Module: Introduction

Page: Introduction

CC0.1

Introduction
Please give a general description and introduction to your organization.

Aspen is a pharmaceutical company listed on the Johannesburg Stock Exchange Limited (“JSE”). Aspen employs approximately 10 000 employees and its heritage dates back more than 160 years in South Africa. Aspen supplies branded and generic pharmaceutical products, infant milk nutritionals and consumer healthcare products in selected territories and into more than 150 countries worldwide. The Aspen brand has become synonymous with high quality and affordable products. Aspen recognises that climate change has potential direct and indirect implications and is therefore relevant to Aspen’s sustainability objectives. The Group has 26 manufacturing facilities across 18 sites on six continents. The manufacturing sites contribute to the bulk of Aspen’s carbon emissions and as such environmental reporting is focussed at a manufacturing site level. For this reporting period the reporting scope has been expanded to include the Aspen API facility in Sioux City. Kama Industries (Ghana) and the New Zealand New Milk facility are currently excluded due to the unavailability of verified data for the reporting period. The main contributors to Aspen’s Scope 1 emissions are natural gas, refrigerants and fuel consumption and the main contributors to Scope 2 emissions are purchased electricity and steam.

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
Wed 01 Jul 2015 - Thu 30 Jun 2016

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
South Africa
Germany
Australia
Netherlands
France
Mexico
Kenya
Tanzania
Brazil
United States of America

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.

ZAR (R)

CC0.6

Modules
As part of the request for information on behalf of investors, companies in the electric utility sector, companies in the automobile and auto component manufacturing sector, companies in the oil and gas sector, companies in the information and communications technology sector (ICT) and companies in the food, beverage and tobacco sector (FBT) should complete supplementary questions in addition to the core questionnaire.
If you are in these sector groupings, the corresponding sector modules will not appear among the options of question CC0.6 but will automatically appear in the ORS navigation bar when you save this page. If you want to query your classification, please email respond@cdp.net.
If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below in CC0.6.

Further Information

No further information

Module: Management

Page: CC1. Governance

CC1.1

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

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

CC1.1a

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

Aspen's Board is responsible for ensuring that the Group is a responsible corporate citizen by considering both the financial aspects of the business, and the impact that the business operations have on the economic, physical and social environments in which Aspen operates. The Board ratifies the Group's material sustainability Key Performance Indicators (KPIs) annually. The group's sustainability management performance objectives are monitored on the basis of these approved KPIs. Aspen's Social and Ethics Committee (a subcommittee of the Board) is responsible the governance of the Group's social, environmental, human rights and ethics responsibilities in accordance with the relevant regulations, guidelines, and recommendations. Under the direction of Dr. Morne Geyser, the Group Strategic Operations Executive, the Group SHE department develops and promotes Aspen's environmental management principles and standards and monitors the alignment of business unit environmental management systems to the Group standards.

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
All employees	Other non-monetary reward	Other: Behaviour change related indicator	SA Operations employees are rewarded for active participation and innovative ideas during Environmental campaigns which include climate change and global warming. The rewards take the form of prizes and give-aways to participants in the campaigns.
All employees	Recognition (non-monetary)	Energy reduction project Energy reduction target Efficiency project Other: Behaviour change related	The Australian facilities have employee recognition programmes aimed at promoting positive behaviours and resource conservation. Energy consumption is reported internally on a monthly basis. Recognition is given to the management team.

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
		indicator	
Other: Engineering Managers	Monetary reward	Energy reduction project Energy reduction target Efficiency project Efficiency target	In the South African Operations, Energy Reduction and Efficiency projects form part of the Engineering Manager's key performance areas (KPA's), The KPA's are directly linked to the performance appraisal process and the awarding of performance based annual increases.
All employees	Recognition (non-monetary)	Emissions reduction target Energy reduction project Energy reduction target Other: Behaviour change related indicator	The Brazilian facility has a program for setting targets for atmospheric emissions. The results are measured monthly against the established targets.
Energy managers	Monetary reward	Energy reduction project Energy reduction target	In Aspen France, incentives are given to energy managers and project participants when an energy reduction project is successfully implemented. The incentive is included as part of the management bonus.

Further Information

No further information

Page: CC2. Strategy

CC2.1

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

Integrated into multi-disciplinary company wide risk management processes

CC2.1a

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

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
Six-monthly or more frequently	Board or individual/sub-set of the Board or committee appointed by the Board	The Group's manufacturing facilities across Africa, Europe, South America and Australia.	1 to 3 years	Group-wide consideration of risks, with a formal measurement of the environmental key performance indicators for manufacturing facilities.

CC2.1b

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

Risk management is an embedded attribute of Aspen's corporate culture and is inherent in all its business decisions, activities and transactions. An integrated approach to risk management is implemented giving due considerations to economic, environmental and social indicators which impact the Company and its stakeholders. Strategic, operational, financial and compliance risk assessments are conducted annually at a business unit (asset) level and at a company level, and formally reported to the Executive Risk Forum. Company- wide risks are identified by the Group Risk & Sustainability Manager and reported to the Executive Risk Forum, who report on key Group level risks to the Audit & Risk Committee and the Board quarterly. The following aspects are considered with specific reference to climate change: (i) The effectiveness of environmental management systems. (ii) Responsible management of energy and carbon footprint. (iii) Environmental risks. Top risks, coupled with the status of risk mitigation plans, are reported to the Audit & Risk Committee quarterly. The Social&Ethics Committee monitors environmental legal compliance. Management's self-assessment of the risk mitigation plan effectiveness is substantiated using the combined assurance model of internal and externally obtained assurances. Environmental legal compliance audits are conducted in accordance with an assurance plan. The material sustainability key performance indicators including environmental indicators, which are reported in the Group's Sustainability Report, are verified by external auditors annually. Through the Group's risk management processes and sustainability reporting, the Audit&Risk Committee and Social&Ethics Committee monitor compliance and initiatives towards responsible environmental management on behalf of the Board. In this way, sustainability objectives are integrated into the risk management process and monitored by the Board collectively.

CC2.1c

How do you prioritize the risks and opportunities identified?

Risks and opportunities are prioritised by the business unit management teams with reference to the impact of such risks to business sustainability, the value and opportunity cost of the applied environmental resources to the business, and the Group's strategic objectives. This is done in consultation with Group executives. Based on the inherent risk levels and current levels of risk mitigation (residual risk), risks are ranked and prioritised.
SHE Risk Assessment Procedure: A qualitative risk assessment is conducted using a systematic approach for the identification and assessment of all safety, health and environmental risks, including climate change. All activities, processes, plant machinery and energy sources are taken into consideration under normal, abnormal and emergency conditions. Parameters such as severity, occurrence and exposure are used to calculate the inherent and residual risk, and then prioritised according to the determined risk levels.
Proposed solutions and resources required for mitigating significant risks and impacts are presented to Executive Management for approval. The status of the risk mitigation plans are reported on a regular basis during the site SHE performance review meetings. The Social&Ethics Committee monitors SHE legal compliance, compliance to Group SHE Standards and status of Group SHE objectives on a quarterly basis. Example:The proposed implementation of carbon taxes in South Africa, as well as the reliance on the primary electricity supplier ESKOM,was identified as potential risks through the risk review and legal compliance process. This created awareness around the future cost of electricity as well as sustained supply of electricity at feasible prices,resulting in an increased focus on conservation initiatives, which in turn led to the evaluation of alternatives sources of supply as well as internal projects to improve efficiencies. Feasible projects were approved by management teams and have been implemented as result.

CC2.1d

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

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

CC2.2

Is climate change integrated into your business strategy?

Yes

CC2.2a

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

i) Internal Process: Aspen's strategic objective, "To practise good corporate citizenship", supports the Group's objectives for climate change and responsible environmental management. To this end, Aspen's sustainability management initiatives promote the themes of "Preserving our environment" and "Managing efficient utilisation of scarce resources". These initiatives are monitored by the following material key performance indicators which are reported to the Board as per the agreed reporting timelines:

- Volume of carbon emissions (bi-annually);
- Volume of waste recycled (quarterly);
- Electricity consumed (quarterly); and
- Volume of water used (quarterly).

These indicators flag areas of risks and opportunities within the environmental management systems and programmes. Aspen's business strategy is defined at a Board level and the Board is made aware of potential climate change risks and opportunities via existing reporting channels e.g. Audit & Risk Committee, Social & Ethics Committee and the Executive Risk Forum.

Aspen's Group Environmental Management Principles formally describes the Group's commitment to the "Containment and reduction of our carbon footprint in our operations and in the broader supply chain in a technically and economically feasible manner through structured systems of environmental monitoring, reporting and management". This intent is integrated into strategies for the Group's manufacturing facilities, with formal conservation projects currently in progress at the facilities in South Africa, Australia, Mexico, Brazil, France and Germany. Resource availability, cost and changes to environmental legislation in each territory are factors applied in the approval and prioritisation of conservation projects. In addition, investment in energy efficient technology is given due consideration during the construction of new facilities and when replacing equipment and machinery. Plans are in place to extend similar projects to other sites in the Group when appropriate.

ii) How the business strategy has been influenced: Resource availability, cost and changes to environmental legislation in each territory have played a role in the business strategy. With the ultimate goal of reducing Scope 2 and 3 emissions, The facilities have demonstrated increased commitment to resource conservation initiatives and the reduction in the quantity of waste disposed in landfills. For example, tax incentives offered in Germany have led to the German site's implementation of an ISO 50001 energy management system and the installation of a Combined Heat and Power Unit. The South African Operations have adopted a zero waste to landfill strategy to support the Aspen Group Environmental Management Principles.

iii) Aspects influencing the strategy: Improving Aspen's carbon footprint as a responsible corporate citizen and potential regulatory changes (e.g. potential carbon tax implementation in South Africa and the introduction of energy reduction targets in Germany and Australia) are the major aspects that have influenced Aspen's strategy. Sustainable access to scarce resources e.g. water, the rising cost and security of electricity supply in South Africa and business disruptions due to bad weather, have also been key drivers behind Aspen's strategy of resource optimisation and conservation.

iv)Short term strategy (1-5 years): Although Aspen has not yet set formal targets linked to climate change, Aspen has implemented resource conservation projects. An important component of our short-term strategy involves the energy efficient operation of utilities, which drive production processes and requirements for Good Manufacturing Practice, e.g. adjustment of the HVAC chiller controls, turn down of HVAC systems, and management of HVAC load demand by the addition of a pre-cooling and dehumidification step prior to the main HVAC units.

v) Long term strategy (5 to 10 years): Aspen's long term strategy is to remain sustainable and to continue to deliver stakeholder value, be a good corporate citizen and ensure supply of quality, affordable medicines. Resource Conservation, in light of resource scarcity and price increases driven by climate change, and continuous improvement, are central to ensuring business sustainability.

vi)Strategic advantage: Aspen believes that resources such as energy and water will be further constrained in the future. Implementing proactive and voluntary

management systems and programmes to increase resource efficiency and decrease consumption, will, therefore, be an advantage. These proactive systems will facilitate the management of future regulatory requirements and reduction of operational costs, resulting in a competitive advantage whilst fulfilling the Group's strategic objective of sustainably supplying affordable products to customers.

vi) Substantial business decisions that have been influenced by climate change include the following:
• The adoption of an internationally recognised environmental management system (ISO 14001) to formally manage continuous improvement projects linked to resource conservation and reduced environmental pollution at most of the manufacturing facilities, with certification awarded to the South African, Mexican, French, Australian, Brazilian and German sites and the facilities in Netherlands and East Africa aiming towards certification by 2019.
• The German site implemented an ISO 50001 certified energy management system for Aspen Bad Oldesloe (ABO). The system enabled ABO to implement a systematic approach for achieving continual improvement with respect to energy efficiency, energy security, energy use and consumption. Consequently, the system will facilitate the continuous reduction in energy use, resulting in lower energy costs and greenhouse gas emissions.
• The expansion of the carbon footprint boundary for CDP reporting by including additional manufacturing sites within the Aspen global structure.
• The expansion of energy, water and waste reduction projects to all manufacturing sites within the Aspen global structure.
• Investment in energy efficient manufacturing technologies.

CC2.2b

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

CC2.2c

Does your company use an internal price on carbon?

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

CC2.2d

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

CC2.3

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

Direct engagement with policy makers
Trade associations

CC2.3a

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

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
Mandatory carbon reporting	Support	Aspen is committed to reporting to the Carbon Disclosure Project on an annual basis through the National Business Initiative.	Industry context to be applied in interpretation of information in CDP submissions, through direct engagement with the reporting company.
Energy efficiency	Support	At COP17, Aspen Pharmacare made a commitment to participate in the Energy Efficiency Leadership Network (EELN), where an Aspen representative provides input on matters impacting climate change, particularly groups focusing on the healthcare and pharmaceutical industries.	Energy efficiency projects need to contribute to the business sustainability and must demonstrate return on investment. A national plan, which incentivises business to reduce their carbon footprint, will support the implementation of energy efficiency projects. In addition, national carbon reduction plans need to weight legislated obligations across industries appropriately with due regard of economic conditions impacting general industry sustainability in the relevant countries.
Carbon tax	Undecided	Aspen continues to consult with its external tax advisors and with relevant industry forums on this matter.	Consider the objective of carbon taxes in relation to other commercial factors which impact the sustainability of business in the relevant countries. Aspen does however support incentives that encourage a reduction in carbon emissions.
Clean energy generation	Support	The Clean Energy Regulator is the Government body responsible for administering legislation to reduce carbon emissions and increase the use of clean energy. Aspen Australia is a member of the “Australian Environment Business Network” (AEBN) AEBN’s position is to: 1.Make companies aware of climate change 2.Provide forums for government bodies to present current and future environmental policies and seek corporate feedback, often before launching these policies.	Aspen Australia participates as required to support and follow the Clean Energy Regulator guidelines.
Cap and trade	Support	The EU emissions trading system (EU ETS) is a cornerstone of the European Union's policy to combat climate change and its key tool for reducing industrial greenhouse gas emissions cost-	Aspen Oss participates in EU-ETS as required when the installed capacity exceeds > 20 MW.

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
		effectively	
Energy efficiency	Support	Aspen Oss is a signatory to MEE (Methodology Energy Efficiency), a long-term energy efficiency agreement for ETS companies, an agreement between the Dutch government and heavy industry.	Although participation in covenant MEE is voluntary, Aspen Oss has made an obligation to target an annual energy reduction of 2%.

CC2.3b

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

Yes

CC2.3c

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

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
Business Unity South Africa (BUSA)	Consistent	Business Unity in South Africa (BUSA) serves as the interface between businesses in SA and government on high level macroeconomic issues to ensure that businesses are able to play meaningful role in contributing to national objectives in a feasible manner for all stakeholders. BUSA supports the need to move to a lower carbon intensive economy, which is in the long term interest of South Africa. BUSA is in the process of engaging with the South African National Committee on Climate Change and the South African National Treasury on the following topics: • Implementation of plans in response to climate change proposals. • The impact of the carbon tax proposal: BUSA believes there are a number of challenges around the implementation and administration of these proposals, which need to be taken into account in the final design if serious unintended consequences are to be avoided.	Aspen is an active member of BUSA and participates in industry initiatives to address climate change objectives in South Africa

CC2.3d

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

CC2.3e

Please provide details of the other engagement activities that you undertake

CC2.3f

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

Aspen's business activities and stakeholder engagement processes are aligned to the Group's strategic objectives. This alignment is monitored by Group Executives and the Aspen Board. The Group SHE department, under the direction of Dr Morne Geyser, the Group Strategic Operations Executive, develops and promotes Aspen's environmental management principles and standards and monitors the alignment of business unit environmental management systems to the Group standards and ensures consistency across the operations.
Aspen's climate change strategy promotes containment and reduction of the Group's carbon footprint within Aspen's operations, in a technically and economically feasible manner through systems of environmental reporting, monitoring and management. This intent is fulfilled directly across the manufacturing facilities through identification and evaluation of energy efficient technologies and implementation of energy conservation initiatives. Energy savings initiatives are monitored and reported on a six-monthly basis through the sustainability KPI Board reporting process. Site management teams monitor progress more frequently where practical. The sites in based in Port Elizabeth, East London and Johannesburg in South Africa and Mexico are ISO 14001 certified. The site in Germany complies with ISO 14001 and ISO 50001, and sites in France, Netherlands, Australia and Brazil attained ISO 14001 certification in 2016. This demonstrates Aspen's commitment to responsible environmental management practices in accordance with international standards. A combined assurance audit plan is in place to monitor on-going alignment of environmental policies, procedures and systems to the relevant ISO standards. Identified risks are prioritised and addressed. Progress is monitored by Group SHE, site management teams; Group Executives and the Social & Ethics Committee. In addition, all direct and indirect activities are communicated as per the ISO 14001 Environmental Management Systems Communication procedure for ISO certified facilities, ensuring consistency with the overall group environmental management principles and sustainability reporting structures. A culture of continuous improvement exists across the Aspen Group.

CC2.3g

Please explain why you do not engage with policy makers

Further Information

No further information

Page: CC3. Targets and Initiatives

CC3.1

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

No

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

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

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

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

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

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

(i) Group-wide targets have not been implemented as yet although some business units have set individual targets at a site level. Focus is being given to implementing effective systems to measure energy usage and savings and to identify feasible conservation projects which will yield meaningful reductions within the Aspen Group. For example, significant work has been performed to establish appropriate intensity measures that take into account Aspen's varied production environments and provide a reliable baseline on which to base target reductions and measure performance. Once this is in place, the intention is to establish SMART (Specific, Measurable, Attainable, Realistic and Time-based) medium-term targets for energy conservation projects. ii) An increase in the reporting of total energy consumption for the Aspen Group is expected over the next five years due to expansion projects currently in process.

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

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

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*	26	680.66
Implementation commenced*	6	1123
Implemented*	9	495
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
Low carbon energy installation	South Africa East London Site: Replacement of standard light fittings with high-efficiency LED light fittings in Admin and Technical buildings	67.51	Scope 2 (location-based)	Voluntary	76495	410306	4-10 years	6-10 years	Project successfully completed
Low carbon energy installation	Mexico Toluca site: Replacement of fluorescent lights with high-efficiency LED lights.	12.88	Scope 2 (location-based)	Voluntary	437460	206800	4-10 years	Ongoing	The investment required has been calculated considering the manpower and trained personnel that will be required to fulfill the project, as well as equipment and materials that will support the activities. The estimated lifetime of the initiative Is based on the technical file provided by the supplier.
Energy efficiency: Processes	Australia: Adjustment of the Dandenong site's HVAC units for optimum efficiency while maintaining Good Manufacturing Practice (GMP) adherence.	339	Scope 2 (location-based)	Voluntary	244200	1350500	4-10 years	11-15 years	On going
Low carbon	Germany: Installation of	56.63	Scope 2	Voluntary	261363	554913	1-3	6-10 years	Lifetime is estimated

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 installation	LED lighting in packaging & manufacturing areas in buildings 4(FFS only), 5, 6 (K6 only) and 14 was completed in June 2015.		(location-based)				years		based on the general lifetime of LED light tubes. Project successfully completed
Energy efficiency: Processes	Germany: Installation of a Combined & Heat Power system with heat recovery for warm water and steam	83.30	Scope 2 (market-based)	Voluntary	0	12483900	4-10 years	6-10 years	Project successfully completed
Energy efficiency: Processes	Australia: Replacement of RX chiller 4 by shifting its load to the existing Rx chillers. Removing the 2x chillers and their supporting cooling towers in the AB plant. Supplying the finished goods warehouse with chilled water from the Liquids facility chiller system.	638.45	Scope 2 (location-based)	Voluntary	219780	370000	1-3 years	11-15 years	Project successfully completed
Energy efficiency: Processes	France: Installation of new software to manage the day to day energy consumption and to allow for quick system responses	2.57	Scope 2 (location-based)	Voluntary	45063	64375	1-3 years	6-10 years	Project successfully completed
Energy efficiency: Processes	France: Installation of new software to manage the day to day energy	8.98	Scope 1	Voluntary	14165	64375	4-10 years	6-10 years	Project successfully completed

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
	consumption and allow quick system responses. (1 %)								
Energy efficiency: Building services	South Africa Port Elizabeth site: Replacement of standard geyser with solar panel heating assisted geyser	5.97	Scope 2 (location-based)	Voluntary	1635	15500	4-10 years	6-10 years	Project successfully completed
Energy efficiency: Building services	South Africa Port Elizabeth site: Installation of occupancy sensors for control of office lights and air conditioners, when offices are unoccupied	12.36	Scope 2 (location-based)	Voluntary	4025	64800	16-20 years	16-20 years	Project successfully completed
Low carbon energy installation	South Africa Port Elizabeth site: Replacement of standard light fittings with high-efficiency LED light fittings	14.56	Scope 2 (location-based)	Voluntary	20800	108030	4-10 years	6-10 years	Project successfully completed
Energy efficiency: Processes	Mexico Vallejo Site: Installation of occupation sensors in for the control of lighting to ensure that lights are not left on when areas are unoccupied.	4.54			13210	57140	4-10 years	6-10 years	Investment considers the total of individual projects in different areas.
Energy efficiency: Processes	Mexico Vallejo Site: Demand management with respect to one of the air compressors, by switching it off when not	45.4			330055	0	<1 year	Ongoing	Strategy is still being implemented.

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
	needed								
Energy efficiency: Processes	Mexico Vallejo Site: Boiler demand management by switching off one of the boilers when not required.	325.52			550595	0	<1 year	Ongoing	Strategy is still being implemented.

CC3.3c

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

Method	Comment
Dedicated budget for energy efficiency	Investment in emission reduction activities is primarily driven by Aspen's commitment to continual improvement as a responsible corporate citizen, in response to potential future regulatory changes, sustainable access to scarce resources e.g. water, and the rising cost and security of electricity supply in South Africa. Energy efficiency is factored into all expansion and replacement projects and project teams are tasked with ensuring that equipment procured and processes installed are energy efficient and consume the least possible amount of resources.

CC3.3d

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

Further Information

No 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	Complete	12	https://www.cdp.net/sites/2017/69/1069/Climate Change 2017/Shared Documents/Attachments/CC4.1/Aspen-Sustainability-Data-Supplement-2016.pdf	The Aspen Sustainability Report Supplement is also available on the Aspen website.
In mainstream reports (including an integrated report) but have not used the CDSB Framework	Complete	67-71	https://www.cdp.net/sites/2017/69/1069/Climate Change 2017/Shared Documents/Attachments/CC4.1/Aspen20IR202016.pdf	The Aspen Integrated Report is also available on the Aspen website.

Further Information

No 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
Carbon taxes	South Africa is amongst the world's most carbon-intensive economies. Recognising the importance of reducing carbon emissions and foreseeing the benefits that a low carbon economy can bring, the South African government has committed to ambitious greenhouse gas emission reductions of 34% by 2020 and 42% by 2025. This resulted in the formulation the Carbon Tax legislation.	Increased operational cost	Up to 1 year	Direct	Virtually certain	Low-medium	The Carbon Tax Policy Paper refers to the implementation of a carbon tax rate of R120 per ton of CO2e, increasing at 10 percent per annum during the first phase. When the 60% tax-free allowances and additional relief	Due to the scarcity of resources, combined with the proposed regulatory changes, Aspen has proactively implemented energy conservation and optimisation projects. 1. Installation of, and repairs to,	Variable costs depending on projects. For example, over R1 million rand of capital expenditure has been invested in electricity conservation projects from July 2010.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	The Draft Carbon Tax Bill was released for comment on 2 November 2015 and provides for the following: Tax free thresholds: • A basic 60 percent tax-free threshold during the first phase of the carbon tax, from implementation date up to 2020; • An additional 10 percent tax-free allowance for process emissions; • Additional tax-free allowance for trade-exposed sectors of up to 10 percent; • A carbon offset tax-free allowance of 5 to 10 percent. The combined effect of all of the above tax-free thresholds will be capped at 95 percent, and an initial marginal carbon tax rate of R120 per ton CO2-e will apply. However taking into account all of the above tax-free thresholds, the effective carbon tax rate will vary between R6 and R48 per ton CO2-e. Should this carbon tax be levied after the tax-free basic threshold of 60% of Scope 1 GHG emissions						are taken into account, the effective tax rate will range between R6-R48 per ton of CO2e. Based on the current proposed tariff structure the potential impact is estimated to be under R300 000 for the South African Operations.	existing power factor correction equipment in all PE Units substations 2. The installation of a solar geyser at one of the office blocks. 3. Installation of occupancy sensors in selected office blocks. The sensors ensure that lights and air conditioners are switched off when the area is not in use. 4. Awareness projects aimed at making the employees aware of the need to conserve electricity. Aspen will initiate consultation with its external tax advisors on this matter to	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	before allowances and offsets, Aspen Pharmacare would incur additional costs and these have been estimated, however, there are still some uncertainties with regard the Draft Regulations, i.e. the alignment of the Carbon tax and other regulations such mandatory GHG reporting and electricity environmental levies, cost of administration and longer term certainty on the tax liability are unclear. These uncertainties make it difficult for the full impact to be calculated.							maintain an understanding of the potential inherent risks to the business.	
General environmental regulations, including planning	The National Climate Change Response White Paper of 2011 confirms that climate change is already a measurable reality, and presents the South African Government's vision for an effective climate change response and long-term plans in creating a low-carbon economy and society. Currently, electricity in	Increased operational cost	1 to 3 years	Direct	Very likely	High	Electricity currently accounts for approximately 6.1% of operating costs at the South African facilities, and any increases would affect this ratio.	Electricity is a critical resource utilised in Aspen's manufacturing processes. Through Aspen's Environmental Management Principles which promote the efficient use and conscious	Variable costs depending on projects. For example, over R1 million rand of capital expenditure has been invested in electricity conservation projects from July 2010.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	South Africa is generated through the use of relatively cheap non-renewable resources. Should the country move towards greener technologies, it is anticipated that the cost of electricity will increase.							conservation of electricity and other scarce resources. Conservation initiatives include the planning and implementation of continuous improvement projects for Aspen facilities to reduce electricity consumption. The following are examples of the projects implemented: 1.Installation of, and repairs to, existing power factor correction equipment in all PE Units substations 2. The installation of a solar geyser at one of the office blocks. 3. Installation of occupancy sensors in	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								selected office blocks. The sensors ensure that lights and air conditioners are switched off when the area is not in use. 4. Awareness projects, aimed at making the employees aware of the need to conserve electricity.	
Carbon taxes	The Australian Federal Government signed the Kyoto Protocol in 2007, binding Australia to an emissions level of not more than 108% of the 1990 emission levels by 2012. The ensuing program, called the “Clean Energy Program (CEP)”, is aimed at reducing GHG emissions in Australia by 5% below 2000 levels and 80% by 2050.With a change in the Federal Government in 2013, the Clean Energy Programme (CEP) has been replaced with a	Increased operational cost	1 to 3 years	Direct	Very likely	Medium	The project was partially funded by a grant of R 2, 2 million (AUD242K) from the Australian Government’s “Clean Technology Investment Programme”.	With regards to the DAP, Aspen participated in industry lobbying efforts to analyze the impact of carbon taxes in Australia and support. Australia abolished the carbon pricing mechanism in July 2014. Aspen now participates in the Emissions Reduction Fund	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	"Direct Action Plan (DAP)". An election commitment, as part of the DAP, was to repeal the Carbon Tax. DAP is relatively new therefore the impact on Aspen business has yet been established.							which provides incentives for reduction of carbon emissions. The program has been in place since April 2015 and benefits will be calculated over the next reporting period. Related projects have been initiated to this end.	
Emission reporting obligations	Increased reporting requirements in terms of SRI, GRI, CDP, and submissions to government authorities. For example, the Minister of Environmental Affairs has published the National Greenhouse Gas Emission Reporting Regulations in April 2017. The Regulations outline the requirements for mandatory reporting of emissions data by companies. The purpose of the regulations is to introduce a single national greenhouse gas reporting	Increased operational cost	Up to 1 year	Direct	Very likely	Medium	Not currently established.	The individual business units are responsible for providing the information to the Group Risk and Sustainability Department for collation into the various reports required. Aspen's Sustainability data is verified and assured according to the AA1000AS	Not currently established.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	system, which will be used to inform policy formulation and help South Africa to meet its international obligations such as targets set under the United Nations Framework Convention on Climate Change. In addition, the regulations are intended to facilitate the establishment and maintenance of a National Greenhouse Gas Inventory. In order to assess carbon tax accurately, reporting of GHG emissions will be required together with verification of the reported emissions. The regulations require proper record keeping of emissions data, the verification of information collected and supplied, and on-site verification of emissions by a competent authority once every two years. This will place additional compliance liability on Aspen Pharmacare, coupled with related additional costs for reporting and verification, while non-							Assurance Standard by an external consultant on an annual basis.	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	compliance could be met with penalties. Emission reporting could lead to a more stringent licence to operate criteria, e.g. for inclusion in the JSE Sustainability Index. The German site is required to report on the sites emissions.								
International agreements	Aspen makes use of HVAC and associated refrigerants in order to maintain the required environment for manufacture. As per the requirements of the Montreal Protocol, Aspen will be required to seek alternative “ozone friendly” refrigerants as per the mandatory timelines. The Montreal Protocol on Substances that Deplete the Ozone Layer is widely regarded as the world’s most successful environmental protection agreement. It is the only treaty with universal ratification, with all 197 member countries of the United Nations having accepted legally-binding obligations to	Increased operational cost	>6 years	Direct	Very likely	Medium-high	The exact financial impact has not been quantified. Capital expenditure will be required for the replacement and refurbishment of HVAC units. In addition a change to alternative refrigerants could increase the operational costs of the HVAC units,	The Aspen facilities have completed an inventory of all ozone-depleting substances and some sites such as the Nutritionals site in Johannesburg have developed a phase-out plan with respect to the use of Ozone depleting substances which is in the process of being implemented Possible solutions include: 1. The	The total cost has not between been established, but the average HVAC unit cost is between R1 million to R2 million.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	phase out the production and consumption of ozone-depleting substances. The Protocol sets out a mandatory timetable for the phase out of ozone-depleting substances hydrochlorofluorocarbons (HCFC), such as R22 for developed and developing countries. R-22 has come under focus because of its harmful impact on the ozone layer but also because it is classified as a greenhouse gas (GHG) which contributes to climate change. The deadline for developed countries for complete phase out is 2020 and 90% reduction in usage of R22 by 2015. In Europe, all HCFC top-ups were prohibited from 1 January 2015. In developing countries such as South Africa, Kenya and Brazil, the deadline for the total ban of R22 is 2030.							replacement of existing units with new units that use alternatives to R-22 such as R407c, R404a or ammonia This is the most expensive but simplest option. 2. Conversion of existing units to enable them to utilise alternatives to R22 substitutes. While both options will incur costs, it is anticipated that the price of R-22 will increase once the ban and import prohibitions are in place. The immediate action is to comply with legal requirements and to ensure that the boilers are adequately	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								serviced and clean fuel is utilised in Aspen's operations.	
Air pollution limits	In Kenya, under the Air Quality Regulations 2014, there is provision for boiler emission measurement as well as other parameter measurements. Pursuant to this law, the business increased expenditure as annual emissions measurements have to be done to ensure compliance with the legislation. The increase in business cost is attributed to the monitoring checks for compliance with the given set parameters, where the services have to be contracted out and paid for.	Increased operational cost	1 to 3 years	Direct	Virtually certain	Low	An operational cost approximately R27,000 (KES 200,000) is required annually for these assessments	The immediate action is to comply with legal requirements and to ensure that the boilers are adequately serviced and clean fuel is utilised in Aspen's operations.	Not currently established.
Air pollution limits	During the first half year of 2016, air pollution in Mexico City increased due to climate conditions and high levels of NOx's As an air pollution contingency, the transport and industry sectors have	Increased operational cost	3 to 6 years	Indirect (Supply chain)	Very likely	High	Not currently established.	The business is investigating the possibilities of shutting down one boiler.	Not currently established.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	been tasked with reducing their combustion sources emissions by 40%.								

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
Change in mean (average) precipitation	Climate change may result in water scarcity in some areas in which Aspen operates. Changes in global precipitation patterns may impact on crops used in the synthesis of raw materials. For example, the supply of raw materials which are	Reduction/disruption in production capacity	Unknown	Direct	Likely	Medium	The financial implications cannot be quantified as the impact will be determined by the severity of the water shortage or flood. It is anticipated that costs could increase, and depending on the severity of the shortage, there could be lost production.	In response to energy and water scarcity, continuous improvement projects are put in place to recycle water and increase energy efficiency. Water conservation projects undertaken to date include the re-use of water from the reverse osmosis (RO)	Variable costs depending on the project. From 2010 to 2015 the South African Operations has invested approximately R200, 000 in water conservation projects.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	manufactured using maize as a key intermediate, e.g. starch maize was affected by drought in various parts of South Africa. The drought severely affected crops and raised maize prices. South Africa, the largest maize producer in Africa, may harvest 39% less grain in the 2015 to 2016 season than a year earlier after the country suffered the lowest rainfall since records began because of the global El Nino weather pattern.							process and the installation of storage/buffer tanks to allow for the use of recycled water in the ablution blocks. The Procurement Department source from more than one geographical region, where possible. In the event of water scarcity, Aspen might have to consider alternative water sources and technologies.	
Change in mean (average) temperature	Global temperature increases caused by climate change could impact on agricultural crops utilised in the	Reduction/disruption in production capacity	Unknown	Indirect (Supply chain)	About as likely as not	Low	The financial implications cannot be quantified as the impact will be determined by the severity of the	The Procurement department manages relationships with key suppliers and sufficient	The average cost of an HVAC chiller control is approximately R60,000.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	synthesis of raw materials. In addition, elevated temperatures may result in higher energy usage in order to maintain optimum temperature and humidity levels in the production facilities. In 2015, extreme temperatures and droughts in various parts of the country severely affected sugar crops and the by-product of sugar production, molasses. Molasses is used in the synthesis of alcohol and solvents. Sugar, molasses and solvents are key ingredients used in the production of pharmaceutical products. The						temperature extremes. It is anticipated that costs could increase, and depending on the severity of the shortage, there could be lost production. In the event of extreme high temperatures, there would be increased demand on the site HVAC systems and this would result in increased operational costs.	interaction takes place to keep abreast of any risks facing suppliers which could indirectly impact Aspen. In addition, alternative suppliers for key active pharmaceutical ingredients are registered in order to diversify the risk of reliance on a single supplier of material. Commodity trends are monitored to identify and mitigate foreseeable risks impacting the sustainability of raw material supply. To mitigate the impact temperature extremes and the potential of running the chillers at full loading at all	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	supplier was forced to obtain supply from an alternative source and this led to an increase in alcohol and solvent pricing.							times in case of such extremes, Aspen continues to focus on resource conservation projects aimed at improving HVAC efficiency, including the installation of automatic chiller load control units which facilitate management of the load demand in South Africa. The Australian facility upgraded their HVAC control to a Supervisory Control and Data Acquisition (SCADA) system for more efficient control over HVAC temperatures, on/off timings and control parameters.	

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
Other drivers	Electricity and water supply interruption. Power and water supply interruptions, either planned (i.e. load-shedding) or adhoc, due to ageing power and water supply infrastructure and increased demand.	Reduction/disruption in production capacity	Up to 1 year	Direct	More likely than not	Medium	Investigations have been conducted with respect to the installation of back-up/alternative power supply for the Port Elizabeth manufacturing facilities; however the costs have been prohibitive.	Nutritionals was exposed to load-shedding, and reached an agreement with the Ekurhuleni municipality whereby they will be given advanced notice with respect to load-shedding in order to minimise production losses. The Aspen Nutritionals steam supplier is on another grid, however the risk of double load shedding has been mitigated as the steam supplier has agreed to purchase and install a generator. The Port Elizabeth, East London and Johannesburg facilities have standby generators installed which will ensure that key areas and critical services remain operation during	Minimal for Port Elizabeth, East London and Nutritionals as they did not experience load-shedding. The Cape Town facility incurred annual costs of approximately R 232 300 in 2014/2015. The cost of purchasing and installing an additional generator is estimated to range from R3.5 million (1 MVA) to R6.7 million (1.8 MVA).

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								load shedding events for a period of time to minimise the impact of such an event. The Cape Town facility was exposed to load-shedding, and 15 events were experienced from July 2014 to date. The impact of the load shedding at the Cape Town facility was minimal as the site has a generator that is able to maintain the current electrical requirements for the site. Aspen appointed a consultant to conduct a water risk assessment for the South African operations. The objective of the assessment was to evaluate which sites are most exposed and to determine the basis for the water risk strategy for the South African	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								Operations. The intent is to conduct the same assessment at other international operations in 2017.	

CC5.1d

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

CC5.1e

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

CC5.1f

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

Further Information

No further information

Page: CC6. Climate Change Opportunities

CC6.1

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

Opportunities driven by changes in regulation
Opportunities driven by changes in physical climate parameters

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
Fuel/energy taxes and regulations	The German government is incentivising businesses to implement energy management systems by providing tax	Reduced operational costs	1 to 3 years	Direct	Virtually certain	Medium-high	Aspen Bad Oldesloe, the German site, received tax refunds of approximately R2, 852,900 (€193.417) in the 2013 /2014	The German site successfully implemented an ISO 50001 energy management system to accurately monitor and	A total investment of approximately € 65 000 (R945 000) to implement the ISO 50001 system at the German facility

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	refunds and this resulted in the installation of a 600 kW CHP unit at the German site.						financial year, approximately R1, 868, 176 (€125.656) in the 2014- 2015 financial year and approximately R1,003,860 (€78 000) in the 2015-2016 financial year.	report energy conservation projects and the corresponding decrease in emissions. Together with the installation of the CHP onsite, the German facility qualifies for annual tax refunds.	and the on-going expenses linked to maintenance and auditing. The cost of the CHP is approximately R12,480,000 (€970 000).
Fuel/energy taxes and regulations	Aspen Pharmacare is making considerable advances in improving electricity efficiency at all manufacturing sites within the Group. Regulations could thus offer beneficial opportunities from energy efficiency investments and new technology. Government incentives could provide motivation to	Reduced operational costs	1 to 3 years	Direct	Virtually certain	Low	For example, under the Federal Government's CEP (Clean Energy Programme), a "Clean Technology Investment Program (CTIP)" enabled the Dandenong site to successfully secure a Government Grant. An annual electrical energy saving of R1.9 million (AUS$215k) is expected. The financial benefit	Aspen Australia implemented the following projects: 1. Replacement of all 2 900 incandescent and halogen light fittings with LED lamps and/or fixtures 2. Upgrade of the HVAC control to a Supervisory Control and Data Acquisition (SCADA) system for more efficient control over HVAC temperatures, on/off timings and control	To date, the Australian has received a grant of R2.2 million (AUD 242K) towards the projects. Other variable costs dependent on the projects.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	invest more in energy and fuel efficiency and new technology In line with the Australian Federal Government's CEP (Clean Energy Programme), through a "Clean Technology Investment Program (CTIP)" the Aspen Australia facility was able to apply for a grant for the installation of energy efficient technology aimed at reducing energy consumption. In addition, the Brazilian government has approved incentives and lower taxes to companies that generate their own electricity internally.						from the Brazilian government's incentive plan still needs to be determined.	parameters. The project was partially funded by a grant. Across the Group, Aspen is focussing on effective metering, energy consumption trend analysis and the setting of sound objectives and targets aimed at reducing consumption by targeting high consumers e.g. HVAC systems (Heat, Ventilation Air conditioning) and tracking the reductions. Aspen also conducts on-going awareness training to all employees on energy, water and waste reduction.	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Renewable energy regulation	Carbon emission reduction through the usage of zero carbon electricity.	Other: Reduced carbon emissions	Up to 1 year	Direct	Virtually certain	High	Not yet established.	Utilization of greener zero carbon energy.	None
Emission reporting obligations	As members of the Aspen Group of companies, all facilities are required to report environmental indicators such as fuel consumption and electricity consumption. One of Aspen's and ISO 14001 Environmental Management Systems' objectives is to strive for continual improvement. As such, this promotes energy efficiency projects and reporting of emission reductions and therefore creates opportunities for	Reduced operational costs	Up to 1 year	Direct	Virtually certain	Medium-high	Not yet established.	Improved energy efficiency and reduced emissions.	Capital expenditure varies with projects.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	the business to improve its operations and investigate areas to invest in for sustainable development. In addition, the Kenyan facility is also required by the Energy Regulation Commission to carry out an energy audit every three years and to submit a report; it is required to devise an energy investment plan that outlines how it is to realise energy savings.								

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
Change in precipitation pattern	Aspen has the opportunity to develop supply chains in different geographic areas, due to its international footprint, and more regional and local supply chains can be considered.	Other: Increased negotiation power. Decreased reliance on one geographical region as a source of supply.	Unknown	Direct	More likely than not	Low-medium	Reduced production disruption due to the dual sourcing strategy mitigating the risk of a change in precipitation patterns in a specific region. Potential cost reduction through the identification of new suppliers which may offer reduced costs.	Aspen sources raw materials from multiple geographic regions, where possible, to eliminate climate change risks, e.g. monsoon and drought areas.	Not currently established.
Induced changes in natural resources	Opportunities to investigate and install alternative sources of energy as more suppliers offer wider product offerings and costs are reduced. The continuous rise in temperature and reduction in diurnal temperature changes each	Other: Decreased reliance on fossil fuel based resources e.g. coal.	Unknown	Direct	More likely than not	Low-medium	Not currently established.	Aspen to continue to evaluate cost effective alternative energy sources. As part of the PE site Sustainability initiatives, the site is investigating the use of alternative power sources, e.g. solar power, for the supply of power to administrative/office areas.	An investment of R 1,800,000 is require to save 175,200 kWh per year (R 140,160 per year)

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	day, as reported in recent years, can be used to an advantage by Aspen facilities harnessing solar energy. Installation of solar panels and use of the sun as a source of energy will provide an alternative to the current energy sources in the facility. This could reduce the cost of electricity significantly.								

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

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

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

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

a. No opportunities related to other climate-related developments have been identified. The high level of uncertainty pertaining to climate change makes it difficult to predict actual opportunities and subsequently manage impacts.
b. Costs associated with climate change opportunities have not been established yet.
c. Geographical areas considered-South Africa, France, Netherlands, Brazil, Mexico, United States of America, Tanzania, Kenya, Australia and Germany.
d. In the next 1-5 years.

Further Information

No further information

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

Page: CC7. Emissions Methodology

CC7.1

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

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 1	Fri 01 Jul 2011 - Sat 30 Jun 2012	6774
Scope 2 (location-based)	Fri 01 Jul 2011 - Sat 30 Jun 2012	88008
Scope 2 (market-based)	Thu 04 May 2017 - Thu 04 May 2017	0

CC7.2

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

Please select the published methodologies that you use
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

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

Not Applicable

CC7.3

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

Gas	Reference
CO2	IPCC Second Assessment Report (SAR - 100 year)
HFCs	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	IPCC Fourth Assessment Report (AR4 - 100 year)

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
Diesel/Gas oil	2.6761	kg CO2e per liter	DEFRA, 2015
Motor gasoline	2.2997	kg CO2e per liter	DEFRA, 2015
Other: Heavy Fuel Oil	3222.97	Other: kg CO2 per tonne	DEFRA, 2015

Fuel/Material/Energy	Emission Factor	Unit	Reference
Kerosene	2.5421	kg CO2e per liter	DEFRA, 2015
Natural gas	205	Other: g CO2e per kWh	German Local Municipality
Natural gas	51.4	Other: CO2e per GJ	Australian Government: Department of Climate Change
Steam	0.2236	Other: kg CO2e per kWh	DEFRA, 2015
Electricity	1.03	Other: kg CO2e per kWh	ESKOM, South Africa
Electricity	1.13	Other: kg CO2e per kWh	Australian Government: Department of Climate Change
Electricity	0.060	Other: kg CO2e per kWh	French Agency for Environment and Energy Management
Electricity	0.678	Other: kg CO2e per kWh	List Of Grid Emission Factor : Institute for Global Environmental Strategies (IGES)
Electricity	0.529	Other: kg CO2e per kWh	List Of Grid Emission Factor : Institute for Global Environmental Strategies (IGES)
Electricity	0.087	Other: kg CO2e per kWh	2015 Statistical Yearbook of electricity of Ministry of Mines and Energy
Electricity	74.6	Other: ton CO2 per TJ	Netherlands Enterprise Agency (RVO)
Electricity	0.454	Other: kg CO2e per kWh	GEI Program Mexico
Electricity	0.363	Other: kg CO2e per kWh	German Local Municipality
Natural gas	0.1795	Other: kg CO2e per kWh	French Agency for Environment and Energy Management
Electricity	0.363	Other: kg CO2e per kWh	German Local Municipality
Electricity	0.503	Other: kg CO2e per kWh	List Of Grid Emission Factor : Institute for Global Environmental Strategies (IGES)
Diesel/Gas oil	2.681	kg CO2e per liter	French Agency for Environment and Energy Management

Further Information

Please see DEFRA 2015 Emission Factors attached

Attachments

https://www.cdp.net/sites/2017/69/1069/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC7.EmissionsMethodology/DEFRA 2015.xls

Page: CC8. Emissions Data - (1 Jul 2015 - 30 Jun 2016)

CC8.1

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

Operational control

CC8.2

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

43588

CC8.3

Please describe your approach to reporting Scope 2 emissions

Scope 2, location-based	Scope 2, market-based	Comment

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	Aspen mainly makes use of country specific emission factors and our German site have a specific emission factor from the energy service providers.

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
155581	2679	2679 CO2e is from our German facility

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?

Yes

CC8.4a

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

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded
Corporate offices in South Africa i.e. Durban and Woodmead, Mexico City and Sydney Australia were excluded from the calculation.	Emissions are not relevant	Emissions are not relevant	Emissions are not relevant	As per a study that was conducted in 2010, the emissions generated by the South African corporate offices were found to be negligible. In addition, energy consumption in the corporate offices is low in comparison to the consumption in operations.

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 2% but less than or equal to 5%	Other: Published emission factors	Uncertainties surrounding the calculation of Global Warming Potentials (GWP) and calculation of published emission factors, which take into account certain assumptions and have varying levels of certainty.
Scope 2 (location-based)	More than 2% but less than or equal to 5%	Other: Published emission factors	Uncertainties surrounding the calculation of Global Warming Potentials and calculation of published emission factors, which take into account certain assumptions and have varying levels of certainty.
Scope 2 (market-based)	Less than or equal to 2%	Assumptions	Uncertainties surrounding the calculation of Global Warming Potentials and calculation of published emission factors, which take into account certain assumptions and have varying levels of certainty.

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	Moderate assurance	https://www.cdp.net/sites/2017/69/1069/Climate Change 2017/Shared Documents/Attachments/CC8.6a/ERM-Assurance-Statement-Aspen-October-2016 (1).pdf	Page 1	AA1000AS	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

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	Moderate assurance	https://www.cdp.net/sites/2017/69/1069/Climate Change 2017/Shared Documents/Attachments/CC8.7a/ERM-Assurance-Statement-Aspen-October-2016 (1).pdf	Page 1	AA1000AS	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: Environmental KPIs	Environmental KPIs such as Electricity Consumption, Volumes of waste generated and Volumes of waste recycled were also verified.

CC8.9

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

No

CC8.9a

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

Further Information

No further information

Page: CC9. Scope 1 Emissions Breakdown - (1 Jul 2015 - 30 Jun 2016)

CC9.1

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

Yes

CC9.1a

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

Country/Region	Scope 1 metric tonnes CO2e
South Africa	6838
Germany	3317
Australia	1986
Brazil	519
France	3282
Netherlands	19648
Mexico	4929
Kenya	814
Tanzania	1536
United States of America	719

CC9.2

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

By facility
By activity

CC9.2a

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

Business division	Scope 1 emissions (metric tonnes CO2e)

CC9.2b

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

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
Port Elizabeth (SA)	2915	-33.9167	25.5667
East London (SA)	1917	-32.9810	27.8282
Johannesburg (SA - Nutritionals)	252	-25.9874	28.2418
Cape Town (SA - Fine Chemicals)	1754	-33.9157	18.5770
Aspen Bad Oldesloe (Germany)	3317	53.8009	10.3983
Dandenong (Australia)	1986	-37.9810	145.2150
Brazil	519	-20.3222	40.3381
France	3282	49.4431	1.0993
Netherlands	19648	51.6225	5.1000
Toluca (Mexico)	18	19.2877	-99.6468
Vallejo(Mexico)	4911	19.5018	-99.1674
Kenya	814	-1.2833	36.8167
Tanzania	1536	-6.8235	39.2695
United States of America	719		

CC9.2c

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

GHG type	Scope 1 emissions (metric tonnes CO2e)

CC9.2d

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

Activity	Scope 1 emissions (metric tonnes CO2e)
Mobile Fuel Combustion: Diesel	362
Mobile Fuel Combustion: Gasolene	400
Stationery fuel combustion: Diesel	193
Stationery fuel combustion: Heavy Fuel Oil	3725
Stationery fuel combustion: Kerosene	29
Liquid Petroleum Gas	48
Fugitive emissions	6035
Natural Gas	32796

Further Information

No further information

Page: CC10. Scope 2 Emissions Breakdown - (1 Jul 2015 - 30 Jun 2016)

CC10.1

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

Yes

CC10.1a

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

Country/Region	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
South Africa	106763		123493	
Germany		2679		7381
Australia	16426		14537	
Brazil	188		2165	
France	1042		17226	
Netherlands	22978		35935	
Mexico	5429		11212	
Kenya	1151		975	
Tanzania	1176		2222	
United States of America	428		851	

CC10.2

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

By facility
By activity

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)
Port Elizabeth (South Africa)	66755	
East London (South Africa)	16899	
Johannesburg (Nutritionals)	11302	
Fine Chemicals Corporation (Cape Town)	11807	
Bad Oldesloe (Germany)		2679
Dangenong (Australia)	16083	
Noble Park (Australia)	343	
Brazil	188	
France	1042	
Moleneind (Netherlands)	13994	
De Geer (Netherlands)	8457	
Boxtel (Netherlands)	527	
Toluca (Mexico)	339	
Vallejo (Mexico)	5090	
Kenya	1151	
Tanzania	1176	
United States of America	428	

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)
Electricity	149915	2679
Steam	5666	0

Further Information

No further information

Page: CC11. Energy

CC11.1

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

More than 5% but less than or equal to 10%

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

Energy type	MWh
Steam	25341
Cooling	0

CC11.3

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

216743

CC11.3a

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

Fuels	MWh
Diesel/Gas oil	2103
Motor gasoline	1584
Kerosene	112
Natural gas	142419
Other: Heavy Fuel Oil	12514
Liquefied petroleum gas (LPG)	418

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
Contract with suppliers or utilities, with a supplier-specific emission rate, not backed by electricity attribute certificates	7381	0.363	The German Plant makes use of a green energy mix made from renewable sources such as biomass, photovoltaic systems, and the wind

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
191402.27	191402.27	0	0	0	Approximately 4% of Aspen's total electricity consumption is from renewable energy sources.

Further Information

No 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	0	No change	Not applicable
Divestment	0	No change	Not applicable
Acquisitions	0	No change	Not applicable
Mergers	0	Decrease	Not applicable
Change in output	0	No change	Not applicable
Change in methodology	3	Increase	Our emission increased slightly by 2.9%,(approximately 5797 CO92e). This could be attributed to the addition of our United States site into the boundary and commissioning of new HVAC equipment at the Port Elizabeth site
Change in boundary	0	No change	Not applicable
Change in physical operating conditions	0	No change	Not applicable
Unidentified	0	No change	Not applicable
Other	0	No change	Not applicable

CC12.1b

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

Location-based

CC12.2

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

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator: Unit total revenue	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
0.0000056764	metric tonnes CO2e	35559073026	Location-based	8	Increase	The intensity increased because the denominator, which is revenue, decreased. The slight decrease in revenue is attributed to a number of factors: divestment of non-core products distributed in Australia and South Africa, unsatisfactory performance in the South African pharmaceutical business as a result of supply constraints and sub-optimal prioritization of production capacity, and the significant deterioration in the economic situation in Venezuela resulting in a once-off currency devaluation loss.

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
31.2991166420	metric tonnes CO2e	full time equivalent (FTE) employee	6449	Location-based	1	No change	No significant change, there is a difference of 1% between last year of reporting and the current year.

Further Information

No further information

Attachments

https://www.cdp.net/sites/2017/69/1069/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC12.EmissionsPerformance/Intensity Calculations CDP 2017 fy16.xls

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

CC13.1a

Please complete the following table for each of the emission trading schemes in which you participate

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO2e	Details of ownership

CC13.1b

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

CC13.2

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

No

CC13.2a

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

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits canceled	Purpose, e.g. compliance

Further Information

No further information

Page: CC14. Scope 3 Emissions

CC14.1

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

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services	Relevant, calculated	3423	Data is provided by our service providers and the following activities are included: 1)Paper usage: Emission Factor 1.09 kg CO2e per kg, Emission factor source - Mondi Paper, 2009. 2)Glass recycled: Emission factor - 1.09 kg CO2e per kg. Emission Factor source - Consol through the South African Fruit & Wine Industry Carbon Calculator. 3)Cardboard recycled: Emission factor 1.31 kg CO2e per kg – Emission factor source: Carbon Trust (2010) through The South African Fruit & Wine Industry Carbon Calculator. 4)Water Consumption: Emission factor 0.925 lt CO2e per litre -Emission factor Source Friedrich, Pillay & Buckley 2007 - The use of LCA in water industry. Methodology used is based on GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.	100.00%	None
Capital goods	Not relevant, explanation provided	0	None	0.00%	This category in accordance to the guidance by world resources institute has been excluded due to lack of available data and the insignificance in size of emissions relative to the other categories.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Not relevant, explanation provided	0	None	0.00%	Fuel used in the production of steam is excluded because it is utilised by service providers. The purchased steam Aspen uses is included in Scope 2 calculation.
Upstream transportation and distribution	Not relevant, explanation provided	0	None	0.00%	This category in accordance to the guidance by world resources institute has been excluded due to lack of available data and the insignificance in size of emissions relative to the other categories.
Waste generated in operations	Relevant, calculated	1786	Data is provided by our service providers and the following activity is included: 1.Waste generation: Emission factor: 1.20 t CO2 e – Emission factor source: Australian Government Department of Climate Change and Energy, National Greenhouse Account factors, July 2011.	100.00%	None
Business travel	Relevant, calculated	12923.44	Business Travel data reported is only for South African Operations, and is provided by Aspen's Travel service providers i.e. Car Hire and Air Travel.	100.00%	None
Employee commuting	Relevant, not yet calculated	0	None	0.00%	Not calculated due to the lack of available data.
Upstream leased assets	Not relevant, explanation provided	0	None	0.00%	Low volume of leased assets – emissions would be negligible.
Downstream transportation and distribution	Relevant, not yet calculated	0	None	0.00%	We have engaged with some of our service providers - currently, there are no systems in place to calculate emissions exclusively for

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
					Aspen Pharmacare.
Processing of sold products	Not relevant, calculated	0	None	0.00%	The complexity and extent of the value chain prohibit accurate calculations.
Use of sold products	Not relevant, explanation provided	0	None	0.00%	The complexity and extent of the value chain prohibit accurate calculations.
End of life treatment of sold products	Not relevant, explanation provided	0	None	0.00%	The complexity and extent of the value chain prohibit accurate calculations.
Downstream leased assets	Not relevant, explanation provided	0	None	0.00%	Not calculated due to the lack of available data.
Franchises	Not relevant, explanation provided	0	None	0.00%	Aspen Pharmacare has no franchises.
Investments	Not relevant, explanation provided	0	None	0.00%	Not relevant to our business currently.
Other (upstream)		0	Not evaluated	0.00%	None
Other (downstream)		0	Not evaluated	0.00%	None

CC14.2

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

No third party verification or assurance

CC14.2a

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 3 emissions verified (%)

CC14.3

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

Yes

CC14.3a

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

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

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Purchased goods & services	Change in boundary	0.7	Increase	Negligible increase.
Waste generated in operations	Change in boundary	17	Decrease	Mainly attributed to divestment.
Business travel		110	Increase	Air travel increased due to expanded global expanded global footprint resulting in increased long haul flights.

CC14.4

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

Yes, our suppliers

CC14.4a

Please give details of methods of engagement, your strategy for prioritizing 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

Type of engagement	Number of suppliers	% of total spend (direct and indirect)	Impact of engagement
Active engagement	4	0%	Aspen has prioritised engagement with key service suppliers who are able to supply the required level of data and where the frequency or volume of transactions is significant. In some cases, e.g. downstream transport and distribution, the service providers have not been able to isolate emissions generated due to Aspen products specifically. Aspen has been successful in obtaining statistics relating to travel (for the South African facilities) and waste (for all facilities). In both cases, the data is supplied by the service provider to Aspen in the form of reports. Travel and car rental service providers supply Aspen South Africa with monthly reports advising on the emissions from Business Travel related to activities for Aspen. Proportion of total spend not calculated at this stage.

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 Information

Please see attached supporting documentation

Attachments

https://www.cdp.net/sites/2017/69/1069/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC14.Scope3Emissions/Scope emissions for CDP 2062017.xls

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
Dr Morne Geyser	Executive: Group Strategic Operations	Board/Executive board

Further Information

No further information