# 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”). The Group has 26 manufacturing facilities across 18 sites on six continents. Aspen employs approximately 10 000 employees and its heritage dates back more than 160 years in South Africa.
The Group supplies an extensive basket of products that enable the treatment of a broad spectrum of acute and chronic conditions experienced throughout all stages of life. It is this combination of high quality and affordability that the Aspen brand has become renowned for. Aspen supplies products to more than 150 countries worldwide. Aspen is a supplier of branded and generic pharmaceutical products, as well as of infant milk nutritionals and consumer healthcare products in selected territories.
The Aspen business model creates value for stakeholders by the application of high levels of expertise and advanced processes, guided by the Group’s values, to optimise the returns on intellectual and human capital.

### 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 |
| --- |
| Mon 01 Jul 2013 - Mon 30 Jun 2014 |

## 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 |

## 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, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sub-industries, companies in the oil and gas sub-industries, companies in the information technology and telecommunications sectors and companies in the food, beverage and tobacco industry group should complete supplementary questions in addition to the main questionnaire.
If you are in these sector groupings (according to the Global Industry Classification Standard (GICS)), the corresponding sector modules will not appear below but will automatically appear in the navigation bar when you save this page. If you want to query your classification, please email respond@cdp.net.
If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below. If you wish to view the questions first, please see https://www.cdp.net/en-US/Programmes/Pages/More-questionnaires.aspx.

**Further Information**

None

# 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, acting with due regard to both the financial aspects of the business of the Group and the impact that the business operations have on the environment and the society. The Board is required to ensure that the Corporate Responsibility Citizenship Philosophy is implemented effectively and is responsible for considering sustainability as a business opportunity that guides strategy formulation. This responsibility is delegated to the Social and Ethics Committee.

**CC1.2**

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

Yes

## CC1.2a

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

| Who is entitled to benefit from these incentives? | The type of incentives | Incentivized performance indicator | Comment |
|---|---|---|---|
| All employees | Other non-monetary reward | 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<br>Energy reduction target<br>Efficiency project<br>Behaviour change related indicator | The Australian facilities have employee recognition programmes aimed at promoting positive behaviours and resource conservation. These include: a. Quick Win Certificates: Awarded to employees whose ideas or actions improve production, quality or safety, as well as any improvement on the company's environmental impact. For example, an employee was awarded a quick win for adding a recycle point in the packing area, thereby diverting waste to recycling more efficiently. b. Aspen Spirit Awards: Awarded to employees that have made a major impact on the sites production, quality, safety or environmental impact. For example, an employee was presented with an Aspen Spirit Award for seeking recycling contractors that would receive waste that was usually destined to land fill. c. Ad hoc Awards: An employee won the Aspen Global Recognition Awards for tireless efforts in reducing waste. |
| Other: Engineering Managers | Monetary reward | Energy reduction project<br>Energy reduction target<br>Efficiency project<br>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. |

## Further Information

None

## 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 South Africa, Germany, and Australia. | 1 to 3 years | Group-wide consideration of risks, with a formal measurement of 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 embedded in Aspen's culture and management is responsible for the effective identification and mitigation of risks, including climate risks, on a day-to-day basis in consultation with affected stakeholders. Strategic, operational, financial and compliance risk assessments are conducted annually at a business unit (asset) level and formally reported to the Executive Risk Forum. 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) The environmental risks impacting operations.

The Forum monitors the progress of key risk mitigation plans for major risks on a quarterly basis. Top risks, together with the status of risk mitigation plans, are reported to the Audit & Risk Committee annually. The risk mitigation plans are updated quarterly and an assessment of the risks relating to the aspects of climate change listed above, impacting the Group's product supply strategies across all business units, is included. 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 the environmental indicators which are reported in the Group's Sustainability Report, are verified by external auditors on an annual basis. Through the Group's risk management processes and sustainability reporting, the Audit & Risk Committee and Social and 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 or opportunity cost of the applied environmental resources to the business and the Group's strategic objectives. This is done in consultation with Group executives.

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. Three parameters, i.e. severity, occurrence and exposure are used to calculate the inherent and residual risk.
The results are presented to the Site Executives and risk mitigation plans are drawn up which are approved by the responsible Senior Executive. The status of the risk mitigation plans are reported on a monthly basis during the site SHE performance review meetings. The Social & Ethics Committee monitors SHE legal compliance and SHE risks on a quarterly basis.

Example: The proposed implementation of carbon taxes in South Africa and Australia as well as the reliance on the primary electricity supplier, ESKOM, in South Africa created awareness around the future cost of electricity as well as sustained supply of electricity at feasible prices. This resulted in an increased focus on conservation initiatives which led to 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) Process: Aspen's strategic objective, "To practise good corporate citizenship", supports the Group's objectives around 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 and Risk Committee, Social and 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 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.

The South African, German and Australian facilities have demonstrated an increased commitment to resource conservation initiatives, and the reduction of the quantity of waste disposed in landfills, with the ultimate goal of reducing Scope 2 and 3 emissions. The progress and outcomes of these initiatives are reported

monthly in SHE Performance Review meetings and in the quarterly Sustainability Key Performance Indicator Report to the Board.
ii) 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 our 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.
iii) Short term strategy - 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. the use of variable speed drive pumps, the installation of high efficiency motors in air handling units, and the installation of motion sensors for lighting.

iv) Long term strategy: 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 key to ensuring business sustainability.

v) Strategic advantage - Aspen believes that resources such as energy and water will in future be further constrained. 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 edge 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) for the SA Operations in 2013 to formally manage continuous improvement projects linked to resource conservation and reduced environmental pollution.
• The German site has implemented an ISO 50001 certified energy management system for Aspen Bad Oldesloe (ABO). The system will enable 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 appointment of a Resource Conservation Engineer to manage all water and energy reduction projects in South Africa.
• 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 of carbon?**

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

## CC2.2d

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

## CC2.3

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

Direct engagement with policy makers
Trade associations

## 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 | Although not legislated, 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. |

| Focus of legislation | Corporate Position | Details of engagement | Proposed legislative solution |
|---|---|---|---|
| Carbon tax | Oppose | 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. The key issue with this tax is at which point in the supply chain it should be levied and is there a potential to incur double taxation within a supply chain. Aspen does however support incentives that encourage a reduction in carbon usage. |
| 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. |

**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 | 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 | Aspen is an active member of BUSA and participates in industry |

| 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? |
|---|---|---|---|
| (BUSA) | | 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 increased environmental levy (estimated to be effective 1 July 2015.) • The impact of the 2016 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. | 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**

**Do you fund any research organizations to produce or disseminate public work on climate change?**

**CC2.3f**

**Please describe the work and how it aligns with your own strategy on climate change**

**CC2.3g**

**Please provide details of the other engagement activities that you undertake**

## CC2.3h

**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. 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 performance is measured against targets on a six-monthly basis through the sustainability KPI Board reporting process. Site management teams monitor progress more frequently where practical. The sites in South Africa comply with ISO 14001. The site in Germany complies with ISO 14001 and ISO 50001 – 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.
Refer to 2.3a for Aspen's active participation in the BUSA, NBI and EELN initiatives in South Africa. In Australia, Aspen participates in relevant Clean Energy Regulator programmes in support of proactive energy efficiency initiatives. A culture of continuous improvement exists at the South African, Australian and German operations.

## CC2.3i

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

## CC2.4

**Would your organization's board of directors support an international agreement between governments on climate change, which seeks to limit global temperature rise to under two degree Celsius from pre-industrial levels in line with IPCC scenarios such as RCP2.6?**

Yes

**CC2.4a**

**Please describe your board's position on what an effective agreement would mean for your organization and activities that you are undertaking to help deliver this agreement at the 2015 United Nations Climate Change Conference in Paris (COP 21)**

(i)An effective agreement is one that would support the sustainability of the Group's business model, with particular reference to on-going availability of crop-based pharmaceutical ingredients at compliant quality standards, sustaining quality, affordability and relevance of supplied medicines to address arising disease profiles, access to quality, affordable medicines and products, as well as business continuity considerations at manufacturing sites.
(ii) this would enable growth and the ongoing effective delivery of pharmaceutical products. A transition to a lower carbon economy would result in increased operating costs but also opportunities to improve efficiency.
(iii)No direct activities are currently being undertaken to this end. The Group is engaged in and supports pharmaceutical industry initiatives through its membership of pharmaceutical industry forums across the countries in which it operates. Aspen's Group Environmental Management Policy advocates the application of sound environmental management principles by each business in the Group, to strive towards securing a more sustainable future and improving the Group's responsible citizenship. Aspen is a signatory of the UN Global Compact and annual environmental disclosures are made in alignment to UNCG requirements.

Refer to the Aspen's environmental policy and Aspen's UN Global impact disclosures attached.

**Further Information**

2014 Aspen Assurance statement is attached.

**Attachments**

https://www.cdp.net/sites/2015/69/1069/Climate Change 2015/Shared Documents/Attachments/ClimateChange2015/CC2.Strategy/Aspen 2014 COP Report.pdf
https://www.cdp.net/sites/2015/69/1069/Climate Change 2015/Shared Documents/Attachments/ClimateChange2015/CC2.Strategy/Aspen ERM Assurance Statement - 2014-ERM.pdf
https://www.cdp.net/sites/2015/69/1069/Climate Change 2015/Shared Documents/Attachments/ClimateChange2015/CC2.Strategy/Aspen SHE Policy - April 2013.pdf
https://www.cdp.net/sites/2015/69/1069/Climate Change 2015/Shared Documents/Attachments/ClimateChange2015/CC2.Strategy/Aspen Environmental Management Principles Abridge March 2014.pdf

## Page: CC3. Targets and Initiatives

**CC3.1**

**Did you have an emissions reduction 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 (metric tonnes CO2e) | Target year | 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 | Target year | 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

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

| ID | % complete (time) | % complete (emissions) | Comment |
|---|---|---|---|
| | | | |

**CC3.1e**

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

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 South African and Australian Operations. Once this is in place, consideration will be given to establishing medium term targets for energy conservation projects. This in turn, will impact the reduction of the carbon footprint. Air handling units for the maintenance of environmental controls contribute to a large portion of the sites energy consumption (approximately 70%) as such conservation on other variable consumption systems will not contribute materially to a reduction in Aspen's carbon footprint. However, commitment to efficient utilisation of scarce resources remains. The German site has implemented an ISO 50001 energy management system in order to be able to meet the targets that have been set by the German Government.

In South Africa, the Department of Environmental Affairs is conducting an exercise to establish appropriate carbon budgets, Aspen is awaiting clarity with respect to this and the carbon tax process, so that meaningful targets can be set.

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**

**Does the use of your goods and/or services directly enable GHG emissions to be avoided by a third party?**

No

## CC3.2a

**Please provide details of how the use of your goods and/or services directly enable GHG emissions to be avoided by a third party**

## 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 | 6 | |
| To be implemented* | | |
| Implementation commenced* | | |
| Implemented* | 5 | 51.42 |
| Not to be implemented | | |

**CC3.3b**

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

| Activity type | Description of activity | Estimated annual CO2e savings (metric tonnes CO2e) | Scope | Voluntary/ Mandatory | Annual monetary savings (unit currency - as specified in CC0.4) | Investment required (unit currency - as specified in CC0.4) | Payback period | Estimated lifetime of the initiative | Comment |
|---|---|---|---|---|---|---|---|---|---|
| Energy efficiency: Building services | At the East London facility, a transformer imbalance, which was causing additional electrical usage, was corrected. This required a tap change (i.e. a change to the amount of coils in the transformer). This change resulted in the transformer load being balanced and reduced electricity consumption. | 51.42 | Scope 2 | Voluntary | 28012 | 0 | <1 year | Ongoing | The transformers now operate within their specified temperature range, operating in the paralleled configuration. No investment was required. |
| Energy efficiency: Processes | Installation of new high level control for air compressors | 0 | Scope 2 | Voluntary | 151800 | 79200 | 1-3 years | <1 year | Reduction of specific electricity demand because of improvement of overall efficiency for air compressors. The facility makes use of zero carbon electricity at the facility savings from the projects. |
| Energy efficiency: | Installation of air compressor for optimized peak load | 0 | Scope 2 | Voluntary | 41450 | 237600 | 1-3 years | <1 year | Reduction of specific electricity demand |

| 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 |
|---|---|---|---|---|---|---|---|---|---|
| Processes | | | | | | | | | because of improvement of overall efficiency for air compressors. The facility makes use of zero carbon electricity at the facility savings from the projects. |
| Energy efficiency: Processes | Lowering of net pressure for compressed air | 0 | Scope 2 | Voluntary | 29040 | 0 | 1-3 years | <1 year | Reduction of specific electricity demand because of improvement of overall efficiency for air compressors. The facility makes use of zero carbon electricity at the facility savings from the projects. |
| Behavioral change | Training of employees on optimisation of energy and resources | 0 | Scope 1 Scope 2 | Voluntary | 0 | 0 | 1-3 years | <1 year | Continuous improvement of behavioural energy savings |

**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 and potential future regulatory changes, as well as 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. Over the past few years South African Operations has implemented various energy conservation and optimisation projects and has made investments estimated at R1,5 million to support these projects. In Germany an investment of R650 000 (€ 63 000) was made for the ISO 50 001 implementation and certification. Additional costs are expected in future for the maintenance and auditing of the ISO 50 001 system. |

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 |
|---|---|---|---|
| In voluntary communications | Complete | 50-57 | https://www.cdp.net/sites/2015/69/1069/Climate Change 2015/Shared Documents/Attachments/CC4.1/Aspen 2014 Sustainability Report.pdf |

**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

**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 | A Carbon Tax Policy Paper was published in South Africa for comment in May 2013 stating that the South African government aims to reduce GHG emissions by 34 % by 2020 and 42 % by 2025. The introduction of the tax was postponed from 2015 to 2016 in order to ensure alignment between the desired emissions reductions and the outcomes being developed by the Department of Environmental Affairs and to allow for further public consultation. . Anticipated changes include the reduction of Eskom's tax liability, with a | Increased operational cost | 1 to 3 years | 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 per cent per annum during the first phase. When the tax-free threshold and additional relief are taken into account, the effective tax rate will range between R12-R48 per ton of CO2e. Based on the current proposed tariff structure the potential impact is estimated to be under R1 million for the South African Operations. | Aspen's Risk and Sustainability and Tax departments are responsible for monitoring developments regarding carbon taxes. Due to the scarcity of resources, combined with the proposed regulatory changes, Aspen has proactively implemented energy conservation and optimisation projects. Six projects are currently under review and 1 project, with an estimated saving of 51.42 CO2e, has been implemented. Aspen will initiate | To date an estimated R1,5 million has been invested in various energy conservation and optimisation projects. |

| Risk driver | Description | Potential impact | Timeframe | Direct/ Indirect | Likelihood | Magnitude of impact | Estimated financial implications | Management method | Cost of management |
|---|---|---|---|---|---|---|---|---|---|
| | credit for the renewable energy premium, limiting the potential effect of the tax on electricity prices. The amendments aim, to address concerns about international competitiveness, including a formula to adjust the basic percentage tax-free threshold to reward over-performance. National reduction targets may have an impact on existing and new permissions as well as potential energy costs therefore increasing Aspen's operational cost. We have provisionally calculated the potential costs to | | | | | | | consultation with its external tax advisors on this matter to maintain an understanding of the potential inherent risks to the business. Aspen does not support the implication of carbon taxes and believe incentives which motivate environment conservation would be more effective. | |

| Risk driver | Description | Potential impact | Timeframe | Direct/ Indirect | Likelihood | Magnitude of impact | Estimated financial implications | Management method | Cost of management |
|---|---|---|---|---|---|---|---|---|---|
| | the company although implementation methodology is uncertain i.e. cost of tax, cost administrations and so forth. | | | | | | | | |
| General environmental regulations, including planning | Electricity and water are critical resources utilised in Aspen's manufacturing process. Owing to the scarcity of these resources and rising costs per unit, Aspen's Environmental Management Principles promote the efficient use and conscious conservation of these commodities. The sustained supply of water is a medium to long term risk. Water regulations may become stricter | Reduction/disruption in production capacity | 1 to 3 years | Direct | Very likely | High | In South Africa, Aspen is reliant on Eskom for the provision of electricity and it is anticipated that Eskom will continue to levy increases in excess of inflation on the consumer. Eskom increased the electricity costs by approximately 8% in 2013/2014 reporting period. Electricity accounts for 6.1% of operating costs at the South African facilities | Planning and implementation of continuous improvement projects for Aspen facilities to reduce electricity and water consumption. Creating an awareness of switching off lighting and air-conditioning when not in use with emphasis on energy saving | Variable costs depending on projects. To date an estimated R1,5 million has been invested in various energy conservation and optimisation projects. |

| Risk driver | Description | Potential impact | Timeframe | Direct/ Indirect | Likelihood | Magnitude of impact | Estimated financial implications | Management method | Cost of management |
|---|---|---|---|---|---|---|---|---|---|
| | due to changes in precipitation resulting from climate change. One of the key means of implementing the national target for South Africa, is through the National Climate Change Response white paper 2011. The policy confirms that climate change is already a measurable reality along with other developing countries. The White paper 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. Through consistent application of | | | | | | and the increase results in approximately 1.5% on operating costs. The inflation in water costs are directly related to increases in municipal charges. | | |

| Risk driver | Description | Potential impact | Timeframe | Direct/ Indirect | Likelihood | Magnitude of impact | Estimated financial implications | Management method | Cost of management |
|---|---|---|---|---|---|---|---|---|---|
| | sound environmental management principles by each business in the Group, Aspen strives towards supporting the Government mitigation plans as well as containment and reduction of its carbon footprint. | | | | | | | | |
| Fuel/energy taxes and regulations | The potential implementation of electricity usage targets and penalties under the Power Conservation Programme (PCP) in South Africa, together with rising electricity costs and the proposed carbon tax could result in increased operational costs for the Aspen facilities in South Africa and | Other: Financial penalties | 1 to 3 years | Direct | Very likely | Medium | Not yet established | Aspen's Risk and Sustainability and Tax/Treasury departments are responsible for monitoring developments regarding carbon taxes. Aspen will initiate consultation with its external tax auditors on this matter to maintain an understanding of the potential | Variable costs depending on energy and fuel increases. |

| Risk driver | Description | Potential impact | Timeframe | Direct/ Indirect | Likelihood | Magnitude of impact | Estimated financial implications | Management method | Cost of management |
|---|---|---|---|---|---|---|---|---|---|
| | financial penalties in cases where consumption cannot be reduced. | | | | | | | inherent risks to the business. | |
| 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)” 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 | Increased operational cost | 1 to 3 years | Direct | Very likely | Medium-high | Not yet established | With regards to the DAP, Aspen participated in industry lobbying efforts to analyse 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 which provides incentives for reduction of carbon emissions. The programme has been in place since April | Not yet established. |

| Risk driver | Description | Potential impact | Timeframe | Direct/ Indirect | Likelihood | Magnitude of impact | Estimated financial implications | Management method | Cost of management |
|---|---|---|---|---|---|---|---|---|---|
| | replaced with a “Direct Action Plan (DAP)”. An election commitment, as part of the DAP, was to repeal the Carbon Tax. DAP is relatively therefore the impact on Aspen business has yet been established. | | | | | | | 2015 and benefits will require to 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, in future, the South African Department of Environmental Affairs plans to implement mandatory emission reporting. The German site is required to report on the sites | Increased operational cost | 1 to 3 years | 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. | Not currently established. |

| Risk driver | Description | Potential impact | Timeframe | Direct/ Indirect | Likelihood | Magnitude of impact | Estimated financial implications | Management method | Cost of management |
|---|---|---|---|---|---|---|---|---|---|
| | emissions. | | | | | | | | |

**CC5.1b**

**Please describe your inherent risks that are driven by change 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 the crops used in the synthesis of raw materials. For example: The supply of raw materials which are manufactured using maize as a key intermediate, e.g. starch | 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. An example could be that in the event of water scarcity, Aspen might have to source alternative water sources such as underground and hence drill | In response to energy and water scarcity, continuous improvement projects are put in place to recycle water and increase energy efficiency. The Procurement Department source from more than one geographical region, where possible. | Variable costs depending on the project. Potential increase in raw material costs. |

| Risk driver | Description | Potential impact | Timeframe | Direct/ Indirect | Likelihood | Magnitude of impact | Estimated financial implications | Management method | Cost of management |
|---|---|---|---|---|---|---|---|---|---|
| | maize, was affected by drought in various parts of South Africa. The drought severely affected crops and raised maize prices. This year's maize harvest is projected to shrink by 26% compared to last year because of erratic rains, raising raw material prices and increasing the need for imports. | | | | | | boreholes or other feasible technologies. | | |
| Induced changes in natural resources | Global temperature increases caused by climate change could impact on agricultural crops utilised in the synthesis of raw materials. In addition, elevated temperatures may result in higher energy | Reduction/disruption in production capacity | Unknown | Indirect (Supply chain) | About as likely as not | Low | The financial implications have not been quantified as the risk is remote | The Procurement department manage relationships with key suppliers and sufficient interaction takes place to keep abreast of any risks facing suppliers which could indirectly impact Aspen. In addition, alternative | No costs have been incurred. |

| Risk driver | Description | Potential impact | Timeframe | Direct/ Indirect | Likelihood | Magnitude of impact | Estimated financial implications | Management method | Cost of management |
|---|---|---|---|---|---|---|---|---|---|
| | usage in order to maintain optimum temperature and humidity levels in the production facilities. 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 supplier was forced to obtain supply from an alternative source and this led to an increase in alcohol and solvent pricing. | | | | | | | 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 sustainability of raw material supply. | |

## 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 |
|---|---|---|---|---|---|---|---|---|---|

## CC5.1d

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

## CC5.1e

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

## CC5.1f

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

a. No material risks related to other climate-related developments have been identified. The Group will continue to monitor developments through its risk management, environmental management and supply chain management processes
b. No costs have been associated with these risks.
c. Geographical areas considered - South Africa, Australia and Germany.
d. In the next 1-5 years.

**Further Information**

None

## 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 | Tax refunds of approximately € 194 000 (R- | Reduced operational costs | 1 to 3 years | Direct | Virtually certain | Medium-high | Bad Oldesloe, our German site, could | The German site successfully implemented ISO | A total investment of approximately |

| Opportunity driver | Description | Potential impact | Timeframe | Direct/Indirect | Likelihood | Magnitude of impact | Estimated financial implications | Management method | Cost of management |
|---|---|---|---|---|---|---|---|---|---|
| | million) could be received at Aspen Bad Oldesloe (German site) if the site meets the targets set by the German government. | | | | | | receive tax refunds of up to € 195 000 (R2,8 million). | 50001 energy management system to accurately monitor and report energy conservation projects and the corresponding decrease in emissions. | € 65 000 (R945 000) to implement then additional costs for maintenance and auditing of the system. |
| Carbon taxes | Under the Australian Federal Government's CEP (Clean Energy Programme) a "Clean Technology Investment Program (CTIP)" enabled the Dandenong site to successfully secure a Government Grant. This will enable the installation of new technology with the aim to reduce the annualised consumption of electricity by 895 | Reduced operational costs | 1 to 3 years | Direct | Very likely | Low | 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 AUS$215k is expected. | This grant covered AUS$242K of an AUS$608K capital investment. An annual electrical energy saving of AUS$215k is expected. | This grant covered AUS$242K of a AUS$608K capital investment. |

| Opportunity driver | Description | Potential impact | Timeframe | Direct/Indirect | Likelihood | Magnitude of impact | Estimated financial implications | Management method | Cost of management |
|---|---|---|---|---|---|---|---|---|---|
| | MW/h | | | | | | | | |
| Fuel/energy taxes and regulations | Aspen Pharmacare is making considerable advances in improving electricity efficiency at all facilities in the South African operations. Regulations could thus offer beneficial opportunities from energy efficiency investments and new technology. Government incentives could provide motivation to invest more in energy and fuel efficiency and new technology. | Reduced operational costs | 3 to 6 years | Direct | More likely than not | Medium | The potential financial implications of the opportunity are currently unknown, however potentially of significant financial savings could be realised through rebates and incentives. | Effective metering, trend analysis of energy consumption and setting sound objectives and targets to reduce 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. | Considerable investments of approximately R1.5million have been made towards resource conservation projects. |
| 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 | Is electricity cheaper? | Utilization of greener zero carbon energy. | None? |

## CC6.1b

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

| Opportunity driver | Description | Potential impact | Timeframe | Direct/ Indirect | Likelihood | Magnitude of impact | Estimated financial implications | Management method | Cost of management |
|---|---|---|---|---|---|---|---|---|---|
| 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 | Not currently established. | 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. | 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. | Not currently established. |

## CC6.1c

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

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

## 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 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 material risks related to other climate-related developments have been identified. The Group will continue to monitor developments through its risk management, environmental management and supply chain management processes.
b. No costs have been associated with these risks.
c. Geographical areas considered - South Africa, Australia and Germany.
d. In the next 1-5 years.

**Further Information**

No other 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 | Fri 01 Jul 2011 - Sat 30 Jun 2012 | 88008 |

**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 | 2.676 | kg CO2e per liter | DEFRA, 2012 |
| Diesel/Gas oil | 2.672 | kg CO2e per liter | DEFRA, 2012 |

| Fuel/Material/Energy | Emission Factor | Unit | Reference |
|---|---|---|---|
| Motor gasoline | 2.134 | kg CO2e per liter | DEFRA, 2012 |
| Other: Heavy Fuel Oil | 3219.7 | Other: kg CO2 per tonne | DEFRA, 2012 |
| Kerosene | 2.5421 | kg CO2e per liter | DEFRA, 2012 |
| Natural gas | 205 | Other: g CO2e per kWh | German Local Municipality |
| Natural gas | 51.2 | Other: CO2e per GJ | Australian Government: Department of Climate Change |
| Steam | 0.05 | Other: kg CO2e per kWh | DEFRA, 2012 |
| Electricity | 1.03 | Other: kg CO2e per kWh | ESKOM, South Africa |
| Electricity | 1.17 | Other: kg CO2e per kWh | Australian Government: Department of Climate Change |
| Electricity | 0.87 | Other: kg CO2e per kWh | Australian Government: Department of Climate Change |
| Electricity | 0.106 | Other: kg CO2e per kWh | German Local Emission Factor |

**Further Information**

Attach DEFRA and Australian emissions publication

**Attachments**

https://www.cdp.net/sites/2015/69/1069/Climate Change 2015/Shared Documents/Attachments/ClimateChange2015/CC7.EmissionsMethodology/nger-measurement-technical-guidelines-july-2013.pdf
https://www.cdp.net/sites/2015/69/1069/Climate Change 2015/Shared Documents/Attachments/ClimateChange2015/CC7.EmissionsMethodology/DEFRA-ghg-conversionfactors 2012.xls

## Page: CC8. Emissions Data - (1 Jul 2013 - 30 Jun 2014)

**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**

10917

**CC8.3**

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

114615

**CC8.4**

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

Yes

**CC8.4a**

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

| Source | Relevance of Scope 1 emissions from this source | Relevance of Scope 2 emissions excluded from this source | Explain why the source is excluded |
|---|---|---|---|
| South Africa: Durban and Woodmead corporate offices Australia: Sydney corporate offices | Emissions are not relevant | Emissions are not relevant | A study was conducted in 2010 on the South African corporate offices to establish the emissions generated by these offices, and they 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 | Published emission factors were used, which take into account certain assumptions and have varying levels of certainty. |
| Scope 2 | Less than or equal to 2% | Other: Published emission factors | Published emission factors were used, 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 complete

## CC8.6a

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

| Type of verification or assurance | Attach the statement | Page/section reference | Relevant standard | Proportion of reported Scope 1 emissions verified (%) |
|---|---|---|---|---|
| Limited assurance | https://www.cdp.net/sites/2015/69/1069/Climate Change 2015/Shared Documents/Attachments/CC8.6a/Aspen ERM Assurance Statement - 2014-ERM.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 Emissions Monitoring Systems (CEMS)**

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

## CC8.7

**Please indicate the verification/assurance status that applies to your reported Scope 2 emissions**

Third party verification or assurance complete

## CC8.7a

**Please provide further details of the verification/assurance undertaken for your Scope 2 emissions, and attach the relevant statements**

| Type of verification or assurance | Attach the statement | Page/Section reference | Relevant standard | Proportion of reported Scope 2 emissions verified (%) |
|---|---|---|---|---|
| Limited assurance | https://www.cdp.net/sites/2015/69/1069/Climate Change 2015/Shared Documents/Attachments/CC8.7a/Aspen ERM Assurance Statement - 2014-ERM.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 |
|---|---|
| No additional data verified | None |

## 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**

None

## Page: CC9. Scope 1 Emissions Breakdown - (1 Jul 2013 - 30 Jun 2014)

**CC9.1**

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

Yes

**CC9.1a**

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

| Country/Region | Scope 1 metric tonnes CO2e |
|---|---|
| South Africa | 5000 |
| Germany | 2752 |
| Australia | 3164 |

**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) | 1927.29 | -33.9167 | 25.5667 |
| East London (SA) | 944.44 | -32.9810 | 27.8282 |
| Johannesburg (SA - Nutritionals) | 221.02 | -25.9874 | 28.2418 |
| Cape Town (SA - Fine Chemicals) | 1907.51 | -33.9157 | 18.5770 |
| Aspen Bad Oldesloe (Germany) | 2752.60 | 53.8009 | 10.3983 |
| Dandenong (Australia) | 2142.42 | -37.9810 | 145.2150 |
| Croydon (Australia) | 33.84 | -37.7963 | 145.2810 |
| Noble Park (Australia) | 802.56 | -37.9670 | 145.1760 |

| Facility | Scope 1 emissions (metric tonnes CO2e) | Latitude | Longitude |
|---|---|---|---|
| Baulkham Hills (Australia) | 185.75 | -33.7629 | 150.9921 |

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) |
|---|---|
| Company owned Mobile transport | 183 |
| Stationery fuel combustion | 2470 |
| Fugitive emissions | 2538 |
| Natural Gas | 5725 |

CC9.2e

Please break down your total gross global Scope 1 emissions by legal structure

| Legal structure | Scope 1 emissions (metric tonnes CO2e) |
|---|---|

**Further Information**

None

## Page: CC10. Scope 2 Emissions Breakdown - (1 Jul 2013 - 30 Jun 2014)

**CC10.1**

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

Yes

**CC10.1a**

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

| Country/Region | Scope 2 metric tonnes CO2e | Purchased and consumed electricity, heat, steam or cooling (MWh) | Purchased and consumed low carbon electricity, heat, steam or cooling accounted for in CC8.3 (MWh) |
|---|---|---|---|
| South Africa | 89839 | 106787 | 0 |
| Germany | 421 | 0 | 3972 |
| Australia | 24354 | 0 | 21556 |

**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 emissions (metric tonnes CO2e) |
|---|---|

## CC10.2b

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

| Facility | Scope 2 emissions (metric tonnes CO2e) |
|---|---|
| Port Elizabeth (South Africa) | 59474 |
| East London (South Africa) | 16254 |
| Johannesburg (Nutritionals) | 6800 |
| Fine Chemicals Corporation (Cape Town) | 7311 |
| Bad Oldesloe (Germany) | 421 |
| Dangenong (Australia) | 17231 |
| Croydon (Australia) | 544 |
| Noble Park (Australia) | 4063 |

| Facility | Scope 2 emissions (metric tonnes CO2e) |
|---|---|
| Baulkham Hills (Australia) | 2516 |

**CC10.2c**

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

| Activity | Scope 2 emissions (metric tonnes CO2e) |
|---|---|
| Electricity | 113489 |
| Steam | 1125 |

**CC10.2d**

**Please break down your total gross global Scope 2 emissions by legal structure**

| Legal structure | Scope 2 emissions (metric tonnes CO2e) |
|---|---|

**Further Information**

None

## 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 fuel, electricity, heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year**

| Energy type | MWh |
|---|---|
| Fuel | 42137 |
| Electricity | 111660 |
| Heat | 0 |
| Steam | 20656 |
| Cooling | 0 |

## CC11.3

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

| Fuels | MWh |
|---|---|
| Diesel/Gas oil | 705 |
| Motor gasoline | 121 |
| Kerosene | 133 |
| Natural gas | 32414 |
| Other: Heavy Fuel Oil | 8764 |

## CC11.4

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

| Basis for applying a low carbon emission factor | MWh associated with low carbon electricity, heat, steam or cooling | Comment |
|---|---|---|
| Grid connected low carbon electricity generation owned by company, no instruments created | 25529.76 | A mix of low carbon energy is currently utilised by the Australian facility and was utilised by the German facility up until December 2013. From December 2013 the German facility changed over to the use of zero-carbon energy based electricity. The emission factors for the low carbon energy sources were provided by the local electricity service providers. |

## Further Information

Heavy Fuel Density used is 0.98 and calorific value of 45.53

# Page: CC12. Emissions Performance

## CC12.1

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

Decreased

## CC12.1a

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

| Reason | Emissions value (percentage) | Direction of change | Comment |
|---|---|---|---|
| Emissions reduction activities | 4 | Decrease | Emissions for the German facility were only calculated from July 2013 to November 2013. From December 2013 to June 2014, the German facility changed over to the use of zero-carbon energy based electricity hence reducing the total carbon footprint and also one facility in Australia was closed down. The 4% was achieved using the following formula: Total gross Scope 1+2 emissions for the current reporting period – previous year's total gross Scope 1+2 emissions = total change in emissions |
| Divestment | | Decrease | |
| Acquisitions | | | |
| Mergers | | | |
| Change in output | | | |
| Change in methodology | | | |
| Change in boundary | | | |
| Change in physical operating conditions | | | |
| Unidentified | | | |
| Other | | | |

**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 | Metric denominator | % change from previous year | Direction of change from previous year | Reason for change |
|---|---|---|---|---|---|
| 0.000007550 | metric tonnes | unit total | 8 | Decrease | Decreased emissions and an increase in revenue resulted in an overall |

| Intensity figure | Metric numerator | Metric denominator | % change from previous year | Direction of change from previous year | Reason for change |
|---|---|---|---|---|---|
| | CO2e | revenue | | | reduction in the intensity measure. This resulted from making use of zero carbon electricity at our Germany facility. |

**CC12.3**

**Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per full time equivalent (FTE) employee**

| Intensity figure | Metric numerator | Metric denominator | % change from previous year | Direction of change from previous year | Reason for change |
|---|---|---|---|---|---|
| 37.10681644 | metric tonnes CO2e | FTE employee | 4.42 | Decrease | The number of employees increased by 0.21%, however the emissions decreased by 4.22% resulting in an overall decrease in the intensity measure of 4.42%. |

**CC12.4**

**Please provide an additional intensity (normalized) metric that is appropriate to your business operations**

| Intensity figure | Metric numerator | Metric denominator | % change from previous year | Direction of change from previous year | Reason for change |
|---|---|---|---|---|---|
| 1.0760531459 | metric tonnes CO2e | megawatt hour (MWh) | 0 | No change | no significant change |

**Further Information**

None

## 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 of CO2e) | Number of credits (metric tonnes CO2e): Risk adjusted volume | Credits cancelled | Purpose, e.g. compliance |
|---|---|---|---|---|---|---|---|

**Further Information**

None

## 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 | 1541 | 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% | |
| Capital goods | Not relevant, explanation provided | | None | | 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. |
| Fuel-and-energy-related activities (not included in Scope 1 or 2) | Not relevant, explanation provided | | None | | 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 evaluated | | None | | This category in accordance to the guidance by world resources institute has been excluded due to lack of available data and the |

| 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 |
|---|---|---|---|---|---|
| | | | | | insignificance in size of emissions relative to the other categories. |
| Waste generated in operations | Relevant, calculated | 1443.28 | 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. Methodology used is based on GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. | 100.00% | |
| Business travel | Relevant, calculated | 2638.23 | 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. | | |
| Employee commuting | Relevant, not yet calculated | | None | | Not calculated due to the lack of available data. |
| Upstream leased assets | Not relevant, explanation provided | | None | | Low volume of leased assets – emissions would be negligible. Not calculated due to the lack of available data. |
| Downstream transportation and distribution | Relevant, not yet calculated | | None | | We have engaged with some of our service providers - currently there are no systems in place to calculate emissions exclusively for Aspen Pharmacare |
| Processing of sold products | Not relevant, explanation provided | | None | | The complexity and extent of the value chain prohibits accurate calculation. |
| Use of sold products | Not relevant, explanation | | None | | The complexity and extent of the value chain prohibits accurate |

| Sources of Scope 3 emissions | Evaluation status | metric tonnes CO2e | Emissions calculation methodology | Percentage of emissions calculated using data obtained from suppliers or value chain partners | Explanation |
|---|---|---|---|---|---|
| | provided | | | | calculation. |
| End of life treatment of sold products | Not relevant, explanation provided | | None | | The complexity and extent of the value chain prohibits accurate calculation. |
| Downstream leased assets | Not relevant, explanation provided | | None | | Not calculated due to the lack of available data. |
| Franchises | Not relevant, explanation provided | | None | | We have no franchises. |
| Investments | Not relevant, explanation provided | | None | | Not relevant in our business currently |
| Other (upstream) | | | None | | |
| Other (downstream) | | | 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

| Type of verification or assurance | Attach the statement | Page/Section reference | Relevant standard | Proportion of 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 |
|---|---|---|---|---|
| Business travel | Acquisitions | 46.76 | Increase | Air travel increased by 46% due to the expanded global footprint resulting in increased long haul flights. |
| Purchased goods & services | Change in boundary | 12.2 | Decrease | Reduction in water consumption is due to the following: 1) Closure of 3 sites in Australia which resulted in a 12% reduction in total water consumption in Australia 2) Commissioning problems with respect to the operation of the High Volume Liquids RO Plant experienced in 2013 were resolved in East London. Water consumption for FY 14 reduced 28% 3) Water |

| Sources of Scope 3 emissions | Reason for change | Emissions value (percentage) | Direction of change | Comment |
|---|---|---|---|---|
| | | | | reduction initiative successfully implemented at SVP which reduced water consumption by 13% - HVAC condensate project which will be included as a case study. |
| Purchased goods & services | Other: Procedural changes | 28.51 | Decrease | There was a decrease in general waste due to increased recycling drive on all facilities. In Australia - waste was reclassified from general to recyclable waste resulting in an increase in recyclable waste |

**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**

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.

Waste service providers submit reports and statistics of all Aspen waste that has been incinerated, recycled or disposed in landfills. This information is used to calculate the emissions.

**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**

| Number of suppliers | % of total spend | Comment |
|---|---|---|
| 29 | 0% | Proportion of total spent not calculated |

### CC14.4c

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

| How you make use of the data | Please give details |
|---|---|
| Other | Data is collected and reported for reporting purposes. |

### CC14.4d

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

### Further Information

None

## 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.