Welcome to your CDP Climate Change Questionnaire 2019

C0. Introduction

C0.1

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

Founded in 1979, Ingram Micro is a B2B provider of technology solutions, cloud services, and IT product lifecycle services to 200,000 customers in 160 countries. In 2018, our infrastructure spanned approximately 360 offices, distribution facilities and service centers in 62 countries with 35,000 associates globally. Ingram Micro represents approximately 1,700 original equipment manufacturers. In December 2016, Ingram Micro, a former Fortune 64 company, became a portfolio company of HNA Group.

Within our Technology Solutions (TS) business, we offer logistics and distribution services, leading IT products, technical and sales support, marketing services, credit management and specialty services. Our TS unit comprised the majority of our 2018 revenue. Our Commerce & Lifecycle Solutions (CLS) business brings together forward logistics, reverse logistics, and IT asset disposition to address the lifecycle of any IT asset. From initial delivery to return, refurbishment, remarketing and on to end-of-service or recycling, we optimize IT asset management for clients across industries and around the globe. Our Cloud Services business offers more than 250 Cloud Marketplace solutions, a Cloud Referral program and the CloudBlue platform, enabling companies to easily adapt to industry changes while monetizing any service in a subscription model, automating end-to-end operations, and reducing time to market and revenue.

We introduced our global CSR strategy in late 2015 with a dedicated sustainability role, investment in global information management systems (IMS), and a commitment to meet the needs of our diverse stakeholders worldwide. We developed our first global emissions inventory in 2016 for full-year 2015, but the manual data collection process we deployed at the time resulted in a high margin of error. Now that we've collected energy data four years in a row, three of them with the help of an IMS, we're revising our baseline year from 2015 to 2016. In addition to improving the accuracy and completeness of our global data set, we've increased renewable energy purchases and completed numerous building efficiency projects, particularly LED lighting retrofits, since 2016. To date, we've focused on evaluating scope 1 and 2 emissions, as modeling scope 3 emissions will be a significant

undertaking, given the scale of our operations. As our program matures, we'll consider scope 3 assessment, third party assurance, board oversight and other best practices for strategic climate action. To learn more about our corporate responsibility program and to view related policies and reports, please visit http://corp.ingrammicro.com/About-Us/Social-Responsibility.aspx

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
Row 1	January 1, 2018	December 31, 2018	Yes	2 years

C0.3

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

Argentina
Australia
Austria
Belgium
Brazil
Bulgaria
Canada
Chile
China
China, Hong Kong Special Administrative Region
Colombia
Costa Rica
Croatia
Czechia

Denmark
Ecuador
Egypt
Finland
France
Germany
Hungary
India
Indonesia
Italy
Lebanon
Malaysia
Mexico
Morocco
Netherlands
New Zealand
Norway
Pakistan
Peru
Philippines
Poland
Portugal
Puerto Rico
Romania
Russian Federation
Saudi Arabia
Singapore
Slovakia
Slovenia
South Africa

Spain
Sweden
Switzerland
Thailand
The former Yugoslav Republic of Macedonia
Turkey
United Arab Emirates
United Kingdom of Great Britain and Northern Ireland
United States of America
Viet Nam

C0.4

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

USD

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 consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.

Operational control

C1. Governance

C1.1

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

No

C1.1c

(C1.1c) Why is there no board-level oversight of climate-related issues and what are your plans to change this in the future?

	Primary reason	Board-level oversight of climate-related issues will be introduced within the next two years	Please explain
Row 1	Climate change is not currently a board-level priority. Ingram Micro 's executive CSR committee, comprised of a senior vice president, five executive vice presidents and our CFO, receives periodic briefings that include corporate sustainability risks and developments. Any specific issues that may require board review would be escalated as needed.	No, we do not currently plan to do so	We regularly review our CSR strategy and at present, all aspects can be effectively managed by the executive CSR committee.

C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Environment/ Sustainability manager	Both assessing and managing climate-related risks and opportunities	Not reported to the board

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 senior manager of corporate social responsibility reports to the senior vice president of global operations and engineering, who in turn reports to the CEO. The senior CSR manager provides periodic program updates to a seven-member executive committee that includes the SVP of operations and engineering. The role is responsible for all aspects of CSR strategy and management. For climate-related issues specifically, these responsibilities

include: global risk assessments, administering the information management system, data collection strategy and procedures, employee training and support, data analysis and validation, preparing emissions inventories, setting global and facility targets, monitoring and reporting, stakeholder engagement, supplier assessments, and responding to customer inquiries regarding climate action. The senior CSR manager also supports staff at the facility-level as needed and encourages dialogue around climate-related and other CSR issues. Monitoring involves regular reviews of scientific literature, global environmental, socio-economic and geopolitical trends, compliance intelligence, and developments in energy markets, including new technologies. Performance is reviewed annually based on data collected from approximately 350 facilities worldwide. Asset-level risk evaluations are performed periodically to better understand localized risks.

C1.3

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

No

C2. Risks and opportunities

C2.1

(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.

	From (years)	To (years)	Comment
Short-term	1	3	Foreseeable future
Medium-term	4	6	Some degree of speculation
Long-term	7	10	Significant degree of speculation

C2.2

(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.

A specific climate change risk identification, assessment, and management process

C2.2a

(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Six-monthly or more frequently	>6 years	While risks are monitored on an ongoing basis at the global level, a review of localized risk is only performed every 3-4 years.

C2.2b

(C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.

Our process for assessing global climate-related risks involves regular review of scientific literature, global environmental, socio-economic and geopolitical trends (e.g. annual risk report of the World Economic Forum, IPCC reports), compliance intelligence, and developments in energy markets. Every three years, we perform a stakeholder engagement process to determine the level of risk perceived by associates, business partners, customers and communities. In addition, we periodically assess country-level risks from climate change. We also participate in sustainable business conferences and draw information from NGO resources to better understand risks and mitigation strategies across various activities. For instance, while we don't operate a fleet, we rely on contract fleet services and are therefore interested in understanding trends in fleet electrification and our role in supporting it.

C2.2c

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Compliance is a basic stakeholder expectation and non-compliance carries financial and reputation risks. We employ a third-party compliance intelligence service to ensure we're aware of current regulation.

Emerging regulation	Relevant, always included	We closely follow global policy developments, so we can prepare well in advance of regulatory changes that may affect our business. We regularly consult with subject matter experts for updates on global, regional and country-level developments.
Technology	Relevant, always included	As a technology solutions provider and distributor of technology products, we constantly monitor opportunities arising from innovative technologies. We're aware of increased interest by companies to deploy IoT and AI-based solutions for emissions reduction.
Legal	Not relevant, explanation provided	Our business is at low risk of climate change-related litigation. Our scope 1 and 2 emissions are primarily generated by leased commercial properties and we don't operate a fleet. Most of our impact stems from supplier activities and in the current regulatory environment, we're at low risk of being held legally liable for supplier activities.
Market	Relevant, always included	The chronic effects of climate change may shift markets further toward low-carbon products and away from linear consumption models. Since we rely on OEM products in our sales and distribution channels, lack of adaptation in the manufacturing sector could impact our business. We already participate in take-back schemes and provide repair, refurbishment and recycling of electronics to meet demand in these areas. We've also expanded our cloud and as-a-service offerings in response to market demand.
Reputation	Relevant, always included	As a B2B company, we value our reputation with our business partners. Our customers strongly influence the direction of our CSR strategy, often providing very specific expectations or feedback on emissions reduction targets and progress. As a supplier to the largest tech OEMs and Telcos around the world, our actions on climate factor into the achievement of their scope 3 emissions targets.
Acute physical	Relevant, always included	Acute risks of climate change have already affected us. Severe weather events disrupted some of our operations in 2017 and resulted in financial impact. Contingency planning is becoming increasingly important, as fires, floods, and other severe weather events can have an immediate impact on our operations at any time.
Chronic physical	Relevant, always included	We're already experiencing chronic climate change effects in the form of heat waves and droughts. While we're not currently measuring productivity losses from chronic physical impacts, we can reasonably assume at least minor losses. In addition, communities in which we operate are impacted and may experience negative economic consequences over time, as evidenced by migration patterns from areas that can no longer sustain their population due to resource depletion. To sustain our business, we're reliant on stable communities.

Upstream	Relevant, always included	Upstream risks are related to all previous risks as they pertain to our vendors and suppliers. For example, water availability could significantly impact our manufacturing partners and thereby our supply. On the other hand, building efficiency rules would result in utility savings in properties we lease. Risks and opportunities in our supply chain are indirect risks and opportunities for Ingram Micro.
Downstream	Relevant, always included	Our downstream business partners are affected by market trends, consumer opinion and consumer protection laws, which affect us in the form of more stringent customer requirements. These have been a significant driver of our CSR approach and we analyze them at least annually. We also see potential opportunities in downstream developments, such as fleet electrification, which could result in future cost-savings.

C2.2d

(C2.2d) Describe your process(es) for managing climate-related risks and opportunities.

We have not yet developed an overarching process for the long-term management of climate-related risks and opportunities. In the short and medium term, most climate risks are relatively low and mitigation costs are disproportionately high, relative to our low-margin business. We therefore focus primarily on compliance, market, technology and customer risks. Market risks related to climate change are assessed at least annually. We are particularly interested in the wider adoption of circular economy principles, which drive demand for our repair, refurbishment and recycling services. We're also interested in technology risks and opportunities related to IoT, AI and continued virtualization. Customer-driven risks are a top priority for us. When our customers can't meet their end-user, regulatory and internal commitments, effects on our business volume inevitably follow. We therefore evaluate customer needs related to climate change action frequently and structure our program priorities accordingly.

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

Transition risk

Primary climate-related risk driver

Policy and legal: Enhanced emissions-reporting obligations

Type of financial impact

Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

Company- specific description

Emissions reporting requires internal technical staff or consultants. In addition, developing report inputs for a company of our size relies on the collection, validation and analysis of thousands of data points. Data management and reporting are time-consuming activities and increasing demands on staff raise operating costs. In addition to investing into an information management system, we must advance the skill sets of site-level employees who are responsible for data provision. This translates into hundreds of hours in training and system administration.
If reporting requirements move beyond scope 1 and 2 emissions, we'll have to model our numerous scope 3 emissions. Other costs we're not currently incurring include third party assurance and fees for validating a science-based target. If these become regulated or a standard customer contractual requirement, we would see an increase in operating costs to meet this obligation.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

250,000

Potential financial impact figure – maximum (currency)

350,000

Explanation of financial impact figure

The figure includes system, staff hours, consulting services we'd likely incur to meet enhanced emissions reporting obligations.

Management method

We have deployed an information management system to collect basic site-level energy data globally, calculate local, regional and global scope 1 and 2 greenhouse gas emissions and report our inventory in an annual CSR report and through our CDP supply chain response. We'd have to make minor system enhancements to prepare for additional reporting obligations. Additionally, we'd need to invest resources into modeling scope 3 emissions and assurance of our inventory, which is currently voluntary.

Cost of management

200,000

Comment

Management costs include software fees, staff salaries (prorated according to annual time spent on emissions management tasks) and staff training time.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Physical risk

Primary climate-related risk driver

Acute: Increased severity of extreme weather events such as cyclones and floods

Type of financial impact

Increased insurance claims liability arising from climate-related impacts

Company- specific description

In 2017, hurricanes and flooding impacted some of our facilities and disrupted operations, particularly in Puerto Rico. While we have the infrastructure to ensure business continuity overall, local losses and disruptions must still be addressed, diverting focus from core business activities. While capital costs were covered by insurance, we can reasonably assume that premiums will continue to rise as these events increase in frequency.

Time horizon

Current

Likelihood

Virtually certain

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Because we have operations in more than 60 countries, damages from severe weather events can vary widely, from none to several millions in financial losses. This depends on the location and the severity of the event. In 2017, we incurred hurricane and flood-related damages in the amount of USD 2.3 million. We had no losses from severe weather events in 2018.

Management method

Due to the vast network of facilities in our portfolio and the fact that we occupy primarily leased commercial real estate, we can move inventory quickly and minimize disruption. We also set greenhouse gas emissions reduction targets and measure our progress year-over-year. Through our donor advised fund, we're prepared to assist employees and their families affected by severe weather events.

Cost of management

1,000

Comment

Cost of management is negligible, currently limited to staff time for tasks like insurance claims processing.

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Physical risk

Primary climate-related risk driver

Chronic: Rising mean temperatures

Type of financial impact

Reduced revenue and higher costs from negative impacts on workforce (e.g., health, safety, absenteeism)

Company- specific description

Heat waves slow productivity and lead to increased risk of heat-related illnesses, particularly in our warehouses. We operate in locations that experienced heat waves in 2017, including California, Nevada, Arizona and Texas in the U.S., Australia, India, Spain, Portugal, Italy and Chile among others. In 2018, severe heat waves affected the EU, UK, Asia, META and North America.

Time horizon

Current

Likelihood

Virtually certain

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

It's challenging to gauge productivity losses from increasing temperatures, and we lack baseline figures. Studies have shown a 2 percent reduction in work performance in industrial buildings in general per 1.8 degrees Fahrenheit temperature rise at temperatures above 77 degrees Fahrenheit, but we've not been able to identify recent estimates specifically for warehouse operations. In the absence of data, it's not possible for us to determine financial impact.

Management method

We manage health and safety risks by including heat-related illnesses in our safety program. We don't manage potential heat-related productivity losses at this time, but will consider estimating this impact in the future.

Cost of management

1,000

Comment

The cost of management is negligible.

Identifier

Risk 4

Where in the value chain does the risk driver occur?

Customer

Risk type

Transition risk

Primary climate-related risk driver

Policy and legal: Mandates on and regulation of existing products and services

Type of financial impact

Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

Company- specific description

As our customers face higher regulatory demands, we are experiencing an increase in requests to provide product compliance declarations, to comply with industry codes of conduct and to accept increasingly stringent and expansive supplier agreements. We are also seeing more comprehensive sustainability inquiries as part of the RFP process.

Time horizon

Current

Likelihood

Virtually certain

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

As with emissions reporting, it's difficult to determine financial impact. Since we're complying with customer requests and are not privy to our customers' supplier scoring methodologies, we have no way of knowing if we would have lost business, had we not cooperated.

Management method

We manage this risk by complying with customer requests to the best of our ability. This includes completion of product compliance declarations, adopting industry codes of conduct and implementing customer requirements. Because Ingram Micro isn't a manufacturer, it is often difficult for us to obtain product-specific information. We typically reach out to the product stewardship or environmental compliance departments of our vendors to fulfill product-related requests.

Cost of management

0

Comment

Product compliance requests are generally not specific to climate action, but include components thereof (e.g., substances with high GWP listed alongside those with human health impacts). Therefore, only a small portion of management costs is specifically related to climate-change. Either way, costs are negligible.

Identifier

Risk 5

Where in the value chain does the risk driver occur?

Supply chain

Risk type

Physical risk

Primary climate-related risk driver

Acute: Increased severity of extreme weather events such as cyclones and floods

Type of financial impact

Reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions)

Company- specific description

Our resale business relies on our vendors' ability to supply product. Just as severe weather events interrupt our own operations, they also have the potential to cause major supply chain disruptions.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Since major disruptions in supply have not occurred and since this is a scenario with many variables, we are unable to estimate financial impact. Losses to Ingram Micro would depend on the severity of the event and the supplier's provisions for business continuity. If a key vendor were impacted, or if a supplier to multiple vendors were impacted, losses could amount to millions of dollars in revenue. We view the impact on hard-drive suppliers, as a result of severe flooding in Thailand in 2011, as an example of the type of disruption that could potentially affect us.

Management method

We partner with a large number of vendors, which buffers against potential disruptions. We also continue to invest into virtualization as a service offering. Reducing the need for hardware mitigates risk related to shortages in parts.

Cost of management

Comment

There are no management costs at the moment. Since markets are driving virtualization, risk reduction is simply a byproduct of strategic business decisions that are unrelated to climate action.

Identifier

Risk 6

Where in the value chain does the risk driver occur?

Supply chain

Risk type

Transition risk

Primary climate-related risk driver

Market: Increased cost of raw materials

Type of financial impact

Increased production costs due to changing input prices (e.g., energy, water) and output requirements (e.g., waste treatment)

Company- specific description

Increased production costs for our vendors translate into higher pricing for products we resell. Due to already low margins on the resale of electronics, this could significantly impact profitability, particularly if cost increases aren't fully absorbed by end-users.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Impact depends on actual increases in resource or production costs. A small increase in energy spend will only minimally affect pricing, but phasing out certain substances or meeting higher efficiency standards would have a more significant impact.

Management method

We are increasingly diversifying our business through investments into new technologies and services.

Cost of management

Comment

There are currently no management costs.

Identifier

Risk 7

Where in the value chain does the risk driver occur?

Customer

Risk type

Physical risk

Primary climate-related risk driver

Acute: Increased severity of extreme weather events such as cyclones and floods

Type of financial impact

Reduced revenues from lower sales/output

Company- specific description

Like our own operations and our suppliers, our retail customers are also affected by severe weather events. Disruption to retail facilities which we supply would lead to at least temporary reduction in sales.

Time horizon

Short-term

Likelihood

More likely than not

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Depending on the impacted retailer, losses could amount to thousands of dollars, assuming a short-term event.

Management method

Our customer base exceeds 200,000, wherefore impact to any one customer would not affect us significantly. We therefore don't actively manage this risk.

Cost of management

Comment

There is currently no cost of management.

C2.4

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

Yes

C2.4a

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

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of more efficient production and distribution processes

Type of financial impact

Reduced operating costs (e.g., through efficiency gains and cost reductions)

Company-specific description

We've identified an opportunity to reduce transportation routes in some of our EU operations. Current inefficiencies sometimes result in unnecessary movement of products and higher transport emissions. Although we contract transportation services, eliminating inefficiencies may reduce operating costs and will reduce transport emissions.

Time horizon

Short-term

Likelihood

More likely than not

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

We are still collecting data to evaluate the potential financial impact.

Strategy to realize opportunity

We are currently collecting data to analyze options for route optimization. If there is an opportunity to reduce costs and environmental impact, we will work with our transportation partners to realize efficiency gains.

Cost to realize opportunity

Comment

At this point, the costs are minimal, involving only staff time to gather data.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Type of financial impact

Increased revenue through demand for lower emissions products and services

Company-specific description

We are already investing in repair and refurbishment of electronics, as well as myriad as-a-service offerings and cloud solutions that reduce the need for hardware. We have an opportunity to expand these business units. There is some volatility in the market, as we've experienced with decreased demand for refurbished products in 2016, but we expect to see an increase in technology solutions that incorporate circular models.

Time horizon

Current

Likelihood

Virtually certain

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

46,800,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

This is an estimate based on growth from recycling, repair and refurbishment activities above the average growth rate for the rest of the business. The estimate correlates the higher growth rate for circular business services to demand for lower-impact products, though it is more likely that numerous drivers determine growth in this area, including cost considerations. We don't have data at a granular enough level to separate potential gains resulting purely from the customer's desire to reduce emissions. It's important to note that this figure is based on 2018 data. The market for these business activities tends to be volatile (e.g., fluctuating commodity pricing, strength of the economy overall, etc.) and while circularity as a concept is gaining traction, this may not translate into demand for a specific product category.

Strategy to realize opportunity

We've already made significant investments in lower emissions opportunities and are continuing the trend based on customer demand.

Cost to realize opportunity

Comment

No additional cost at this time, as the infrastructure is already in place and can easily be scaled.

Identifier

Opp3

Where in the value chain does the opportunity occur?

Customer

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Type of financial impact

Increased revenue through demand for lower emissions products and services

Company-specific description

If end-user demand for lower emissions products rises, then customer demand for us to supply them increases as well. An example is smart technology providers for whom we manage product distribution.

Time horizon

Current

Likelihood

Very likely

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Financial impact is currently unknown, because we've not evaluated lower emissions products against our entire product line, but we suspect that the percentage is low.

Strategy to realize opportunity

We evolved from a distribution company to a technology solutions provider for businesses of all sizes, which is increasingly attracting customers entering the market for low-emissions products.

Cost to realize opportunity

Comment

Currently unknown, but estimated to be minor.

Identifier

Opp4

Where in the value chain does the opportunity occur?

Supply Chain

Opportunity type

Resilience

Primary climate-related opportunity driver

Resource substitutes/diversification

Type of financial impact

Increased reliability of supply chain and ability to operate under various conditions

Company-specific description

Resilience throughout our supply chain results in continuity and pricing stability for us. Whether this involves efficiency gains, application of technologies to conserve resources or substitution of high emissions materials, these improvements will indirectly strengthen our organization. Requiring greater focus from our suppliers on resilience is an opportunity that will benefit us in the long term.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

We can't determine potential impact at this time. Vendor resilience will become increasingly important as resource scarcity impacts production. We believe that most of our vendors are regularly assessing these risks and aim to mitigate them. We are seeing an increased focus on sustainability in their contracts, codes of conduct and policies.

Strategy to realize opportunity

We've recently introduced a supplier code of ethics that requires suppliers to track, document and reduce greenhouse gas emissions. We've also launched a supplier risk assessment program in partnership with EcoVadis and plan to assess climate action of 100 key suppliers by year-end 2019.

Cost to realize opportunity

180,000

Comment

Costs include platform subscription and staff time to analyze results and collaborate with suppliers on corrective action plans.

Identifier

Opp5

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of lower-emission sources of energy

Type of financial impact

Reduced exposure to future fossil fuel price increases

Company-specific description

Purchased electricity and natural gas are our most significant sources of direct emissions, so we have an opportunity to explore options for renewable energy and storage technologies. Since most of our real estate portfolio is leased, we see challenges in reconciling lease terms with PPA terms, but we're looking at our options, including aggregation.

Time horizon

Short-term

Likelihood

More likely than not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

We don't have enough data to determine financial impact, though we would expect this to be less of a cost savings and more of an environmental impact reduction initiative.

Strategy to realize opportunity

We've recently begun to convert contracts to suppliers offering 100% certified renewable energy credits and are looking for additional opportunities.

Cost to realize opportunity

0

Comment

We expect to offset any time investment with cost savings from renegotiation of contracts. At minimum, we would aim for a cost-neutral initiative.

C2.5

(C2.5) Describe where and how the identified risks and opportunities have impacted your business.

	Impact	Description
Products and services	Impacted for some suppliers, facilities, or product lines	We've committed to additional investments into our lifecycle business and continue to focus on technologies that drive or rely on virtualization, including IoT and AI.
Supply chain and/or value chain	Impacted for some suppliers, facilities, or product lines	We've increased our focus on supply chain responsibility and have adopted a strategy to build a program that includes key suppliers by 2020.
Adaptation and mitigation activities	Impacted	We are setting targets each year to mitigate climate change impacts, including emissions and waste reduction, and increasing renewable energy purchases.
Investment in R&D	Not impacted	

Operations	Impacted	Over the past three years, additional facilities have obtained ISO 14001:2015 certification. This has resulted in facility-level energy and emissions reduction targets and an increased interest in corporate sustainability activities. Customer demand has also led to greater focus on climate risk mitigation.
Other, please specify		

C2.6

(C2.6) Describe where and how the identified risks and opportunities have been factored into your financial planning process.

	Relevance	Description
Revenues	Impacted for some suppliers, facilities, or product lines	Our repair, recycling and refurbishment business factors into revenue forecasts.
Operating costs	Impacted	Our annual utility budget exceeds USD 30 million. Since 2016, we have implemented over 50 building efficiency projects to reduce operating costs.
Capital expenditures / capital allocation	Not impacted	
Acquisitions and divestments	Not impacted	
Access to capital	Not impacted	
Assets	Not impacted	
Liabilities	Not yet impacted	
Other		

C3. Business Strategy

C3.1

(C3.1) Are climate-related issues integrated into your business strategy?

No

C3.1f

(C3.1f) Why are climate-related issues not integrated into your business objectives and strategy?

We adopted our global CSR strategy in December 2015. The program is too immature to be fully integrated into our overall business strategy. We have yet to model our scope 3 emissions, reach the threshold for third party assurance of our data, set an approved science-based target and build enough internal competency to manage a global program across more than 200 warehouses and dozens of administrative sites.

C4. Targets and performance

C4.1

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

Both absolute and intensity targets

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Scope

Scope 1+2 (location-based)

% emissions in Scope

100

Targeted % reduction from base year

10

Base year

2016

Start year

2016

Base year emissions covered by target (metric tons CO2e)

80,767

Target year

2020

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

% of target achieved

63.4

Target status

Underway

Please explain

We originally set our baseline year to 2015, the first year for which we collected global energy data. Since the data process was manual, we believed the margin of error to be significant. At the end of the 2018 data cycle, it became clear that 2015 energy had been over-reported. Due

to high YOY facility turnover, normalizing 2015 data based on 2016-2018 data was questionable and we decided to revise our baseline year to 2016 instead. This change translates to a 2.5% reduction in absolute emissions per year over four years for a total reduction of 10% by 2020. As of December 3, 2018, half-way through the goal period, we've achieved just over 60% of this 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

Scope

Scope 1+2 (location-based)

% emissions in Scope

100

Targeted % reduction from base year

12

Metric

Metric tons CO2e per square foot*

Base year

2016

Start year

2016

Normalized base year emissions covered by target (metric tons CO2e)

0.0038

Target year

2020

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

% of target achieved

100

Target status

Achieved

Please explain

We reduced emissions by floor space by 13% in 2018 over the 2016 baseline year, exceeding our target by 1%.

% change anticipated in absolute Scope 1+2 emissions

5.19

% change anticipated in absolute Scope 3 emissions

0

C4.2

(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.

Target

Waste

KPI – Metric numerator

Metric ton

KPI – Metric denominator (intensity targets only)

None-we measure waste in absolute terms

Base year

2017

Start year

2017

Target year

2018

KPI in baseline year

32,314,740

KPI in target year

30,699,003

% achieved in reporting year

100

Target Status

Achieved

Please explain

We have a 5% YOY solid waste reduction target. In 2018, we achieved just over 12% waste reduction.

Part of emissions target

No

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

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	0	
To be implemented*	0	
Implementation commenced*	0	
Implemented*	5	774
Not to be implemented	0	

C4.3b

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

Initiative type

Energy efficiency: Building services

Description of initiative

Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

636

Scope

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

108,355

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

235,870

Payback period

1-3 years

Estimated lifetime of the initiative

3-5 years

Comment

The data provided here covers two projects of the same nature.

Initiative type

Process emissions reductions

Description of initiative

New equipment

Estimated annual CO2e savings (metric tonnes CO2e)

138

Scope

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

225,976

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

754,704

Payback period

1-3 years

Estimated lifetime of the initiative

3-5 years

Comment

This data set covers three separate projects for the installation of energy efficient forklift chargers.

C4.3c

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

Method	Comment
Financial optimization calculations	Efficiency projects are a means of reducing operational spend.

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

Repaired and refurbished electronic products.

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

Other, please specify

EPA EEBC

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

0.66

Comment

We calculated avoided greenhouse gas emissions from our lifecycle services business using the Electronics Environmental Benefits Calculator. Total avoided greenhouse gas emissions related to our IT Asset Disposition business equaled just over 1 million metric tons. If we extrapolate

this to our Anovo business (which has not yet quantified avoided emissions), the total rises to 2-3 million metric tons.

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, 2016

Base year end

December 31, 2016

Base year emissions (metric tons CO2e)

21,722.9

Comment

This is a restatement of what we reported in our 2016 CDP supply chain report, though only a minor revision. We're still facing significant data accuracy challenges after rolling out a global system in 2016, and are continuing to audit and normalize the data in YOY comparisons. In addition, 2015 was the first year for which we collected data (via a manual process). As we collected the same figures for subsequent years, reporting and conversion errors became evident, leading us to revise our 2015 baseline to 2016.

Scope 2 (location-based)

Base year start

January 1, 2016

Base year end

December 31, 2016

Base year emissions (metric tons CO2e)

59,044.37

Comment

This is a major restatement of our previously reported 2016 emissions. We're still facing significant data accuracy challenges after rolling out a global system in 2016, and are continuing to audit and normalize the data in YOY comparisons. In addition, 2015 was the first year for which we collected data (via a manual process). As we collected the same figures for subsequent years, reporting and conversion errors became evident, leading us to revise our 2015 baseline to 2016. 2015 reported scope 2 data significantly exceeded what was reported in 2016-2018 and due to numerous facility changes over the years, we're unable to normalize the data set. Retaining 2015 as a baseline would therefore artificially inflate our emissions reduction achievements.

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.

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

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)

19,926.87

Start date

January 1, 2018

End date

December 31, 2018

Comment

Includes emissions from natural gas, stationary and mobile diesel fuel, gasoline, propane and refrigerant emissions, as reported by around 70% of our global sites (by floor space). While we extrapolate natural gas, extrapolating other fuels is not reliable.

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)

19,751.34

Start date

January 1, 2017

End date

December 31, 2017

Comment

This is a restatement of our 2017 scope 1 emissions based on the correction of reporting errors we have identified in comparing three years of global reported energy data.

Past year 2

Gross global Scope 1 emissions (metric tons CO2e)

21,722.9

Start date

January 1, 2016

End date

December 31, 2016

Comment

This is a restatement of our 2016 scope 1 emissions based on the correction of reporting errors we have identified in comparing three years of global reported energy data.

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 have operations where we are able to access electricity supplier emission factors or residual emissions factors, but are unable to report a Scope 2, market-based figure

Comment

While we have some virtual power purchase agreements in place for which we might be able to obtain supplier-specific emissions factors, our CSR department didn't have the capacity in 2018 to engage with suppliers, obtain the factors and perform separate calculations for market-based emissions. We therefore decided to report a single location-based figure. Once we've overcome our most time-intensive reporting challenges, we'll attempt to calculate market-based scope 2 emissions to increase the accuracy of our inventory.

C6.3

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

Reporting year

Scope 2, location-based

56,620.6

Start date

January 1, 2018

End date

December 31, 2018

Comment

Includes purchased electricity and purchased heat. Since electricity extrapolation is reliable and was performed within each region where we had data gaps, the stated figure includes all offices and warehouses. It excludes leased data center space (<5K ft2), as the data collection team was unable to obtain consumption figures. We have yet to establish if the lease arrangement provides operational control (in-scope) or financial control only (out-of-scope). We'll attempt to determine this by the next reporting cycle. We also exclude temporary or 3rd party warehouse space where we have no operational control.

Past year 1

Scope 2, location-based

62,533.39

Start date

January 1, 2017

End date

December 31, 2017

Comment

This is a restatement of our 2017 scope 2 emissions based on the correction of reporting errors we have identified in comparing three years of global reported energy data.

Past year 2

Scope 2, location-based

59,044.37

Start date

January 1, 2016

End date

December 31, 2016

Comment

This is a restatement of our 2016 scope 2 emissions based on the correction of reporting errors we have identified in comparing three years of global reported energy data.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source

Leased data center space (<5K ft2)

Relevance of Scope 1 emissions from this source

Emissions are not evaluated

Relevance of location-based Scope 2 emissions from this source

Emissions are not evaluated

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

Emissions are not evaluated

Explain why this source is excluded

Our data collection team was unable to obtain consumption figures. We have yet to establish if the lease arrangement provides operational control (in-scope) or financial control only (out-of-scope).

C6.5

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

Purchased goods and services

Evaluation status

Relevant, not yet calculated

Explanation

Certain to be relevant, but evaluating emissions from purchased goods and services would be a challenging task for us, based on the diversity of our vendors and lack of access to the information needed to compute these emissions. We have approximately 1700 OEM partners and resell thousands of unique products, in addition to non-inventory purchases of goods and services. Our best option is to model emissions and we've considered tools for estimating scope 3 emissions. Unfortunately, they don't adequately account for our business activities. We'll consider other options in the future, but our 2-person CSR team has limited resources for projects of this scope.

Capital goods

Evaluation status

Not relevant, explanation provided

Explanation

Since Ingram Micro is primarily a distributor, reseller and service provider, emissions from capital goods are insignificant.

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

Evaluation status

Relevant, calculated

Metric tonnes CO2e

4,672

Emissions calculation methodology

GHGP, average data method (world), using World Bank 2014 figure of 8.251%.

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

0

Explanation

This value reflects electricity transmission and distribution losses. We did not obtain loss data directly from power suppliers.

Upstream transportation and distribution

Evaluation status

Relevant, not yet calculated

Explanation

Certain to be relevant, but obtaining this information may not be possible with current resources, due the scope and complexity of our upstream transportation and distribution activities.

Waste generated in operations

Evaluation status

Relevant, not yet calculated

Explanation

2016 was the first year we collected global waste metrics. However, we found that many facilities were not yet tracking and unable to report. We asked facilities to develop a tracking system by the end of 2017, so we could improve data quality in 2018 and use reported figures to calculate emissions in the future. Unfortunately, we continue to find numerous quality issues in our waste data sets. We've committed to the development of training for site-level reporters to improve accuracy. Until accuracy improves, calculating emissions from waste would produce unreliable values. In addition, for a large portion of our facilities, administrative offices in particular, collecting waste data is not possible. At these sites, waste is managed by companies contracted by building owners to manage waste for all building tenants. As a lessee, we don't receive occupant-specific waste data.

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

17,930.24

Emissions calculation methodology

We use a 3rd party travel services provider to manage flight tracking, but they've not integrated all countries to date. The data team attempted to collect air travel data from other countries as well, but not everyone responded. We don't know what percentage of air travel is covered by the emissions value provided, as we have no information for several countries. Where available, air travel was categorized by distance and cabin and multiplied by the appropriate GHGP or DEFRA factor (including radiative forcing). To countries that provided data on request (supplemental to travel services provider data), where categorization by distance and cabin was not available, an average DEFRA (Air Passenger Distance - Domestic - Average Class (Radiative Forcing)) factor was applied.

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

100

Explanation

The reported percentage includes emissions data provided directly by 3rd party travel services providers and emissions calculated from mileage that was also provided by external providers.

Employee commuting

Evaluation status

Relevant, not yet calculated

Explanation

Evaluating commuting emissions for 35,000 employees globally would be resource-intensive and has therefore not been undertaken. We may consider modeling emissions from commuting in the future.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Explanation

Nearly all upstream leased assets are accounted for in scope 1 and 2 emissions. An insignificant percentage of emissions is attributable to temporary storage and 3rd party warehouse space, which is highly variable and difficult to assess.

Downstream transportation and distribution

Evaluation status

Relevant, not yet calculated

Explanation

Aggregating emissions from downstream transportation globally will be extremely challenging based on the scope, complexity and number of global distribution partners engaged in this aspect of our value chain.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Explanation

Our products generally do not require further processing by downstream manufacturers.

Use of sold products

Evaluation status

Relevant, not yet calculated

Explanation

It is not feasible for us to evaluate emissions from use of products we resell or distribute. We may consider modeling emissions in this category in the future.

End of life treatment of sold products

Evaluation status

Relevant, not yet calculated

Explanation

It is not feasible for us to evaluate the end of life treatment emissions of products we resell or distribute.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Explanation

We do not lease owned assets and we sublease less than 0.3% of total floor space, which is insignificant in terms of emissions.

Franchises

Evaluation status

Not relevant, explanation provided

Explanation

We don't operate franchises.

Investments

Evaluation status

Not relevant, explanation provided

Explanation

We don't operate any significant investments.

Other (upstream)

Evaluation status

Explanation

Other (downstream)

Evaluation status

Explanation

C6.7

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

No

C6.10

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

Intensity figure

0.0000015

Metric numerator (Gross global combined Scope 1 and 2 emissions)

76,575.9

Metric denominator

unit total revenue

Metric denominator: Unit total

50,436,670,000

Scope 2 figure used

Location-based

% change from previous year

11.83

Direction of change

Decreased

Reason for change

Renewable energy purchases and energy efficiency improvements to buildings.

Intensity figure

2.19

Metric numerator (Gross global combined Scope 1 and 2 emissions)

76,547.48

Metric denominator

full time equivalent (FTE) employee

Metric denominator: Unit total

34,988

Scope 2 figure used

Location-based

% change from previous year

10.63

Direction of change

Decreased

Reason for change

Emissions reduction due to renewable energy purchases and building efficiency improvements.

Intensity figure

0.0033

Metric numerator (Gross global combined Scope 1 and 2 emissions)

76,547.48

Metric denominator

square foot

Metric denominator: Unit total

23,298,530

Scope 2 figure used

Location-based

% change from previous year

19.34

Direction of change

Decreased

Reason for change

Emissions reduction due to renewable energy purchases and building efficiency improvements.

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	19,372.76	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	0.54	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	3.57	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	550	Other, please specify ASHRAE Standard 34

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Europe, Middle East and Africa (EMEA)	8,414.59
Asia Pacific (or JAPA)	169.52
North America	11,264.66
Latin America (LATAM)	78.11

C7.3

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

By facility

By activity

C7.3b

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

2018 Scope 1 and 2 by facility.xlsx

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Due to the number of facilities, we are unable to enter them individually and are instead attaching an Excel file with facility-level emissions. We are attaching scope 2 facility-level emissions here, too, because there is no attachment option for C7.6b.			

C7.3c

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

Activity	Scope 1 emissions (metric tons CO2e)

Administrative	3,109
Repair and processing (Some repair activities occur in warehouses and can't be tracked separately. These are excluded from this figure and included in warehousing.)	1,855
Warehousing	14,413
HVAC	550

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 in market-based approach (MWh)
Europe, Middle East and Africa (EMEA)	17,980.67		2,744	
Asia Pacific (or JAPA)	10,134.54			
North America	27,172.49			
Latin America (LATAM)	1,332.9			

C7.6

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

By facility

By activity

C7.6b

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

Facility	Scope 2 location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Due to the number of facilities, we are unable to enter them individually and are instead attaching an Excel file with facility-level emissions. See attachment in C7.3b.		

C7.6c

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

Activity	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Administrative	9,987	
Repair and processing (Some repair activities occur in warehouses and can't be tracked separately. These are excluded from this figure and included in warehousing.)	3,497	
Warehousing	43,136	

C7.9

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

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	3,782.42	Decreased	4.6	Step 1: We calculated the value for metric tons CO2e per MWh of scope 1+2 energy use in 2018. Step 2: We then deducted 2017 renewables in MWh from the 2018 value and multiplied the result by the factor obtained in step 1.
Other emissions reduction activities	103	Decreased	0.13	We added MT CO2e reductions from reported building efficiency projects completed in late 2017 (the effects of which would be realized in 2018).
Divestment				There probably are minor net changes due to divestment, but we are not currently tracking them.
Acquisitions				There likely are minor net changes due to acquisitions, but we are not currently tracking them.
Mergers				N/A
Change in output	6,718	Increased	8.16	If no measures had been introduced, increased demand (based on revenue) would have generated an estimated 8% more emissions.
Change in methodology				None
Change in boundary				None
Change in physical operating conditions				Not tracked
Unidentified	8,569.95	Decreased	10.41	This is the difference between (known reductions + expected increase) and actual reduction. We know we didn't capture the majority of global building efficiency projects in 2017, so we suspect that most of the unidentified portion is the result of

				efficiency gains. There is also a possibility of data inaccuracies due to a site-level reporting system that is still relatively immature and error-prone.
Other				N/A

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?

Location-based

C8. Energy

C8.1

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

More than 0% but less than or equal to 5%

C8.2

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

	Indicate whether your organization undertakes this energy-related activity
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No

Generation of electricity, heat, steam, or cooling	No

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 MWh
Consumption of fuel (excluding feedstock)	Unable to confirm heating value	0	99,458.15	99,458.15
Consumption of purchased or acquired electricity		14,605.55	135,166.63	149,772.18
Consumption of purchased or acquired heat		0	2,695.13	2,695.13
Consumption of purchased or acquired steam		0	48.73	48.73
Total energy consumption		14,605.55	237,638.64	251,974.19

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	No
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)

Natural Gas

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

90,434.83

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

90,434.83

Comment

Natural gas used for building heating. Value includes extrapolation for non-reporting facilities.

Fuels (excluding feedstocks)

Diesel

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

8,857.08

MWh fuel consumed for self-generation of electricity

943.09

MWh fuel consumed for self-generation of heat

7,913.99

Comment

Diesel consumed for self-generation of electricity refers to consumption by generators. Mobile diesel fuel is used in vehicles. We suspect that this fuel is under-reported. Due to variability among facilities, extrapolating diesel fuel is not reliable. We can therefore only report actual data provided by global facilities.

Fuels (excluding feedstocks)

Motor Gasoline

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

2.53

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

2.53

Comment

Gasoline is used in vehicles. We suspect that this fuel is significantly under-reported. Due to variability among facilities, extrapolating gasoline is not reliable. We can therefore only report actual data provided by global facilities.

Fuels (excluding feedstocks)

Propane Liquid

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

163.7

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

163.7

Comment

Propane is used in the operation of industrial trucks.

C8.2d

(C8.2d) List the average emission factors of the fuels reported in C8.2c.

Diesel

Emission factor

10.21

Unit

kg CO2e per gallon

Emission factor source

https://www.epa.gov/sites/production/files/2015-12/documents/emission-factors_nov_2015.pdf, TABLE 2

Comment

The difference between the Defra factor for stationary diesel at 2.68779 kg/l (=10.19 kg/gal) and the EPA factor for transport diesel is only 0.02. We opted for the EPA factor, since the majority of diesel fuel consumed is mobile diesel.

Motor Gasoline

Emission factor

9.03

Unit

kg CO2e per gallon

Emission factor source

https://www.epa.gov/sites/production/files/2015-12/documents/emission-factors_nov_2015.pdf

Comment

Natural Gas

Emission factor

53.11

Unit

kg CO2e per million Btu

Emission factor source

https://www.epa.gov/sites/production/files/2015-12/documents/emission-factors_nov_2015.pdf

Comment

Propane Liquid

Emission factor

5.74

Unit

kg CO2e per gallon

Emission factor source

https://www.epa.gov/sites/production/files/2015-12/documents/emission-factors_nov_2015.pdf

Comment

C8.2f

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

Basis for applying a low-carbon emission factor

No purchases or generation of low-carbon electricity, heat, steam or cooling accounted with a low-carbon emission factor

Low-carbon technology type

Region of consumption of low-carbon electricity, heat, steam or cooling

MWh consumed associated with low-carbon electricity, heat, steam or cooling

Emission factor (in units of metric tons CO2e per MWh)

Comment

While some facilities reported market-based purchased heat, we were unable to verify if this is market- or location-based energy. We were therefore unable to obtain a supplier-specific emissions factor for this source.

C9. Additional metrics

C9.1

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

Description

Waste

Metric value

30,699,003

Metric numerator

metric tons of waste (landfilled or incinerated)

Metric denominator (intensity metric only)

None-we measure waste in absolute terms

% change from previous year

12.21

Direction of change

Decreased

Please explain

While we calculated a reduction in landfilled/incinerated waste of just over 12% in 2018 over 2017, we're not confident in the data. As we analyzed the global 2018 data set, we found many unexplained YOY reporting discrepancies, resulting in a high margin of error. We won't calculate scope 3 emissions from waste until our data accuracy has significantly improved.

C10. Verification

C10.1

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

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

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?

No, we do not verify any other climate-related information reported in our CDP disclosure

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)?

No, and we do not anticipate being regulated in the next three years

C11.2

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

Yes

C11.2a

(C11.2a) Provide details of the project-based carbon credits originated or purchased by your organization in the reporting period.

Credit origination or credit purchase

Credit purchase

Project type

Wind

Project identification

Voluntary emissions reductions. Note that we're only reporting projects for which we had contracts available for review. Data analysts were not able to obtain all contracts with provisions for RECs.

Verified to which standard

Other, please specify

Green-e

Number of credits (metric tonnes CO2e)

3,571

Number of credits (metric tonnes CO2e): Risk adjusted volume

Credits cancelled

Not relevant

Purpose, e.g. compliance

Voluntary Offsetting

Our contract does not specify whether credits are canceled.

C11.3

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

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

C12. Engagement

C12.1

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

Yes, our suppliers

Yes, our customers

Yes, other partners in the value chain

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

Collect general information on climate action (policies, reporting, etc.)

% of suppliers by number

2

% total procurement spend (direct and indirect)

% Scope 3 emissions as reported in C6.5

Rationale for the coverage of your engagement

A limited number of our EU lifecycle services sites engage with key suppliers to assess alignment with our social and environmental policies. The self-assessment questionnaire was a facility-driven initiative, while we continued to build a global process for supplier evaluation. We launched a supplier assessment pilot program in 2019 in partnership with EcoVadis. Procurement spend by business unit is not currently available to the reporting team.

Impact of engagement, including measures of success

In early results, we have seen a 30% improvement in supplier scores year over year with our manual surveys. We have not yet calculated spend with or emissions for these suppliers.

Comment

We expected access to emissions data reported by suppliers through the Ecovadis assessment, which we launched in 2019, but learned that it is not made available to clients utilizing the platform for supplier risk management. Therefore, we won't be able to calculate these supplier scope 3 emissions for 2019 either, as we'd originally hoped to do.

C12.1b

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

Type of engagement

Education/information sharing

Details of engagement

Run an engagement campaign to education customers about your climate change performance and strategy

% of customers by number

0.05

% Scope 3 emissions as reported in C6.5

Please explain the rationale for selecting this group of customers and scope of engagement

We've engaged with a small number of customers to share our CSR report, provide performance updates and discuss CSR strategy and challenges.

Impact of engagement, including measures of success

We found the majority of our customers' CSR programs to be more mature than our own. To our knowledge, dialogue with customers has not resulted in any significant CSR strategy or program changes on their part or ours.

C12.1c

(C12.1c) Give details of your climate-related engagement strategy with other partners in the value chain.

In 2016, we completed our first formal stakeholder engagement process, using the AA1000 framework. We surveyed employees and engaged in dialogue with community leaders, academics and non-profit organizations to determine our material social and environmental impacts. As a result of

these efforts, we determined that energy and emissions were of highest priority to our stakeholders. We're repeating the stakeholder engagement process in 2019.

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?

Trade associations

C12.3b

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

No

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?

We've only engaged in two policy-related actions during past 3 years, one unrelated to climate action and one with indirect climate change impacts (advocacy for the Responsible Electronics Recycling Act). We review the positions of associations and non-profit organizations we support to ensure they're aligned with our policy on environmental stewardship.

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 voluntary sustainability report

Status

Underway – previous year attached

Attach the document

CorpResReport2017.pdf

Page/Section reference

See page 44 (risks and opportunities), page 51-55 (energy and emissions) and page 65 (Appendix B: country-level data)

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets

Comment

Note that our CSR report is voluntary in APAC, LATAM, NA and META, but meets a regulatory requirement in the EU (2014/95/EU).

C14. 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.

N/A

C14.1

(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Senior Manager, Corporate Social Responsibility	Environment/Sustainability manager