# DS Smith Plc - Climate Change 2020

## C0. Introduction

### C0.1

**(C0.1) Give a general description and introduction to your organization.**

DS Smith's purpose is to redefine packaging for a changing world. We see the opportunity for packaging to play a powerful role in the world around us and help our customers respond to this changing world by developing sustainable packaging solutions. This involves the design and manufacture of fibre-based corrugated packaging that meet our customers' needs, creating long-term value by transforming responsibly-sourced raw materials into innovative packaging that is cost-effective and sustainable. We operate a circular business model consisting of recycling, paper-making and packaging manufacturing operations, with which we can make, use, collect and recycle cardboard packaging within 14 days. This is a sustainable way of doing business for DS Smith, our customers and the planet, protecting resources and reducing waste. The business is spread across 34 countries and employs around 30,000 people at over 200 sites.

**Note:** We disposed of our Plastics division in March 2020, a vital step in our strategy to provide sustainable, fibre-based packaging. As this response relates to calendar year 2019, the Plastics division is included in the data, however qualitative answers are given on a going concern basis, relating exclusively to the manufacture of corrugated material.

### 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 | Select the number of past reporting years you will be providing emissions data for |
|---|---|---|---|---|
| Reporting year | January 1 2019 | December 31 2019 | No | <Not Applicable> |

### C0.3

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

Austria
Belgium
Bosnia & Herzegovina
Bulgaria
Croatia
Czechia
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Italy
Lithuania
Netherlands
New Zealand
North Macedonia
Poland
Portugal
Romania
Serbia
Slovakia
Slovenia
Spain
Sweden
Switzerland
Thailand
Turkey
United Kingdom of Great Britain and Northern Ireland
United States of America

### C0.4

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

## 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

## C-AC0.6/C-FB0.6/C-PF0.6

**(C-AC0.6/C-FB0.6/C-PF0.6) Are emissions from agricultural/forestry, processing/manufacturing, distribution activities or emissions from the consumption of your products – whether in your direct operations or in other parts of your value chain – relevant to your current CDP climate change disclosure?**

| | Relevance |
|---|---|
| Agriculture/Forestry | Both own land and elsewhere in the value chain [Agriculture/Forestry only] |
| Processing/Manufacturing | Both direct operations and elsewhere in the value chain [Processing/manufacturing/Distribution only] |
| Distribution | Both direct operations and elsewhere in the value chain [Processing/manufacturing/Distribution only] |
| Consumption | Yes [Consumption only] |

## C-AC0.7/C-FB0.7/C-PF0.7

**(C-AC0.7/C-FB0.7/C-PF0.7) Which agricultural commodity(ies) that your organization produces and/or sources are the most significant to your business by revenue? Select up to five.**

**Agricultural commodity**
Timber

**% of revenue dependent on this agricultural commodity**
20-40%

**Produced or sourced**
Both

**Please explain**
Our production is mostly recycled packaging and paper, but some of our products utilise papers produced from virgin wood fibres. Paper can only be recycled a finite number of times before the fibres become too short to reuse, meaning a constant supply of virgin fibre is critical to maintain quality. More than 90% of our revenue is derived from our operating divisions involved in the production of paper-based products, although only slightly over 20% of our raw materials are dependent on virgin fibre directly.

# 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 |
|---|---|
| Chief Executive Officer (CEO) | The Board considers risks arising from sustainability issues as key risks to the Group's operations. It ensures that the Group has in place adequate and effective policies and procedures for managing sustainability risks and it receives regular reports on performance. The Group Chief Executive is responsible for climate-related issues. Through the Group Health, Safety, Environment and Sustainability (HSES) committee (which has monthly meetings chaired by the CEO) and is embedded within the Group Operating Committee (GOC), policy is communicated to the heads of each business unit, and compliance with these policies is monitored throughout the year. This committee hears reports of trends and risks in climate-related issues and makes strategic decisions in response to them. |

## 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 | Scope of board-level oversight | Please explain |
|---|---|---|---|
| Scheduled – all meetings | Reviewing and guiding strategy<br>Reviewing and guiding major plans of action<br>Reviewing and guiding risk management policies<br>Reviewing and guiding annual budgets<br>Reviewing and guiding business plans<br>Setting performance objectives<br>Monitoring implementation and performance of objectives<br>Overseeing major capital expenditures, acquisitions and divestitures<br>Monitoring and overseeing progress against goals and targets for addressing climate-related issues<br>Other, please specify (Review of annual Sustainability Report and ESG / Sustainability benchmark performance) | <Not Applicable> | The Board is briefed quarterly on sustainability issues, including climate-related issues. We have a carbon and energy target embedded in our sustainability strategy (30% emissions reduction by 2030; 100% of relevant sites certified with ISO 50001 by 2020). Progress against these targets is reported to the Board, chaired by the Chairman, on a regular 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) | Reporting line | Responsibility | Coverage of responsibility | Frequency of reporting to the board on climate-related issues |
|---|---|---|---|---|
| Chief Sustainability Officer (CSO) | <Not Applicable> | Both assessing and managing climate-related risks and opportunities | <Not Applicable> | More frequently than quarterly |
| Sustainability committee | <Not Applicable> | Both assessing and managing climate-related risks and opportunities | <Not Applicable> | More frequently than 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 sustainability function is led by the Head of Government, Community Affairs and Sustainability, who reports to the Director of Corporate Affairs and Sustainability (who in turn, reports to the CEO) on sustainability topics, including climate change. The Head of Government, Community Affairs and Sustainability, and the Director of Corporate Affairs and Sustainability regularly present and examine sustainability topics with the Chief Executive Officer, Chief Financial Officer and Group Operating Committee (GOC) members, as well as Board members. The leader of the sustainability function is responsible for raising climate-related issues, risks and opportunities to the management board, as well as the day-to-day monitoring and management of these issues. Holding responsibility in this role means that tactical issues can be escalated quickly to senior management, whilst this person can quickly task tactical resources from the sustainability team to address them. The Director of Corporate Affairs and Sustainability chairs the Sustainability Steering Committee, which comprises representatives from every function, as well as each operating division. The members of this committee consider issues identified by the sustainability function and are responsible for contributing the viewpoint of their function or division, as well as agreeing a proposed management approach (based on a risks and opportunities analysis) to these issues. Members of this committee, drawn from each operating division (Packaging, Paper, Recycling and North American Packaging and Paper) and function (e.g. HR, Risk, Legal) are responsible for representing the views of their division or function at the committee, as well as delivering the actions decided at the committee. Members of this committee are drawn from operations, sales, marketing and innovation and specific offices, relevant to their functions. The sustainability team presents climate-related issues, risks and opportunities to the committee and each is discussed. The output is presented at the Health, Safety, Environment and Sustainability (HSES) Committee (chaired by the CEO), which meets monthly, for final decisions on climate-related issues. Ultimate accountability lies with the Group Chief Executive and risks arising from sustainability are considered by the Board as being among the key risks to the Group's operations.

## 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 | No, not currently but we plan to introduce them in the next two years | Our reward scheme is based on return on capital employed (ROCE). Energy costs are a substantial component of our overall cost base, and controlling these costs is the best way to increase returns from the asset base under control, and thereby achieve these ROCE targets. This is felt to be the most simple and understandable method to correlate energy efficiency with reward; it also happens to incentivise management to achieve carbon emission reductions. We aim to introduce a more explicit incentive relating to the attainment of our carbon target within the next two years. |

## 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 | 1 | The current reporting cycle |
| Medium-term | 1 | 3 | 1-3 years |
| Long-term | 3 | 10 | 3-10 years |

## C2.1b

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

A financial risk of greater than EUR 0.5 million is considered substantive financial or strategic impact at the Group level.

## 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
Downstream

**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**

Climate-related and other wider sustainability risks and opportunities are regularly assessed across all parts of the business and are integrated within our wider risk management process.

## 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 | We always seek to comply with all relevant legislation in the markets in which we operate. Failure to do so can result in severe financial and reputational penalties consistent with our definition of substantive impact. For example, the EU Energy Efficiency Directive requires member states to have energy management systems in place; failure to have this in place at our sites could result in significant penalties. We manage this risk by implementing a Group certification programme, with a requirement for all of our in-scope sites to achieve ISO 50001 certification before penalties become applicable. Regulation risks are managed at all levels of the organisation; at Group level regulation affecting the business as a whole is examined, whilst at country and local-level, all sites are responsible for maintaining a regulatory register relevant to their site. Current regulation concerning climate-related risks is monitored and assessed by the sustainability team in collaboration with the risk and legal functions. |
| Emerging regulation | Relevant, always included | Any costs required to comply with new or emerging regulation are considered when assessing the risk; business cases for mitigation plans are created and implemented at Group level. Emerging regulatory threats include tightening BREF regulations determining the minimum operating standards for Paper Mills in the EU. The investment in these sites required to bring them up to these specifications is often significant. Management of risks relating to emerging risks, as well as coordination of activity to mitigate them, is usually undertaken at Group level in co-operation with the management of sites which are in-scope for the emerging regulation. |
| Technology | Relevant, sometimes included | Technology risks related to climate change are material to the company, insofar as our spend on carbon is influenced to a significant degree by the technology we use in our manufacturing processes. Carbon emission reduction over time is factored into the calculation of risk impact related to emissions. Therefore, the financial impact of failing to transition to low-carbon technology is already captured in our Group risk assessment as part of our overall Carbon Emissions risk analysis and work on TCFD. An example of technology investment is combined heat and power (CHP) units at paper mills to reduce carbon emissions and by extension, spend on carbon credits under EUETS. These mitigations are counted against our overall carbon risk exposure rather than treated separately as a technology risk. |
| Legal | Relevant, always included | Much of the legal risk to our business arises from regulatory non-compliance rather than direct litigation from third parties, so we perceive this risk as small. However, there is potential for some of our operations (paper mills) to generate substantial environmental consequences and we would then be at risk of direct litigation by affected parties and campaign groups. We manage this risk by regularly engaging with third party stakeholders such as local communities, employees and NGOs, and by promoting and embedding a culture of transparency across our business. Whilst it is unlikely that our products will be regulated or litigated against, there are other areas of our business (e.g. forest stewardship, water use) in which regulatory change may impact us. As a point of due diligence, we maintain awareness of litigation risk by considering it material and reviewing it regularly. Regulatory change related to climate also ties in with carbon pricing and its associated risks. |
| Market | Relevant, always included | As Packaging Strategists, we continually strive to remain informed on changing customer expectations and trends relating to our products. For example, we have identified the changing expectation in packaging that is being driven by e-commerce. Consumers value convenience but are not happy to receive large boxes containing small items, for example, and they are becoming increasing educated on the provenance and equity of not only the products they consume, but the packaging that contains them. Consequently, this has been identified as a key risk and one that poses the threat of significant financial impact over time if left unmanaged. This is managed at Group level by our Corporate Affairs function. As part of our core business process, our design and innovation teams work to provide solutions that keep ahead of the curve in market trends relating to our products, which inherently manages market-related risks. A good example is our Made2Fit technology, which tackles the challenges of void space, minimising resource waste in our products and carbon emissions associated with transportation. |
| Reputation | Relevant, always included | The value of our brand is very important to us and whilst it is difficult to quantify the financial impact of damage to reputation, it is assessed to be potentially very serious if mismanaged. Work to identify and manage reputational risk from changing consumer behavior and expectation falls to the Risk, Sustainability and Corporate Affairs teams. Responsibility for identifying and assessing climate-related risks from our customers sits with our Account Managers and Sustainability team. DS Smith primarily produces secondary packaging which is not directly purchased by consumers but instead is sold B2B to our customers; therefore our risk exposure to reputational damage is less than that of consumer-facing manufacturers. The amount of primary (i.e. consumer-facing) packaging that we produce is small enough that loss of demand directly from consumers due to reputational damage does not constitute a material risk. |
| Acute physical | Relevant, always included | Acute physical risks are included in asset-level risk assessments. The Risk function co-ordinates the delivery of site-level risk assessments for manufacturing sites which include assessments against acute physical events, such as floods or earthquakes. |
| Chronic physical | Relevant, always included | Assessment of chronic physical risks falls to the Risk and Sustainability functions. The role of the sustainability team in this process is identifying and assessing the materiality of chronic physical risks and supporting projects to manage the most impactful risks. The quantitative assessment of chronic physical risks is conducted by the Group Risk function (in line with processes for assessing non-climate risks, with support from our insurance partners) who provide the necessary data and analytical tools. An example of a chronic physical risk that we have assessed in this way is changing rainfall patterns driven by climate change that will result in reduced water availability for our sites. Water is essential to our process for steam and for transporting fibres; therefore the potential for disruption is severe and would qualify as a Group issue. This risk was considered for escalation to our principle risk list but was not escalated. However, we have a project underway to manage water risk regardless: we are creating water stress management plans at all of our sites that are in water stressed locations and which use a significant amount of water for their processes (i.e. packaging sites with corrugators and paper mills). |

## 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

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

Our paper mills operate under the Emissions Trading Scheme in Europe (EUETS). In 2019, DS Smith purchased EUR 17.2 million carbon allowances under the scheme. The free-issued allowances are being reduced which has increased expenditure on carbon allowances, therefore increasing our operating costs. The price of additional carbon allowances has also inflated, further increasing operating costs.

**Time horizon**

Medium-term

**Likelihood**

Virtually certain

**Magnitude of impact**
Medium

**Are you able to provide a potential financial impact figure?**
Yes, an estimated range

**Potential financial impact figure (currency)**
<Not Applicable>

**Potential financial impact figure – minimum (currency)**
17250000

**Potential financial impact figure – maximum (currency)**
33750000

**Explanation of financial impact figure**
The price of carbon allowances continues to increase, whilst the free allocation declines, creating a shortfall that must be paid for. The potential financial impact figures provided represent a range, with a lower limit approximating our current spend on carbon allowances, and an upper limit of our spend per financial year if the cost of carbon credits rises as predicted by 2030. This estimate is based on the increased cost being applied to the same amount of purchased allowances at our paper mills. This will increase the cost of compliance significantly. In 2019, a shortfall of 690,000 tonnes had to be paid for; if the price rises from EUR 25 per tonne in 2019 to EUR 37.5 per tonne in 2030, we will be paying an additional EUR 8,625,000 for the same amount of shortfall. If we predict that the free allocation will decline by 22% by 2030, the shortfall will in fact be 210,000 greater (assuming carbon emissions remain constant), adding an additional EUR 7,900,000 to the cost of the shortfall. Therefore: the lower limit of the range is calculated as: 25 (2019 carbon price) * 690,000 (2019 shortfall (tonnes)) = 25*690,000 = EUR 17,250,000; the upper limit of the range is calculated as: 37.5 (predicted 2030 carbon price) * (690,000+210,000) (2019 shortfall (tonnes) + expected additional shortfall by 2030 owed to decreasing free allocation (tonnes)) = 37.5*900,000 = EUR 33,750,000. The difference between these two numbers is therefore an increase: 33,750,000-17,250,000 = EUR 16,500,000

**Cost of response to risk**
10000000

**Description of response and explanation of cost calculation**
Through continuous energy reduction programmes we are reducing our total energy consumption, thus reducing the implications of continued increasing prices. These programmes include installing CHP boilers at our paper mills and LED lighting throughout our European business. Over 90% of our energy consumption is at sites holding ISO 50001 certification, and the accompanying energy efficiency projects and tracking of energy KPIs are expected to reduce energy consumption and therefore carbon emissions. We are investing heavily in projects to reduce the emissions of our highest emissions assets, including upgrades to our systems and plant at our paper mills. For example, at Kemsley Paper Mill we are replacing our existing combined heat and power plant with a much more efficient one. Via our trade associations we try to influence policy makers on the developments of future emissions trading schemes to better reflect our industry's interests.

**Comment**
This figure is an estimate of the annual spend on energy efficiency initiatives to reduce our emissions to achieve our long-term 2030 carbon reduction target. A by-product of this is a reduced need to purchase allocations.

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**Identifier**
Risk 2

**Where in the value chain does the risk driver occur?**
Direct operations

**Risk type & Primary climate-related risk driver**

| | |
|---|---|
| Chronic physical | Changes in precipitation patterns and extreme variability in weather patterns |

**Primary potential financial impact**
Decreased revenues due to reduced production capacity

**Climate risk type mapped to traditional financial services industry risk classification**
<Not Applicable>

**Company-specific description**
In 2019, 36% of our water abstraction occurred in water-stressed areas (assessed using the WRI Aqueduct tool), although only 3.6% of our sites are assessed as being extremely high-risk. Water is critical to many of our production processes: primarily this risk impacts our paper mills, where disruption to water availability driven by precipitation changes could severely impact their ability to operate, stranding assets and requiring write-offs. Water stress impacts our Packaging plants, though to a lesser degree. These sites use steam in the production process for making corrugated board from paper. Sites using this process are also considered at risk when it comes to assessing water stress.

**Time horizon**
Long-term

**Likelihood**
Very unlikely

**Magnitude of impact**
High

**Are you able to provide a potential financial impact figure?**
Yes, a single figure estimate

**Potential financial impact figure (currency)**
294774544

**Potential financial impact figure – minimum (currency)**
<Not Applicable>

**Potential financial impact figure – maximum (currency)**
<Not Applicable>

**Explanation of financial impact figure**
This figure is an average of the Total Insured Value of our paper mills in water stressed areas; calculated taking into consideration our lowest and highest value paper mills. This assumes that changes to water availability would cause one of our mills to cease operating and effectively become a stranded asset. The chances of sudden and significant change to water availability are low; this is a very long-term risk and as such is easy to mitigate with careful planning and execution of projects to manage our water usage. These projects are already underway.

**Cost of response to risk**
50000000

**Description of response and explanation of cost calculation**
As a Group-wide solution, our work in this area is led by our sustainability goal of creating zero water impact by 2030. This goal is supported by a series of targets, addressing water efficiency, water quality and water stress. We are implementing water stress management plans for all in-scope operations that are identified as being at risk of water stress. This activity is intended to mitigate chronic risks associated with changing precipitation patterns, as well as risks related to price and availability of water. We are presently implementing methods to improve water efficiency at our mills. The cost calculation is developed by examining which of our operations are most likely to be affected, analysing their customers and the scale of their operation, before calculating the costs of potentially losing that business if production were to be disrupted for intervals of given lengths. This is a scalable calculation. Furthermore, we work with our insurers to estimate the risks involved and the cost of implementation. Our De Hoop paper mill in the Netherlands has a unique system which allows 'waste' water to be treated, purified and recycled back into the paper-making process. The mill part-owns Industriewater Eerbeek, a specialist water treatment facility that uses industry leading technology to remove unwanted materials and treat the water before returning a proportion of it to the mill. This arrangement has been closing the water loop since 2016, meaning less groundwater is extracted and fewer additional additives are required. As a result, water levels in Eerbeek Spring are raised and there are benefits to biodiversity and the river habitat.

**Comment**
Further to this, investments in energy efficiency in our manufacturing processes are closely associated with water efficiency, as a large proportion of the water we abstract is transformed into steam. Other investments in water treatment and conservation allow us to minimise our water impact. Greater detail on this can be found in our CDP Water Security disclosure.

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**Identifier**
Risk 3

**Where in the value chain does the risk driver occur?**
Downstream

**Risk type & Primary climate-related risk driver**

| | |
|---|---|
| Market | Changing customer behavior |

**Primary potential financial impact**
Decreased revenues due to reduced demand for products and services

**Climate risk type mapped to traditional financial services industry risk classification**
<Not Applicable>

**Company-specific description**
Demand from customers is relied upon to generate revenue from selling products. Any change in customer behaviour and failure to meet changing demand for sustainable packaging solutions may cause our products to become unattractive or uncompetitive. This is defined within the Group's principal risks register as 'packaging transformation'; being that we fail to capitalise on the growing demand for eco-friendly products (see Annual Report 2020). Given that this directly impacts our main revenue stream, it is a material risk, impacting our ability to generate profit from our operations. Some of our customers have set precedents for dropping suppliers who do not meet their sustainability standards. There is a risk that if the expectations of our sustainability-conscious customers were not met on climate-related grounds, we could be deselected as a supplier. This risk is high-impact, as these customers are among our largest key accounts, but exceptionally unlikely given our ongoing innovation and improvements in sustainability performance and engagement with customers and other stakeholders.

**Time horizon**
Medium-term

**Likelihood**
Exceptionally unlikely

**Magnitude of impact**
High

**Are you able to provide a potential financial impact figure?**
Yes, a single figure estimate

**Potential financial impact figure (currency)**
34470000

**Potential financial impact figure – minimum (currency)**
<Not Applicable>

**Potential financial impact figure – maximum (currency)**
<Not Applicable>

**Explanation of financial impact figure**
We express this risk impact figure as the average potential loss of one of our largest 20 pan-European customers. Specifically, the figure quoted is the average revenue we accrue from these customers annually. $\Sigma n / 20 = 34{,}470{,}000$ , where "n" is the revenue accrued from our largest 20 customers. We currently consider that the risk of being deselected as a supplier solely on the grounds of climate-related issues is negligible, but we continue to actively monitor our customers' expectations on this topic, since the risk impact is potentially very damaging and customer trends towards stricter enforcement of standards could inflate the risk probability over time.

**Cost of response to risk**
0

**Description of response and explanation of cost calculation**
Our key account holders manage our relationship with our largest customers. They are regularly briefed on sustainability issues and the Group sustainability team dedicates resource to liaising directly with customers and advising colleagues who interact with customers on climate-related issues. We have various products and innovations targeted at improving our sustainability performance for the benefit of our customers, such as Made2Fit which optimises packing space and reduces the carbon output of transport and logistics. More recently, we launched our Circular Design Principles, which empower our Design and Innovation community to develop more sustainable

packaging solutions with the circular economy in-mind. This involves designing packaging that minimises resource consumption through optimisation, maintenance and recovery, in addition to maximising supply cycle efficiencies. All of these careful considerations impact the environmental performance, and thus performance on climate-related issues for our products. The cost of mitigating this risk is determined as 0 because the management methods are part of our standard process for customer engagement, putting sustainability at the heart, whereby our networks of packaging designers, innovators and consultants engage productively and on an on-going basis with our customers to develop the strategies and solutions to meet their sustainability ambitions through sustainable packaging solutions.

**Comment**
Responding to changing customer behaviour is a business-as-usual activity.

## 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 recycling

**Primary potential financial impact**
Reduced indirect (operating) costs

**Company-specific description**
Over 75% of the papers DS Smith uses to produce its packaging are from recycled sources. A major challenge with producing papers from recycled material is that the quality of the material is often diminished due to contamination of the paper with other types of material; this results in increased treatment of the materials and more rejected material. Governments in our markets are increasingly focused on improving the recycling infrastructure in their countries, increasing waste segregation and therefore creating raw material streams for us that are cleaner and require less processing. Access to higher quality material means less need for processing and less overall volume of material needed for the same production, which in turn generates cost savings for our operations.

**Time horizon**
Long-term

**Likelihood**
Very 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)**
10000000

**Potential financial impact figure – minimum (currency)**
<Not Applicable>

**Potential financial impact figure – maximum (currency)**
<Not Applicable>

**Explanation of financial impact figure**
It is difficult to put a value on this as it depends on the political will of the governments in our markets. However we anticipate that we will see financial benefits due to an increase in availability and quality of recovered paper for recycling, driven by increased segregation and recycling rates. Assuming that this results in cleaner raw material input to our mills, we will be able to achieve higher yields from our raw material, and save money because we would not need to purchase and process as much recyclate. Assuming a 2% improvement on our annual spend on recycled fibre (£500 million) this would give us an approximate benefit of £10 million due to resource efficiency.

**Cost to realize opportunity**
0

**Strategy to realize opportunity and explanation of cost calculation**
We engage with policymakers directly and indirectly through trade associations raising awareness of the need for increased recycling infrastructure and promote post-consumer segregation of waste to generate higher quality raw materials for our production. Engagement programmes include inviting politicians to tour our facilities and see the impact of contaminated waste. This engagement is something we are actively implementing; for example DS Smith invited members of the Environmental Select Committee to Kemsley paper mill last year. We consider this activity an operational, business-as-usual cost and therefore attribute an implementation cost of 'zero'. We actively work to realise this opportunity regardless.

**Comment**
Promoting recycling is a business-as-usual activity.

**Identifier**
Opp2

**Where in the value chain does the opportunity occur?**
Direct operations

**Opportunity type**
Energy source

**Primary climate-related opportunity driver**
Shift toward decentralized energy generation

**Primary potential financial impact**
Reduced indirect (operating) costs

**Company-specific description**
The drive toward decentralised energy generation has led to opportunities for us to host micro-Combined Heat and Power plants (CHPs) at some of our larger packaging manufacturing sites. As a pilot to realise this opportunity, we worked with a third party to install micro-CHPs at two of our UK sites in Fordham and Blunham. These will provide these sites with energy generation at less than the market cost and with a lower emissions factor than the national average. These plants provide a constant and reliable supply of heat and power at an emissions factor lower than the national grid, insulating us from fluctuations in energy prices.

**Time horizon**
Medium-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)**
<Not Applicable>

**Potential financial impact figure – minimum (currency)**
180000

**Potential financial impact figure – maximum (currency)**
220000

**Explanation of financial impact figure**
Our initial proposal was to install micro-CHPs at two sites. We have now implemented these two projects, which will provide an average of around £100k in savings in the first year after installation for each site, equalling a range of £180,000 and £220,000 across the two sites combined. We have calculated the size of this financial impact in energy savings as the difference per year between purchasing energy to fulfil site needs at the market rate, against the cost of purchasing energy at the rate agreed with our partners who are installing and operating the micro-CHPs at our sites.

**Cost to realize opportunity**
50000

**Strategy to realize opportunity and explanation of cost calculation**
This is already in the implementation stage; we have engaged energy partners in discussions about the possibility of establishing micro-CHPs at 2 of our sites in the UK and signed contracts for the installation. The upfront cost of preparing this project for implementation has equalled around £50,000. We are now scoping the possibility of realising the same energy efficiency opportunity at other high energy usage sites.

**Comment**
This is the continued roll-out of a highly successful programme.

---

**Identifier**
Opp3

**Where in the value chain does the opportunity occur?**
Downstream

**Opportunity type**
Products and services

**Primary climate-related opportunity driver**
Shift in consumer preferences

**Primary potential financial impact**
Increased revenues resulting from increased demand for products and services

**Company-specific description**
Consumer and corporate pressure for more recycled and recyclable packaging, such as corrugated cardboard at the expense of perceived 'non-environmentally friendly' options, such as plastics. Our customers have felt this pressure and are tending towards purchasing more sustainable and recyclable packaging. As a producer of fully recyclable, fibre-based packaging solutions, the company is well positioned to realise the opportunity presented by this trend.

**Time horizon**
Short-term

**Likelihood**
Very 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)**
280875000

**Potential financial impact figure – minimum (currency)**
<Not Applicable>

**Potential financial impact figure – maximum (currency)**
<Not Applicable>

**Explanation of financial impact figure**
We expect an increase in demand for recyclable and recycled solutions (such as corrugated cardboard), which comes at the expense of alternative packaging solutions which are not perceived to have these qualities. We estimate that, using current capabilities, over 1.5 million tonnes (70 billion units) of plastic packaging in our supermarket aisles could be replaced with fibre-based alternatives. The potential size of the financial impact of this opportunity is calculated by taking the market gap created by the displacement of plastics (70 billion units), multiplied by our average profit per unit (£0.03). The size of the opportunity is therefore £0.03*70,000,000,000 = £2.3 billion. Based on our current market share in Europe, it could be estimated that 12% of this opportunity may be realised in the long term: £2.3 billion*0.12 = £280,875,000.

**Cost to realize opportunity**
1000000

**Strategy to realize opportunity and explanation of cost calculation**
We are continuously increasing our capabilities to deliver circular products to realise this opportunity. We became a global strategic partner of the Ellen MacArthur Foundation, joining many world-class organisations that support the transition to a circular economy and committing £1 million to furthering the work of the Foundation, including financing research and development in the circular economy sphere. The launch of our Circular Design Principles help support companies to design reuse and recyclability into their packaging. Beyond the product, our focus is systemic, creating and improving systems for high quality collection and reprocessing, particularly in cities and urban environments. The designs and research outputs from our partnership with the Foundation will enable us to realise opportunities created by plastics displacement, and to fill market gaps with sustainable fibre-based alternatives. This pushes us closer to realising the financial benefits described above.

**Comment**
Responding to shifting consumer preferences is a business-as-usual activity.

## C3. Business Strategy

### C3.1

**(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?**
Yes, and we have developed a low-carbon transition plan

### C3.1a

**(C3.1a) 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

### C3.1c

**(C3.1c) Why does your organization not use climate-related scenario analysis to inform its strategy?**

Climate-related scenario analysis is currently not formally used to inform business strategy, because we have not yet undertaken a comprehensive analysis of the resiliency of our business model under various warming scenarios. We intend to undertake this exercise in 2020/21, and the output from this will inform our strategy, targets and decision-making. Although we feel that our existing carbon target is aligned with the spirit of the Paris Accord, we are exploring the opportunity to set a verified science-based target, and intend to use scenario analysis to inform this. Following the TCFD recommendations, scenario analysis will be incorporated into our strategic planning process, helping management to calculate the financial implications of decarbonising our operations, and the rate of change and investment required to remain on track to reduce carbon emissions in-line with scientific consensus. One area related to carbon in which a simplistic form of scenario analysis has been applied, is in relation to the transition opportunity to reduce spend on carbon allocations under EU ETS. This analysis has considered (1) future predictions of the price of carbon under EU ETS, (2) future predictions of the 'free' allocation volume and (3) future projections of our carbon emissions. This has fed into the calculations provided on the value of the opportunity in question C2.4a. The next step to develop the sophistication of this analysis is to consider various warming scenarios, as well as analyse other climate-related risks and opportunities. This will be coordinated between the sustainability and risk functions, informing management teams to make better-informed decisions.

### C3.1d

**(C3.1d) 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 | Yes | Although a long-term growing trend, we are capitalising today on risks and opportunities related to growing demand for sustainable packaging solutions that influence our customer proposition; from provision of products and services targeting plastics replacement to our decision to provide only corrugated fibre-based packaging products, following the disposal of our plastics division in early 2020. As reported in question C2.4a; and in-keeping with our purpose to 'redefine packaging for a changing world', we see the transition to a circular economy a clear long-term opportunity in which our corrugated products, which are recyclable and recycled in practice, can thrive and contribute to a sustainable, low carbon economy. Our products and services strategy involves partnering with our customers to develop innovative packaging solutions that help our customers generate more sales, whilst lowering cost and meeting performance criteria. Examples of our innovations in packaging solutions that have clear benefits for the environment include how we close the loop through circular design and infrastructure, protect natural resources by making the most of every fibre and deliver for society through low impact solutions. These innovations give our customers confidence in their packaging supply chain, preserving natural resources and pleasing consumers that want to enjoy the benefits of versatile packaging (for example, in e-commerce), whilst being conscious of sustainability. An example of a product that responds to this opportunity is ECO Bowl, a product consisting of a corrugated cardboard tray produced entirely from recycled papers, a film lining and a lid. Once used by the consumer, the components are easily separated and recycled, reducing plastic by up to 85 per cent compared to a traditional tray made from polypropylene. |
| Supply chain and/or value chain | Yes | For several years now, we have considered the supply chain and value chain as less of a single, straight line and rather an integrated entire cycle, a concept we call "Supply Cycle Thinking". We refer to it as a 'cycle', as material cycles around within this model, reducing value leakage and extracting maximum benefit for all stakeholders. This unified process eliminates complex methods, making customers' lives easier by creating an effective, simplistic and sustainable approach. Because of this unification, our integrated paper-making, packaging manufacturing and recycling operations make, use, collect and recycle cardboard packaging within 14 days. It is this circular business model that allows us, and our customers, to contribute to the circular economy. This model protects natural resources, enables efficiencies in energy consumption and logistics, and reduces waste compared to a linear 'take-make-dispose' value chain. The climate-related opportunity to meet demand for low impact, natural and renewable packaging is supported by this supply chain and value chain strategy. |
| Investment in R&D | Yes | Our research and development community is focussed on doing more from less, including finding ways to use less fibre to better protect products and resources, therefore limiting the impact on our environment. This includes investing in R&D to deliver innovative and creative solutions that tackle many of the greatest climate-related issues presently faced by society, such as plastics pollution. Addressing this challenge presents the opportunity to invest in the strategic development of technologies to enable paper-based solutions to withstand factors such as changes in temperature, oxygen contact, moisture, water vapour and fatty substances. With fibre-based packaging and applications that prevent water, grease or oxygen from getting to the products inside, there is a huge opportunity for growth in sustainable packaging. These new developments, fuelled by investment in R&D help us to capitalise on the climate-related opportunities we have identified. An example of this is the UK's first cardboard grapes punnet, launched with Waitrose & Partners to save 12 tonnes of plastic per year. The cardboard it is made from is truly biodegradable and 100% recyclable packaging material – made from the fibres of recycled paper and cardboard. This not only avoids the felling of new trees, but also ensures that the packaging is easily recyclable at the kerbside for consumers. The move to a cardboard tray for Waitrose Duchy Organic grapes was the first pledge to be met as part of Waitrose & Partners' seven packaging pledges to honour The Prince of Wales's seven decades and leadership on sustainability and is an example of investment in R&D in food packaging that clearly responds to climate-related risks and opportunities. |
| Operations | Yes | In our manufacturing operations, we are focussed on reducing our impact on the climate across all aspects of carbon and energy, water and waste, as well as our use of sustainably sourced fibre. As our most material climate-related risk is the transition risk posed by regulation that increases the cost of carbon allowances under EU ETS, our plan to reduce our exposure to this risk is to reduce our carbon emissions, driven partly by energy savings, as well as switching to less carbon intensive sources of energy. In this respect, our strategy on operations has always been to reduce the operational costs associated with our highest energy consumption, cost and therefore greatest emissions assets, which are our paper mills, making up 77 per cent of our total CO2e emissions in 2019. Throughout 2019, we continued to develop our roadmap of strategic investments that will deliver carbon savings through new technologies. This builds on the progress made in our legacy operations, which include an 11 per cent reduction in carbon emissions relative. to production, when comparing the business footprint as it was in our 2015 baseline year. |

## C3.1e

**(C3.1e) 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 | Revenues<br>Direct costs<br>Indirect costs<br>Capital expenditures<br>Capital allocation<br>Acquisitions and divestments<br>Access to capital | Our strong customer offer to assist our customers in maximising the efficiency and resilience of their supply chain, combined with our products' recyclability and reusability credentials, means that we anticipate our revenues will continue to grow. Currently only a proportion of our largest customers are prioritising climate thinking into their engagement with us, but it is increasingly becoming the 'norm.' We anticipate higher revenues as a result of plastics substitution in the European packaging market; our ability to fill this gap by providing more sustainable products will determine the positive impact this trend has on our finances. In terms of financial planning, we have increased our investment in long-term multi-stakeholder partnerships such as the Ellen MacArthur Foundation Global Partnership (where we have invested £1m into research projects) as well as our in-house research and development activities. This opportunity has been factored into our forecasts and planning processes, which inform decision making at the highest levels of management. In the short-medium term, our focus on carbon reduction through energy efficiency is reducing our operating costs. This work is supported by more significant capital expenditure and allocation to finance projects that will realise reductions in carbon emissions in the medium term. These investments are captured in our three-year corporate planning process and include, for example, a new anaerobic digester at our Kemsley paper mill. The sale of our plastics division has enabled us to remain on our strategic path of focussing purely on a fibre-based model for sustainable, low impact packaging solutions. Finally, we continue to monitor the rising publicity of green finance schemes that are strongly linked to performance on climate-related issues. Although our strong rate of growth has so far proven to be sufficient to secure capital, we anticipate that in the medium to long-term there will be new, attractive opportunities to access new alternative funding streams which may influence how we plan to raise capital for projects, particularly those related to climate. |

## C3.1f

**(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).**

No additional information

# C4. Targets and performance

## C4.1

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

## C4.1b

**(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).**

**Target reference number**
Int 1

**Year target was set**
2016

**Target coverage**
Company-wide

**Scope(s) (or Scope 3 category)**
Scope 1+2 (market-based)

**Intensity metric**
Other, please specify (Kilograms per tonne of net saleable production (Kg/tnsp))

**Base year**
2015

**Intensity figure in base year (metric tons CO2e per unit of activity)**
209

**% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure**
100

**Target year**
2030

**Targeted reduction from base year (%)**
30

**Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]**
146.3

**% change anticipated in absolute Scope 1+2 emissions**
-505.8

**% change anticipated in absolute Scope 3 emissions**
0

**Intensity figure in reporting year (metric tons CO2e per unit of activity)**
209

**% of target achieved [auto-calculated]**
0

**Target status in reporting year**
Underway

**Is this a science-based target?**
Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science Based Targets initiative

**Please explain (including target coverage)**
We set this target in 2015, covering the entire Group and to be achieved by 2030. This was first reported in our 2016 Annual Report and Sustainability Report, and disclosed to CDP in 2018. Since setting the target, an additional 61 sites have entered the Group, owed to growth across Europe and the US through a series of acquisitions. This growth has meant that our absolute carbon emissions have steadily increased, particularly given that we typically acquire businesses requiring resource to get them up to the standard of environmental performance that we expect. As with all acquisitions, acquired businesses are re-branded and given training on our values and performance expectations. Excluding the sites acquired since 2015, our 'legacy' operations have delivered an 11 per cent reduction in emissions relative to production, when comparing the business footprint as it was in our 2015 baseline year with the same footprint in 2019. This is predominantly due to our European paper mills which have shown a 14 per cent reduction in carbon emissions relative to production. Considering paper-making is the most carbon intensive process in our business, we are delighted with this achievement. It places us slightly ahead of where we should be, assuming a linear 2% reduction over the 15 year period from 2015-2030.

## C4.2

**(C4.2) Did you have any other climate-related targets that were active in the reporting year?**
Target(s) to increase low-carbon energy consumption or production

## C4.2a

**(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.**

**Target reference number**
Low 1

**Year target was set**
2016

**Target coverage**
Company-wide

**Target type: absolute or intensity**
Absolute

**Target type: energy carrier**
Electricity

**Target type: activity**
Consumption

**Target type: energy source**
Low-carbon energy source(s)

**Metric (target numerator if reporting an intensity target)**
Percentage

**Target denominator (intensity targets only)**
<Not Applicable>

**Base year**
2016

**Figure or percentage in base year**
0

**Target year**
2020

**Figure or percentage in target year**
100

**Figure or percentage in reporting year**
100

**% of target achieved [auto-calculated]**
100

**Target status in reporting year**
Achieved

**Is this target part of an emissions target?**
This target is to ensure 100 per cent of our energy is consumed by ISO 50001 certified sites. This globally recognised standard is our Group management mechanism, enabling a coordinated approach for monitoring energy performance at the site level, improving performance and reducing costs. In the past 12 months we have achieved certification in our Packaging sites across France and Nordics resulting in over 90 per cent of our energy consumption (the original scope of the target) now consumed at ISO 50001 certified sites. Next year we will roll-out to Iberia, Benelux and Eastern Europe.

**Is this target part of an overarching initiative?**
No, it's not 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 | 57 | 250000 |
| To be implemented* | 14 | 50000 |
| Implementation commenced* | 15 | 60000 |
| Implemented* | 4 | 86000 |
| Not to be implemented | 0 | 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 buildings | Lighting |

**Estimated annual CO2e savings (metric tonnes CO2e)**
11022

**Scope(s)**
Scope 2 (market-based)

**Voluntary/Mandatory**
Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**
3800000

**Investment required (unit currency – as specified in C0.4)**
15800000

**Payback period**
4-10 years

**Estimated lifetime of the initiative**
6-10 years

**Comment**
During the reporting period, the multi-year global LED lighting roll-out programme continued across the business. By the end of 2019, 76 sites had been completed, producing an annual 32,458MWh reduction equating to 11,022mt CO2e savings annually. As this is a global programme, the saving is calculated based on the country emission factor in the year the project is approved.

**Initiative category & Initiative type**

| | |
|---|---|
| Waste reduction and material circularity | Product/component/material recycling |

**Estimated annual CO2e savings (metric tonnes CO2e)**
8600

**Scope(s)**
Scope 3

**Voluntary/Mandatory**
Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**
0

**Investment required (unit currency – as specified in C0.4)**
50000

**Payback period**
1-3 years

**Estimated lifetime of the initiative**
6-10 years

**Comment**
During the reporting period, a new waste platform was implemented at Zarnesti paper mill. This site now sends zero operational waste to landfill. The carbon emissions associated with landfilled waste are captured in our Scope 3 emissions. The new waste platform now diverts around 86,000 tonnes of waste annually, putting the waste to productive use. Applying the DEFRA 2019 emissions factor for "Commercial and Industrial Waste" sent to landfill, this presents an emissions reduction of 86000*0.1=8,600 metric tonnes CO2e.

**Initiative category & Initiative type**

| | |
|---|---|
| Low-carbon energy generation | Biogas |

**Estimated annual CO2e savings (metric tonnes CO2e)**
384

**Scope(s)**
Scope 1
Scope 3

**Voluntary/Mandatory**
Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**
50000

**Investment required (unit currency – as specified in C0.4)**
1000000

**Payback period**
4-10 years

**Estimated lifetime of the initiative**
6-10 years

**Comment**
During the reporting period, a project was implemented to send pulper waste (sludge) for biogas production at Pazardzhik paper mill. This waste was previously landfilled, but can now be used productively for energy generation. An annual landfill reduction of approximately 3,836 tonnes of waste is now put to productive use. Applying the DEFRA 2019 emissions factor for "Commercial and Industrial Waste" sent to landfill, this presents an emissions reduction of 3836*0.1=384 metric tonnes CO2e. The actual emissions reduction will be greater, as this fuel source will replace an alternative source of energy.

## C4.3c

**(C4.3c) What methods do you use to drive investment in emissions reduction activities?**

| Method | Comment |
|---|---|
| Compliance with regulatory requirements/standards | Finance is channelled to investments with a carbon benefit as required to maintain compliance with regulatory requirements and standards. In particular, investment is made in projects that reduce the amount of carbon allowances we need to purchase in our European paper mills in order to comply with EU ETS. |
| Financial optimization calculations | Finance is channelled to investments with carbon benefit that optimises capital allocation and expenditure over the useful life of the asset. |
| Employee engagement | Finally, employees are engaged in behaviour changes to make extract the greatest value from investments in carbon reduction. |

## C-AC4.4/C-FB4.4/C-PF4.4

**(C-AC4.4/C-FB4.4/C-PF4.4) Do you implement agriculture or forest management practices on your own land with a climate change mitigation and/or adaption benefit?**
Yes

## C-AC4.4a/C-FB4.4a/C-PF4.4a

**(C-AC4.4a/C-FB4.4a/C-PF4.4a) Specify the agricultural or forest management practice(s) implemented on your own land with climate change mitigation and/or adaptation benefits and provide a corresponding emissions figure, if known.**

**Management practice reference number**
MP1

**Management practice**
Practices to increase wood production and forest productivity

**Description of management practice**
Increasing the yield from our owned forest lands makes good business sense and has positive climate impacts as a side effect.

**Primary climate change-related benefit**
Increase carbon sink (mitigation)

**Estimated CO2e savings (metric tons CO2e)**
95400

**Please explain**
Increasing yields by 5% in our North American forest would capture 95,400 more tonnes of CO2e over the lifetime of the forests on those lands.

## 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?**
Yes

## C4.5a

**(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.**

**Level of aggregation**
Group of products

**Description of product/Group of products**
Services to divert waste away from landfill provided by our Recycling division for their customers, reducing the customer's Scope 3 emissions from end of life of packaging products purchased. We manage over 6 million tonnes of material for recycling per year.

**Are these low-carbon product(s) or do they enable avoided emissions?**
Avoided emissions

**Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions**
Climate Bonds Taxonomy

**% revenue from low carbon product(s) in the reporting year**
10

**% of total portfolio value**
<Not Applicable>

**Asset classes/ product types**
<Not Applicable>

**Comment**
This is the approximate % of overall revenue derived from providing this service to our customers.

## C5. Emissions methodology

### C5.1

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

**Scope 1**

**Base year start**
January 1 2015

**Base year end**
December 31 2015

**Base year emissions (metric tons CO2e)**
1678000

**Comment**
Base year Scope 1 emissions for our 2015 scope

**Scope 2 (location-based)**

**Base year start**
January 1 2015

**Base year end**
December 31 2015

**Base year emissions (metric tons CO2e)**
355000

**Comment**
Base year Scope 2 (location-based) emissions for our 2015 scope

**Scope 2 (market-based)**

**Base year start**
January 1 2015

**Base year end**
December 31 2015

**Base year emissions (metric tons CO2e)**
355000

**Comment**
Base year Scope 2 (market-based) emissions for our 2015 scope

### 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)**
1833166

**Start date**
<Not Applicable>

**End date**
<Not Applicable>

**Comment**
Gross global Scope 1 emissions (including acquisitions and disposals)

### 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**
We report a Scope 2, market-based figure in our Environmental KPI table which features in our Annual Report and Sustainability Report. We produce more comprehensive disclosure in our Sustainability Data Book, providing both location-based and market-based Scope 2 emissions, with country-level breakdown.

### C6.3

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

**Reporting year**

**Scope 2, location-based**
592478

**Scope 2, market-based (if applicable)**
509625

**Start date**
<Not Applicable>

**End date**
<Not Applicable>

**Comment**

### 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?**
No

### 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**
736323

**Emissions calculation methodology**
Purchased 1,368,631 tonnes of paper in 2019 that are classified as Kraftliners, Semi-Chemical fluting or Mixed or Unknown, at FEFCO derived emissions factor of 0.538 mt CO2e/tonne (FEFCO is the triennial study carried out in partnership with the Confederation of European Paper Industries to calculate an average carbon footprint of a tonne of board). 1,368,631*0.538= 736,323 metric tonnes CO2e.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
100

**Please explain**
As we operate a closed loop model with a 50% integration level, most of our purchased goods (raw materials) are already counted with the Group's overall Scope 1 and 2 figures in their respective production units. This calculation is of the emissions associated with papers sometimes sourced by our Packaging division which aren't derived from recycled fibres produced by our own paper mills and are purchased from other suppliers.

### Capital goods

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Please explain**
No capital goods purchased in the reporting year.

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

**Evaluation status**
Relevant, calculated

**Metric tonnes CO2e**
47363

**Emissions calculation methodology**
In 2019, 2,182,635,576 kWh of electricity was purchased and exported. The DEFRA (2019) emissions factor for the transmission of electricity is 0.02170 kg CO2e/kWh or 0.0000217 mt CO2e/kWh. Therefore, 2,182,635,576 kWh*0.0000217 = 47,363 Mt CO2e

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
100

**Please explain**

### Upstream transportation and distribution

**Evaluation status**
Relevant, calculated

**Metric tonnes CO2e**
133928

**Emissions calculation methodology**
In 2019, 12,175,236 tonnes of raw materials entered our production sites. The DEFRA (2019) emissions factor for an average HGV laden with an average payload is 0.00011 mt CO2e/tonne/km. Therefore, taking a typical estimated sector distance of 100km, (12,175,236*100)*0.00011 = 133,928 mt Co2e

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
50

**Please explain**
Sourced from data provided by

### Waste generated in operations

**Evaluation status**
Relevant, calculated

**Metric tonnes CO2e**
47891

**Emissions calculation methodology**
In 2019, destinations of waste generated in operations were as follows: 821,518 tonnes (recycling), 81,070 tonnes (incineration), 289,363 tonnes (landfill). The DEFRA (2019) emissions factor for "commercial and industrial waste" sent to recycling is 0.021 mt CO2e / tonne of waste; "commercial and industrial waste" sent to incineration is 0.021 mt CO2e / tonne of waste; "commercial and industrial waste" sent to landfill is 0.1 mt CO2e / tonne of waste. Therefore, (821,518*0.021)+(81,070*0.021)+(289,363*0.1) = 47,891 mt CO2e

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
100

**Please explain**
Sourced from data provided by waste disposal services

### Business travel

**Evaluation status**
Relevant, calculated

**Metric tonnes CO2e**
5513

**Emissions calculation methodology**
In 2019, short, medium and long-haul flights were taken to a range of destinations. Type of flight, distance and carbon emissions are automatically calculated and provided by our corporate travel provider. Emissions factors used are based on DEFRA (2019) data.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
100

**Please explain**
Sourced directly from travel provider.

### Employee commuting

**Evaluation status**
Relevant, calculated

**Metric tonnes CO2e**
1935

**Emissions calculation methodology**
In 2019, company vehicle mileage totaled 5,287,837 miles (diesel) and 1,578,320 miles (petrol). Applying the DEFRA (2019) emissions factor of 0.27901kg/mile for 'Average car - diesel miles' and kg/mile for 'Average car - petrol miles'; therefore: (5287837*0.27901)+( 1578320*0.29103)= 1,934,698 kg CO2e - *0.001 = 1,925 mt Co2e.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
100

**Please explain**
Data provided by company fleet provider

### Upstream leased assets

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Please explain**
No upstream leased assets

### Downstream transportation and distribution

**Evaluation status**
Relevant, calculated

**Metric tonnes CO2e**
101246

**Emissions calculation methodology**
In 2019, 9,204,214 tonnes of saleable product left our production sites for delivery to customers. The DEFRA (2019) emissions factor for an average HGV laden with an average payload is 0.00011 mt CO2e/tonne/km. Therefore, taking a typical estimated sector distance of 100km, (9,204,214*100)*0.00011 = 101,246 mt Co2e

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

**Please explain**

### Processing of sold products

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Please explain**
It is not possible to get data from all our customers' co-packing and picking operations in order to assess the processing emissions. The energy used will already be aggregated with the total energy used in production of the goods that go inside the box, and that this figure is not material to our business.

### Use of sold products

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Please explain**
Our circular business model involves closed-loop, integrated recycling and we routinely transform our finished goods (boxes) back into recycled papers within 14 days. The greatest portion of our fuel is used to transport recovered papers to our mills and these emissions are declared within our Scope 1 calculation. There will be some Scope 3 emissions for third party transport which it is presently not possible to measure.

### End of life treatment of sold products

**Evaluation status**
Relevant, calculated

**Metric tonnes CO2e**
721097

**Emissions calculation methodology**
The recycling rate of paper is estimated to be 84% (CEPI, 2019), so taking a total global production of 9,204,214 tonnes, it is assumed that 7,731,540 tonnes is recycled (84%), 736,337 is incinerated (8%) and 736,337 is landfilled (8%). The DEFRA (2019) emissions factors are as follows: 'Recycling (closed loop) for paper and board (mixed)' = 0.00021mt CO2e/tonne; 'Incineration for paper and board (mixed)' = 0.00021mt CO2e/tonne; 'Landfill for paper and board (mixed)' = 1.042 mt CO2e/tonne. Therefore: (7,731,540*0.00021)+(736,337*0.00021)+(736,337*1.042) = 769,042 mt CO2e

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
0

**Please explain**
Our own production data

### Downstream leased assets

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Please explain**
No downstream leased assets

### Franchises

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Please explain**
No franchises in our business model

### Investments

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Please explain**
All investments are in property, plant and equipment that have productive capacity. The emissions associated with these investments are captured in Scope 1 and Scope 2.

**Other (upstream)**

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Please explain**

**Other (downstream)**

**Evaluation status**
Not relevant, explanation provided

**Metric tonnes CO2e**
<Not Applicable>

**Emissions calculation methodology**
<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
<Not Applicable>

**Please explain**

## C-AC6.6/C-FB6.6/C-PF6.6

**(C-AC6.6/C-FB6.6/C-PF6.6) Can you break down your Scope 3 emissions by relevant business activity area?**
Partially

## C-AC6.6a/C-FB6.6a/C-PF6.6a

**(C-AC6.6a/C-FB6.6a/C-PF6.6a) Disclose your Scope 3 emissions for each of your relevant business activity areas.**

**Activity**
Processing/Manufacturing

**Scope 3 category**
Purchased goods and services

**Emissions (metric tons CO2e)**
726743

**Please explain**
In 2019, 1,368,631 tonnes of paper was purchased. Applying the FEFCO (2019) emissions factor of 0.531mt CO2e/tonne, 1368631*0.531 = 726,743mt Co2e. (FEFCO is the triennial study carried out in partnership with the Confederation of European Paper Industries to calculate an average carbon footprint of a tonne of board)

## C-AC6.8/C-FB6.8/C-PF6.8

**(C-AC6.8/C-FB6.8/C-PF6.8) Is biogenic carbon pertaining to your direct operations relevant to your current CDP climate change disclosure?**
No

## C-AC6.9/C-FB6.9/C-PF6.9

**(C-AC6.9/C-FB6.9/C-PF6.9) Do you collect or calculate greenhouse gas emissions for each commodity reported as significant to your business in C-AC0.7/FB0.7/PF0.7?**

**Agricultural commodities**
Timber

**Do you collect or calculate GHG emissions for this commodity?**
No, not currently but intend to collect or calculate this data within the next two years

**Please explain**
Over the coming months, we will explore the use of the “GHG Protocol Agricultural Guidance:- Interpreting the Corporate Accounting and Reporting Standard for the agricultural sector” to account for the emissions associated with our forest holdings.

## 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**
252

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)**
2342805

**Metric denominator**
metric ton of product

**Metric denominator: Unit total**
9306694.23

**Scope 2 figure used**
Market-based

**% change from previous year**
2

**Direction of change**
Increased

**Reason for change**
Reporting scope grew with new acquisitions: added four North American packaging sites, one Romanian packaging site and one Romanian paper mill. Note also that the number we report typically is an intensity figure calculated from net global Scope 1 and 2 emissions - "Total CO2e (net energy exported)", where as this disclosure is an intensity figure based on gross (before removing energy exports). These are therefore emissions not associated with production of our product, but rather the generation and export of energy.

## C7. Emissions breakdowns

### C7.1

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

### C7.1a

**(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).**

| Greenhouse gas | Scope 1 emissions (metric tons of CO2e) | GWP Reference |
|---|---|---|
| CO2 | 1797845 | IPCC Fifth Assessment Report (AR5 – 100 year) |
| CH4 | 2463 | IPCC Fifth Assessment Report (AR5 – 100 year) |
| HFCs | 417 | IPCC Fifth Assessment Report (AR5 – 100 year) |
| N2O | 1271 | IPCC Fifth Assessment Report (AR5 – 100 year) |
| PFCs | 0 | IPCC Fifth Assessment Report (AR5 – 100 year) |
| SF6 | 0 | IPCC Fifth Assessment Report (AR5 – 100 year) |
| NF3 | 0 | IPCC Fifth Assessment Report (AR5 – 100 year) |

### C7.2

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

| Country/Region | Scope 1 emissions (metric tons CO2e) |
|---|---|
| Austria | 4771 |
| Belgium | 5111 |
| Bosnia & Herzegovina | 740 |
| Bulgaria | 37493 |
| Croatia | 100742 |
| Czechia | 3383 |
| Denmark | 4979 |
| Estonia | 773 |
| Finland | 2149 |
| France | 122613 |
| Germany | 213834 |
| Greece | 5591 |
| Hungary | 5832 |
| Italy | 386747 |
| Lithuania | 2065 |
| North Macedonia | 1551 |
| Morocco | 5 |
| Netherlands | 193160 |
| New Zealand | 15 |
| Poland | 18009 |
| Portugal | 226 |
| Romania | 80554 |
| Serbia | 2650 |
| Slovakia | 3135 |
| Slovenia | 3656 |
| Spain | 14856 |
| Sweden | 1157 |
| Switzerland | 1845 |
| Thailand | 0 |
| Turkey | 305 |
| United Kingdom of Great Britain and Northern Ireland | 469239 |
| United States of America | 146045 |

## C7.3

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

By business division

## C7.3a

**(C7.3a) Break down your total gross global Scope 1 emissions by business division.**

| Business division | Scope 1 emissions (metric ton CO2e) |
|---|---|
| Paper | 1412000 |
| Packaging | 249197 |
| Recycling | 9673 |
| North America Packaging and Paper | 145637 |
| Plastics (now disposed of, but included in Calendar 2019 scope) | 16849 |

## C-AC7.4/C-FB7.4/C-PF7.4

**(C-AC7.4/C-FB7.4/C-PF7.4) Do you include emissions pertaining to your business activity(ies) in your direct operations as part of your global gross Scope 1 figure?**

Partially

## C-AC7.4a/C-FB7.4a/C-PF7.4a

**(C-AC7.4a/C-FB7.4a/C-PF7.4a) Select the form(s) in which you are reporting your agricultural/forestry emissions.**

Total emissions

## C-AC7.4b/C-FB7.4b/C-PF7.4b

**(C-AC7.4b/C-FB7.4b/C-PF7.4b) Report the Scope 1 emissions pertaining to your business activity(ies) and explain any exclusions. If applicable, disaggregate your agricultural/forestry by GHG emissions category.**

**Activity**
Agriculture/Forestry

**Emissions category**
<Not Applicable>

**Emissions (metric tons CO2e)**
1833000

**Methodology**
Default emissions factor

**Please explain**
We have not yet measured or calculated emissions from our forestry assets in North America in terms of the carbon stock changes and fluxes from Land Use Change or Deforestation as suggested in the GHG Agricultural Protocol. However, in the reporting period there has been no significant deforestation for product and no land converted to other uses so changes from these sources will be minimal. Included are all emissions from our timber processing operation in Riceboro, Georgia (USA) in our global Scope 1 figure, accounting for emissions arising from the conversion of timber into product and fuel for our other processes in line with the GHG Protocol.

## 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) |
|---|---|---|---|---|
| Austria | 1398 | 1398 | 8476 | 0 |
| Belgium | 3163 | 3040 | 23498 | 1000 |
| Bosnia & Herzegovina | 265 | 265 | 293 | 0 |
| Bulgaria | 32190 | 32190 | 77415 | 0 |
| Croatia | 38539 | 31494 | 97897 | 17047 |
| Czechia | 5992 | 5992 | 9754 | 0 |
| Denmark | 8383 | 8383 | 18509 | 0 |
| Estonia | 2218 | 2218 | 2128 | 0 |
| Finland | 3913 | 3913 | 12748 | 0 |
| France | 11527 | 11527 | 245836 | 0 |
| Germany | 132208 | 58390 | 582622 | 100910 |
| Greece | 5292 | 5292 | 8506 | 0 |
| Hungary | 4340 | 4340 | 12711 | 0 |
| Italy | 26263 | 26263 | 55112 | 0 |
| Lithuania | 3539 | 3539 | 5021 | 0 |
| North Macedonia | 1448 | 1448 | 2083 | 0 |
| Morocco | 78 | 78 | 111 | 0 |
| Netherlands | 15643 | 15643 | 40637 | 0 |
| New Zealand | 183 | 183 | 1476 | 0 |
| Poland | 25429 | 25429 | 30470 | 0 |
| Portugal | 5352 | 5242 | 19401 | 286 |
| Romania | 55944 | 55944 | 131715 | 0 |
| Serbia | 2472 | 2472 | 3250 | 0 |
| Slovakia | 3470 | 3470 | 19255 | 0 |
| Slovenia | 3321 | 3321 | 7424 | 0 |
| Spain | 16187 | 15993 | 36263 | 436 |
| Sweden | 1454 | 1454 | 39961 | 0 |
| Switzerland | 770 | 0 | 3852 | 3852 |
| Thailand | 53 | 53 | 103 | 0 |
| Turkey | 1570 | 1570 | 3547 | 0 |
| United Kingdom of Great Britain and Northern Ireland | 30440 | 29663 | 129438 | 3303 |
| United States of America | 149434 | 149434 | 326631 | 0 |

## C7.6

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

## C7.6a

**(C7.6a) Break down your total gross global Scope 2 emissions by business division.**

| Business division | Scope 2, location-based (metric tons CO2e) | Scope 2, market-based (metric tons CO2e) |
|---|---|---|
| Paper | 220352 | 142533 |
| Packaging | 200645 | 198607 |
| Recycling | 1873 | 1608 |
| North America Packaging and Paper | 140097 | 140097 |
| Plastics (now disposed of, but included in Calendar 2019 scope) | 29510 | 26793 |

## 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?**

Increased

## 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 | 14453 | Decreased | 0.63 | Consumption of renewable fuels increased by 70,635,000kWh in 2019. Were it not for consumption of biomass, natural gas would have been used as an alternative fuel. Taking the emissions factor of 0.20462kg CO2e per kWh (Greenhouse gas reporting: conversion factors 2019 (UK Department for Business, Energy & Industrial Strategy)), 70,635,000* 0.20462 = 14,453,333kg CO2e. Therefore, emissions value (percentage) is calculated (14453/2282915)*100 = 0.63 |
| Other emissions reduction activities | 25765 | Decreased | 1.13 | Energy efficiency activities (e.g. installation of LED lighting) meant we consumed 41,489MWh less energy, when comparing with the same level of production output in 2019. This energy offsets electricity from the grid which has a weighted average grid emissions factor for the relevant countries 0.621 mt CO2e/kWh. Multiplying 41489*0.621 = 25,765 metric tonnes CO2e. This represents a 1.57% decrease vs 2017 (25765/2282915)*100 = 1.13. |
| Divestment | | <Not Applicable> | | No divestment in the reporting period |
| Acquisitions | 140052 | Increased | 6.13 | In this reporting period, new acquisitions came into scope. This included four North American packaging sites, one Romanian packaging site and one Romanian paper mill. The gross Scope 1 and Scope 2 emissions from these sites added 140,052 metric tonnes CO2e to our overall emissions. Gross Scope 1 and Scope 2 emissions for 2018 were 2,282,915 metric tonnes CO2e, therefore emissions value (percentage) is calculated (140052/2282915)*100 = 6.13 |
| Mergers | | <Not Applicable> | | No mergers in the reporting period |
| Change in output | 50080 | Decreased | 2.19 | Production decreased by 2.7% on a like-for-like basis between 2018 and 2019, decreasing output by 248,867 tonnes. On a like-for-like basis, the emissions intensity was 0.20123 metric tonnes CO2e/tonne production; therefore -248867*0.20123 = -50,080 metric tonnes CO2e, which is a decrease in gross emissions. The emissions value (percentage) is therefore calculated (-50080/2282915)*100 = -2.19 |
| Change in methodology | | <Not Applicable> | | No change to the methodology in the reporting period |
| Change in boundary | | <Not Applicable> | | No change to the boundary in the reporting period |
| Change in physical operating conditions | | <Not Applicable> | | No change significantly influencing how the company operates in the reporting period |
| Unidentified | | <Not Applicable> | | Changes accounted for in other categories. |
| Other | | <Not Applicable> | | Changes accounted for in other categories. |

## 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) | LHV (lower heating value) | 1558657 | 8661450 | 10220107 |
| Consumption of purchased or acquired electricity | <Not Applicable> | 127002 | 1393995 | 1520997 |
| Consumption of purchased or acquired heat | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Consumption of purchased or acquired steam | <Not Applicable> | 0 | 545938 | 545938 |
| Consumption of purchased or acquired cooling | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Consumption of self-generated non-fuel renewable energy | <Not Applicable> | 167 | <Not Applicable> | 167 |
| Total energy consumption | <Not Applicable> | 1685826 | 10601383 | 12287209 |

## 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 | Yes |
| Consumption of fuel for the generation of heat | Yes |
| 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 | No |

## C8.2c

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

**Fuels (excluding feedstocks)**

Coal

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

37998

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

37998

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**
<Not Applicable>

**Emission factor**
0.32442

**Unit**
kg CO2e per KWh

**Emissions factor source**
Greenhouse gas reporting: Conversion Factors 2018 (UK Department for Business, Energy & Industrial Strategy)

**Comment**

---

**Fuels (excluding feedstocks)**
Biogas

**Heating value**
LHV (lower heating value)

**Total fuel MWh consumed by the organization**
87752

**MWh fuel consumed for self-generation of electricity**
0

**MWh fuel consumed for self-generation of heat**
0

**MWh fuel consumed for self-generation of steam**
0

**MWh fuel consumed for self-generation of cooling**
<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**
<Not Applicable>

**Emission factor**
0.00021

**Unit**
kg CO2e per KWh

**Emissions factor source**
Greenhouse gas reporting: Conversion Factors 2018 (UK Department for Business, Energy & Industrial Strategy)

**Comment**
Fuel consumed for self-cogeneration or trigeneration

---

**Fuels (excluding feedstocks)**
Black Liquor

**Heating value**
LHV (lower heating value)

**Total fuel MWh consumed by the organization**
198034

**MWh fuel consumed for self-generation of electricity**
0

**MWh fuel consumed for self-generation of heat**
0

**MWh fuel consumed for self-generation of steam**
0

**MWh fuel consumed for self-generation of cooling**
<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**
<Not Applicable>

**Emission factor**
0

**Unit**
kg CO2e per KWh

**Emissions factor source**
Internal mill source. Burned at our Kraftliner mill in Georgia, USA.

**Comment**
Fuel consumed for self-cogeneration or trigeneration

---

**Fuels (excluding feedstocks)**
Fuel Oil Number 6

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**
8012

**MWh fuel consumed for self-generation of electricity**
0

**MWh fuel consumed for self-generation of heat**
8012

**MWh fuel consumed for self-generation of steam**
0

**MWh fuel consumed for self-generation of cooling**
<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**
<Not Applicable>

**Emission factor**
0.26789

**Unit**
kg CO2e per KWh

**Emissions factor source**
Greenhouse gas reporting: Conversion Factors 2018 (UK Department for Business, Energy & Industrial Strategy)

**Comment**

---

**Fuels (excluding feedstocks)**
Fuel Oil Number 2

**Heating value**
LHV (lower heating value)

**Total fuel MWh consumed by the organization**
21824

**MWh fuel consumed for self-generation of electricity**
0

**MWh fuel consumed for self-generation of heat**
21824

**MWh fuel consumed for self-generation of steam**
0

**MWh fuel consumed for self-generation of cooling**
<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**
<Not Applicable>

**Emission factor**
0.26789

**Unit**
kg CO2e per KWh

**Emissions factor source**
Greenhouse gas reporting: Conversion Factors 2018 (UK Department for Business, Energy & Industrial Strategy)

**Comment**

---

**Fuels (excluding feedstocks)**
Liquefied Petroleum Gas (LPG)

**Heating value**
LHV (lower heating value)

**Total fuel MWh consumed by the organization**
56553

**MWh fuel consumed for self-generation of electricity**
0

**MWh fuel consumed for self-generation of heat**
56553

**MWh fuel consumed for self-generation of steam**
0

**MWh fuel consumed for self-generation of cooling**
<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**
<Not Applicable>

**Emission factor**

0.20462

**Unit**
kg CO2e per KWh

**Emissions factor source**
Greenhouse gas reporting: Conversion Factors 2018 (UK Department for Business, Energy & Industrial Strategy)

**Comment**

---

**Fuels (excluding feedstocks)**
Natural Gas

**Heating value**
LHV (lower heating value)

**Total fuel MWh consumed by the organization**
8471465

**MWh fuel consumed for self-generation of electricity**
0

**MWh fuel consumed for self-generation of heat**
0

**MWh fuel consumed for self-generation of steam**
1349005

**MWh fuel consumed for self-generation of cooling**
<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**
<Not Applicable>

**Emission factor**
0.20462

**Unit**
kg CO2e per KWh

**Emissions factor source**
Greenhouse gas reporting: Conversion Factors 2018 (UK Department for Business, Energy & Industrial Strategy)

**Comment**
Further 7,122,460MWh of natural gas consumed for self-cogeneration or trigeneration

---

**Fuels (excluding feedstocks)**
Wood Chips

**Heating value**
LHV (lower heating value)

**Total fuel MWh consumed by the organization**
662052

**MWh fuel consumed for self-generation of electricity**
0

**MWh fuel consumed for self-generation of heat**
0

**MWh fuel consumed for self-generation of steam**
0

**MWh fuel consumed for self-generation of cooling**
<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**
<Not Applicable>

**Emission factor**

**Unit**
Please select

**Emissions factor source**

**Comment**
Fuel consumed for self-cogeneration or trigeneration

---

## 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 | 1134390 | 1007555 | 126835 | 126835 |
| Heat | 0 | 0 | 0 | 0 |
| Steam | 5229114 | 5229114 | 815721 | 815721 |
| 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**
Power purchase agreement (PPA) with on-site/off-site generator owned by a third party with no grid transfers (direct line)

**Low-carbon technology type**
Low-carbon energy mix

**Country/region of consumption of low-carbon electricity, heat, steam or cooling**
Europe

**MWh consumed accounted for at a zero emission factor**
100910

**Comment**
Green electricity imported from the RDF (Residual Derived Fuel) fired CHP plant at Witzenhausen Paper Mill.

**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/region of consumption of low-carbon electricity, heat, steam or cooling**
Europe

**MWh consumed accounted for at a zero emission factor**
25925

**Comment**
Renewable electricity imported via green tariffs

# C9. Additional metrics

## C9.1

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

**Description**
Energy usage

**Metric value**
12176

**Metric numerator**
Megawatt hours (GWh)

**Metric denominator (intensity metric only)**
Tonne of production

**% change from previous year**
3

**Direction of change**
Increased

**Please explain**
Increase in energy consumption attributed to bringing new acquisitions into scope for the first time (4 North American packaging sites, 1 Romanian packaging site and 1 Romanian paper mill)

# 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**
Limited assurance

**Attach the statement**
DSS_Assurance Statement 2020_Full_v2.0.pdf

**Page/ section reference**
Entire document: pages 1-4

**Relevant standard**
ISAE3000

**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**
Limited assurance

**Attach the statement**
DSS_Assurance Statement 2020_Full_v2.0.pdf

**Page/ section reference**
Entire document: pages 1-4

**Relevant standard**
ISAE3000

**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 verification relates to | Data verified | Verification standard | Please explain |
|---|---|---|---|
| C5. Emissions performance | Year on year emissions intensity figure | ISO14064-3 | This is our key KPI for reporting progress against our goal to reduce emissions by 30% per tonne of production by 2030 |

## 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

### 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**

92

**% of Scope 2 emissions covered by the ETS**

73

**Period start date**

January 1 2019

**Period end date**

December 31 2019

**Allowances allocated**

953277

**Allowances purchased**

1074406

**Verified Scope 1 emissions in metric tons CO2e**

1687166

**Verified Scope 2 emissions in metric tons CO2e**

369639

**Details of ownership**

Facilities we own and operate

**Comment**

### C11.1d

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

Our strategy to comply with the EU ETS is to minimise our carbon emissions through reducing energy consumption and switching to lower-carbon fuels. We will then continue to purchase balance allowances as required. An example of how this strategy has been implemented is a decision taken in 2018 to install a more efficient combined heat and power plant at Kemsley which will cut our emissions by 30,000 tonnes, helping the compliance of this facility with the EU ETS.

### 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, but we 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

Yes, our customers

## C12.1a

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

**Type of engagement**

Information collection (understanding supplier behavior)

**Details of engagement**

Other, please specify (Collection of information related to chain of custody and raw materials sourcing, and use of EcoVadis assessments)

**% of suppliers by number**

100

**% total procurement spend (direct and indirect)**

5

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

10

**Rationale for the coverage of your engagement**

We have achieved our target of 100% FSC certification at our manufacturing sites and source papers that are 100% recycled or chain of custody certified (minimum controlled wood standard). This involves engaging with our suppliers to determine whether they provide, or can provide, products that meet our requirements. We have a team within our Paper Sourcing function committed finding this information and ensuring the Group maintain this standard. Furthermore, as part of our Supplier Engagement programme, we invite suppliers to the EcoVadis platform to supplier performance on climate-related issues. We encourage suppliers to improve their performance, with any supplier falling below our minimum standard needing to demonstrate improvement within a set timeframe before they risk deselection.

**Impact of engagement, including measures of success**

Suppliers are given detailed feedback to help them improve their performance. Their assessment score and progress is discussed at regular meetings. In the reporting period, 18 suppliers were actively engaged in plans to improve their performance, covering 239 actions to improve performance, of which 139 were completed. An example of this is chemicals supplier, Solenis. We were one of their only customers to sit down in person to review their EcoVadis score, discuss sustainability standards and review continuous improvement plans. The influence of DS Smith and other stakeholders has led to Solenis improving their EcoVadis rank to Gold Standard. Our relationship continues to develop as we work together to improve the sustainability of our paper mills' water treatment.

**Comment**

See Sustainability Report 2020 for further information

## C12.1b

**(C12.1b) Give details of your climate-related engagement strategy with your customers.**

**Type of engagement**
Education/information sharing

**Details of engagement**
Share information about your products and relevant certification schemes (i.e. Energy STAR)

**% of customers by number**
30

**% of customer - related Scope 3 emissions as reported in C6.5**
30

**Portfolio coverage (total or outstanding)**
<Not Applicable>

**Please explain the rationale for selecting this group of customers and scope of engagement**
Engagement efforts are focussed on top customers by revenues, allowing us to exert greater influence on the total value chain, rather than simply trying to cover all customers, most of whom account for a small amount of revenue.

**Impact of engagement, including measures of success**
Year on year, customer interest in climate-related performance has increased by 30%. The impact of engagement from 2018 to 2019 was receiving over 100 more requests from customers on climate-related issues. We consider continued increases in these metrics a success, and we anticipate a continued annual increase in customer requests.

## C-AC12.2/C-FB12.2/C-PF12.2

**(C-AC12.2/C-FB12.2/C-PF12.2) Do you encourage your suppliers to undertake any agricultural or forest management practices with climate change mitigation and/or adaptation benefits?**
Yes

## C-AC12.2a/C-FB12.2a/C-PF12.2a

**(C-AC12.2a/C-FB12.2a/C-PF12.2a) Specify which agricultural or forest management practices with climate change mitigation and/or adaptation benefits you encourage your suppliers to undertake and describe your role in the implementation of each practice.**

**Management practice reference number**
MP1

**Management practice**
Enhanced forest regeneration practices

**Description of management practice**
Suppliers of paper and pulp are required to ensure the protection and preservation of forest ecosystems. Sustainable supply of fibre is critical to long term business continuity, even if forest-derived fibre represents only a small proportion of overall fibre consumption. Enhanced forest regeneration practices, including the protection and preservation of forest ecosystems is essential to resilient supply security. This expectation is documented in the section of our Global Supplier Standard relating specifically to the supply of paper and pulp; and is enforced in our Global Sustainable Fibre Sourcing Policy. 100% of suppliers of paper and pulp are expected to comply with this management practice.

**Your role in the implementation**
Knowledge sharing
Procurement

**Explanation of how you encourage implementation**
Suppliers of paper and/or pulp are required to ensure the protection and preservation of forest ecosystems. Suppliers are actively reminded of this commitment by our Paper Sourcing team, who maintain an ongoing dialogue with suppliers on sustainability topics. New and existing suppliers are issued the Global Supplier Standard and required to confirm compliance with our standards. We advise that suppliers maintain a quality management system that includes identification and traceability of paper and pulp and that they assist protecting the environment through sustainable environmental management practices. When requested, suppliers must provide information regarding their implementation of this practice.

**Climate change related benefit**
Increasing resilience to climate change (adaptation)
Increase carbon sink (mitigation)

**Comment**

---

**Management practice reference number**
MP2

**Management practice**
Biodiversity considerations

**Description of management practice**

**Your role in the implementation**
Knowledge sharing
Procurement

**Explanation of how you encourage implementation**

**Climate change related benefit**
Increasing resilience to climate change (adaptation)
Increase carbon sink (mitigation)
Reduced demand for fertilizers (adaptation)
Reduced demand for pesticides (adaptation)

**Comment**

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**Management practice reference number**
MP3

**Management practice**
Low carbon energy use

**Description of management practice**

**Your role in the implementation**
Knowledge sharing
Procurement

**Explanation of how you encourage implementation**

**Climate change related benefit**
Emissions reductions (mitigation)
Reduced demand for fossil fuel (adaptation)

**Comment**

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## C-AC12.2b/C-FB12.2b/C-PF12.2b

**(C-AC12.2b/C-FB12.2b/C-PF12.2b) Do you collect information from your suppliers about the outcomes of any implemented agricultural/forest management practices you have encouraged?**
No

## 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 with minor exceptions | Engaged with BEIS (Department for Business, Energy and Industrial Strategy) on the development of the 2050 Roadmap for the paper sector. | General support for legislation but minor exceptions; tax incentives for the carbon-intensive industries to encourage investment and employment. |

## 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**
CEPI

**Is your position on climate change consistent with theirs?**
Consistent

**Please explain the trade association's position**
http://www.cepi.org/topics/energy-and-climate-change Because energy can account for up to 30% of its costs, the industry has looked to sustainable and renewable sources and today is the one of the least fossil fuel intensive industries in Europe. It is also Europe's biggest industrial user and producer of renewable energy. The industry has invested heavily in combined heat and power generation (CHP), and sustained efforts have reduced CO2 emissions by 20% in a decade. Growing concerns on climate change and changing approaches to policy and legislation on buying and selling energy, mean that energy remains top of the paper industry's agenda.

**How have you influenced, or are you attempting to influence their position?**
Through chairmanship and participation in the committees, sub-committees and working groups of CEPI.

## 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?**

All engagement at the European level is coordinated through a central responsible person who provides feedback to the Group's Sustainability Committee on all issues that affect climate change. We also have a person centrally responsible for Government Relations, whose role is to influence policy that supports our business model, particularly in the area of recycling and circular economy policy.

## 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, incorporating the TCFD recommendations

**Status**
Complete

**Attach the document**
DS Smith Sustainability Report 2020.pdf
DS Smith Annual Report 2020.pdf

**Page/Section reference**
DS Smith Annual Report 2020 (pages 32, 35) DS Smith Sustainability Report 2020 (pages 26-27, 41) DS Smith webpage, "Task Force on Climate-related Financial Disclosures (TCFD)" https://www.dssmith.com/company/sustainability/our-environment/climate-risk-assessment-at-ds-smith

**Content elements**
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

**Comment**
In Annual Report 2020, we published disclosures following 10/11 TCFD recommendations, with plans in place to provide full disclosure by Annual Report 2021.

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**Publication**
In voluntary sustainability report

**Status**
Complete

**Attach the document**
DS Smith Sustainability Report 2020.pdf

**Page/Section reference**
DS Smith Sustainability Report 2020 (pages 26-27, 41) DS Smith webpage, "Task Force on Climate-related Financial Disclosures (TCFD)" https://www.dssmith.com/company/sustainability/our-environment/climate-risk-assessment-at-ds-smith

**Content elements**
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

**Comment**
Comments in Sustainability Report, with detail on public webpage.

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## C13. Other land management impacts

### C-AC13.1/C-FB13.1/C-PF13.1

**(C-AC13.1/C-FB13.1/C-PF13.1) Do you know if any of the management practices implemented on your own land disclosed in C-AC4.4a/C-FB4.4a/C-PF4.4a have other impacts besides climate change mitigation/adaptation?**
Yes

### C-AC13.1a/C-FB13.1a/C-PF13.1a

**(C-AC13.1a/C-FB13.1a/C-PF13.1a) Provide details on those management practices that have other impacts besides climate change mitigation/adaptation and on your management response.**

**Management practice reference number**
MP1

**Overall effect**
Positive

**Which of the following has been impacted?**
Water
Yield

**Description of impact**
Increasing the productivity of our forestry obviously improves yields and helps to manage flood risks from surface runoff in those areas where we have forests.

**Have you implemented any response(s) to these impacts?**
No

**Description of the response(s)**
Both these impacts are positive and therefore do not require us to implement a response to them.

## C-AC13.2/C-FB13.2/C-PF13.2

**(C-AC13.2/C-FB13.2/C-PF13.2) Do you know if any of the management practices mentioned in C-AC12.2a/C-FB12.2a/C-PF12.2a that were implemented by your suppliers have other impacts besides climate change mitigation/adaptation?**
No

# 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 | Group Chief Executive | Chief Executive Officer (CEO) |

# SC. Supply chain module

## SC0.0

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

Climate change is one of the biggest global issues and presents businesses of all sizes and in all industries with a significant array of challenges as well as a unique range of market opportunities. Investors, customers and regulators want to know how companies are adapting to a changing climate. Accordingly, we have implemented the recommendations set out by the Task Force on Climate-related Financial Disclosures (TCFD) and continue to participate in annual submissions, including CDP. We are committed to reducing our emissions. Our approach to achieving our ambitious emissions reduction target is split into two areas. Fuel switching investments are the 'big ticket' items, combined with a larger number of smaller-scale energy efficiency activities, to reduce the demand for heat in mills and demand for energy in packaging sites. Further information about our performance, contribution to SDG 13: Climate Action and the next steps we are taking on carbon and energy is described in Sustainability Report 2020.

## SC0.1

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

| | Annual Revenue |
|---|---|
| Row 1 | 6043000000 |

## SC0.2

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

No

## 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**
Diageo Plc

**Scope of emissions**
Scope 1

**Allocation level**
Company wide

**Allocation level detail**
<Not Applicable>

**Emissions in metric tonnes of CO2e**
1526.77

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

**Requesting member**
Diageo Plc

**Scope of emissions**
Scope 2

**Allocation level**
Company wide

**Allocation level detail**
<Not Applicable>

**Emissions in metric tonnes of CO2e**
424.46

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue

generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

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**Requesting member**
Grupo Bimbo, S.A.B. de C.V.

**Scope of emissions**
Scope 1

**Allocation level**
Facility

**Allocation level detail**
Region: Portugal. GHG emissions allocated to revenue generated in Portugal.

**Emissions in metric tonnes of CO2e**
135.3

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

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**Requesting member**
Grupo Bimbo, S.A.B. de C.V.

**Scope of emissions**
Scope 2

**Allocation level**
Facility

**Allocation level detail**
Region: Portugal. GHG emissions allocated to revenue generated in Portugal.

**Emissions in metric tonnes of CO2e**
37.61

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

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**Requesting member**
Grupo Bimbo, S.A.B. de C.V.

**Scope of emissions**

Scope 1

**Allocation level**
Facility

**Allocation level detail**
Region: Spain. GHG emissions allocated to revenue generated in Spain.

**Emissions in metric tonnes of CO2e**
151.07

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

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**Requesting member**
Grupo Bimbo, S.A.B. de C.V.

**Scope of emissions**
Scope 2

**Allocation level**
Facility

**Allocation level detail**
Region: Spain. GHG emissions allocated to revenue generated in Spain.

**Emissions in metric tonnes of CO2e**
42

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

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**Requesting member**
Grupo Bimbo, S.A.B. de C.V.

**Scope of emissions**
Scope 1

**Allocation level**
Facility

**Allocation level detail**
Region: United Kingdom. GHG emissions allocated to revenue generated in the United Kingdom.

**Emissions in metric tonnes of CO2e**
642.19

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

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**Requesting member**
Grupo Bimbo, S.A.B. de C.V.

**Scope of emissions**
Scope 2

**Allocation level**
Facility

**Allocation level detail**
Region: United Kingdom. GHG emissions allocated to revenue generated in the United Kingdom.

**Emissions in metric tonnes of CO2e**
178.53

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

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**Requesting member**
Koninklijke Philips NV

**Scope of emissions**
Scope 1

**Allocation level**
Company wide

**Allocation level detail**
<Not Applicable>

**Emissions in metric tonnes of CO2e**
854.04

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

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**Requesting member**
Koninklijke Philips NV

**Scope of emissions**
Scope 2

**Allocation level**
Company wide

**Allocation level detail**
<Not Applicable>

**Emissions in metric tonnes of CO2e**
237.43

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

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**Requesting member**
L'Oréal

**Scope of emissions**
Scope 1

**Allocation level**
Company wide

**Allocation level detail**
<Not Applicable>

**Emissions in metric tonnes of CO2e**
2287.64

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total

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**Requesting member**
L'Oréal

**Scope of emissions**
Scope 2

**Allocation level**
Company wide

**Allocation level detail**
<Not Applicable>

**Emissions in metric tonnes of CO2e**
635.99

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

**Requesting member**
Lego Group

**Scope of emissions**
Scope 1

**Allocation level**
Company wide

**Allocation level detail**
<Not Applicable>

**Emissions in metric tonnes of CO2e**
1308.11

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

**Requesting member**
Lego Group

**Scope of emissions**
Scope 2

**Allocation level**
Company wide

**Allocation level detail**
<Not Applicable>

**Emissions in metric tonnes of CO2e**
363.67

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

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**Requesting member**
Metro AG

**Scope of emissions**
Scope 1

**Allocation level**
Company wide

**Allocation level detail**
<Not Applicable>

**Emissions in metric tonnes of CO2e**
670.86

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

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**Requesting member**
Metro AG

**Scope of emissions**
Scope 2

**Allocation level**
Company wide

**Allocation level detail**
<Not Applicable>

**Emissions in metric tonnes of CO2e**
186.51

**Uncertainty (±%)**

3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

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**Requesting member**
Philip Morris International

**Scope of emissions**
Scope 1

**Allocation level**
Company wide

**Allocation level detail**
<Not Applicable>

**Emissions in metric tonnes of CO2e**
1541.21

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

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**Requesting member**
Philip Morris International

**Scope of emissions**
Scope 2

**Allocation level**
Company wide

**Allocation level detail**
<Not Applicable>

**Emissions in metric tonnes of CO2e**
428.47

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Please select

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
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**Requesting member**
Signify NV

**Scope of emissions**
Scope 1

**Allocation level**
Company wide

**Allocation level detail**
<Not Applicable>

**Emissions in metric tonnes of CO2e**
142.18

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

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**Requesting member**
Signify NV

**Scope of emissions**
Scope 2

**Allocation level**
Company wide

**Allocation level detail**
<Not Applicable>

**Emissions in metric tonnes of CO2e**
39.53

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total

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**Requesting member**
Stanley Black & Decker, Inc.

**Scope of emissions**
Scope 1

**Allocation level**
Company wide

**Allocation level detail**
<Not Applicable>

**Emissions in metric tonnes of CO2e**
137.49

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

**Requesting member**
Stanley Black & Decker, Inc.

**Scope of emissions**
Scope 2

**Allocation level**
Company wide

**Allocation level detail**
<Not Applicable>

**Emissions in metric tonnes of CO2e**
38.23

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

**Requesting member**
Stearinerie Dubois

**Scope of emissions**
Scope 1

**Allocation level**
Company wide

**Allocation level detail**
<Not Applicable>

**Emissions in metric tonnes of CO2e**
24.41

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

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**Requesting member**
Stearinerie Dubois

**Scope of emissions**
Scope 2

**Allocation level**
Company wide

**Allocation level detail**
<Not Applicable>

**Emissions in metric tonnes of CO2e**
6.79

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
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**Requesting member**
Unilever plc

**Scope of emissions**
Scope 1

**Allocation level**
Company wide

**Allocation level detail**
<Not Applicable>

**Emissions in metric tonnes of CO2e**
3680.83

**Uncertainty (±%)**

3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

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**Requesting member**
Unilever plc

**Scope of emissions**
Scope 2

**Allocation level**
Company wide

**Allocation level detail**
<Not Applicable>

**Emissions in metric tonnes of CO2e**
1023.31

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

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**Requesting member**
Velux A/S

**Scope of emissions**
Scope 1

**Allocation level**
Company wide

**Allocation level detail**
<Not Applicable>

**Emissions in metric tonnes of CO2e**
3408.87

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

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**Requesting member**
Velux A/S

**Scope of emissions**
Scope 2

**Allocation level**
Company wide

**Allocation level detail**
<Not Applicable>

**Emissions in metric tonnes of CO2e**
947.7

**Uncertainty (±%)**
3

**Major sources of emissions**
Power, heat and steam generation from manufacturing sites that supply, based on data from 254 in-scope sites. There are 108 sites which require fossil fuels for their production process (paper mills and corrugators) and the remaining 146 smaller sites use only electricity in their processes (sheet plants, recycling and logistics depots, and warehouses).

**Verified**
Yes

**Allocation method**
Allocation based on the market value of products purchased

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**
The Selected Information has been prepared in accordance with definitions set for DS Smith's Environmental Indicators. These definitions are aligned with the Global Reporting Initiative (GRI) and the Greenhouse Gas Protocol (GHGP) where applicable. For the Greenhouse Gas (GHG) emissions data, verification was undertaken in accordance with ISAE3000. A full verification statement including methodology, limitations and exclusions can be found on the DS Smith website: dssmith.com/company/sustainability/our-environment/performance. Following guidance from CDP, GHG emissions are allocated to our customers based on the revenue generated from that customer. This involves attributing a portion of our overall emissions, averaged out across our operating regions and product lines, based on total revenue of products/services produced. For pan-European customers who purchase from a variety of our sites in different geographies, this is a fairly accurate estimate of the GHG emissions that we can allocate to a given customer. However, we are limited by our access to specific sales data relating to tonnage of product sold per site and per customer, which would produce a more precise figure.

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## SC1.2

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

- The data used is based on primary data collected from our sites.
- A full verification statement, including methodology, limitations and exclusions can be found on the DS Smith website: www.dssmith.com/company/sustainability/our-environment/performance
- Further information can be found in Sustainability Report 2020: www.dssmith.com/sustainability

## 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 | Currently there is no central source of data relating to our entire customer base; we could calculate and allocate carbon to our customers but we do not consider that this exercise adds value relative to the amount of work involved. |

## SC1.4

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

## SC1.4a

**(SC1.4a) Describe how you plan to develop your capabilities.**

We are currently scoping the development of a carbon calculator tool to enable customers to easily select products and services from DS Smith that have a lower carbon footprint compared to others. This tool, once complete and in place, will also allow us to better track the emissions of our products per customer.

## SC2.1

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

## SC2.2

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

No

## SC3.1

**(SC3.1) Do you want to enroll in the 2020-2021 CDP Action Exchange initiative?**

Yes

## SC3.1a

**(SC3.1a) Identify which member(s), if any, have motivated you to take part in Action Exchange this year.**

Please select

## SC3.1b

**(SC3.1b) Select the types of emissions reduction activities that your company would like support in analyzing or in implementing in the next reporting year.**

Company policy or behavioral change
Energy efficiency in buildings
Energy efficiency in production processes
Low-carbon energy consumption
Low-carbon energy generation
Waste reduction and material circularity

## SC3.1c

**(SC3.1c) As part of Action Exchange, would you like facility level analysis?**

No

## SC3.2

**(SC3.2) Is your company a participating supplier in CDP's 2019-2020 Action Exchange initiative?**

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<br>Customers | Public | Yes, submit Supply Chain Questions now |

### Please confirm below

I have read and accept the applicable Terms