Welcome to your CDP Climate Change Questionnaire 2021

C0. Introduction

C0.1

(C0.1) 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 a broad range of post-patent, branded medicines and domestic brands spanning many therapeutic areas to 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 on its operations and is therefore relevant to Aspen's sustainability objectives. As at 30 June 2020, the Group had 24 manufacturing facilities across 14 sites. The manufacturing sites contribute to the bulk of Aspen's carbon emissions and as such environmental reporting is focused at a manufacturing site level. The main contributors to Aspen's Scope 1 emissions are natural gas, refrigerants and fuel consumption while Scope 2 emissions are comprised of purchased electricity and steam.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Reporting year	July 1, 2019	June 30, 2020	No

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

Australia
Brazil
France
Germany

Ghana
India
Kenya
Mexico
Netherlands
South Africa
United Republic of Tanzania
United States of America

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

ZAR

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Board Chair	The Aspen Board of Directors is led by the Chairman and is collectively responsible for setting the strategic direction for the Group and approving the Group's strategic objectives, one of which is "To practice good corporate citizenship". The Board is responsible for the oversight of performance against this strategic objective by considering both the financial aspects of the business and impact that the business operations have on the economic, physical and social environments in which Aspen operates. Aligned to the Group's strategic objectives, the Board ratifies the Group's material Key Performance Indicators (KPIs) annually, which includes KPIs relating to carbon emissions and electricity usage. The achievement of the Group's

	strategic objectives is monitored on the basis of these approved KPIs. The Group Chief Executive and the Deputy Group Chief Executive are Executive Director members of the Board and have overall responsibility for performance of the Group. The Board executes its mandate through the support of its Committees. The Chairpersons of each of the committees reports the outcome of its programme of work to the Board. The Audit and Risk Committee is responsible for the governance of the Group's enterprise risk management (which includes climate-related risks) and reviews the strategic risk profile. The Social and Ethics Committee, of which the Board Chair is a member, is responsible for the governance of the Group's social, environmental, human rights and ethics responsibilities. The Remuneration and Nomination Committee is responsible for the assessment of the performance of the Executive Directors. The Board Chair is also a member of this Committee. An example of the decisions made by the Chair of the Board is a request made in January 2020 to revisit our broader ESG strategy, with a focus on climate change. This was endorsed by Aspen Strategic Leadership. A sustainability materiality assessment survey was conducted to engage with Board Members, Business Leaders and Functional Executives and the outcome confirmed that both climate change and water security are considered priority sustainability topics. Progress on developing the ESG strategy is reported to the Board, through its committees, on a quarterly basis.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – all meetings	Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Monitoring implementation and performance of objectives	As per (C1.1a) above, the Group's strategic objectives and related KPIs are ratified by the Board on an annual basis. The Deputy Group CEO presents the Group's performance against these objectives and KPIs to the Board at each of its scheduled quarterly meetings. The Group's Executive Risk Forum (which comprises the Deputy Group CEO, the Group Chief Operating Officer, the Group Finance Officer, the Group Corporate Services Officer and the Group Strategic Development Officer) present the top enterprise-wide risks to the Group Audit & Risk Committee at the scheduled quarterly meetings, after which the risk profile is included in this Committee's report to the Board. This includes significant climate-related risks that have been

	Overseeing major capital expenditures, acquisitions and divestitures	identified and the Board reviews how the proposed risk mitigation has been considered in the business plan of the impacted business units. Any major capital expenditure needed to implement the proposed mitigation would be included in the review and approval processes as per the Group's approval framework. The Group SHE function (which falls under the Group Corporate Services Officer reporting line) presents key environmental compliance and performance data to the Social & Ethics Committee on a quarterly basis.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	Quarterly
Other C-Suite Officer, please specify Deputy Group Chief Executive	Both assessing and managing climate-related risks and opportunities	Quarterly
Other committee, please specify Executive Risk Forum	Both assessing and managing climate-related risks and opportunities	Quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

The responsibility for climate-related issues in the first instance lies with the Site Head, who is responsible for developing and executing the business unit strategy in alignment with the overall Group strategy. The Site Head is responsible for conducting a site risk assessment, which would include climate-related risks and for driving performance aligned to the Group's KPIs. In respect of operational aspects, Site Heads report to Group Executives who ensure strategic alignment across the Group's operations. Technical input is provided by Group SHE (who report, through the Group Risk & Sustainability Manager, to the Group Corporate Services Officer). In respect of overall performance, Site Heads are ultimately accountable to the Group Chief Executive and Deputy Group Chief Executive. In respect of enterprise risk management, significant and material risks are reported by the Site Heads, through their Group Executive, as appropriate, to the Executive Risk Forum (comprised of the Deputy Group Chief Executive, the

Group Operating Officer, the Group Finance Officer, the Group Corporate Services Officer and the Group Strategic Development Officer). The Executive Risk Forum provides the Group A&R Committee with a Group view on the top risks (including climate-related risks) and related mitigations, who then report on this risk profile to the Board.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	Incentives are provided by some sites and these can be in monetary or non-monetary form. These incentives can also be small prizes given during site/company campaigns. These are explained below.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity inventivized	Comment
Chief Executive Officer (CEO)	Monetary reward	Company performance against a climate-related sustainability index	Individual KPI short term incentives for the Group CEO and Deputy Group CEO for 2021 include defining a roadmap for addressing water security and electricity disruptions in respect of the South African production sites.
Other, please specify Engineering/ Facilities Managers	Monetary reward	Energy reduction project	In the operations in South Africa, Brazil and Tanzania, energy reduction and efficiency projects form part of the Engineering Manager's key performance areas (KPAs), The KPAs are directly linked to the performance appraisal process and the awarding of performance-based annual increases.
Energy manager	Monetary reward	Energy reduction target	Incentives are given to Energy Managers and their teams in France and Germany when energy reduction targets are met as per their ISO 50001 objectives and targets.
All employees	Non-monetary reward	Behavior change related indicator	In some operations such as South Africa and Tanzania, employees are rewarded for active participation and proposing innovative ideas during environmental campaigns which include climate change, water security and global

			warming. The rewards take the form of prizes, recognition or give-aways to participants in the campaigns.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	2	None
Medium-term	2	5	None
Long-term	5	20	20 years and beyond.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

A substantive financial impact is defined as any material loss in the ability to operate and manufacture products, including loss of revenue in any of the regions. A substantive strategic impact is defined as any material issue that has the potential to substantially impact Aspen's ability to create and sustain value for our stakeholders. Both quantitative and qualitative factors are taken into account in determining materiality.

The risk assessment methodology requires the assessment of the identified risks in relation to the potential impact and this provides the assessment of substantive financial or strategic impact at the business unit level and at the Group level. A predefined 4-point scale categorises the impact from catastrophic to minor, taking into account the potential financial impact, impact on the viability of the current and future planned business model, and supporting systems; impact on compliance to regulations/ legislation/ contractual agreements/ internal governance procedures; and/or impact on the Group's reputation and/or its stakeholders. The financial impact is measured using 'Earnings before interest, taxes and amortization' (EBITA) or loss in operating profit. With reference to the 4-point scale, a Catastrophic/ Exceptional and Critical/ Substantial rating will present a substantive financial or strategic impact on our business.

1. Catastrophic/ Exceptional

EBITA or operating profit impact of more than 30% to the business unit; and/or Event expected to have a significant impact to the viability of the current and future planned business model and supporting systems ; and/or Major non-compliance to regulations/legislation/ contractual agreements/internal governance procedures which could lead to material penalties/ material trade restrictions; and/or Event which could have a sustained impact on the Group's reputation and/or its stakeholders if not mitigated effectively.

2. Critical/ Substantial
EBITA or operating profit impact of more than 20% to the business unit; and/or Event expected to have a moderate impact to the viability of the current and future planned business model and supporting systems; and/or A serious breach of regulations/legislation/ contractual agreements/internal governance procedures which could lead to material penalties and/or result in temporary trade restrictions; and/or Event which could have a significant but temporary impact on the Group's reputation and/or its stakeholders if not mitigated effectively.

3. Moderate (not considered a substantial financial/ strategic impact)
EBITA or operating profit impact of more than 10% to the business unit; and/or The viability of the business model is not expected to come under scrutiny but could have some impact on the effectiveness of supporting systems; and/or A minor breach of regulations/legislation/contractual agreements/internal governance procedures and could result in minor penalties. Continuity of operations not expected to be impacted; and/or Event which is expected to have a negligible negative impact on Aspen's reputation and impact to related stakeholders.

4. Minor (not considered a substantial financial/ strategic impact)
EBITA or operating profit impact of 5% to 10% to the business unit; and/or The viability of the current and future planned business model not impacted; The event could impact viability of supporting systems; and/or Event does not constitute a breach of regulation/legislation; and/or Event does not negatively impact the Group's reputation.

Our FCC facility in Cape Town, South Africa were very close to experiencing a substantive financial impact due to climate change affecting precipitation patterns and a lack of good rains resulting in a critical water shortage in 2018. Stringent water restrictions as part of the “Day Zero” campaign were enforced in Cape Town during this period. The FCC facility however identified that the low rainfall levels experienced during 2015 and 2016 had significantly increased the risk to operational sustainability and began to prioritise projects relating to water conservation. In response to these chronic physical risks, investment in the installation of a borehole and water treatment plant to provide an alternative source of water therefore avoided a substantive water security risk rating score for the FCC facility.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations
Upstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

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 consideration to economic, environmental and social indicators impacting the Company and its stakeholders. Strategic, operational, financial and compliance risk assessments are conducted annually at a business unit level and at a company level and are updated on an ongoing basis (at least each quarter). Group-wide risks are identified by the Group Risk & Sustainability Manager and reported to the Executive Risk Forum (comprised of the Deputy Group Chief Executive, the Group Operating Officer, the Group Finance Officer, the Group Corporate Services Officer and the Group Strategic Development Officer). The risk assessment is performed in accordance with the approved Group Risk Management policy and Group Risk Management Framework. 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 (physical and transitional). The risk assessment methodology requires the assessment of the identified risks in relation to the potential impact and the probability. A predefined 4-point scale categorises the impact from catastrophic to minor taking into account the potential financial impact, impact on the viability of the current and future planned business model and supporting systems; impact on compliance to regulations/legislation/ contractual agreements/internal governance procedures; and/or impact on the Group's reputation and/or its stakeholders. The application of a likelihood assessment (from "almost certain" to "unlikely") to the impact rating results in an overall inherent risk rating. The effectiveness of the risk mitigations are assessed to determine the residual level of risk. These inherent and residual risk assessments are used to rank risks relative to each other. Interdependent risks and/or risk concentrations are considered by the Executive Risk Forum and included in their Group risk report, as necessary. The business unit integrated risk assessments are supported by the SHE risk assessments which are 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.

In 2020, we initiated the exercise to conduct a Group-level climate risk and opportunities assessment aligned to the methodology set out in TCFD. This assessment seeks to consider both transition and physical risks and identify climate-related opportunities. A combination of reduced precipitation and rising temperatures impacting the supply and security of water within our South African operations was identified as a physical risk impacting these operations. The introduction of a carbon pricing system in South Africa was identified as a transition risk which is anticipated to become more stringent and result in increased operational costs. The control of physical and transition risks is incorporated in the facility SHE management systems through management and monitoring of legal and other requirements for carbon pricing, training and awareness, and resource conservation programmes. Finalisation of this assessment will further inform our climate change strategic response and our reporting in climate related risks and opportunities. While the assessment is predominantly focused on our own operations for now, it is envisaged that it would be extended to cover the entire value chain, as relevant, as we mature the risk assessment process.

In the short to medium term, a scenario analysis will be conducted to facilitate strategic and risk management decisions which will allow the company to understand the risks and uncertainties it may face under different hypothetical futures, and how those conditions may affect its performance. This will further contribute to the development of greater strategy resilience and flexibility for a low-carbon economy consistent with a 2°C or lower scenario.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Our ability to ensure compliance with all current environmental regulation is relevant to all of our operations. For example, risk exposure to new carbon pricing taxation is a regulatory risk which our South African operations is currently faced with. An increase in carbon taxes directly results in higher operational costs.
Emerging regulation	Relevant, always included	Emerging regulations relating to climate change increases the scope of compliance obligations and could result in fines, penalties and/or disruption to operations where there is a delay in meeting legally imposed timeframes. Increased costs to adapt to new legislative

		requirements could also impact operating costs. For example, transition regulations regarding carbon pricing is expected for our operations in the Netherlands. It is also anticipated that product labelling in Europe may be extended to additional industries in the future and any legal developments will be closely monitored.
Technology	Relevant, always included	In order to adapt to new regulatory requirements and/or adopt new technologies in line with our environmental policy objectives, technology risks are considered especially in relation to the capital investment required. Investing in green technology, such as solar energy at our operations in Port Elizabeth, SA is an example.
Legal	Relevant, always included	Our business activities have not exposed us to climate related litigation and we do not anticipate this materialising into a substantive risk. However, the potential for this risk increases as climate disclosures are expanded, e.g. the National GHG Emission Reporting Regulations in South Africa. This risk factor is therefore monitored.
Market	Relevant, always included	Risks arising due to changes in expectations from key stakeholders (for example, key customers and end consumers) are considered relevant, especially in respect of our “social license to operate” and reputational impacts. For example, increasing environmental consciousness in customer purchasing decisions in tender adjudication criteria have been experienced within the Group.
Reputation	Relevant, always included	Usually as a consequence of not managing one of the other categories of risk, reputational risks are considered at both the Group and business unit level. The pharmaceutical industry is not considered a significant emitter and the use of pharmaceutical products are not carbon intensive. Climate change has however become a highly sensitive topic for multinational companies and investors are demanding increased action and more transparent disclosure. This places increased pressure on Aspen to disclose on our strategic and environmental impacts, which in turn requires increased investment costs and a higher focus. Reputational risks related to climate change could therefore potentially impact our net earnings and investor-related requirements.
Acute physical	Relevant, always included	Acute physical risks would include risks related to extreme weather events. As an example, excessive rainfall in Kenya resulted in mudslides which affected the infrastructure for water distribution in the country in April 2020. This also resulted in water rationing being imposed by the local authorities which in turn affected the production plan for the month of April at our Beta facility in Nairobi.
Chronic physical	Relevant, sometimes included	Chronic physical risks are relevant and have been experienced in terms of changes in precipitation patterns and extreme variability in weather patterns, particularly in South Africa. This has been confirmed through our water risk assessment and water stress studies conducted for our South African facilities in Port Elizabeth, East London and Cape

		Town. The Cape Town water crises peaked during mid-2017 to mid-2018. The implementation of significant water restrictions succeeded in reducing the city's daily water usage by more than fifty percent in March 2018, and together with good rains in June 2018, Cape Town's estimated "Day Zero" (when municipal water supplies would be switched off) was postponed.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Current regulation

Carbon pricing mechanisms

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

South Africa is amongst the world's most carbon-intensive economies. Recognizing 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 of the Carbon Tax Act and the Customs and Excise Amendment Act which came into effect on 1 June 2019.

The operations in South Africa are strategic to the business and the introduction of the carbon tax in South Africa will have a direct cost impact on these operations in the short term. Currently, during Phase 1 of the carbon tax, key risks lie in the direct tax liability Aspen would be subjected to in light of potential changes in GHG emissions and the

cost associated with that. Based on the low likelihood and low impact nature of this potential risk, we have identified this risk as low. Also, to adequately manage this risk, we remain abreast legislative changes, and monitoring and control measures, to minimise our GHG emissions, and in turn, our current carbon tax liability. Phase 2 of the carbon tax (2023 onward), on the other hand, poses a more significant risk to our operations in the medium term. Phase 2 is anticipated to decrease allowances available to tax payers which currently serves as means to reduce these costs.

In addition, there is likely to be an increase in other energy costs, such as electricity, as the cost of carbon increases in the economy and energy providers pass these costs on to their customers. Similarly, an increase in locally sourced raw material costs could also be expected where suppliers are impacted by carbon pricing. Given the rising risk of climate change, there are also likely to be additional costs related to carbon pricing in other jurisdictions.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

259,742

Potential financial impact figure – maximum (currency)

1,079,000

Explanation of financial impact figure

Currently, under the Phase 1 approach of the carbon tax, the 60% tax-free allowances and additional allowances are taken into account, and the effective tax rate ranges between R6.40- R51 per ton of CO2e based on the 2020 carbon tax rate of R127/tCO2e. Based on the current proposed tariff structure the potential impact for Aspen has been calculated at R259,742 for the operations in South Africa, over the the 2020 tax period. A total of 7101 tCO2e emissions was calculated as taxable for the 2020 period.

If no allowances are permitted from Phase 2 of carbon tax (2023 onward), there will be a dramatic increase in carbon tax liability for Aspen. The carbon price is expected to rise by CPI (estimated at 4.5%) + 2%. Thus, the carbon price anticipated post- 2023 is ~R152/tCO2e or more. Based on this, Aspen could have an annual tax liability of

~R152/tCO2e x 7101 tCO2e = ~R 1,079,000.

It is anticipated that carbon prices will be implemented in other jurisdictions which could result in a material risk for our operations.

Cost of response to risk

79,560

Description of response and explanation of cost calculation

A carbon tax readiness assessment was conducted by a third party to address this new compliance obligation. The cost of response relates to the consulting fees required to ensure correct understanding of the legislation and calculations, which was R79 560.

Based on Aspen's awareness of the potential impact of carbon pricing in all of our jurisdictions, we have identified the value of scenario analysis as a mechanism of response to assess and understand the potential climate impacts to our business. We have not yet conducted this but anticipate doing so over time to understand and quantify real potential cost impact. This will assist in making the business case to address climate change across all Aspen sites

Comment

None.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Current regulation

Mandates on and regulation of existing products and services

Primary potential financial impact

Increased capital expenditures

Company-specific description

Aspen makes use of HVAC and associated refrigerants in order to maintain the required environmental conditions for the manufacture of pharmaceutical products. As per the requirements of the Montreal Protocol, Aspen is 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 environment 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 phase out the production and consumption of ozone-depleting substances, including the countries in which Aspen operates.

The Protocol sets out a mandatory timetable for the phase-out of ozone-depleting substances in particular hydrochlorofluorocarbons (HCFC), such as R22 for developed and developing countries. R22 has come under the spotlight 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 the 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, Tanzania, Ghana, and Brazil, within which we operate, the deadline for the total ban of R22 is 2030. Further, in South Africa, the phase down and phase out of synthetic greenhouse gas emissions will be legislated as part of the Climate Change Bill, which may accelerate this timeline. The phase-out of refrigerants with a high global warming potential to those with a low GHG impact may lead to increased capital costs.

Time horizon

Long-term

Likelihood

Virtually certain

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

5,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The SA Operations contributes 77% of our fugitive emissions due to the use of refrigerants. With reference to the South African Regulations regarding the Phasing- Out and Management of Ozone Depleting Substances (8 May 2014), a fine not exceeding R5 million, in the case of a first conviction, is expected where a company fails to comply, or contravenes a condition or requirement of an approval issued in terms of these Regulations. Similar such implications are expected globally in instances of non-compliance with these regulatory changes.

Cost of response to risk

3,000,000

Description of response and explanation of cost calculation

Possible solutions include: 1. The replacement of existing units with new units that use alternatives to R22 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 R22 will increase once the ban and import prohibition is in place. The exact financial impact for the Group has not been quantified and will differ from country to country. 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 total cost has not been established although as at 2018, the average cost of a chiller unit is between R1.5 and R3 million and the average cost of a small air conditioner is between R5000 and R10 000. Thus, the highest potential cost of response to this risk is estimated to be R3 million for the replacement of one chiller unit.

Aspen has found value in implementation of various mitigation measures to drive emission control and carbon reduction in our business. We have identified the quantification of the cost of phasing-out refrigerants as a method to develop adequate business cases for anticipated investments in the future.

Comment

None.

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Reputation

Increased stakeholder concern or negative stakeholder feedback

Primary potential financial impact

Decreased access to capital

Company-specific description

Stakeholder/investor expectations around climate action and disclosure are increasing significantly. Although the industry is not regarded as one of the main climate change culprits, investor questions and interest in climate change issues are on the increase. Investors and financial institutions are also increasingly required to assess climate change risks and impacts as part of their investments. As financial institutions increasingly incorporate climate and other ESG factors in their rating criteria, companies that do not manage these risks could experience decreased access to capital and/or increased costs of obtaining capital. In addition, staff and new potential employees view the company they work for as a good corporate citizen.

To maintain our positive reputation amongst investors and customers, Aspen recognises

the risks associated with adhering to climate-related considerations and associated mitigation efforts.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

No real impact related to reputational risk has been experienced to date.

Cost of response to risk

296,900

Description of response and explanation of cost calculation

We are in the process of developing a clear position statement, absolute target for emissions reduction and climate action strategy within the next two years. Assessment of our climate risks and opportunities, guidance on setting of targets and strategies for climate action and improving our climate change disclosures have been facilitated by specialist consultants. Consistent with our commitment to responsible corporate citizenship for sustainable development, Aspen is committed to practising responsible environmental stewardship.

Comment

None.

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of more efficient production and distribution processes

Primary potential financial impact

Reduced direct costs

Company-specific description

In Aspen, all manufacturing facilities are required to include environmental indicators such as fuel consumption and electricity consumption for sustainability reporting. In line with one of Aspen's key values, i.e. innovation, and commitment to compliance with its ISO 14001 Environmental Management Systems, and ISO 50001 Energy Management Systems, we strive for continual improvement. As such, energy conservation and efficiency projects which create investment and improvement opportunities for the sustainable development of the business are promoted.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

9,866,658

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The financial impact is calculated on the annual expected monetary saving for all energy efficiency projects implemented during the reporting year. Driving reduction in energy, carbon and other utilities such as water reduces operational costs (including tax liability) and demonstrates commitment to addressing climate change to external stakeholders.

Cost to realize opportunity

4,964,198

Strategy to realize opportunity and explanation of cost calculation

Energy consumption and efficiency is a strategic sustainability priority to reduce our carbon footprint. The investment in such climate action initiatives is therefore actively promoted within the Group. Feasibility studies are conducted at a site level in order to motivate improvement in resource conservation and return on investment. Approved energy saving projects are formally established and managed through continual improvement programmes as documented in our ISO 14001 and ISO 50001 certified management systems. Performance on these energy consumption and efficiency initiatives is monitored and reported internally and externally through management review meetings and the Integrated Report respectively. An investment cost of R4,964,198 was allocated for all energy related projects that resulted in a reduction in carbon emissions during the reporting period.

Comment

The cost of energy, where possible, is included in the capital project process and also in the design of all new facilities and equipment purchasing.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of supportive policy incentives

Primary potential financial impact

Returns on investment in low-emission technology

Company-specific description

The German government is incentivising businesses to implement energy management systems by providing tax refunds. This facilitated the installation of a 600 kW CHP unit at the Aspen ABO, Germany facility.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

2,165,925

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The German government is incentivizing businesses to implement energy management systems by providing tax refunds. Aspen Bad Oldesloe, the German facility, received tax refunds of approximately R2, 852,900 (€193.417) in the 2013 /2014 financial year, approximately R1, 868, 176 (€125.656, 21) in the 2014- 2015 financial year and approximately R1,003,860 (€78 000) in the 2015 /2016 financial year. Since 2018, the site continued to receive annual tax incentives in the region of R1,800, 000 (€90,900) approximately. Due to the increase in production demand during 2019 /2020 financial year, the facility received a tax refund of ~R2,165,925.

Cost to realize opportunity

13,425,000

Strategy to realize opportunity and explanation of cost calculation

The German site successfully implemented the ISO 50001 energy management system to provides a systematic approach to achieve continual improvement of energy performance, including energy efficiency, energy use and consumption, as well as the accurate monitoring and reporting thereof in order to demonstrate the corresponding decrease in emissions. Due to resource conservation as a result of the installation of the Combined Heat and Power (CHP) plant, the German facility qualifies for annual tax refunds. The German site invested approximately € 65 000 (R945 000) to implement the ISO 50001 system and to cover the on-going expenses linked to maintenance and auditing. The CHP cost approximately R12, 480,000 (€970 000).

Comment

None

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of lower-emission sources of energy

Primary potential financial impact

Reduced direct costs

Company-specific description

Continuous rise in temperature and reduction in diurnal temperature changes each day has been experienced in recent years. An opportunity to generate power from renewable sources such as solar, as a way of mitigating both climate risk and security of supply risk, has therefore been created, specifically in South Africa. Installation of solar panels at the Port Elizabeth site has reduced the energy consumption from the national electricity grid in South Africa. This initiative is considered a significant achievement in light of the high emission factor for electricity in South Africa. A notable reduction in electricity costs is also expected. Other facilities in South Africa will also be investigating opportunities to harness solar energy.

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

7,998,947

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The financial impact is calculated on the annual expected monetary saving for the solar projects implemented on the Port Elizabeth, South Africa, site.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

Solar energy panels providing 1MVA of power have been installed on the Port Elizabeth, South Africa site. This was at the limit of the current allowable generation per erf. This initiative was procured through an energy Purchase Agreement and did not require any capital cost expenditure.

Comment

None

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?

Yes

C3.1b

(C3.1b) Does your organization intend to publish a low-carbon transition plan in the next two years?

	Intention to publish a low-carbon transition plan	Comment
Row 1	No, we do not intend to publish a low-carbon transition plan in the next two years	A climate action strategic plan and target to reduce emissions is currently being established and progress of implementation will be publicly disclosed. However, these targets and transition initiatives have not been considered in light of a net zero carbon economy. Thus, we cannot consider our climate action plan as a low-carbon transitional plan. We are however working towards taking considerable steps to minimise our climate-related impacts.

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

No, but we anticipate using qualitative and/or quantitative analysis in the next two years

C3.2b

(C3.2b) Why does your organization not use climate-related scenario analysis to inform its strategy?

The risk assessment process to date has focused on short -to medium time horizons and as such, climate-related risks have not been prioritized in informing the business strategy. In 2020, a strategic decision was taken to consider the more long -term impacts of climate-related risks. This process has been initiated with the intention to complete a company-wide climate risk assessment, to formalize company-wide targets and develop strategies to achieve these targets. It is our intention to align with the Task Force on Climate-related Financial Disclosure (TCFD) recommendations for informing our business strategy. It is envisaged that a climate-related scenario analysis, and the impact on the business through modelling of various warming scenarios, will form part of this process.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Evaluation in progress	Future potential requirements for carbon labelling has been considered in our climate risk assessment due to the demand for lower carbon products. This could require research and investment in product life cycle analyses. It is anticipated that this could affect our market in Europe and we will continue to track the relevant regulatory requirements.
Supply chain and/or value chain	Yes	In line with Aspen's business strategy and environmental considerations, suppliers are expected to conduct their business in an environmentally conscious manner, minimising the resources used and waste generated. This expectation is confirmed through the Aspen Supplier Code of Conduct, which is incorporated into all legal agreements with suppliers. The integration of our strategic supplier considerations into our Supplier Code of Conduct indicates the longevity and consistency of our environmental considerations, including climate-related impacts. The timeframes considered in this regard extend over the life of supplies.
Investment in R&D	Evaluation in progress	Aspen Pharmacare is a manufacturer and distributor of a broad range of post-patent, branded medicines and

		domestic brands spanning many therapeutic areas. Our product portfolio management strategy is focused on acquiring intellectual property, and therefore our investment in R&D as relates to new product development is not a material driver. We are however able to influence packaging design to a certain extent, and opportunities to reduce our carbon footprint have been identified for further investigation.
Operations	Yes	One of our key sustainability commitments is in respect of the environment: "We are committed to practice responsible environmental stewardship, seeking to minimise any negative impacts our operations have on the environment and to comply with applicable laws, regulations and other environmental and climate-related management requirements. Resource availability, cost and changes to legislation in each territory have played a role in developing the business strategy. Our environmental sustainability commitments are monitored by the following material key performance indicators that 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). This intent is integrated into strategies for the Group's manufacturing facilities with the implementation of formal conservation projects, in light of building local resilience to climate-related impacts. 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 continual improvement projects linked to resource conservation, reduced GHG emissions and prevention of environmental pollution at the majority of the manufacturing facilities, with certification awarded to the pharmaceutical facilities in South Africa, France, Australia, Netherlands, Brazil, Germany and Kenya. • The German (ABO) and France (NDB) sites implemented an ISO 50001 certified energy management system. The system enabled ABO and NDB to implement a systematic approach for managing continual improvement with respect to energy efficiency, energy security, energy use and consumption. The continual reduction in energy use will ultimately result in lower energy costs and greenhouse gas emissions.

		• The prioritization of energy, water and waste reduction projects at all manufacturing sites within the Aspen global structure. • Investment in energy efficient technologies as a sustainable input into manufacturing processes.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Direct costs Indirect costs Capital expenditures Capital allocation Assets	Energy and waste management have direct and indirect cost implications on our cost of production and overhead costs. Depreciation on assets is also a cost. Climate-related risks and opportunities could result in an increase in direct and indirect costs or present an opportunity for savings; while mitigations and strategies to reduce carbon emissions also have a financial impact. For example, the increase in climate-related business interruption risks (including adverse weather events and sustained droughts) has resulted in increased expenditure being allocated to risk mitigations. This includes additional capex, as well as indirect cost impacts such as increases in property and business interruption insurance premiums, to reduce the risk of a sustained interruption to business. Many initiatives to address climate-related risks and opportunities require capital investment, replacing existing (functional) technology with new technology. In the construction of new facilities or when replacing existing plant and machinery, the investment in newer (possibly more expensive) energy efficient technology is given due consideration. This assists Aspen in minimising costs related to physical implications, as well as regulatory financial implications. In developing and implementing any climate-related strategies (whether operational or capital), the business case will require an evaluation of a number of criteria, which extends beyond traditional financial payback models. Consideration of the Group's sustainability commitments, legislative requirements and business continuity as well as other implications (such as carbon tax and/or incentives), need to be incorporated. This often results in a careful consideration of a trade-off, with complexity introduced due to the longer timeframes associated with climate related risks and the qualitative aspects that cannot easily be incorporated into a financial feasibility model.

		These impacts (operational costs and capex requirements) are included in Aspen's annual budgets and five-year rolling financial plan.

C3.4a

(C3.4a) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

No further information

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

No target

C4.1c

(C4.1c) Explain why you did not have an emissions target, and forecast how your emissions will change over the next five years.

	Primary reason	Five-year forecast	Please explain
Row 1	We are planning to introduce a target in the next two years	A moderate reduction in Scope 1 and Scope 2 emissions is anticipated within the next 5 years as per the establishment of an absolute ambitious long term Group target.	Group-wide targets have not been implemented as yet. 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. In 2020, a strategic decision was taken to consider the more long-term impact of climate-related risks and this process has been initiated. We are currently in the process of engaging with the executive operational team to complete the company-wide climate risk assessment and review the proposed ten-year Group target. Approval of the Group target by the Group Executive Committee and endorsement thereof by the Board will be followed by development of a climate action strategy in 2022, including provision of the necessary Group support (technical, financial, etc.) through a collaborative process under the direction of the Group Risk & Sustainability function.

			A moderate reduction in Scope 1 and Scope 2 emissions, in proportion to the ten-year target, is anticipated within the next 5 years,

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Other climate-related target(s)

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number

Year target was set

Target coverage

Target type: absolute or intensity

Target type: category & Metric (target numerator if reporting an intensity target)

Target denominator (intensity targets only)

Base year

Figure or percentage in base year

Target year

Figure or percentage in target year

Figure or percentage in reporting year

% of target achieved [auto-calculated]

Target status in reporting year

Is this target part of an emissions target?

Is this target part of an overarching initiative?

Please explain (including target coverage)

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	1	0
To be implemented*	0	0
Implementation commenced*	10	1,055
Implemented*	13	5,043
Not to be implemented	1	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Energy efficiency in production processes

Machine/equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)

9.11

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

56,921

Investment required (unit currency – as specified in C0.4)

1,472,829

Payback period

>25 years

Estimated lifetime of the initiative

11-15 years

Comment

New Climate Chambers for stability testing were installed to replace 8 existing small climate cabinets at the ABO facility in Germany.

Initiative category & Initiative type

Energy efficiency in production processes

Compressed air

Estimated annual CO2e savings (metric tonnes CO2e)

0.21

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

14,728

Investment required (unit currency – as specified in C0.4)

0

Payback period

No payback

Estimated lifetime of the initiative

6-10 years

Comment

Repair of air leakages and optimization of the regulation of compressors at the NDB facility in France.

Initiative category & Initiative type

Energy efficiency in production processes

Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

0.71

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

50,077

Investment required (unit currency – as specified in C0.4)

0

Payback period

No payback

Estimated lifetime of the initiative

6-10 years

Comment

Improvement in energy performance of production equipment and cold water production and optimization regulation of Chiller at the NDB facility in France.

Initiative category & Initiative type

Low-carbon energy generation

Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)

4,382

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

7,998,947

Investment required (unit currency – as specified in C0.4)

0

Payback period

No payback

Estimated lifetime of the initiative

16-20 years

Comment

Solar PV Installations at the PE facility in South Africa.

Initiative category & Initiative type

Energy efficiency in production processes

Machine/equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)

35.21

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

380,000

Investment required (unit currency – as specified in C0.4)

1,300,000

Payback period

1-3 years

Estimated lifetime of the initiative

16-20 years

Comment

Installation of 5 heat pumps to replace electric heating at the PE (South Africa) facility's offsite raw material warehouse.

Initiative category & Initiative type

Energy efficiency in buildings

Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

296

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

587,451

Investment required (unit currency – as specified in C0.4)

433,185

Payback period

<1 year

Estimated lifetime of the initiative

16-20 years

Comment

Installation of LED lighting at the Moleneind and De Geer sites for the Oss facility in the Netherlands was implemented through an operational expense budget.

Initiative category & Initiative type

Energy efficiency in production processes

Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

215

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

397,057

Investment required (unit currency – as specified in C0.4)

0

Payback period

No payback

Estimated lifetime of the initiative

3-5 years

Comment

Optimisation of heating and ventilation requirements due to a reduction in process activities in one building at Oss.

Initiative category & Initiative type

Energy efficiency in production processes
Machine/equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)

37.71

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

109,163

Investment required (unit currency – as specified in C0.4)

1,004,989

Payback period

4-10 years

Estimated lifetime of the initiative

11-15 years

Comment

Replacement of the boiler burner with new technology at the NDB facility in France.

Initiative category & Initiative type

Energy efficiency in production processes
Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

1.26

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

88,370

Investment required (unit currency – as specified in C0.4)

554,477

Payback period

4-10 years

Estimated lifetime of the initiative

11-15 years

Comment

Installation of various speed technology on a compressor motor for improvement of cold water production in one building at the NDB facility in France.

Initiative category & Initiative type

Energy efficiency in buildings
Heating, Ventilation and Air Conditioning (HVAC)

Estimated annual CO2e savings (metric tonnes CO2e)

1.05

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

73,641

Investment required (unit currency – as specified in C0.4)

0

Payback period

No payback

Estimated lifetime of the initiative

6-10 years

Comment

Reduction of air flow and temperature settings in non occupied areas and shutdown of HVAC System during weekends and night time in manufacturing buildings when there is no production at the NDB facility in France.

Initiative category & Initiative type

Energy efficiency in buildings
Lighting

Estimated annual CO2e savings (metric tonnes CO2e)
22.08

Scope(s)
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
83,496

Investment required (unit currency – as specified in C0.4)
188,354

Payback period
1-3 years

Estimated lifetime of the initiative
16-20 years

Comment
Installation of LED lighting at the Shelys facility in Tanzania.

Initiative category & Initiative type
Waste reduction and material circularity
Waste reduction

Estimated annual CO2e savings (metric tonnes CO2e)
0.46

Scope(s)
Scope 3

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
13,147

Investment required (unit currency – as specified in C0.4)
10,364

Payback period
<1 year

Estimated lifetime of the initiative

3-5 years

Comment

Reduction in the consumption of disposable plastic cups through replacement with porcelain cups in the canteen at the Brazil facility.

Initiative category & Initiative type

Waste reduction and material circularity
Product/component/material recycling

Estimated annual CO2e savings (metric tonnes CO2e)

41.49

Scope(s)

Scope 3

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

13,661

Investment required (unit currency – as specified in C0.4)

0

Payback period

No payback

Estimated lifetime of the initiative

21-30 years

Comment

Reduction of waste to landfill through the improvement in recycling of printed cardboard components and paper waste at the Shelys facility in Tanzania.

C4.3c

(C4.3c) 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. Energy efficiency is factored into all expansion and replacement projects and project teams are tasked with ensuring that equipment and processes are designed, procured and

	installed accordingly to consume the least possible amount of natural resources.
Employee engagement	Awareness campaigns on energy conservation and carbon footprint reduction are rolled out at all manufacturing sites on internationally recognised days such as World Environment Day and World Water Day.
Compliance with regulatory requirements/standards	Energy management regulations in Kenya requires organizations which consume over 180,000 kWh of energy per year to carry out an energy audit and submit an energy investment plan to the Energy, Petroleum Regulatory Authority every three years. The regulation requires an organization to invest and realize at least fifty percent of the committed investments. Anticipated regulations regarding carbon pricing in the Netherlands could result in a notable increase in energy costs which will drive emission reduction initiatives.

C4.5

(C4.5) 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

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start

July 1, 2011

Base year end

June 30, 2012

Base year emissions (metric tons CO2e)

6,774

Comment

This is the first year that our emission calculation and methodology were externally verified.

Scope 2 (location-based)

Base year start

July 1, 2011

Base year end

June 30, 2012

Base year emissions (metric tons CO2e)

88,008

Comment

This is the first year that our emission calculation and methodology were externally verified.

Scope 2 (market-based)

Base year start

July 1, 2011

Base year end

June 30, 2012

Base year emissions (metric tons CO2e)

88,008

Comment

Market based emission values were not available for the base year.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

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

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

43,122

Comment

This data is for our Financial Year 2020 (1 July 2019 to 30 June 2020)

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

12 facilities are reporting a location-based figure and 2 operations in France and Germany have electricity supplier emission factors.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

154,306

Scope 2, market-based (if applicable)

154,027

Comment

This data covers all Aspen manufacturing sites for our financial year 2020 (1 July 2019 - 30 June 2020).

C6.4

(C6.4) 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

C6.4a

(C6.4a) 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

The majority of our commercial offices are leased. The Aspen-owned corporate office in South Africa is the largest owned commercial office and is excluded in our footprint calculations as it contributes to <1% of our total Scope 1 and Scope 2 emissions.

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are not relevant

Explain why this source is excluded

As per a study that was conducted in 2010, the emissions generated by the South African corporate offices were found to be negligible. Using this rationale, it was concluded that energy consumption in the corporate offices is very low in comparison to the consumption in manufacturing operations and will therefore be excluded.

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO2e

414

Emissions calculation methodology

We calculate Scope 3 emissions from water supply services. The methodology applied is based on the GHG Protocol - Corporate Value Chain (Scope 3) Accounting and Reporting Standard. The emission factor of 0.344 kg CO2e / m3 (DEFRA - 2019) was used to quantify emissions.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

94

Please explain

Water withdrawn at our Alphamed (India) facility is estimated. Water withdrawn at our Vallejo (Mexico) facility is based on a calculation since incoming water is shared between users. These two facilities contribute 24 tCO2e (6%) to the Group total of 414 tCO2e.

Capital goods

Evaluation status

Relevant, not yet calculated

Please explain

We are in the process of investigating the most accurate way to calculate these emissions.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, calculated

Metric tonnes CO2e

24,953

Emissions calculation methodology

This category includes emissions from three distinct activities:
(1) Upstream emissions of purchased fuels (both stationary and mobile combustion);
(2) Upstream emissions from purchased electricity, heat, steam and cooling;
(3) Transmission & Distribution (T&D) losses from purchased electricity, heat, steam and cooling.
DEFRA 2019 upstream emission factors were used for activities listed under this category.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Emission factors for electricity use and transmission and distribution losses are not available for our facilities in Kenya, Tanzania and Ghana. We therefor used the Africa Average factors for these categories.

Upstream transportation and distribution

Evaluation status

Relevant, not yet calculated

Please explain

We are in the process of investigating the most accurate way to calculate these emissions through engagement with our main transportation suppliers.

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO2e

25,406

Emissions calculation methodology

The methodology used is based on the GHG Protocol Corporate Value Chain (Scope 3). This category includes emissions from third party disposal and treatment of waste generated in our operations. Our waste is broken down into hazardous and non-hazardous waste and methods of disposal include reuse/recycle, energy recovery, biological treatment, incineration and landfill. Emissions have been calculated using the appropriate emission factor from DEFRA 2019 for reused/recycled and landfilled. We also include wastewater treatment under this category and the DEFRA 2019 emission factor was applied.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

98

Please explain

Waste data is provided by our service providers. Glass, general waste, aluminium, cans, scrap metal, wood, plastic, cardboard and paper wastes are included in the emissions calculation and DEFRA 2019 waste factors were used. Volume of wastewater is measured or calculated at facility level and the DEFRA emission factor of 0.708 kg CO2e / m3 was used.

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

5,009

Emissions calculation methodology

Emissions are calculated based on flight leg distance as well car rental data provided by our corporate travel agencies. Business travel flights include all domestic, short-haul, and long haul based on individual flight distance data. Travel specialist – ‘Cleaner Climate’ provide calculation methodology and emission factors to calculate carbon emissions for flights, car hire and accommodation. Our travel agencies apply said methodology and factors in calculating emissions.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

Business travel data is only reported for the South African Operations and this data was calculated and provided by Aspen's travel agents and service providers i.e. Car hire, hotel stay and air travel.

Employee commuting

Evaluation status

Relevant, not yet calculated

Please explain

We are in the process of investigating the feasibility of calculating these emissions in light of more regular remote working arrangements introduced during the Covid-19 pandemic.

Upstream leased assets

Evaluation status

Relevant, calculated

Metric tonnes CO2e

2,472

Emissions calculation methodology

Grid electricity usage at material Aspen Commercial facilities were considered for this category. IEA 2019 emission factors were used.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

Leased commercial offices in the Philippines, China, Ireland, Brazil, Mexico, Russia, Australia, South Africa and Mauritius were included for disclosure.

Downstream transportation and distribution

Evaluation status

Relevant, not yet calculated

Please explain

We are in the process of investigating the most accurate way to calculate these emissions.

Processing of sold products

Evaluation status

Relevant, not yet calculated

Please explain

Currently, the complexity and extent of the value chain prohibit accurate calculations.

Use of sold products

Evaluation status

Relevant, not yet calculated

Please explain

Gathering reliable data for this category is and will remain a significant challenge. We are not able to accurately determine and quantify impacts from end users.

End of life treatment of sold products

Evaluation status

Relevant, not yet calculated

Please explain

We are in the process of investigating the most accurate way to calculate these emissions.

Downstream leased assets

Evaluation status

Relevant, not yet calculated

Please explain

Not calculated due to lack of required data.

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

Aspen Pharmacare has no franchises.

Investments

Evaluation status

Not relevant, explanation provided

Please explain

According to the GHG Protocol, financial investments required for reporting are equity investments, debt investments, and project finance. Other investments or financial services such as pension funds, retirement accounts, securitized products, insurance, credit guarantees, export credit insurance, etc. are not required to be reported. We do not have any of the required financial investments and therefore, no emissions are relevant to this category.

Other (upstream)

Evaluation status

Not evaluated

Please explain

Not applicable.

Other (downstream)

Evaluation status

Not evaluated

Please explain

Not applicable.

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.0000051012

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

197,149

Metric denominator

unit total revenue

Metric denominator: Unit total

38,647,323,214

Scope 2 figure used

Market-based

% change from previous year

12

Direction of change

Decreased

Reason for change

The Scope 1 and Scope 2 emissions for the Group have decreased by 10% and 3% respectively. The decrease in Scope 1 and Scope 2 emissions is mostly attributable to the Nutritionals business disposal in the prior year. Lower energy consumption from the closure of several plants at Oss (Netherlands) including a solvent recovery unit also contributed to the reduction in Scope 1 and Scope 2 emissions. A notable reduction in Scope 2 emissions was also achieved through equipment optimisation at the Oss

(Netherlands) site. Based on the total restated revenue (2019: R35,514 million) for discontinued operations, the 2020 reported revenue growth of +8.8% benefited from the weaker ZAR (+5.2%) with CER (constant exchange rates) revenue growth being +3.6%. Despite the influence on demand from the effects of COVID-19 and the associated lockdowns, there was a strong revenue contribution from API products and consistent supply during the pandemic.

Intensity figure

34.9369129895

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

197,149

Metric denominator

full time equivalent (FTE) employee

Metric denominator: Unit total

5,643

Scope 2 figure used

Market-based

% change from previous year

8

Direction of change

Decreased

Reason for change

The Scope 1 and Scope 2 emissions for the Group have decreased by 10% and 3% respectively. The decrease in Scope 1 and Scope 2 emissions is mostly attributable to the Nutritionals business disposal in the prior year. Lower energy consumption from the closure of several plants at Oss (Netherlands) including a solvent recovery unit also contributed to the reduction in Scope 1 and Scope 2 emissions. A notable reduction in Scope 2 emissions was also achieved through equipment optimisation at the Oss (Netherlands) site. To further contribute to this decrease, the employee base (denominator) increased by 3% mainly due to the acquisition (new FTE's) of the Alphamed site in India.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

No

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
South Africa	12,701
Germany	5,432
Australia	2,375
Netherlands	15,605
Brazil	455
Kenya	478
Ghana	46
United Republic of Tanzania	1,402
France	2,460
United States of America	702
Mexico	624
India	842

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By facility

By activity

C7.3b

(C7.3b) Break down your total gross global Scope 1 emissions by business facility.

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Port Elizabeth (South Africa)	4,944	-33.9167	25.5667
East London (South Africa)	5,429	-32.981	27.8282
Cape Town (South Africa)	2,328	-33.9157	18.577
Bad Oldesloe (Germany)	5,432	53.8009	10.3983
Dandenong (Australia)	2,375	-37.981	145.215
Oss (Netherlands)	15,605	51.6225	5.1
Vitoria (Brazil)	455	-20.3222	-40.3381
Beta (Kenya)	478	-1.2833	36.8167

Shelys (Tanzania)	1,402	-6.8235	39.2695
Kama (Ghana)	46	5.556	-0.1969
Notre Dame de Bondeville (France)	2,460	49.4431	1.0993
Sioux City (United States of America)	702	43.5499	-96.7003
Vallejo (Mexico)	624	19.5018	-99.1674
Alphamed (India)	842	17.51465	78.5859

C7.3c

(C7.3c) Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO2e)
Mobile Fuel Combustion: Diesel	291
Mobile Fuel Combustion: Gasoline	209
Stationery Fuel Combustion: Diesel	1,046
Stationery Fuel Combustion: Heavy Fuel Oil	7,300
Stationery Fuel Combustion: Natural Gas	27,001
Fugitive Emissions: Refrigerants	7,165
Liquid Petroleum Gas	31
Wood Chips	79

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
South Africa	114,899	114,899	123,609	0
Germany	1,863	2,313	4,448	4,448
Australia	13,854	13,854	12,827	0
Netherlands	17,467	17,467	27,316	0
Brazil	324	324	3,221	0
Kenya	181	181	976	0
Ghana	57	57	230	0

United Republic of Tanzania	946	946	3,124	0
France	982	253	14,149	14,149
United States of America	377	377	848	0
Mexico	189	189	3,246	0
India	3,167	3,167	4,381	0

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By facility
By activity

C7.6b

(C7.6b) Break down your total gross global Scope 2 emissions by business facility.

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Port Elizabeth (South Africa)	86,084	86,084
East London (South Africa)	18,267	18,267
Cape Town (South Africa)	10,548	10,548
Bad Oldesloe (Germany)	1,863	2,313
Dandenong (Australia)	13,854	13,854
Oss (Netherlands)	17,467	17,467
Vitória (Brazil)	324	324
Beta (Kenya)	181	181
Shelys (Tanzania)	946	946
Notre Dame de Bondeville (France)	982	253
Sioux City (United States of America)	377	377
Vallejo (Mexico)	189	189
Kama (Ghana)	57	57
Alphamed (India)	3,167	3,167

C7.6c

(C7.6c) Break down your total gross global Scope 2 emissions by business activity.

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Electricity	151,234	150,955
Steam	3,072	3,072

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) 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.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change	0	not applicable
Other emissions reduction activities	3,224	Decreased	1.6	Lower energy consumption from the closure of several plants at the Oss (Netherlands) site, including a solvent recovery unit, also contributed to the reduction in Scope 1 and Scope 2 emissions. A notable reduction in Scope 2 emissions was also achieved through equipment optimisation. A variance of 3224 tCO2e accounted for 1.6% of the total emissions reported in the previous year.
Divestment	12,777	Decreased	6.2	The decrease in Scope 1 and Scope 2 emissions is mostly attributable to the Nutritionals business disposal in the prior year. The divestment resulted in a variance of 12777 tCO2e which accounted for 6% of the total emissions reported in the previous year.

Acquisitions	4,009	Increased	1.9	The acquisition of Alphamed (India) offset the decrease in total Scope 1 and Scope 2 emissions. The additional 4009 tCO2e accounted for 2% of the total emissions reported in the previous year.
Mergers	0	No change	0	not applicable
Change in output	0	No change	0	not applicable
Change in methodology	0	No change	0	not applicable
Change in boundary	0	No change	0	not applicable
Change in physical operating conditions	0	No change	0	not applicable
Unidentified	0	No change	0	not applicable
Other	0	No change	0	not applicable

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

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

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes

Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	Unable to confirm heating value	0	126,871	126,871
Consumption of purchased or acquired electricity		17,475	165,863	183,338
Consumption of purchased or acquired steam		0	15,037	15,037
Consumption of self-generated non-fuel renewable energy		0		0
Total energy consumption		17,475	307,771	325,246

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No

Consumption of fuel for the generation of heat	No
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	Yes

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)

Compressed Natural Gas (CNG)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

96,236

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

96,236

MWh fuel consumed for self-cogeneration or self-trigeneration

11,358

Emission factor

0.20643

Unit

kg CO2e per KWh

Emissions factor source

A weighted average emission factor has been calculated as per guidance notes.

Below are details regarding local emission factors that were included in the calculation.

Australia - https://www.industry.gov.au/data-and-publications/national-greenhouse-accounts-factors.

Brazil - 2.03053 (UK Department for Environment, Food & Rural Affairs (Defra) - 2019 Note: Standard natural gas received through the gas mains grid network in the UK. (Brazil))/8.7916666666
(System conversion ratio).

France - Emission factors for NDB are from the French Agency for Environment and Energy Management.

Germany - An average emission factor for the region is used.

Mexico - 51.4 (Local emission factor) * 0.0036 (Conversion factor from kg to GJ)

Netherlands - Heat content for Dutch gas (0.03165 GJ/m3) * Local emission factor (56.6) / System Conversion ratio - GJ to m3 (8.7916666666)

USA - 51.4 (Local emission factor) * 0.0036 (Conversion factor from kg to GJ)

Comment

Natural gas is used for generation of steam at seven (50%) of the Aspen facilities. A portion of natural gas consumed at our ABO (Germany) facility is used for a combined heat and power unit.

Fuels (excluding feedstocks)

Diesel

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

5,057

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

3,414

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.68686

Unit

kg CO2e per liter

Emissions factor source

The majority of our facilities used the factors published by the UK Department for Environment, Food & Rural Affairs (Defra) - 2019 | https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019

Netherlands - According to the RVO list this can be changed into: Density: 0,84 kg/L (no change), Heat content: 43,2 MJ/kg and emission factor: 72,5 kg CO2/GJ. This results in a factor of 2,631 kg CO2/L diesel.

France - A local emission factor is used.

Comment

Diesel is use for backup generators, mobile equipment as well as for steam generation at our Beta (Kenya), Kama (Ghana) and Alphamed (India) facilities.

Fuels (excluding feedstocks)

Liquefied Petroleum Gas (LPG)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

270

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

1.5226

Unit

kg CO2e per liter

Emissions factor source

UK Department for Environment, Food & Rural Affairs (Defra) - 2019 | https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019

Comment

LPG is used for fuelling mobile equipment, food preparation in canteens and burners in laboratories.

Fuels (excluding feedstocks)

Residual Fuel Oil

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

24,491

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

24,491

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

3.17966

Unit

kg CO2e per liter

Emissions factor source

UK Department for Environment, Food & Rural Affairs (Defra) - 2019 | https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019

Comment

HFO is used for steam generation at four (4) of our manufacturing facilities.

Fuels (excluding feedstocks)

Motor Gasoline

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

817

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.31495

Unit

kg CO2e per liter

Emissions factor source

UK Department for Environment, Food & Rural Affairs (Defra) - 2019 | https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019

Comment

Gasoline / Petrol is only used to fuel motor vehicles.

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	183,338	183,338	17,475	17,475
Heat	0	0	0	0
Steam	158,688	124,141	0	0
Cooling	0	0	0	0

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Germany

MWh consumed accounted for at a zero emission factor

2,731

Comment

The Germany plant makes use of a green energy mix (61% of total electricity consumption) made from renewable sources such as biomass, photovoltaic systems, and the wind.

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling

France

MWh consumed accounted for at a zero emission factor

3,537

Comment

A portion (25%) of the electricity consumed by the France facility is confirmed zero carbon as per Energy Certificates.

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description

Waste

Metric value

64,820

Metric numerator

Measures in Tonnes

Metric denominator (intensity metric only)

Not measured currently

% change from previous year

25

Direction of change

Decreased

Please explain

The lower volume in total waste generated was largely due to the discontinuation of certain chemical production units and start-up of the methanol recovery unit at Moleneind, Oss. A decrease in availability of raw materials for mucosa processing at Oss and a change in raw material from a major supplier at Sioux City resulted in a significant reduction in the production of animal waste.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	No third-party verification or assurance

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Moderate assurance

Attach the statement

Aspen SD Assurance Statement_14102020.pdf

Page/ section reference

Assurance Statement is for Scope 1 and Scope 2 emissions as indicated on Pages 1-3

Relevant standard

AA1000AS

Proportion of reported emissions verified (%)

100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach

Scope 2 market-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Moderate assurance

Attach the statement

Aspen SD Assurance Statement_14102020.pdf

Page/ section reference

Assurance Statement is for Scope 1 and Scope 2 emissions as indicated on Pages 1-3

Relevant standard

AA1000AS

Proportion of reported emissions verified (%)

100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module	Data verified	Verification standard	Please explain

verification relates to			
C6. Emissions data	Other, please specify Waste generated and water withdrawn	AA1000AS	The total volume of water withdrawn, hazardous waste generated and total volume of waste recycled are all key sustainability KPIs which are included in the external assurance process. The verified water and waste data is used to calculate our Scope 3 emissions under the "purchased goods and services" and "waste generated in operations" categories respectively. 1

[1]Aspen SD Assurance Statement_14102020.pdf

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

EU ETS

South Africa carbon tax

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

EU ETS

% of Scope 1 emissions covered by the ETS

19

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2020

Period end date

December 31, 2020

Allowances allocated

125,294

Allowances purchased

0

Verified Scope 1 emissions in metric tons CO2e

8,050

Verified Scope 2 emissions in metric tons CO2e

0

Details of ownership

Facilities we own and operate

Comment

The percentage of emissions covered by ETS relates to 61% of Scope 1 emissions for the Moleneind, Oss facility in the Netherlands, which represents 19% of the Group's Scope 1 emissions. The Moleneind Oss facility produces steam for its own consumption and for a third party located on the premises.

C11.1c

(C11.1c) Complete the following table for each of the tax systems you are regulated by.

South Africa carbon tax

Period start date

June 1, 2019

Period end date

December 31, 2019

% of total Scope 1 emissions covered by tax

29

Total cost of tax paid

0

Comment

The 2019 carbon tax for the SA operations is still due for payment due to the delay in the registration process resulting from the demerging of the commercial (SA Commercial) and operational/manufacturing (SA Operations) businesses. We are currently in consultation with the Authority to advise on registration requirements with reference to the changes in business entities in order to submit returns.

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

Aspen consults with the relevant tax specialists to ensure that the business is continually informed on any changes in tariffs which would provide further motivation to drive the implementation of new technology or improved efficiencies to reduce carbon emissions. An Aspen Group SHE Specialist will work closely with our Group Tax function to consolidate and approve fuel data and the related Scope 1 emissions to ensure that correct values are included in the tax formula. We aim to budget accordingly to comply with the tax regulations imposed for South Africa.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

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

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

0

% total procurement spend (direct and indirect)

0

% of supplier-related Scope 3 emissions as reported in C6.5

52

Rationale for the coverage of your engagement

Aspen has prioritized 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 especially for Scope 3 emissions.

Impact of engagement, including measures of success

Aspen has been successful in obtaining statistics relating to business travel i.e. flights and car rentals for our South African facilities. We also engage with our waste and water treatment services at our manufacturing sites and obtain monthly reports. In these cases, the data is supplied by the service provider to Aspen in the form of reports. The total Scope 3 emissions for business travel, waste and waste water was calculated 30 415 tonnes CO2e. This total equates to ~52% of our total reported Scope 3 emissions (58 254 tonnes CO2e). 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.

Comment

Aspen will be engaging with more suppliers during our Life Cycle Assessment process for our ISO 14001:2015 system.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Direct engagement with policy makers

Trade associations

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Carbon tax	Support	Aspen continues to consult with its external tax advisors and with relevant industry forums on this matter.	We 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.
Mandatory carbon reporting	Support	Aspen is committed to reporting to the CDP on an annual basis through the National Business Initiative. Aspen South Africa	Industry context is to be applied in interpretation of information in CDP submissions, through direct

		consults with the Department of Environment, Forestry and Fisheries on legislation pertaining to mandatory carbon reporting where necessary.	engagement with the reporting company.
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: • Make companies aware of climate change; and • 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-effectively.	Aspen Oss participates in the EU-ETS
Energy efficiency	Support	Aspen Oss (Netherlands) 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 MEE covenant is voluntary, Aspen Oss has made an obligation to target an annual energy reduction of 2%.
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	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 weigh

		focusing on the healthcare and pharmaceutical industries.	legislated obligations across industries appropriately with due regard of economic conditions impacting general industry sustainability in the relevant countries. Thus, we are in support of this legislative progress.

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

Business Unity South Africa (BUSA)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Business Unity in South Africa (BUSA) serves as the interface between businesses in South Africa and government on high level macroeconomic issues to ensure that businesses are able to play a 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's guiding principles:
A stable, cost-effective energy supply is necessary for sustainable business operations in South Africa. As the representative of business, BUSA engages proactively and substantively with government on energy pricing and policy matters, as well as on Eskom's functioning as the generator, transmitter and supplier of the bulk of South Africa's electricity.

Energy policy, including the role of the private sector, should be developed in consultation with stakeholders outside government. Within government, energy policy should be consistent and coordinated across departments to ensure policy certainty. Furthermore, policy should be transparent, evidence-based and include correct assumptions and realistic energy supply and demand forecasts that are updated as underlying conditions (such as economic growth trends and cost of technology) change.

Energy plans should also consider their effect on employment and the environment.

How have you influenced, or are you attempting to influence their position?

Aspen is an active member of BUSA and participates in industry initiatives to address climate change objectives in South Africa. To date, we have agreed with the approach taken by BUSA regarding climate related legislation and its implications on business (including Aspen) in South Africa.

C12.3f

(C12.3f) 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 direct and indirect business activities and stakeholder engagement processes are aligned to the Group's strategic objectives. This alignment is monitored by Group Executives through the Social & Ethics Committee and the Aspen Board. The Group SHE Department, as mandated by the Social & Ethics Committee and under the direction of Group Operating Officer and Responsible Pharmacist, develops and promotes Aspen's environmental management principles and standards, and monitors the alignment of business unit environmental management systems to the Group standards to ensure consistency across the operations. Aspen is in the process of finalising its Climate Change Position and Group Target, following which a formal climate change strategy will be developed. We are however committed in principle to the 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 quarterly basis through the sustainability KPI Board reporting process. Site management teams monitor progress on continual improvement initiatives more frequently where practical. The sites based in Port Elizabeth, East London and Cape Town in South Africa, as well as sites in the Netherlands, Kenya, Brazil and Australia are ISO 14001 certified. The sites in Germany and France are ISO 14001 and ISO 50001 certified. 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 related to legal, voluntary and corporate requirements. 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 continual improvement exists across the Aspen Group.

C12.4

(C12.4) 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

In mainstream reports

Status

Complete

Attach the document

Aspen IR 2020.pdf

Page/Section reference

Page 100 - 103

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures

Comment

The Aspen Integrated Report can be found at https://www.aspenpharma.com/#

Publication

In mainstream reports

Status

Complete

Attach the document

Aspen-Sustainability-Data-Supplement-2020.pdf

Page/Section reference

Page 16-21

Content elements

Governance
Strategy
Emissions figures

Other, please specify

Information on Aspen's 6 capitals

Comment

The Aspen Sustainability Supplement reports can be found at https://www.aspenpharma.com/supplementary-sustainability-documents/

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

No additional information.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Chief Operations Officer	Chief Operating Officer (COO)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

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 a broad range of post-patent, branded medicines and domestic brands spanning many therapeutic areas to 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 on its operations and is therefore relevant to Aspen’s sustainability objectives. As at 30 June 2020, the Group had 24 manufacturing facilities across 14 sites. The manufacturing sites contribute to the bulk of Aspen’s carbon emissions and as such environmental reporting is focused at a manufacturing site level. The main contributors to Aspen’s Scope 1 emissions are natural gas, refrigerants and fuel consumption while Scope 2 emissions are comprised of purchased electricity and steam.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	38,647,323,214

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

Yes

SC0.2a

(SC0.2a) Please use the table below to share your ISIN.

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	ZA	E000066692

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member

Wal Mart de Mexico

Scope of emissions

Scope 2

Allocation level

Facility

Allocation level detail

Allocation based on Aspen Vallejo Facility in Mexico.

Emissions in metric tonnes of CO2e

20

Uncertainty (±%)

10

Major sources of emissions

The emissions are from purchased electricity and steam used for production lines, maintain heating, ventilation and air conditioning (HVAC) systems and lighting and energy in offices.

Verified

No

Allocation method

Other, please specify

Allocation is based on percentage cost of sales.

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Scope 2 emissions at the manufacturing facility were considered for the allocation of Wal Mart Mexico's Scope 3 emissions. Corporate offices and commercial operations were not considered in the calculation. Internal verification of Scope 2 emissions is performed and revenue is audited. There is, however, an element of uncertainty with respect to the allocation as there is currently no scientific process in place to allocate emissions to customers.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

Aspen's primary data, as per verified internal reporting mechanisms, was utilized to calculate the response provided in question SC.1.1

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Customer base is too large and diverse to accurately track emissions to the customer level	A scientific process would need to be devised so that the emissions could be allocated to different customers. In addition, the financial and reporting systems would need to be adjusted to allow for the collection and recording of the data.

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

No

SC1.4b

(SC1.4b) Explain why you do not plan to develop capabilities to allocate emissions to your customers.

Aspen is willing to investigate ways in which to be able to provide this data in the long term. Currently, the focus is on developing a broader base with respect to Scope 3 emissions and establishing recording and reporting mechanisms for Aspen's supply chain sustainability data.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

Requesting member

AstraZeneca

Group type of project

Other, please specify

No project recommended at this stage

Type of project

Other, please specify

No project recommended at this stage

Emissions targeted

Other, please specify

No target recommended at this stage

Estimated timeframe for carbon reductions to be realized

Other, please specify

0

Estimated lifetime CO2e savings

0

Estimated payback

Other, please specify

Not applicable at this stage

Details of proposal

Not applicable at this stage

Requesting member

Bayer AG

Group type of project

Other, please specify

No project recommended at this stage

Type of project

Other, please specify

No project recommended at this stage

Emissions targeted

Other, please specify

No target recommended at this stage

Estimated timeframe for carbon reductions to be realized

Other, please specify

0

Estimated lifetime CO2e savings

0

Estimated payback

Other, please specify

Not applicable at this stage

Details of proposal

Not applicable at this stage

Requesting member

Johnson & Johnson

Group type of project

Other, please specify

No project recommended at this stage

Type of project

Other, please specify

No project recommended at this stage

Emissions targeted

Other, please specify

No target recommended at this stage

Estimated timeframe for carbon reductions to be realized

Other, please specify

0

Estimated lifetime CO2e savings

0

Estimated payback

Other, please specify

Not applicable at this stage

Details of proposal

Not applicable at this stage

Requesting member

Wal Mart de Mexico

Group type of project

Other, please specify

No project recommended at this stage

Type of project

Other, please specify

No project recommended at this stage

Emissions targeted

Other, please specify

No target recommended at this stage

Estimated timeframe for carbon reductions to be realized

Other, please specify

0

Estimated lifetime CO2e savings

0

Estimated payback

Other, please specify

Not applicable at this stage

Details of proposal

Not applicable at this stage

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

No, I am not providing data

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain questions?
I am submitting my response	Investors Customers	Public	Yes, I will submit the Supply Chain questions now

Please confirm below

I have read and accept the applicable Terms