaires, and disclosure through our Responsibility Report	There are costs associated with completing these disclosures that have not exceeded half a million dollars

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	planning for climate change impacts. These considerations are relevant to all regions where Celgene does business, but particularly in California where there is a high level of public awareness and concern about environmental issues.								
Other drivers	Celgene does not fully understand all of the inherent risks of climate change on its business, its supply chain, and its employees	Other:	>6 years	Direct	Unknown	Low	Celgene may continue to not fully understand all of the risks associated with climate change and its impact on everything from the supply chain through all of its business operations. This may cause business disruptions that incur unpredictable financial impacts on either a small or large scale	Celgene is addressing environmental sustainability through our efforts to manage our energy and water use, increase energy efficiency and track GHG emissions, which should serve to protect our reputation with stakeholders. Specific actions we are taking to ensure that our stakeholders are made aware of our	The costs associated with this risks are related to environmental planning, climate research, and tied into the various environmental programs and projects that are being planned or in the implementation phase. These plans are small compared to our overall business performance, and are budgeted for less than one

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							compared to our current performance	efforts include annual response to the CDP Climate Change and Water questionnaires, and disclosure through our Responsibility Report	million dollars per year
Other drivers	Celgene's employees are directly affected by health-related impacts of climate change and associated environmental problems	Other:	>6 years	Direct	Unknown	Low	The financial implications of health-related impacts due to climate change and environmental problems can not be quantified at this time as there is a lack of both qualitative and quantitative data.	Celgene does not have management plans in place for health-related problems due to climate change. However Celgene sponsors numerous programs related to health awareness and healthy living strategies.	The costs associated with this risks are related to environmental planning, climate research, and tied into the various environmental programs and projects that are being planned or in the implementation phase. These plans are small compared to our overall business performance, and are budgeted for less than one million dollars per year

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

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CC5.1e

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

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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

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**Further Information**

**Page: CC6. Climate Change Opportunities**

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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
Cap and trade schemes	AB32 California Cap and Trade Program limits greenhouse gas emissions from large sources, including utilities. This regulation will likely cause an increase in electricity and natural gas costs associated with energy purchasing. The anticipated market response is reduction in energy usage, resulting in increased availability of carbon offsets.	Reduced operational costs	3 to 6 years	Direct	More likely than not	Low	Reduction in carbon offset price, which is currently unknown because Celgene does not participate in carbon offset purchasing or carbon trading	Continued monitoring of AB32 implementation and evaluation of carbon offset price	There are minimal costs associated with monitoring this activity at this time.
Carbon taxes	Effective in 2008.	Reduced operational	Up to 1 year	Direct	Virtually certain	Medium	Reduction in carbon tax and	Celgene International Sarl	The energy savings

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>Switzerland. One third of carbon tax was allocated to climate friendly building renovations, use of renewable energy and building engineering. The Swiss carbon tax applies to natural gas and heating oil but does not apply to transport fuels, wood, or biomass and its revenues are recycled back to consumers and businesses. Companies are allowed to exempt themselves from the tax by participating in a Swiss cap-and-trade emissions trading scheme where they voluntarily commit to legally binding</p>	costs					<p>reductions in energy consumption. Our reduction efforts for energy consumption have incurred financial expenses that greatly depend upon the type and scale of the project or initiative.</p>	<p>(Boudry facility) joined a voluntary energy savings program of the Swiss Private Sector Energy Agency. As part of this agreement, the Boudry facility commits itself to the active reduction of CO2 emissions and to the optimization of energy efficiency.</p>	<p>realized help offset the costs associated with these activities</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	targets to reduce their CO2 emissions.								
Fuel/energy taxes and regulations	As the number of taxes related to energy increase, companies can increase their energy efficiency and performance through numerous methods. Projects that are design to reduce energy demand and consumption can offset the higher costs from any future energy and/or fuel taxes from regulation.	Reduced operational costs	3 to 6 years	Direct	Virtually certain	Low	High taxes on fuel and energy consumption proportionally translates to higher operating costs. This could increase facility operational costs by 10-20% of current expenses (estimated)	The risk is being managed through energy reduction measures and employee energy conservation awareness training. Additionally, we are planning on using a measurement and verification plan to evaluate building and/or energy system performance, purchase electricity from renewable energy sources, procure energy efficient equipment that is Energy-Star rated or rated through a certified standard, investigate optimizations to the HVAC systems and Chilled Water systems, and other energy-	Equipment replacement costs, building upgrades, employee energy conservation training. A general estimate, based upon past year's budgeting and actual spend, is \$25,000 per year for general practices and upwards of \$100,000 for capital expenses

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								saving projects	
Fuel/energy taxes and regulations	As the number of taxes related to energy increase, companies can increase their energy efficiency and performance through numerous methods. Projects that are design to reduce energy demand and consumption can offset the higher costs from any future energy and/or fuel taxes from regulation.	Reduced operational costs	3 to 6 years	Indirect (Supply chain)	Virtually certain	Medium	High taxes on fuel and energy consumption proportionally translates to higher operating costs. This could increase facility operational costs by 10-20% of current expenses (estimated)	The risk is being managed through energy reduction measures and employee energy conservation awareness training. Additionally, we are planning on using a measurement and verification plan to evaluate building and/or energy system performance, purchase electricity from renewable energy sources, procure energy efficient equipment that is Energy-Star rated or rated through a certified standard, investigate optimizations to the HVAC systems and Chilled Water systems, and other energy-saving projects	Equipment replacement costs, building upgrades, employee energy conservation training. A general estimate, based upon past year's budgeting and actual spend, is \$25,000 per year for general practices and upwards of \$100,000 for capital expenses.
Product	Consumer	Reduced	1 to 3	Direct	Virtually	Low	Product	Continued energy	Equipment



Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
efficiency regulations and standards	demand (from individuals, companies, and even the government) continues to increase for products that are more sustainable and create a lower net impact upon the environment. The supply of these products will increase that allow companies to reduce demand and associated expenses for energy, water, and possibly event material consumption.	operational costs	years		certain		efficiency translates to opportunities for companies to reduce demand for energy, water, materials, etc. with a proportional reductions in financial expenses.	reduction measures and employee energy conservation awareness training, Continued evaluation of return on investment, Investment with Energy Star rated equipment, Incorporation of LEED strategies for new building design and renovation which include acquisition of products deemed efficient from multiple standards.	replacement costs, building upgrades, employee energy conservation training.

CC6.1b

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

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Induced changes in natural resources	The potential fluctuations in the availability and quality of natural resources, especially water, can drive efficiency measures in facilities. As these efficiency measures are utilized in facilities, and even in facilities where there are no potential changes in natural resources, realized expenses could decrease for the consumption of these natural resources.	Reduced operational costs	>6 years	Direct	About as likely as not	Low	Financial implications are uncertain. Induced changes in natural resources could impact various commodities used within Celgene's operations and include food, water, and energy. The lack of natural resources could impact numerous operations and business development.	Continued energy reduction measures and employee energy conservation awareness training, continued evaluation of return on investment, continuing use and increases in wood heating to reduce natural gas fuel purchases.	Equipment replacement costs, building upgrades, employee energy conservation training.

**CC6.1c**

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

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Reputation	Companies that do	Increased	>6 years	Direct	About as	Low	We currently	Celgene is	There are

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	their part to address environmental issues, such as the effects of climate change and the depletion of natural resources will enhance their reputation, improve performance and gain competitive advantage. Celgene is addressing environmental sustainability through our commitment to environmental responsibility. Celgene is managing and measuring our environmental impacts and communicating these through CDP and GRI annual reporting.	stock price (market valuation)			likely as not		do not know the full financial implications of climate related opportunities associated with our reputation.	addressing environmental sustainability through our efforts to manage our energy and water use, increase energy efficiency and track GHG emissions, which should serve to protect our reputation with stakeholders. Specific actions we are taking to ensure that our stakeholders are made aware of our efforts include annual response to the CDP Climate Change and Water questionnaires, and disclosure through our Responsibility Report.	costs associated with completing these disclosures that have not exceeded half a million dollars

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

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CC6.1e

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

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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

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**Further Information**

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

**Page: CC7. Emissions Methodology**

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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	Thu 01 Jan 2015 - Thu 31 Dec 2015	10390.14

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 2 (location-based)	Thu 01 Jan 2015 - Thu 31 Dec 2015	25545.85
Scope 2 (market-based)	Thu 01 Jan 2015 - Thu 31 Dec 2015	14523.08

## 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
IPCC Guidelines for National Greenhouse Gas Inventories, 2006
The Climate Registry: General Reporting Protocol
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
US EPA Climate Leaders: Direct HFC and PFC Emissions from Use of Refrigeration and Air Conditioning Equipment

## CC7.2a

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

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**CC7.3**

Please give the source for the global warming potentials you have used

Gas	Reference
CO2	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	Other: • The Climate Registry: General Reporting Protocol

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**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
Natural gas	0.054	Other: kg/scf	The Climate Registry, General Reporting Protocol, April 2015, Tables 12.1 and 12.2
Natural gas	1	Other: gCH4/MMBtu	The Climate Registry, General Reporting Protocol, April 2015, Table 12.9
Natural gas	0.1	Other: gN2O/MMBtu	The Climate Registry, General Reporting Protocol, April 2015, Table 12.9
Distillate fuel oil No 2	428.67	Other: kg/barrel	The Climate Registry, General Reporting Protocol, April 2015, Tables 12.1 and 12.2
Distillate fuel oil No 2	3	Other: gCH4/MMBtu	The Climate Registry, General Reporting Protocol, April 2015, Table 12.9
Distillate fuel oil No 2	0.6	Other: gN2O/MMBtu	The Climate Registry, General Reporting Protocol, April 2015, Table 12.9

Fuel/Material/Energy	Emission Factor	Unit	Reference
Wood or wood waste	1639.62	Other: kg CO2/ton	The Climate Registry, General Reporting Protocol, April 2015, Tables 12.1 and 12.2
Wood or wood waste	30	Other: gCH4/MMBtu	The Climate Registry, General Reporting Protocol, April 2015, Table 12.9
Wood or wood waste	4.2	Other: gN2O/MMBtu	The Climate Registry, General Reporting Protocol, April 2015, Table 12.9

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#### Further Information

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

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#### CC8.1

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

Operational control

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#### CC8.2

**Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e**

18811.1

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#### CC8.3

Please describe your approach to reporting Scope 2 emissions

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

CC8.3a

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

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
39545.64	13361.13	

CC8.4

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

No

CC8.4a

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 5% but less than or equal to 10%	Assumptions Metering/ Measurement Constraints Data Management	Utility metering data, used to collect natural gas usage activity data comprising the majority of Scope 1 emissions, has minor uncertainty associated with equipment accuracy. Some of the natural gas quantities have been calculated using referenced estimations that may not accurately reflect the actual consumption at the facilities. Some refrigerant emissions are based on estimates for equipment leakage rates rather than actual data and have a much greater degree of uncertainty. The majority of the fuel oil usage data is metered but a portion of the fuel oil usage data is estimated based upon fuel purchase records and equipment run times resulting in some uncertainty. Although a minor source of emissions, gasoline usage for mobile sources is estimated based upon mileage and fuel efficiency estimates. A small potential for uncertainty also lies in data management practices as the activity data is annually transferred from invoicing records to data collection spreadsheets and then to calculation spreadsheets.
Scope 2 (location-based)	More than 5% but less than or equal to 10%	Assumptions Metering/ Measurement Constraints Data Management	Utility metering data, used to collect natural gas usage activity data comprising the majority of Scope 1 emissions, has minor uncertainty associated with equipment accuracy. Some of the electricity quantities have been calculated using referenced estimations that may not accurately reflect the actual consumption at the facilities. A small potential for uncertainty also lies in data management practices as the activity data is annually transferred from invoicing records to data collection spreadsheets and then to calculation spreadsheets.
Scope 2 (market-based)	More than 5% but less than or equal to 10%	Assumptions Metering/ Measurement	Utility metering data, used to collect natural gas usage activity data comprising the majority of Scope 1 emissions, has minor uncertainty associated with equipment accuracy. Some of the electricity quantities have been calculated using referenced estimations that may not accurately reflect the actual

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
		Constraints Data Management	consumption at the facilities. A small potential for uncertainty also lies in data management practices as the activity data is annually transferred from invoicing records to data collection spreadsheets and then to calculation spreadsheets.

### CC8.6

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

Third party verification or assurance process in place

### CC8.6a

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

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Annual process	Complete	Limited assurance	<a href="https://www.cdp.net/sites/2017/82/2982/Climate%20Change%202017/Shared%20Documents/Attachments/CC8.6a/LRQA-Celgene%20CY2016%20Assurance%20Statement-060717-ASRauthorized.pdf">https://www.cdp.net/sites/2017/82/2982/Climate Change 2017/Shared Documents/Attachments/CC8.6a/LRQA-Celgene CY2016 Assurance Statement-060717-ASRauthorized.pdf</a>	1-2	ISO14064-3	100

**CC8.6b**

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

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission
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**CC8.7**

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

Third party verification or assurance process in place

**CC8.7a**

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

Location-based or market-based figure?	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
Location-based	Annual process	Complete	Limited assurance	<a href="https://www.cdp.net/sites/2017/82/2982/Climate%20Change%202017/Shared%20Documents/Attachments/CC8.7a/LRQA-Celgene%20CY2016%20Assurance%20Statement-060717-ASRauthorized.pdf">https://www.cdp.net/sites/2017/82/2982/Climate Change 2017/Shared Documents/Attachments/CC8.7a/LRQA-Celgene CY2016 Assurance Statement-060717-ASRauthorized.pdf</a>	1-2	ISO14064-3	100

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 (%)
Market-based	Annual process	Complete	Limited assurance	<a href="https://www.cdp.net/sites/2017/82/2982/Climate%20Change%202017/Shared%20Documents/Attachments/CC8.7a/LRQA-Celgene%20CY2016%20Assurance%20Statement-060717-ASRauthorized.pdf">https://www.cdp.net/sites/2017/82/2982/Climate Change 2017/Shared Documents/Attachments/CC8.7a/LRQA-Celgene CY2016 Assurance Statement-060717-ASRauthorized.pdf</a>	1-2	ISO14064-3	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: Scope 3	Other indirect GHG emissions (Scope 3) are verified via our third party and provided as verified in our Assurance Report.

#### CC8.9

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

Yes

#### CC8.9a

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

1011.69

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**Further Information**

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

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**CC9.1**

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

Yes

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**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	18160.92
Canada	153.38
Switzerland	337.22
United Kingdom	122.57
France	0
Germany	0
Italy	35.98
Spain	1.03

Country/Region	Scope 1 metric tonnes CO2e
Japan	0

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**CC9.2**

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

- By facility
- By GHG type
- By activity

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**CC9.2a**

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

Business division	Scope 1 emissions (metric tonnes CO2e)
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**CC9.2b**

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

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
Cambridge	526.76	42.3955	-71.1492
Berkeley Heights (300)	141.12	40.6609	-74.4196
Berkeley Heights (400)	150.63	40.661	-74.4209
Boudry	315.18	46.95	6.8333
Cedar Knolls	9.44	40.8218	-74.45
London	122.57	51.5117	-0.4468
Madrid	0	40.4112	-4.4963
Milan	35.98	45.4412	9.1028
Mississauga	153.38	43.6029	-79.7423
Munich	0	48.1353	11.688
Overland Park	33.95	38.9309	-94.6919
Paris	0	48.8697	2.3364
Phoenix	1596.07	33.4484	-112.074
San Diego	889.46	32.7153	-117.1573
San Francisco	2.97	37.7686	-122.3955
Sevilla	1.03	37.4082	-6.0046
Summit East	3321.07	40.7161	-74.3625
Summit West	11019.33	40.7247	-74.3792
Tokyo	0	35.6825	139.7643
Warren (7 Powder Horn Drive)	470.13	40.6342	-74.5004
Zofingen	22.04	47.2886	7.9392

**CC9.2c**

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

GHG type	Scope 1 emissions (metric tonnes CO2e)
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GHG type	Scope 1 emissions (metric tonnes CO2e)
CO2	17583.35
CH4	16.58
N2O	22.95
HFCs	725.85

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#### CC9.2d

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

Activity	Scope 1 emissions (metric tonnes CO2e)
Stationary Combustion	18021.18
Mobile Combustion	18.97
Refrigeration and Fire Suppression	725.85
Laboratory Chemicals	45.15

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#### Further Information

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

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#### CC10.1

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

Yes



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**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	37687.75	11730.79	27089.15	66337.04
Switzerland	270.03	42.48	223.08	5293.38
Canada	169.83	169.83	1823.77	0
France	22.79	22.79	274.64	0
Spain	135.58	135.58	443.21	443.21
Italy	79.52	79.75	185.85	0
Germany	397	397	739.51	0
United Kingdom	660.53	660.53	1332.1	0
Japan	122.61	122.61	222.18	222.18

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**CC10.2**

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

By facility  
By activity

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**CC10.2a**

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

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

CC10.2b

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

Facility	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
Cambridge	149.87	149.87
Berkeley Heights (300 Connell)	188.41	188.41
Berkeley Heights (400 Connell)	241.88	241.88
Boudry	227.55	0
Cedar Knolls	15.36	15.36
London	660.53	660.53
Madrid	45.96	45.96
Milan	79.52	79.52
Mississauga	169.83	169.83
Munich	397	397
Overland Park	327.21	327.21
Paris	22.79	22.79
Phoenix	7591.3	7591.3
San Diego	2523.36	2523.36
San Francisco	329.79	329.79
Sevilla	89.62	89.62

Facility	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
Summit East	5627.14	0
Tokyo	122.61	122.61
Warren (7 Powder Horn Drive)	1450.99	0
Zofingen	42.48	42.48
Summit West	19242.46	363.63

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#### CC10.2c

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

Activity	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
Purchased Electricity	39545.64	13361.13
Purchased Steam	32.89	32.89

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#### Further Information

Page: **CC11. Energy**

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#### CC11.1

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

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**CC11.2**

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

Energy type	MWh
Heat	0
Steam	142.33
Cooling	0

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**CC11.3**

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

108701.27

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**CC11.3a**

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

Fuels	MWh
Diesel/Gas oil	660.79
Liquefied petroleum gas (LPG)	5.25
Motor gasoline	70.37
Natural gas	104626.75

Fuels	MWh
Propane	5.25
Wood or wood waste	3332.86

**CC11.4**

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

Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Emissions factor (in units of metric tonnes CO2e per MWh)	Comment
Off-grid energy consumption from an on-site installation or through a direct line to an off-site generator owned by another company	3332.87	0	The Boudry facility used wood pellets as a source of fuel to heat the building.
Energy attribute certificates, Guarantees of Origin	5293.38	0	The Boudry facility purchased 100% of its electricity (57,200 kWh through certified renewable electricity from Sun Valley and 5,236,179 kWh of hydropower from Eli10) as part of their ongoing commitment to reducing carbon emissions and optimizing energy efficiency through the Swiss Private Sector Energy Agency's Voluntary Climate Protection Program. The certificate for this energy has been certified through Naturemade Star.
Off-grid energy consumption from an on-site installation or through a direct line to an off-site generator owned by another company	12	0	On-site solar panels at the Summit facility generated and provided 12 MWh of electricity to the main building.
Energy attribute certificates, Renewable Energy Certificates (RECs)	14381	0	The Summit East facility purchased 100% of its electricity through certified renewable electricity from Constellation Energy as part of the ongoing commitment to reduce carbon emissions. The total quantity of electricity purchased through this agreement

Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Emissions factor (in units of metric tonnes CO2e per MWh)	Comment
			was 14,381 MWh.
Energy attribute certificates, Renewable Energy Certificates (RECs)	48247	0	The Summit West facility purchased 100% of its electricity through certified renewable electricity from Constellation Energy as part of the ongoing commitment to reduce carbon emissions. The total quantity of electricity purchased through this agreement was 48,247 MWh.
Energy attribute certificates, Renewable Energy Certificates (RECs)	3708	0	The Warren facility purchased 100% of its electricity through certified renewable electricity from Constellation Energy as part of the ongoing commitment to reduce carbon emissions. The total quantity of electricity purchased through this agreement was 3708 MWh.

**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
104712.88	103963.9	748.98	748.98	748.98	One solar energy installation at Summit East and one solar energy installation at Summit West

**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?**

Increased

**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	4.8	Decrease	This is directly attributed to the large increase in purchasing of low-carbon electricity at our sites.
Divestment			Unknown quantity but attributed at other facilities We divested out of the following locations: 33 Tech, Warren, NJ Bedford, MA 200 Connell, BH, NJ Cedar Knolls
Acquisitions			One acquisition: Cambridge, MA Transfer of facility from Bedford, MA to this location
Mergers			
Change in output			
Change in methodology			
Change in boundary			
Change in physical operating conditions	33.7	Increase	Changes in business practices, relocation of employees, and employee habits can affect resultant emissions generated at our facilities
Unidentified			
Other			

**CC12.1b**

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

Market-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
0.000002865	metric tonnes CO2e	11229000000	Market-based	9.4	Increase	Company revenue growth increased between 2015 and 2016 and emissions increased due to changes in physical space and acquisition of the new Summit West campus. These two items combined lead to an increase in this intensity figure. Note that the comparison is based on 2015 Scope 1 and Scope 2 emissions of 10,390 and 14,523 metric tons CO2e, respectively, for a grand total of 24,947 metric tons CO2e. The Scope 1 emissions value was entered incorrectly in last year's CDP submittal (entered as a duplicate of 14,523 metric tons CO2e) in Section CC7.1 and CC8.3. The Scope 1 breakdown in section CC9 contained accurate data.

**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
5.478	metric tonnes CO2e	full time equivalent (FTE) employee	4966	Market-based	18.24	Increase	Company employee population of the scoped facilities increased between 2015 and 2016 and emissions increased due to changes in physical space and acquisition of the new Summit West campus. These two items combined lead to an increase in this intensity figure. Note that the comparison is based on 2015 Scope 1 and Scope 2 emissions of 10,390 and 14,523 metric tons CO2e, respectively, for a grand total of 24,947 metric tons CO2e. The Scope 1 emissions value was entered incorrectly in last year's CDP submittal (entered as a duplicate of 14,523 metric tons CO2e) in Section CC7.1 and CC8.3. The Scope 1 breakdown in section CC9 contained accurate data.
0.00996	metric tonnes CO2e	square foot	3229432.3	Market-based	22.83	Increase	The facility area that the company utilizes through either owned or leased space increased slightly between 2015 and 2016. Note that the comparison is based on 2015 Scope 1 and Scope 2 emissions of 10,390 and 14,523 metric tons CO2e, respectively, for a grand total of 24,947 metric tons CO2e. The Scope 1 emissions value was entered incorrectly in last year's CDP submittal (entered as a duplicate of 14,523 metric tons CO2e) in Section CC7.1 and CC8.3. The Scope 1 breakdown in section CC9 contained accurate data.

**Further Information**

**Page: CC13. Emissions Trading**

**CC13.1**

**Do you participate in any emissions trading schemes?**

No, and we do not currently anticipate doing so in the next 2 years

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**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

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**CC13.1b**

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

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**CC13.2**

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

No

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**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 CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits canceled	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, not yet calculated				Emissions from purchased goods and services include those activities associated with the following suppliers: Medical Devices, Engineering and Construction Services, Raw Goods and Materials for Processing and Manufacturing Celgene’s pharmaceutical products, Consulting Services. Additional and accurate data must be obtained from

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
					these sources within our upstream value chain and suppliers before a reasonable emissions inventory from these sources can be developed.
Capital goods	Relevant, not yet calculated				Emissions from capital goods include capital products used at facilities where Celgene has direct control/ownership or has installed its own capital products. We are currently researching avenues for constructing an accurate and reasonable emissions inventory for these sources. We are also researching available tools that allow easy conversion of known items (such as infrastructure expenses for capital goods) into proportionate estimates for emissions generated from capital goods.
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Not relevant, explanation provided				Fuel- and energy-related activities (not included in Scope 1 or 2) are considered to be minimal. In addition, the GHG emissions from fuel and energy production and transportation would not be material for Celgene operations as we do not have control over transmission and distribution losses.
Upstream transportation and distribution	Relevant, not yet calculated				Additional data from suppliers that perform transportation and distribution activities within Celgene's upstream value chain must be obtained before a reasonable emissions inventory can be developed.

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
Waste generated in operations	Relevant, calculated	1444.07	Solid waste and recycling waste generation accounting occurs at the all offices at this time through either direct monitoring or estimating using referenced and verified factors. These actual and estimated annual solid waste generation quantities are used to calculate GHG emissions. The methodology (including emission factors, other variables) used to calculate emissions from incinerated solid waste is derived from the Local Government Operations Protocol v1.1 (May 2010) and USEPA's Greenhouse Gas Mandatory Reporting Rule Subpart C (2009). The methodology used to calculate emission from landfill processes is derived from USEPA's Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks, 3rd Edition (September 2006). GWPs source is the IPCC Fourth Assessment Report (SAR - 100 year).	100.00%	This source of Scope 3 emissions is associated with Celgene's contracted municipal solid waste disposal that is ultimately sent to an off-site incineration facility. At other facilities, estimations are used to calculate the quantity of solid waste generation on a daily basis. Celgene has implemented waste recycling and organic collection programs in an effort to reduce the quantity of waste being disposed.
Business travel	Relevant, calculated	19881.71	Actual airline miles by segment length were collected for Celgene companywide through a corporate travel system. Emission factors source is GWPs source is the IPCC 4th Assessment Report (SAR - 100 year). Celgene has three shuttle vans that are operated by a 3rd Party that perform business travel services. These shuttle vans transport people to and from various New Jersey locations for Celgene business purposes only. Actual miles for these shuttles were estimated	100.00%	This source of Scope 3 emissions includes official Celgene employee business travel. Methods of business travel typically include airplane, shuttle, taxi cab/limo and rental vehicles, but could also include some personal vehicle, bus or rail travel.

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
			<p>based upon the travel schedule and using a mapping program to determine miles traveled each day. The shuttle fuel use is estimated by applying the USEPA fuel efficiency provided at <a href="http://www.fueleconomy.gov">www.fueleconomy.gov</a> to the total mileage. Therefore the shuttle data is considered to be good quality Emission factors source is Climate Leaders GHG Protocol, Direct Emissions from Mobile Combustion Sources (May 2008). GWPs source is the IPCC Fourth Assessment Report (SAR - 100 year).</p>		
Employee commuting	Relevant, calculated	11119.5	<p>Employee commuting miles were collected using a survey provided to all employees at the facilities within our boundary. This survey asked for the type of vehicle used and the average mileage traveled each standard work day. The employee commuting data collected are actual values provided directly from the employees. Extrapolated values were calculated to provide a country-wide estimate based upon the data provided in the survey. Additionally, the shuttle service vans, mentioned above, that perform employee commuting services (from the local train station in New Jersey to local facilities) are also included in these calculations. Mileage for these shuttle vans is based upon the schedule provided by the 3rd Party operator and by using a mapping program. The shuttle mileage data used are estimated values based upon scheduling of the shuttled</p>	100.00%	<p>This source of Scope 3 emissions includes Celgene employee travel from their places of residence to their respective work locations/facilities. Methods of employee commuting include the use of personal vehicles or company-provided transportation from places of residence or public transport to places of work.</p>

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
			provided by the 3rd Party operator. The shuttle fuel use is estimated by Applying the USEPA fuel efficiency provided at <a href="http://www.fueleconomy.gov">www.fueleconomy.gov</a> to the total mileage. Therefore the shuttle data is considered to be good quality. Emission factors source is GWPs source is the IPCC Fourth Assessment Report (SAR - 100 year).		
Upstream leased assets	Not relevant, explanation provided				Our leased asset carbon emissions are included in our Scope 1 &2 data or accounted for in the uncertainty analyses.
Downstream transportation and distribution	Relevant, not yet calculated				Additional data must be obtained from our downstream supply chain activities before a reasonable emissions inventory from this source can be developed.
Processing of sold products	Not relevant, explanation provided				Celgene does not report emissions associated with processing of sold products as this category is not considered relevant to our inventory. Celgene adheres to the recommendation from the "Guidance for Measuring & Reporting Corporate Value Chain GHG Emissions in the Chemical Sector" which states that "the diversity of applications [sold products] generally cannot be reasonably tracked. Therefore, at this time category 10 [Processing of Sold Products] is not required."
Use of sold products	Not relevant, explanation provided				It is readily assumed that the end users of Celgene's pharmaceutical products do not contribute significant GHG emissions.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
End of life treatment of sold products	Not relevant, explanation provided				It is readily assumed that the disposal of Celgene's pharmaceutical products do not contribute significant GHG emissions from their disposal.
Downstream leased assets	Not relevant, explanation provided				Celgene has only one facility that is currently leased to another entity. This facility has been identified and reviewed and does not contribute significant GHG emissions to Celgene's total Scope 3 emissions.
Franchises	Not relevant, explanation provided				Celgene is not an external franchisor.
Investments	Not relevant, explanation provided				Celgene is not an investor or a company that provides financial services
Other (upstream)					
Other (downstream)					

**CC14.2**

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

Third party verification or assurance process in place



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**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 (%)
Annual process	Complete	Limited assurance	<a href="https://www.cdp.net/sites/2017/82/2982/Climate Change 2017/Shared Documents/Attachments/CC14.2a/LRQA-Celgene CY2016 Assurance Statement-060717-ASRauthorized.pdf">https://www.cdp.net/sites/2017/82/2982/Climate Change 2017/Shared Documents/Attachments/CC14.2a/LRQA-Celgene CY2016 Assurance Statement-060717-ASRauthorized.pdf</a>	1-2	ISO14064-3	100

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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

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**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
Waste generated in operations	Change in physical operating conditions	2.18	Increase	Changes in business practices, relocation of employees, and employee habits can affect resultant emissions generated at our facilities.
Business travel	Change in output	7.92	Decrease	The decrease in business travel emissions can be directly attributed to the significant reduction in long-haul air travel for the scoped facilities between 2015 and 2016. The reason for the decrease is business travel cannot be attributed to any one particular business directive or strategy, but may be caused by the increase in capabilities in our offices for telecommunications.
Employee commuting	Change in output	51.05	Increase	The increase in employee commuting mileage and resulting emissions is primarily due to a larger response in our employee commuting survey and a 9 percent increase in employee population. Additional factors include the extrapolation used for the employee commuting survey results and a shift in mindset of employees towards more personal vehicle commuting.

#### 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)**

No, we do not engage

#### CC14.4a

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

#### CC14.4b

To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent

Type of engagement	Number of suppliers	% of total spend (direct and indirect)	Impact of engagement
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#### CC14.4c

**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 evaluation of the potential impact of Celgene's value chain on GHG emissions is needed before a climate change engagement strategy for our value chain can be developed. This evaluation needs to include resources, information, and data from various departments within our company, especially our Strategic Sourcing department that handles our supply chain activities. Once we have the necessary information on our suppliers, our engagement practices will mirror those of other pharmaceutical companies and include communications on emission reduction strategies, supplier assessment of their sustainability programs, and grievance mechanisms for aspects and topics related to climate change.

#### 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
Janos Angeli	Director of Engineering, Construction and Carbon Management	Environment/Sustainability manager

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**Further Information**

[CDP 2017 Climate Change 2017 Information Request](#)